

Special Use Permit Application Narrative

Illinois Generation LLC

Heritage Prairie Wind Project

2/23/2024

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Narrative

prepared for

Illinois Generation LLC
Heritage Prairie Wind Project
Livingston County, Illinois

2/23/2024

prepared by

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
AC	Advisory Circular
AG	Agricultural District
AIMA	Agriculture Impact Mitigation Agreement
ADLS	Aircraft Detection Lighting System
ANSI	American National Standards Institute
Applicant	Illinois Generation LLC
Application	SUP Application and variance request
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CCT	Correlated Color Temperature
Code	Code of Ordinances for Livingston County
ConnectGen	ConnectGen LLC
DNH	Determination of No Hazard
DOD	Department of Defense
EcoCAT	Ecological Compliance Assessment Tool
EMI	Electromagnetic interference
ESA	Endangered Species Act
ESB	Eryngium Stem Borer moth
FAA	Federal Aviation Administration
I	Industrial
I2	Light Industrial
ILCS	Illinois Compiled Statutes

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
IDNR	Illinois Department of Natural Resources
IDOA	Illinois Department of Agriculture
IHPD	Illinois Historic Preservation Division
INBA	Indiana bat
IPaC	Interagency Planning and Consultation Tool
IPCB	Illinois Pollution Control Board
K	Kelvin
LBBA	Little brown bat
LED	Light Emitting Diode
Memo	Memorandum
MW	Megawatt
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NLEB	Northern long-eared bat
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRI	National Resource Inventory
NTIA	National Telecommunications and Information Administration
O&M	Operations & Maintenance
Pattern	Pattern Energy Group LP
Project	Heritage Prairie Wind Project
Project Area	Approximately 12,350 acres of private land (Participating Parcels)

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
RF	Radio frequency
Receptor	Residence(s) or Community Building(s) in shadow flicker analysis
ROW	Rights-of-way
SCADA	Supervisory control and data acquisition
SHPO	Illinois State Historic Preservation Office
SUP	Special Use Permit
SWPPP	Stormwater Pollution Prevention Plan
TRBA	Tricolored bat
U.S.	United States
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WEG	Wind Energy Guidelines
WEST	Western EcoSystems Technology, Inc.
Wind Ordinance	Livingston County Article VIII of Chapter 56 governing Commercial Wind Energy Facilities

1.0 INTRODUCTION

The Heritage Prairie Wind Project (“Project”) is an approximately 600-megawatt (“MW”) utility-scale wind facility proposed by Illinois Generation LLC (“Applicant”) in Livingston and Kankakee Counties, Illinois. Illinois Generation LLC is a Delaware limited liability company, registered to do business in Illinois. The Project is a joint venture between affiliates of Pattern Energy Group LP (“Pattern”) and ConnectGen LLC (“ConnectGen”). The Applicant is applying for approval of a Special Use Permit (“SUP”) for a Commercial Wind Energy Facility in accordance with the provisions of the Code of Ordinances for Livingston County (the “Code”) and, in particular, Article VIII of Chapter 56 governing Commercial Wind Energy Facilities (the “Wind Ordinance”). The Applicant is also seeking a single variance to the operation requirements specified in Section 56-619 of the Wind Ordinance; however, the variance will not exceed industry standards set forth in 55 ILCS 5/5-12020 that was passed by the Illinois General Assembly in January 2023 (Illinois General Assembly 2023). This SUP Application and variance request, collectively the “Application”, sets forth information related to the wind energy facility proposed in Livingston County and provides all required information to support a SUP authorization. Portions of the Project outside of Livingston County are not discussed hereinafter as those areas are outside Livingston County jurisdiction.

This Application is structured consistent with application requirements detailed in the Wind Ordinance Requirements Checklist with numerous tabs setting apart various categories of information and documents for ease of reference. This Application includes the Applicant’s application for special use on the Livingston County zoning office form (Appendix A), Zoning Variance Application (Appendix B), and various documents, studies, or other technical information developed to support design and compliance with the Wind Ordinance. Collectively, all materials and information referenced herein or included as an Appendix are provided as a complete and formal Application for a SUP for a Commercial Wind Energy Facility. The Applicant appreciates the County's review of this Application for a SUP to site the proposed Commercial Wind Energy Facility.

Table 1-1 includes a list of all applicable Wind Ordinance requirements and a cross-reference to the location of the material supporting compliance with each requirement in this Application. This Application provides a demonstration of compliance with the most recent Wind Ordinance, dated May 11, 2023, assuming approval of one requested variance. Section 1.1 provides a detailed description of the Project, while the Project’s compliance with the Code and the Wind Ordinance is provided in Section 2. Section 3 efficiently summarizes the various documents, maps, plans, and studies to support the County's review of the Project. The submission of this Application and the subsequent review and approval by the County are important

steps in working together to bring the economic and environmental benefits of a renewable energy project to the Livingston County community.

Table 1-1: Article VIII Section 56 Ordinance Requirements Checklist

Reference	SUP Application Item	Location
Sec. 56-616. – Siting Approval Application		
(b)(1) a.	A general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturers, types of wind tower, number of wind towers, and name plate generating capacity of each wind tower; the maximum height of the wind towers and maximum diameter of the wind tower rotor.	Section 1.0 of SUP Application Narrative
(b)(1) b.	The location of the project	Section 1.1 of SUP Application Narrative
(b)(1) c.	A description of the applicant, facility owner and, including their respective business structures	Section 1.2 of SUP Application Narrative
(b)(2)	The names, addresses, and phone numbers of the applicants, facility owner, and all property owners; and as to whether the petitioner or applicant is acting for himself or herself or as an agent, alter ego, or representative of a principal and the name and address of the principal; whether the petitioner or applicant is a corporation and of all stockholders or shareholders owning any interest in excess of 20 percent of all of the outstanding stock or shares of the corporation; whether the petitioner or applicant, or his or her principal, is a business or entity doing business under an assumed name, and if so, the name and residence of all actual owners of the business or entity; whether petitioner or applicant, or his or her principal, is a partnership, joint venture, syndicate, or an unincorporated voluntary association, and if so, the names and addresses of all partners or members of the partnership, joint venture, syndicate, or unincorporated voluntary association.	Section 1.3 of SUP Application Narrative
(b)(3)	A site plan for the installation of wind energy facility showing the planned location of each wind tower, guy lines and anchor bases, primary structures, property lines (including identification of adjoining properties), setback lines, public and private access roads and turnout locations, substations, electrical cabling from the wind tower(s) to the substations, ancillary equipment, any above or below ground transmission lines related to the project, operations and maintenance building(s), layout of all structures within the geographical boundaries of any applicable setback, and the location of any construction staging areas including concrete batch plants.	Appendix C of SUP Application Narrative
(b)(4)	All required studies, reports, certification, and approvals demonstrating compliance with the provisions of this article	Section 2
(b)(5)	Any other information normally required by the county as part of this chapter	
(b)(6)	Sufficient documentation as determined by the ZBA that the applicant, owner, company and parent company/ companies, have the capability to complete the commercial wind energy facility project as proposed.	Section 1.2 of SUP Application Narrative

Reference	SUP Application Item	Location
(b)(7)	If the applicant intends to offer a "good neighbor plan", a "property value guarantee plan" or any other financial incentive plan in connection with a proposed project, a copy of such plan shall be included with the siting approval application at the time the application is submitted.	Section 4.6 of SUP Application Narrative for reference of Good Neighbor Agreement.
(c)	If the application is determined by county staff, or the zoning board of appeals, or the county board not to be complete to in all pertinent aspects of this section 56-616 of the Livingston County Code, the application shall be rejected, and a new application will need to be filed.	The Applicant acknowledges and understands this requirement.
(d)	The applicant shall promptly notify the county of any changes to the information provided in subsection (b) of this section 56-616 of the Livingston County Code that occur while the siting approval application is pending. The applicant shall not be allowed to materially change the siting approval application after the hearing process has started. Whether a change is a material change or not shall be determined by the zoning board of appeals.	The Applicant acknowledges and understands this requirement.
Sec. 56-618. - Design and installation.		
(a)(1)	Commercial wind energy facilities shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI). Applicants shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories (UL), Det Norske Veritas (DNV), Germanischer Lloyd Wind Energic (GL), or an equivalent third party.	Section 3.0 of SUP Application Narrative
(a)(2)	Following the granting of siting approval under this chapter, a professional engineer shall certify, as part of the building permit application, that the foundation and tower design of the commercial wind energy facility and each individual wind tower is within accepted professional standards, given local soil and climate conditions.	Section 3.0 of SUP Application Narrative
(b)	Controls and brakes. All wind towers shall be equipped with a redundant braking system. This includes both aerodynamic overspeed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for overspeed protection.	Section 3.1 of SUP Application Narrative
(c)	Electrical components. All electrical components of the commercial wind energy facility shall conform to applicable local, state, and national codes, and relevant national and international standards (e.g., ANSI and international electrical commission). Utility lines connecting the towers, substations, etc., shall be placed underground where practical.	Section 3.2 of SUP Application Narrative
(d)	Color. Towers and blades shall be painted a nonreflective, unobtrusive color that mitigates the visual impact of the structure. No advertisement shall be visible on the blades or tower.	Section 3.3 of SUP Application Narrative
(e)	Compliance with the Federal Aviation Administration. The Applicant for the commercial wind energy facility shall comply with all applicable Federal Aviation Administration (FAA) requirements.	Section 3.4 and Appendix H of SUP Application Narrative
(f)(1)	A reasonable visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.	Section 3.5 of SUP Application Narrative

Reference	SUP Application Item	Location
(f)(2)	Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of 15 feet from the ground.	Section 3.5 of SUP Application Narrative
(f)(3)	Upon completion of the construction of an approved commercial wind energy facility project, a reasonable visible sign, to warn people to not approach a turbine while operating must be placed at the entrance of each access road.	Section 3.5 of SUP Application Narrative
(f)(4)	Upon completion of the construction of an approved commercial wind energy facility project, a sign that provides emergency contact information shall be posted on or near the operations and maintenance building.	Section 3.5 of SUP Application Narrative
(f)(5)	The signs in subparagraphs (f)(3) and (4) above shall be made with letters and numbers at least three inches in height and shall include the 911 address and an emergency phone number of the facility owner which shall be answered 24 hours a day by a live operator. A nonemergency phone number for the facility owner shall also be displayed. These phone numbers shall remain active with all calls being voice recorded for verification purposes and with comments and complaints logged and reported to the Livingston County zoning administrator on a monthly basis. The recorded calls shall be maintained for at least 12 months.	Section 3.5 of SUP Application Narrative
(g)	Climb prevention. All wind towers and towers utilized for the facility must be externally unclimbable by design or protected by anti-climbing devices such as: (1) Fences with locking portals at least six feet high; or (2) Anti-climbing devices 12 feet vertically from the base of any tower.	Section 3.6 of SUP Application Narrative
(h)(1)	Commercial wind energy facility towers shall be set back at least 2.1 times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure from any occupied community buildings.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(2)	Commercial wind energy facility towers shall be set back 1.1 times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure from participating residences.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(3)	Commercial wind energy facility towers shall be set back 2.1 times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure from nonparticipating residences.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(4)	There are no commercial wind energy facility tower setback requirements regarding the boundary lines of participating property.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(5)	Commercial wind energy facility towers shall be set back 1.1 times the maximum blade tip height of the wind tower to the nearest point on the property line of the nonparticipating property.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(6)	Commercial wind energy facility towers shall be set back 1.1 times the maximum blade tip height of the wind tower to the center point of a public road right-of-way.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(7)	Commercial wind energy facility towers shall be set back 1.1 times the maximum blade tip height of the wind tower to the nearest edge of the property line, easement, or right of way containing an overhead communication line.	Section 3.7 and Appendix C of SUP Application Narrative

Reference	SUP Application Item	Location
(h)(8)	There are no commercial wind energy facility tower setback requirements regarding overhead utility service lines to individual houses or outbuildings.	Section 3.7 and Appendix C of SUP Application Narrative
(h)(9)	Commercial wind energy facility towers shall be set back 2.1 times the maximum blade tip height of the wind tower to the nearest point on the property line of a fish and wildlife area or protected land.	Section 3.7 and Appendix C of SUP Application Narrative
(i)	Compliance with additional regulations and severability clause. Nothing in this article is intended to preempt other applicable state and federal laws and regulations, including, but not limited to, the National Electrical Safety Code, Illinois Commerce Commission, and the Federal Energy Regulatory Commission. Whenever possible, each provision of this Article shall be interpreted so that it is valid under applicable law. If any provision of this article is determined to be illegal or unenforceable, that provision will be reformed only to the extent necessary to make the provision legal and enforceable with all remaining provisions continuing in full force and effect.	Section 3.8 of SUP Application Narrative
(j)(1)	An applicant or facility owner proposing to use any county, township or village road, for the purpose of transporting and installation of a commercial wind energy facility, or substation parts and/or equipment for construction, operation, or maintenance of the commercial wind energy facility or substations, shall: a. Identify all such public roads; and b. Obtain applicable weight and size permits from relevant government agencies prior to construction.	Section 3.9 and Appendix J of SUP Application Narrative
(j)(2)	To the extent an applicant or facility owner must obtain a weight or size permit from the county, or village, township, state, the applicant or facility owner shall: a. Conduct a preconstruction baseline survey to determine existing road conditions for assessing potential future damage; b. Provide financial assurance, in a reasonable amount agreed to by the relevant parties, for the purpose of repairing any damage to public roads caused by constructing, operating or maintaining the commercial wind energy facility prior to the issuance of building permits. The terms of the financial assurance shall contain a provision that the Financial Assurance may not be canceled or allowed to expire until at least 60 days written notice has been given to the applicable party(ies), i.e., county, or a village, or a township or the state. If replacement financial assurance is not provided within seven days thereof, then the county, village, township or state have the absolute right to draw upon the financial assurance until such financial assurance is replaced. c. Provide the county zoning administrator with signed copy of any agreements pertaining to the use of public roads prior to the issuance of building permits.	The Applicant acknowledges and understands this standard.
(k)	Height. The permitted maximum height of a commercial wind energy facility wind tower shall be 500 feet, unless a determination of the No Hazard to Air Navigation has been received by the applicant for the specific wind turbine location proposed by applicant, in which case the height allowed by the Determination of No Hazard to Air Navigation shall control. (1) A commercial wind energy facility and transmissions poles shall be constructed with a tubular tower or monopole structure, not a lattice tower.	Section 3.10 and Appendix H of SUP Application Narrative

Reference	SUP Application Item	Location
(l)	Lighting. A lighting plan for each commercial wind energy facility and substation shall be approved by the zoning board of appeals. All substation lighting shall be downcast and compliant with the International Dark-Skies Association standards. Such plan must describe all lighting that will be used, including any lighting that may be required by the FAA. Such a plan shall include but is not limited to the planned number and location of lights, light color and where any lights will be flashing. Strobe lights are discouraged and if they are required by the FAA they must be shielded from the ground. The lighting should be planned and developed in such a way to minimize the visual impact of the structures. A consideration of synchronized lighting shall also be part of any lighting plan. This commercial wind energy facility substation lighting plan shall include plans as to how glare for these lights are being controlled. The Applicant/ Facility Owner must apply to the FAA for an Aircraft Detection Lighting System and, if approved, must install said system as approved.	Section 3.11 and Appendix H of SUP Application Narrative
(m)	Compliance. All wind farm developments are to be in compliance with an Agriculture Impact Mitigation Agreement (AIMA), as approved by the State of Illinois.	Section 3.12 of SUP Application Narrative
(n)	Project changes. If the applicant facility owner proposes to make a change in the project after the county’s approval of the special use permit, including moving a turbine siting more than 100 feet, then the company, through the use of a qualified professional, shall appropriately demonstrate compliance with the noise requirements at a hearing to amend the special use.	The Applicant acknowledges and understands this standard.
(o)	Inspections. Each commercial wind energy facility shall be required to have the facility inspected by an independent certified inspector approved by the Livingston County Zoning Administrator at the completion of the construction of the Project. This inspection is to verify compliance with the zoning regulations including all applicable codes and requirements for commercial wind energy facilities. Thereafter, the facility shall be inspected annually for three years following construction to verify continued compliance with the zoning regulations. Thereafter, inspections shall be performed at least every three years (triennially). Additional inspections necessitated by complaints or otherwise shall not replace annual or triennial inspection requirements. All inspections shall be at the cost of the owner of the commercial wind energy facility. Upon completion of the inspections a report of the inspections shall be provided to the County without charge to the County.	The Applicant acknowledges and understands this standard.
Sec. 56-619. - Operation.		
(a)(1)	The facility owner of the commercial wind energy facility must submit, on an annual basis, a summary of the operation and maintenance reports to the county. In addition to the annual summary mentioned in this subsection, the facility owner must furnish such operation and maintenance reports as the county reasonably requests.	Section 4.0 and Appendix L of SUP Application Narrative

Reference	SUP Application Item	Location
(a)(2)	Any physical modification to the commercial wind energy facility that alters the mechanical load, mechanical load path, or major electrical components shall require recertification under section 56-618(a)(1) of the Livingston County Code. Like-kind replacements of individual commercial wind energy facility towers shall not require recertification but shall require the written approval of the county zoning administrator. Prior to making any physical modification (other than a like-kind replacement), the facility owner shall confer with a relevant third-party certifying entity identified in section 56-618(a)(1) of the Livingston County Code, to determine whether the physical modification requires re-certification, and by a professional engineer as determined by the county zoning administrator. The cost of the third-party certifying entity and professional engineer shall be paid by the facility owner.	The Applicant acknowledges and understands this standard.
(a)(3)	Any replacement of equipment that is not a like-kind replacement shall require an amendment to the special use.	The Applicant acknowledges and understands this standard.
(b)(1)	The applicant shall provide the applicable microwave transmission providers, providers of weather radar utilized for the safety of the general public, the National Weather Service, and local emergency service providers (911 operators) copies of the project summary and site plan, as set forth in section 56-616(b)(1) and (3) of the Livingston County Code. This project summary shall include a study pertaining to the relationship of the proposed project and microwave transmission providers and local emergency service providers.	Section 4.2 and Appendix M of SUP Application Narrative
(b)(2)	To the extent that the providers in subsection (b)(1) of this section demonstrate a likelihood of interference with its communications resulting from the commercial wind energy facility, the Applicant shall take measures to mitigate such anticipated interference, if possible. If, after construction of the commercial wind energy facility, the facility owner receives a written complaint related to the above-mentioned interference, the facility owner shall take steps to respond to and to rectify the complaint.	The Applicant acknowledges and understands this standard.
(b)(3)	Prior to construction of the commercial wind energy facility, the facility owner shall conduct a study related to interference with local broadcast residential television and wireless internet services, if it is demonstrated a likelihood of interference may result for the commercial wind energy facility, the applicant shall take measures to mitigate such anticipated interference. If, after construction of the commercial wind energy facility, the facility owner receives a reasonable written complaint related to interference with local broadcast residential television and wireless internet services the facility owner shall take steps to rectify the complaint, such as providing alternate service to each individual resident or property owner affected.	Section 4.2 and Appendix M of SUP Application Narrative
(b)(4)	If a commercial wind energy facility causes microwave, television, radio, satellite, internet, radar system or navigation interference (including but not limited to the doppler radar system) it shall be considered a default under Sec. 56-625.	The Applicant acknowledges and understands this standard.

Reference	SUP Application Item	Location
(c)(1)	The applicant or facility owner shall submit to the local fire department a copy of the site plan. In addition to the site plan, a plan pertaining to the planning, response, recovery and mitigation of any natural or manmade hazard that may affect the commercial wind energy facility development.	Section 4.3 and Appendix N of SUP Application Narrative
(c)(2)	Upon request by the local fire department, the facility owner shall cooperate with the local fire department to develop the fire department's emergency response plan.	The Applicant acknowledges and understands this standard.
(c)(3)	Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.	The Applicant acknowledges and understands this standard.
(d)(1)	All solid wastes related to the construction, operation and maintenance of the commercial wind energy facility shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.	Section 4.4 of SUP Application Narrative
(d)(2)	A list of hazardous fluids that may be used on site shall be provided. All hazardous materials related to the construction, operation and maintenance of the commercial wind energy facility shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.	Section 4.5 of SUP Application Narrative and Appendix O
(e)(1)	The applicant shall conduct an analysis on the potential shadow flicker onto adjacent properties as part of the siting application approval process. The analysis shall identify the locations of the shadow flicker and the expected durations of the flicker over the course of a year.	Section 4.6 and Appendix P of SUP Application Narrative
(e)(2)	Shadow flicker shall not affect an occupied community building or non-participating residence in excess of 30 hours per year under planned operating conditions. Planned operating conditions is defined as those conditions that would exist if the sun were to shine every day of the year with no cloud cover.	Section 4.6 and Appendix P of SUP Application Narrative
(e)(3)	Measures to alleviate the effects of shadow flicker shall be outlined by the applicant. These measures shall at a minimum include window treatments, but otherwise the remedies provision shall control.	Section 4.6 and Appendix P of SUP Application Narrative

Sec. 56-620. - Noise levels.		
	<p>Noise levels from each commercial wind energy facility shall comply at all times with applicable Illinois Pollution Control Board (IPCB) regulations and requirements of this section. The applicant, through the use of a qualified professional, as part of the siting approval application process, shall appropriately demonstrate compliance with the noise requirements of this siting section and provide contour maps and at intervals of not greater than five feet. Sound pressure levels shall be measured using the measurement procedures set forth in the IPCB regulations, except that sound pressure levels for purposes of establishing a violation of this section may be measured at any point on the property not more than 150 feet from any portion of the edge of the residences or community buildings. No portion of the property shall exceed the noise levels set by the IPCB. To the extent any property has multiple uses or classifications, all the land utilized for a particular use must not exceed the IPCB noise regulations for the classification of use. The owner of the receiving land may waive compliance with local measuring points requirements pertaining to the IPCB regulations for the owner's property.</p> <p>The commercial wind energy facility project will maintain compliance with the applicable IPCB regulations throughout the entire operational period of the commercial wind energy facility project. Upon complaint, the County shall hire a noise acoustician to conduct testing for four ten-day periods at the ten most at risk residential property lines and the ten most at risk primary structures as modeled in the application to ensure ongoing compliance with the IPCB noise regulations. The four tests shall be done in each of the four seasons of the year. The cost to conduct such testing shall be borne by the Facility Owner. If the Facility Owner does not pay within thirty days of being provided an invoice for these costs, then the issue shall be resolved pursuant to the remedies section. If at any time throughout the life of the commercial wind energy facility project, the noise levels are found to not be in compliance with this section, the applicant or facility owner will immediately shut off all violating turbines to ensure that the noise levels are within acceptable levels until a solution to the noise level violations is found and approved by the county after a hearing at the ZBA.</p> <p>Noise levels at non-participating properties shall be tested upon request of the Zoning Administrator. The tested results shall be provided to the Zoning Administrator.</p>	<p>Section 4.7 and Appendix Q of SUP Application Narrative</p>

Sec. 56-621. – Natural Resources		
	<p>The commercial wind energy facility owner shall provide at the public hearing on the special use permit application:</p> <p>(1) The results and recommendations from consultation with the Illinois Department of Natural Resources that are obtained through the Ecological Compliance Assessment Tool (EcoCAT) or a comparable successor tool; and</p> <p>(2) The results of the United States Fish and Wildlife Service’s Information for Planning and Consulting environmental review or a comparable successor tool that is consistent with (i) the “U.S. Fish and Wildlife Service’s Land-Based Wind Energy Guidelines.”</p> <p>The commercial wind energy facility shall adhere to the recommendations provided by the Illinois Department of Natural Resources in an EcoCAT natural resource review report under 17 Ill. Admin. Code Part 1075.</p> <p>(1) A commercial wind energy facility owner must: Demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Natural Preserve Commission; or</p> <p>(2) Consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission.</p> <p>The facility owner shall provide evidence of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under the Illinois State Agency Historic Resources Preservation Act. The facility owner must obtain updated reviews required in this Section upon request of the Zoning Administrator or upon complaint.</p>	<p>Section 5.1 of the SUP Application Narrative and Appendices K, R, and T</p>

Sec. 56-623. – Liability Insurance.		
	<p>The facility owner of the commercial wind energy facility shall maintain a current general liability policy covering bodily injury and property damage with limits of at least \$10,000,000.00 per occurrence and \$40,000,000.00 in the aggregate, with an annual certificate of insurance being provided to the county regional planning commission office, with the county being added as an additional insured, with the designation of primary and noncontributory.</p> <p>The applicant or facility owner shall promptly increase such liability insurance if such amount is increased in this Ordinance and the applicant or facility owner is notified in writing of same by the county. The applicant shall provide evidence of such increased insurance to the zoning administrator. Insurance coverage shall be maintained without interruption from the date of permitting through the decommissioning of all wind turbines. Certificates of insurance acceptable to the county and in compliance with this section shall be filed with the county prior to the commencement of any work on the commercial wind energy facility and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required under this section shall contain a provision that coverages afforded under the policies shall not be cancelled or allowed to expire until at least 60 days written notice has been given to the county.</p> <p>Applicant and Facility Owner shall also, to the fullest extent permitted by law, indemnify, and hold the county, its employees, board members and agents harmless for any action due to or arising out of the construction, maintenance, decommissioning, deconstruction and/or operation of the commercial wind energy facility, including the payment of any attorney's fees and costs arising out of any action due to or arising out of the construction, maintenance and/or operation of the commercial wind energy facility.</p> <p>(Res. of 1-12-2006, § XI; Ord. No. 2017-04-14, § 1(exh. A), 4-13-2017; Ord. No. 2018-02-10, 2-5-2018)</p>	<p>Section 6.1 of SUP Application Narrative</p>

Sec. 56-624. – Decommissioning Plan/Deconstruction Plan.		
	<p>Prior to receiving siting approval under this article, the applicant or facility owner must formulate a decommissioning plan to ensure that the commercial wind energy facility project is properly decommissioned. This plan must be compliant with the Department of Agriculture’s standard wind farm Agricultural Impact Mitigation Agreement, template 81818. If siting approval is obtained, the applicant or owner must enter into a Decommissioning Agreement and provide financial assurances to the county prior to receiving any building permits.</p> <p>The County will reevaluate the estimated costs of Deconstruction after the tenth anniversary and every ten years thereafter, which evaluation shall be done by and independent third-party Professional Engineer chosen by the County and paid for the by the Facility Owner. These reevaluations shall be utilized to determine the updated level of Financial Assurance required from the Facility Owner. If the Facility Owner does not update the Financial Assurance within thirty days of notification from the County, the remedies section shall be utilized to resolve the issue.</p>	<p>Section 7.1 and Appendix U of SUP Application Narrative</p>
Sec. 56-624.1 – Drain Tiles		
(a)	Whether occurring during or post-construction, any permanent drain tiles damaged by the commercial wind energy facility must be made within fourteen days of identification or notification of the damage, weather and soil conditions permitting.	The Applicant acknowledges and understands this standard.
(b)	Prior to the issuance of building permits, the commercial wind energy facility must make all reasonable efforts to locate the existing drain tiles in the area of construction.	Section 7.2 of SUP Application Narrative
(c)	After construction, the commercial wind energy facility shall provide a GIS program to the County showing the location of all above and underground improvements.	The Applicant acknowledges and understands this standard.

Source: Livingston County, IL Code of Ordinances

1.1 Project Description

The Project proposed is an approximately 600-MW utility-scale wind energy facility, a portion of which will be located in Livingston County. The Project will primarily be located east of Dwight, and within Dwight, Broughton, and Round Grove townships. The Project Area includes approximately 12,350 acres of private land (“Project Area”), for which the Applicant has secured site control to host the facilities. This Project Area includes a total of 135 individual participating parcels. The Project will consist primarily of the following facilities and the infrastructure and equipment that support them: wind turbines, the electrical system including underground collection wires and an overhead transmission line, meteorological towers, access roads, a Project substation and an operations and maintenance (“O&M”) building. Planned locations of these facilities are shown on the Site Plans in Appendix C. The Project will consist of a maximum of 71 wind turbines within Livingston County. The aggregate net generating capacity will be up to 320 MW of electricity, based on the generating capacity of the individual wind turbines selected for the Project. Currently, the Applicant is considering multiple wind turbine options, each with a rated generation capacity of approximately 3.8 MW or 4.5 MW. All equipment will conform to applicable industry standards, including those of the American National Standards Institute (“ANSI”). The maximum height of the wind turbines (from the wind turbine foundation to the tip of the blade at its highest point) would be approximately 640 feet. Each blade would be a maximum of 270 feet long. It is noted that the proposed maximum turbine height is compliant with the current Wind Ordinance, dated May 11, 2023, as the Project has received Determinations of No Hazard (“DNH”) from the Federal Aviation Administration (“FAA”) for turbines up to 698 feet.

1.2 Applicant Information

This application is made by Illinois Generation LLC, a Delaware limited liability company, registered to do business in the state of Illinois. The name of the Project, Heritage Prairie Wind, pays homage to the area’s agricultural roots “Heritage” and “Prairie” references Illinois, the Prairie State. The Project is a joint venture between affiliates of Pattern Energy and ConnectGen. Both Pattern Energy and ConnectGen are committed to the success of this Project and have the financial resources to successfully construct and operate it.

Pattern:

Pattern is one of the world’s largest privately-owned developers and operators of wind, solar, transmission, and energy storage projects. Its operational portfolio includes 30 renewable energy facilities that use proven, best-in-class technology with an operating capacity of nearly 6,000 MW across North

America. Headquartered in the United States, Pattern is guided by a long-term commitment to serve customers, protect the environment, and strengthen communities.

Pattern considers their company to be a part of the local communities where they have a presence. Pattern believes acting as a good neighbor benefits both the areas where they operate and the company's long-term success. Pattern is committed to listening to and respecting the communities that host their projects and being involved in engagement and giving activities for the long-term.

ConnectGen:

Founded in 2018, ConnectGen is an independent renewable energy company focused on greenfield development of high-quality wind, solar, and energy storage projects across North America. Based in Houston, Texas, ConnectGen is comprised of team members that have collectively developed, financed, constructed, and operated more than 10,000 MW of utility-scale renewable energy projects in the United States ("U.S.") and bring decades of experience from industry-leading companies. As of the date of this filing, ConnectGen is a subsidiary of 547 Energy and is backed by Quantum Energy Partners, a leading provider of private equity capital to the global energy industry. On September 7, 2023, an affiliate of Repsol, S.A. entered into a purchase agreement to acquire 100% of the equity interests in ConnectGen. The transaction is anticipated to close in early 2024, subject to customary regulatory approvals.

1.3 Project Contacts

Pattern and ConnectGen's points of contact for information related to this Application are listed below:

Pattern:

Allen Wynn
Senior Director, Environmental & Permitting
888 Westheimer Road, Suite 350
Houston, TX 77006
Direct: 832.341.2592
Email: Allen.Wynn@patternenergy.com

ConnectGen:

John Kuba
Senior Director, Environmental Affairs

1001 McKinney, Suite 700
Houston, TX 77002
Direct: 346.998.2030
Email: jkuba@connectgenllc.com

Appendix D provides a list of the names, addresses, and phone numbers for all participating Project property owners (sec. 56-616 (b)(2)).

1.4 Project Purpose

The purpose of the Project is to promote an increased supply of wind energy in support of Illinois' statutory goal of increasing energy production from renewable energy sources under the Climate and Equitable Jobs Act (SB2408). SB2408 requires Illinois to achieve a 100% zero-emissions power sector by 2050 and generate 40% of Illinois' energy from wind and solar by 2030 and 50% by 2040. According to the Wind Exchange Technologies Office¹, about 12.27% of the electric grid in Illinois is comprised of wind energy with a wind energy generation capacity of 7,192 MW in 2022. This Project aligns with the Illinois climate resiliency goals and will provide additional wind generation to the state to help support achieving these targets. This Project will also contribute to affordable energy bills for local residents, create good paying jobs, provide a substantial and diversified revenue stream to local landowners, and provide a reliable source of tax revenue for local taxing districts. The Applicant will invest over \$620 million in the development of the Project in Livingston County. Below are projected economic benefits of the Project, which are based on the production estimates analyzed in the Economic Impact Analysis Report completed by David Loomis (Strategic Economic Research), from Illinois State University (Appendix E):

- Approximately 168 new direct construction jobs contributing to the 1,353 total new direct, indirect, and induced jobs during construction for the State of Illinois
- Up to 9 new direct long-term, full-time jobs supporting O&M of the wind Project during the Project's operations in Livingston County contributing to the 41.3 total new direct, indirect, and induced jobs during operations for the State of Illinois
- Over \$98.8M in property tax revenue over the life of the Project

¹ Wind Exchange Technologies Office. Wind Energy in Illinois Report. [WINDEXchange: Wind Energy in Illinois](#). Office of Energy Efficiency & Renewable Energy. Accessed January 31, 2024.

- Over \$66.6M in school district revenue from property taxes over the life of the Project
- Over \$4.4M in community college revenue from property taxes over the life of the Project.
- Over \$13.4M in county revenue from property taxes over the life of the Project
- Over \$3.3M in township revenue from property taxes over the life of the Project
- Over \$6.2M in fire district revenue from property taxes over the life of the Project
- Over \$3.3M in road district revenue from property taxes over the life of the Project
- Over \$136.8M in new earnings during construction for the State of Illinois
- Over \$5.5M in new long-term earnings annually during operations for the State of Illinois
- Long-term payments to participating property owners

It is noted that these positive economic benefits are consistent with other economic impacts of similar projects.

Note: The results of the Property Value Impact Report (Appendix V) and the accompanying Site Specific Analysis Addendum (Appendix V) focused specifically on the Project location in Livingston County came to the conclusion that “...the data indicates that wind energy facilities do not have a negative impact on adjacent property values.” The Recent EDF Renewable studies, submitted to Livingston County in the fall of 2022, also reached the same conclusion.

In addition to the local economic benefits, the Project will generate enough electricity for more than 115,500 homes and will not require a significant water budget or carbon footprint for operation. The proposed location of the Project in Livingston County is within an area devoted almost entirely to agricultural uses. Wind farms are consistent with and promote the continuance of agriculture as farmers may safely grow crops and graze livestock within 50 feet of the tower base. The annual income provided from the land use agreement also provides enhanced economic stability of farming operations. These agreements provide a stable and reliable funding source for farmers. While the size of all the participating parcels combined is approximately 12,350 acres, the actual permanent footprint of the Project infrastructure (including turbines, access roads, substations, transmission lines, and other facilities) will only occupy approximately 238 acres of agricultural lands or a fraction of the overall leased Project Area.

Wind generation and agricultural cultivation are compatible land uses, and with the limited footprint, the Project will have limited effects to the existing agriculture industry in the area.

The proposed Project promotes public health and welfare by providing significant electric power without polluting the air or water. It satisfies all County and State requirements to ensure health and safety, including setbacks (see Section 2), noise requirements (see Section 4.7), shadow flicker (see Section 4.6), and more. Additionally, the Project will not interfere with microwave transmission providers or local emergency service providers, as described in Section 4.2. This Project carefully chose the locations of wind turbines and related facilities to be compatible with the environment and existing land uses in the area. As part of this determination, coordinated outreach with landowners and engagement with a range of engineering and environmental experts was essential. This outreach and engagement helped ensure that the Project will provide benefits to the community and the environment.

This Project has been designed to demonstrate compliance with all applicable federal, state, and local laws, including local land use and zoning regulations. The Project is sited in a portion of Livingston County where wind projects have been supported by the community. Community members living in the townships where this Project will be located— Broughton, Dwight, and Round Grove— previously engaged in the democratic process by approving advisory referenda in 2016 that authorized lesser setbacks for wind towers than the rest of the County. The County Board amended the previous Wind Energy Conversion System Article to adopt the lesser setbacks for those townships in 2018. On January 27, 2023, revisions to 55 Illinois Compiled Statutes (“ILCS”) 5/5-12020 of the Counties Code were signed into law, which established maximum setback requirements that counties must comply with when establishing local standards for wind energy projects. The Wind Ordinance was amended on May 11, 2023, to align with the changes to 55 ILCS 5/5-12020.

In summary, benefits of wind energy include additional income for farmers; a significant new source of revenue to taxing bodies; new jobs in rural areas; and a source of renewable electric generation that is not subject to the environmental consequences of fossil fuels. Cultivating electricity from the wind produces no carbon, sulfur, nitrogen, or mercury emissions and generates no radioactive waste. In addition, no water resources are required for wind-generated electricity outside the de minimis water use to support the operation and maintenance facility. As demonstrated in this Application, the Project has been extensively studied and is designed to comply with all applicable federal, state, and local laws.

2.0 PROJECT COMPLIANCE WITH THE WIND ORDINANCE

The following sections of this Application have been organized to demonstrate the Project's compliance with the regulations and design standards for wind farm developments, as outlined in the Wind Ordinance, which is to be considered by the Zoning Board of Appeals in making their recommendation to the County Board regarding the approval of an SUP Application. Wind facilities are permitted on parcels zoned Agricultural District ("AG") or Industrial ("I"), upon Livingston County Board approval as a special use.

The zoning designations of all Participating Properties are shown on the Site Plan Map in Appendix C. All parcels within the Project Area subject to the Wind Ordinance are zoned AG, with the exception of one parcel that is zoned Light Industrial ("I2"). Pursuant to state law, wind towers can be sited in Industrial zoned areas as long as all other requirements are met. The recorded agreements with all participating property owners are provided in Appendix F.

The Applicant will comply with the regulations and standards of the Wind Ordinance as detailed in this Application. This Application and its appendices contain all studies, reports, certifications, and approvals required to demonstrate compliance of the Project with the applicable provisions of the Wind Ordinance. See Sections 3, 4, 5, 6, and 7 and the Appendices for detailed information on how the Project meets the County Design Standards (Sec. 121-99 (34) a.) and Application Requirements (Sec. 121-99 (34) b.).

The Project is seeking a variance to the Wind Ordinance requirements from Sec. 56.619(e)(2) applicable to facility operations:

Shadow flicker shall not affect an occupied community building or non-participating residence in excess of 30 hours per year under planned operating conditions. Planned operating conditions is defined as those conditions that would exist if the sun were to shine every day of the year with no cloud cover.

Typical industry standard is to model shadow flicker based on actual local climate conditions and not a scenario of 100% sunshine. The Project is therefore seeking a variance to amend the definition of planned operating conditions from "[...] those conditions that would exist if the sun were to shine every day of the year with no cloud cover" to instead define model inputs based on a local meteorological data reference point. More specifically, the Project utilized meteorological data from City-Data.Com at the Herscher weather station. City-Data.Com compiles weather and sunshine data from over 4,000 weather stations across the U.S. WindPro software, the standard software utilized in the wind industry, was used to prepare

the Shadow Flicker Study (Appendix P) and statistically adjusts the hours of sunshine in each month based on the average monthly sunshine probability chart pulled from City-Data.Com. For example, if a surrounding resident or community building (“receptor”) received 100 hours of flicker in January under the 100% sunshine assumption, WindPro will apply a 45% adjustment to reflect the estimated sunshine probability for January. In doing so, the adjusted estimated shadow flicker duration for that receptor would be 45 hours.

3.0 PROJECT DESIGN

The following sections describe all design and installation standards, or certifications as required pursuant to Section 56-618 of the Wind Ordinance.

3.1 Controls and Breaks

All turbines proposed for the Project are equipped with control systems and brakes, including a redundant braking system. All turbines are controlled by the supervisory control and data acquisition (“SCADA”) system that detects and responds to over-speed situations. The SCADA system commands aerodynamic over-speed controls, including variable pitch rotor blades, which feather or rotate the blades to a no lift condition, thereby halting rotor movement. In addition, mechanical disc brakes acting on the main rotor shaft are operated in a fail-safe mode to provide a redundant means of halting the rotor movement.

3.2 Electrical Components

All electrical components of the Project shall conform to applicable local, state, and national codes, and relevant national and international standards (e.g., ANSI and international electrical commission). All low-voltage electric collection lines connecting wind turbine generators to the Project substation are proposed to be buried underground, except for one small segment of overhead collection on one property, per property owner request. The Project will involve an overhead 345 kV generation tie line connecting the substation to the proposed interconnection location in Kankakee County. This generation tie line will enable efficient power export, grid connectivity, stability, and sharing of renewable energy.

3.3 Color

The wind turbine towers and blades will be uniformly painted a non-reflective, unobtrusive neutral gray or white color in compliance with all applicable FAA requirements for daylight marking. No advertisement will be visible on the blades or towers. All surfaces are blasted and multi-layer coated for protection against corrosion.

3.4 Federal Aviation Administration

As the Project moves closer to construction, the Applicant will consult with the FAA to review and approve a lighting plan, as described in Section 3.11. A copy of the approved lighting plan will be provided to the County Zoning Enforcement Officer. The Applicant will also apply to the FAA for the installation of an Aircraft Detection Lighting System (“ADLS”) for the Project, as required by the Wind Ordinance. If the ADLS is approved by the FAA, the Applicant will include it in the final design and construction of the Project.

The FAA reviewed turbine locations associated with the Project Area and issued Determinations of No Hazard to Air Navigation on March 16, 2023. A Mitigation Agreement was also executed with the Department of Defense (“DOD”), to provide software updates to area DOD radars. No structure would have a substantial effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. As the project continues to be finalized, minor micro-siting moves will require the Project to resubmit notices to the FAA, for some turbine locations, prior to construction. The FAA will issue new DNHs’ for those particular turbines. See Appendix H for the DNHs.

3.5 Warnings

The Applicant and its contractors will use temporary and permanent warning signs during construction and operation of the Project to prevent unauthorized access to equipment and spaces.

Signage will be consistent with Section 56-618(f) and will include the following:

1. A reasonably visible warning sign concerning voltage will be placed at the base of all pad-mounted transformers and substations.
2. Visible, reflective, colored objects, such as flags, reflectors, or tape will be placed on the anchor points of guy wires and along the guy wires up to a height of 15 feet from the ground.
3. Upon completion of the Project, a reasonable visible sign to warn people not to approach a turbine while operating will be placed at the entrance of each access road.
4. Upon completion of the Project, a sign that provides emergency contact information will be posted on or near the O&M building.

The signs in items (3) and (4) above will be made with letters and numbers at least 3 inches in height and will include the 911 address and an emergency phone number of the Operator which will be answered 24 hours a day by a live operator. A non-emergency phone number for the Operator will also be displayed. These phone numbers will remain active with all calls being voice recorded for verification purposes and with comments and complaints logged and reported to the Livingston County zoning administrator on a monthly basis. The recorded calls will be maintained for at least 12 months. Temporary signage used during construction of the Project will be removed from the Project area upon commercial operation.

3.6 Climb Prevention

The Wind Ordinance requires wind towers and towers utilized for the facility be externally unclimbable by design or protected by anti-climbing devices such as fences with locking portals at least six feet high

or anti-climbing devices 12 feet vertically from the base of the wind tower. The substations will also be fenced with fencing at least 6 feet high to prevent unauthorized access in accordance with North American Electric Reliability Corporation (“NERC”) and National Electric Safety Code (“NESC”) standards.

3.7 Setbacks

The Project will comply with all applicable Section 56-618(6)(h) setback requirements as described below. Setbacks are required from primary structures, public roads, third party transmission lines, communication towers, adjacent property lines, property lines of properties containing primary structures, and community buildings. Appendix C provides maps illustrating setbacks from these features. The distance for the setback shall be measured from the center of the base of the wind tower. It is noted that setback requirements may be waived subject to written consent of the owner of each affected nonparticipating property. All property owners within the setback area received a 90-day notice of this proposed Project and were invited to attend public information sessions conducted in June of 2023 (Appendix I).

3.7.1 Occupied Community Building Setbacks

The Wind Ordinance requires all wind towers be set back at least 2.1 times the maximum blade tip height of the wind tower to the nearest point of the outside wall of the occupied community building. This Project complies with this setback requirement.

3.7.2 Primary Structures Setbacks from Participating Residences

The Wind Ordinance requires wind towers be set back at least 1.1 times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure from participating residences. This Project complies with this setback requirement.

3.7.3 Primary Structures Setbacks from Nonparticipating Residences

The Wind Ordinance requires wind towers be set back at least 2.1 times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure from nonparticipating residences. This Project complies with this setback requirement.

3.7.4 Property Line Setbacks of Participating Property

There are no Wind Ordinance facility tower setback requirements regarding the boundary lines of participating property.

3.7.5 Property Line Setbacks of Nonparticipating Property

The Wind Ordinance requires wind towers be set back at least 1.1 times the maximum blade tip height of the wind tower to the nearest point on the property line of the nonparticipating property. This Project complies with this setback requirement.

3.7.6 Public Roads

The Wind Ordinance requires wind towers be set back a distance of at least 1.1 times the maximum blade tip height of the wind tower to the center point of a public road right-of-way. This Project complies with this setback requirement.

3.7.7 Overhead Communication Lines

The Wind Energy Facilities Article requires commercial wind energy facility towers be set back 1.1 times from the maximum blade tip height of the wind tower to the nearest edge of the property line, easement, or right of way containing an overhead communication line. This Project complies with this setback requirement.

3.7.8 Overhead Utility Service Lines

There are no commercial wind energy facility tower setback requirements regarding overhead utility service lines to individual houses or outbuildings.

3.7.9 Protected Lands and Fish and Wildlife Areas

The Wind Ordinance requires facility towers be set back 2.1 times the maximum blade tip height of the wind tower to the nearest point on the property line of a fish and wildlife area or protected land such as municipal parks. This Project complies with this setback requirement.

3.8 Compliance with Additional Regulations and Severability Clause

The Wind Ordinance does not preempt other applicable state and federal laws and regulations, including, but not limited to, the NESC, Illinois Commerce Commission, and the Federal Energy Regulatory Commission (“FERC”). This Project complies with all other applicable state and federal laws and regulations.

3.9 Use of Public Roads

All applicable weight and size permits will be received from local, county, and state authorities prior to construction. Appendix J provides a preliminary map of the public roads that will likely be used to construct this Project. The final decision on which roads will ultimately be used will be determined through consultations with Livingston County, the applicable Townships, and the State of Illinois. Road

Use Agreements will be attained, as necessary, prior to utilizing public roads including Livingston County roads and local township roads for construction traffic.

3.10 Height

The Wind Ordinance requires all wind towers have a maximum height of 500 feet unless a DNH to Air Navigation has been received, in which case the height allowed by the DNH shall control the wind tower height. The wind towers must be constructed with a tubular tower or monopole structure, not a lattice tower. This Project complies with Livingston County's height and design requirement.

The Project has proposed turbines with a maximum tip height of 640 feet. The FAA performed an aeronautical study and issued DNHs' to Air Navigation up to a height of 698 feet. The Applicant has also executed a Mitigation Agreement with the DOD for the Project, as described in Section 3.4. Appendix H contains the DNHs' issued by the FAA.

3.11 Lighting

The Wind Ordinance requires the Project meet all applicable FAA standards. FAA has established lighting standards for wind turbines to help ensure their safe operation in airspace and are outlined in FAA Advisory Circular ("AC") 70/7460. Specifically, these standards require dual lighting which consists of synchronized red lights and white flashing lights from Project turbines that are visible from all directions. These lights are anticipated to be flashing red strobes (L-864) that operate only at night.

The FAA has a specific evaluation process for each wind farm and turbine location. This evaluation will result in a customized lighting plan for the Project in accordance with FAA AC 70/7460-1K. The plan will create a distinct pattern that is easily recognized and avoided by passing aircraft while minimizing the overall number of lights. All FAA-required lights will be placed on the top of the turbine nacelles for maximum aerial visibility and will be red, synchronized flashing lights unless otherwise stipulated and approved by the FAA. The Applicant will consult with the FAA to secure a lighting plan, as the Project moves closer to construction, and a copy of the final site-specific plan will be provided to the County Zoning Enforcement Officer. The Applicant will also apply to the FAA for the installation of an ADLS. If approved by the FAA, the ADLS will be included in the final design and construction of the Project.

The Wind Ordinance also requires all substation lighting be downcast and compliant with the International Dark-Skies Association standards. This lighting will be "warm-white" or filtered Light Emitting Diodes ("LEDs") (Color Temperature ("CCT") < 3,000 Kelvin (K); scotopic/photopic (S/P) ratio < 1.2) to minimize blue emissions. Substation lighting will be limited to the amount needed to meet facility safety requirements.

3.12 Agricultural Impact Mitigation Agreement

Section 56-618(m) requires all wind farm developments be in compliance with an Agriculture Impact Mitigation Agreement (“AIMA”), as approved by the State of Illinois. The Applicant is currently in the process of executing an AIMA with the Illinois Department of Agriculture (“IDOA”) (Appendix W). The AIMA includes methods to avoid, minimize, and mitigate construction and operational impacts to cultivated lands. Specific provisions focus on drain tile repair, decompaction, and monitoring. This Project will be in compliance with the AIMA except where modified by private landowner agreements, as permitted in the AIMA.

3.13 Environmental Setbacks

The Project will adhere to the environmental setbacks suggested by the Illinois Department of Natural Resources (“IDNR”) through the Ecological Compliance Assessment Tool (“EcoCAT”) consultation process as described in Section 5.1. The EcoCAT and IDNR consultations are provided in Appendix K. Setbacks are demonstrated in the setback figures provided in Appendix C.

3.14 Municipality Agreements

In Illinois, State law provides that incorporated municipalities may establish additional zoning criteria for land use development projects, including wind farms, within 1.5 miles of the municipality boundaries. On March 27, 2023, and March 8, 2023, the Applicant entered into agreements with the Village of Dwight and Village of Campus, which respectively offer support for the development of the Project and confirm the municipalities do not object to siting turbines within 1.5 miles of the municipalities’ boundaries. See Appendix G for agreements between the Village of Dwight and the Village of Campus, allowing for the siting of those turbines located within 1.5 miles of their corporate boundaries.

4.0 OPERATION AND MAINTENANCE

The Project will meet operations and maintenance requirements described in Section 56-619 of the Wind Ordinance. An O&M report will be provided annually to the County upon commencement of operations.

4.1 Operation and Maintenance Building Layout

See the Project site plans located in Appendix C for the proposed location of the O&M building. A representative O&M building layout is provided in Appendix L.

4.2 Interference

Project turbines were sited and designed to avoid interference with microwave and other communication facilities. The Project Site Plan was provided to the United States Department of Commerce National Telecommunications and Information Administration (“NTIA”) for review by multiple federal communications agencies to determine whether the Project could result in interference with communications facilities. The NTIA review did not identify any concerns regarding radio frequency (“RF”) blockage or impacts to NEXRAD radar (see Appendix M). The Applicant coordinated with ComSearch, to perform multiple communications interference related studies for the Project, including a Microwave Study, Land Mobile and Emergency Response Services Report, TV Report, and Mobile Phone Report, and an AM and FM Radio Report, collectively referenced herein as the Communication Studies. The ComSearch Communication Studies were completed to determine the locations of federally-licensed (FCC) microwave and fixed station RF facilities that may be adversely impacted as a result of the construction of this Project. The purpose of this study was to assess and mitigate potential electromagnetic interference (“EMI”) issues that could arise between wind turbines and nearby communication systems. The ComSearch Communication Studies found that there would be no interrupted operation of critical communication systems utilized by the general public, the National Weather Service, and local emergency service providers (911 operators). The ComSearch Communication Studies also found there would not be a significant interference with local broadcast residential television and wireless internet services. The results of the ComSearch Communication Studies are located in Appendix M. Prior to operations, the final Project site plan will be provided to applicable entities as required by Section 56-619(b) of the Wind Ordinance.

4.3 Emergency Preparedness and Response

A copy of the final Emergency Preparedness and Response Plan will be provided to the local fire departments prior to construction. Upfront coordination with local fire departments is currently underway and ongoing. The Emergency Preparedness and Response Plan will also include a Site Plan. The plan will

pertain to the planning, response, recovery, and mitigation of any natural or manmade hazard that may affect the Project and is provided in Appendix N. This plan includes a risk assessment and hazard identification such as severe weather events, fires, chemical releases, equipment failures, and natural disasters. It also includes the emergency response team, roles of the emergency response team, contact information, and communication protocols for emergency situations. This includes communication and coordination with local authorities. The Project will also invite local fire departments and other emergency response units to participate in yearly Emergency Response Trainings at the facility.

4.4 Solid Waste

The Wind Ordinance requires all solid waste related to the construction, operation, and maintenance of the commercial wind energy facility shall be removed from the site promptly and disposed of in accordance with all federal, state, and local laws. This Project complies with this requirement. All solid waste will be properly disposed of at a licensed facility or beneficially reused in accordance with all applicable local, state, and federal laws.

4.5 Hazardous Materials

The Wind Ordinance requires all hazardous materials related to the construction, operation, and maintenance of the commercial wind energy facility be handled, stored, transported, and disposed of in accordance with all applicable local, state, and federal laws. This Project complies with this requirement. A list of hazardous fluids that may be used on site is provided Appendix O. The Project will comply with all applicable requirements regarding the handling of hazardous fluids and other materials.

4.6 Shadow Flicker Analysis

Section 56-619(e) requires shadow flicker shall not affect an occupied community building or non-participating residence in excess of 30 hours per year under planned operating conditions. Planned operating conditions is defined as those conditions that would exist if the sun were to shine every day of the year with no cloud cover. As outlined in Section 2.0, the Applicant has requested a variance from the planned operational condition requirement, to be based upon industry standard computer modeling, which uses local meteorological data rather than 100 percent sunshine.

Burns and McDonnell completed a shadow flicker study to determine the impact of shadow flicker from Project turbines on receptors. Modeling and topographic reviews were completed to determine potential cumulative results at receptor locations in and around the Project (Appendix P). Assuming approval of the requested variance, 24 of the 287 known receptors in Livingston County and one of the 31 known receptors in Grundy County exceeds 30 hours per year of shadow flicker. There are no Livingston County

receptors modeled to have more than 30 hours per year of shadow flicker that are impacted by a turbine located in Kankakee County.

Specific mitigation strategies will be utilized to alleviate the effects of shadow flicker on non-participating residences and comply with Section 56-619(e). Good Neighbor Agreements will be offered to those non-participating receptors with more than 30 hours of shadow flicker per year. Additionally, for the non-participating receptors that do not execute a Good Neighbor Agreement, operational curtailment will be employed to reduce shadow flicker below 30 hours per year, for those non-participating receptors. Operational curtailment involves the scheduled feathering of wind turbine blades during predicted daytime periods that may result in shadow flicker at a non-participating receptor. See Appendix B for Zoning Variance Request relating to sunshine conditions.

The Shadow Flicker study is provided in Appendix P.

4.7 Sound

Burns and McDonnell analyzed the Project to determine impact of noise (sound) on surrounding residences and occupied community buildings. The objective of the Sound Study was to estimate the expected sound impacts generated by Project wind turbines on neighboring landowner properties and residences. The Project sound levels were modeled and compared to the Illinois Pollution Control Board (“IPCB”) sound level limits as specified in Illinois Administrative Code Title 35, Subtitle H, Chapter I, Part 901.

Sound pressure levels were predicted for the Project wind turbines using manufacturer-specified sound power levels for the proposed Project. The substation transformers were also modeled and sound levels were estimated at the nearest noise-sensitive receivers. For those residential landowners that are not participating in the Project, the IPCB noise limits are predicted to be in compliance for all octave bands during both daytime and nighttime hours for the layout and turbines detailed in this report.

The Sound Study is provided in Appendix Q.

5.0 NATURAL RESOURCE REVIEW

5.1 EcoCAT

The Wind Ordinance requires the Facility to adhere to the recommendations provided by the IDNR in an EcoCAT natural resource review report under 17 Ill. Admin. Code Part 1075. This report found one state listed species with potential to occur within the Project Area. This report also specified setback requirements applicable to streams, forests, and forest riparian habitats, as well as curtailment recommendations to protect bat populations. These requirements and recommendations are summarized below. The EcoCAT report is available in Appendix K.

Eryngium Stem Borer (*Papaipema eryngii*)

Eryngium Stem Borer (“ESB”) moth is a stem-boring insect that feeds on stems of eryngo plants (*Eryngium* spp.), also known as rattlesnake master. ESB is typically associated with remnant prairies in highway and railroad rights-of-ways (“ROW”) where the rattlesnake master plant is present. ESB has a wingspan of about 3-4 cm and is typically a brownish-gray color. The larvae of this species bore into the stems of eryngo plants, causing damage and weakening the plant. The adult moths emerge in late summer and early fall². This Project, as designed, avoids impacts to remnant prairie habitats, which is habitat for the ESB.

Perennial Stream Setback

There are two perennial streams in the Project Area: Broughton Creek and the East Fork Mazon River. The Department recommends a minimum 300-foot setback from these resources. The Project design complies with this setback recommendation.

Forested Areas and Forested Riparian Zones

The Department recommends a minimum 1,000-foot setback from any forested area five acres or larger or forested riparian zones. The East Fork Mazon River (NE1/4 Section 3 Range 8E Township 30N of Livingston County, E1/2 Section 10 Range 8E Township 30N of Livingston County) is considered a forested riparian zone. The Project design complies with this setback recommendation.

² The Population and Community Ecology (PACE) Lab. Eryngium Stem Borer (ESB) moth. [Eryngium Stem Borer – Population and Community Ecology \(PACE\) Lab \(illinois.edu\)](#). Accessed May 20, 2023.

Recommended Curtailment

IDNR recommends the following curtailment and monitoring procedures to protect listed and non-listed bats and birds that may be present during fall migration:

- IDNR recommends the applicant to curtail wind turbine operations below wind speeds of 5.0 meters per second, from sunset to sunrise, between July 15 and October 15, to minimize the risk of “take” of listed bats and to minimize mortality of all bat species in general. Wind turbines should also be feathered (minimal rotations) during these curtailment events.
- Five years of mortality monitoring is recommended to statistically quantify bird and bat mortality, by species, due to turbine operations.
 - A proposal on bird and bat mortality monitoring should be sent to IDNR for review and concurrence on methods and a report on results annually.
 - Necessary research permits should be received from the Department’s Office of Resource Conservation to handle birds and bats. If state-listed species are found during this monitoring, Incidental Take Authorization may be recommended.
 - If significant bird or bat mortality is observed, or listed species are discovered, IDNR recommends further engagement and careful consideration be given to implementing the best available technologies to avoid and minimize these impacts.
- The Department recommends that the applicant conduct surveys to determine when birds and bats are migrating through the area to better define when curtailment of operations should go into effect.

The applicant acknowledges these curtailment and monitoring recommendations and will comply.

Additional Avian and Bat Habitat information is available in Section 5.2.1.

5.2 IPaC

The results of the U.S. Fish and Wildlife Service’s (“USFWS”) Information for Planning and Consulting (“IPaC”) environmental review are available in Appendix K. This report found three federally listed species with potential to occur within the Project Area (Table 5-1).

Table 5-1: Federally Protected Species Known or Likely to Occur in the Heritage Prairie Project site.

Common Name	Scientific Name	Federal Status ⁽¹⁾
Mammals		
Indiana bat	<i>Myotis sodalis</i>	FE
Northern long-eared bat	<i>Myotis septentrionalis</i>	FE
Little brown bat	<i>Myotis lucifugus</i>	FPE*
Tricolored bat	<i>Perimyotis subflavus</i>	FPE*
Bird		
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA, MBTA
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, MBTA
Short-eared owl	<i>Asio flammeus</i>	MBTA
Northern harrier	<i>Circus hudsonius</i>	MBTA
Flowering Plants		
Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	FT

Source: USFWS IPaC; <http://ecos.fws.gov/ipac>, accessed 2/3/2023

- (1) FC: Federal Candidate Species for Listing; FE: Federally Endangered; FPE: Federally Proposed Endangered; FT: Federally Threatened; MBTA: Migratory Bird Treaty Act.
- * Candidate and proposed species are not afforded protections under the Endangered Species Act. Should these species be listed prior to construction, consultation with the USFWS will be conducted.

Habitat assessments and biological studies consistent with USFWS 2012 *Land-Based Wind Energy Guidelines*³ (“WEG”) were completed for this Project. These are described in more detail in Section 5.2.1 and 5.2.2.

5.2.1 Avian and Bat Habitat

A two-year avian study was completed for this Project. The Applicant contracted Western EcoSystems Technology, Inc. (“WEST”) consultants to perform the avian study in compliance with methods specified in the USFWS WEGs, Appendix C(1)(a) of the 2013 USFWS *Eagle Conservation Plan Guidelines*⁴, and

³ US Fish and Wildlife Service (USFWS). 2012. Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online: http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf

⁴ US Fish and Wildlife Service (USFWS). 2013. Eagle Conservation Plan Guidance: Module 1 - Land-Based Wind Energy, Version 2. US Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management. April 2013. 103 pp. + frontmatter. Available online: <https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf>

the 2016 USFWS *Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests*⁵. This study was completed from November 14, 2019, to August 31, 2023. Overall, the species composition, seasonal abundance, and spatial use patterns documented during this study are typical for birds in this region and the majority of species observed are generally prevalent and abundant within the region.

WEST also conducted summer presence/probable absence surveys for the federally endangered Indiana bat (“INBA”; *Myotis sodalis*) and the federally endangered northern long-eared bat (“NLEB”; *M. septentrionalis*) in accordance with methods described in the USFWS *Range-Wide Indiana Bat Survey Guidelines (2022)*⁶. The methods outlined in the Guidelines are applicable to both INBA and NLEB. Livingston County, including the Project Area, is within the known ranges for these two species. This study also sought to provide information about the little brown bat (LBBA; *M. lucifugus*) and tricolored bat (“TRBA”; *Perimyotis subflavus*). The TRBA was proposed to be listed as endangered under the Endangered Species Act (“ESA”; 1973; 16 U.S. Code (“USC”) 1531-1544) on September 14, 2022 (87 Federal Register 56381-56393 [2022]) and the USFWS is currently reviewing the little brown bat (“LBBA”) for federal listing under the ESA. WEST submitted a proposed presence/absence study plan for the Project to USFWS for review on May 29, 2022, and a site-specific authorization letter was provided by the USFWS on June 9, 2022, approving the study plan (Appendix R). The complete bird and bat habitat study is also provided in Appendix R and a summary of key results is provided below.

Eagles

There were a relatively small number of eagles observed during the avian study: eight bald eagle (*Haliaeetus leucocephalus*) observations recorded in year 1, and three in year 2. Bald eagles are afforded federal protections under the Bald and Golden Eagle Protection Act (1940; 16 U.S. Code [USC] 668-668d) and the Migratory Bird Treaty Act (1918; 16 USC 703-712). There are relatively few publicly available records of bald eagles colliding with wind turbines over the species’ entire range and only one fatality and one injury to a bald eagle have been reported in Illinois⁷. The low number of eagle risk minutes resulting from the survey efforts indicates the development poses low risk to bald eagles in the Project Area. No golden eagles (*Aquila chrysaetos*) were observed during the avian study and they are generally considered

⁵ US Fish and Wildlife Service (USFWS). 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests; Final Rule. 50 CFR 13 and 22. Department of the Interior Fish and Wildlife Service. 81 Federal Register (FR) 242: 91494-91554. December 16, 2016.

⁶ US Fish and Wildlife Service (USFWS). 2022a. Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines. USFWS, Department of the Interior. March 2022. 67 pp. Available online: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>

⁷ US Fish and Wildlife Service (USFWS). 2018. Bald Eagle Mortalities and Injuries at Wind Energy Facilities in the United States. Poster. The Wildlife Society (TWS) 25th Annual Conference, Cleveland, Ohio. October 7 - 11, 2018.

to be a rare migrant and winter resident within Illinois⁸. Additionally, WEST surveyed the Project Area and a 10-mile buffer for eagle nests in 2020. No bald or golden eagle nests were located within or adjacent to the Project Area in Livingston County.

Sensitive Species

No federally listed species were observed during the avian survey. Two state-listed endangered species were observed in the Project Area: northern harrier (*Circus cyaneus*) and short-eared owl (*Asio flammeus*). Neither of these species is anticipated to be significantly impacted by the Project given the lack of adequate grassland and wetland habitat to support breeding of these species within the Project Area.

Large Birds

Large bird species most often observed during the large bird surveys included Canada goose (*Branta canadensis*), rock pigeon (*Columba livia*), killdeer (*Charadrius vociferus*), and American crow (*Corvus brachyrhynchos*) the majority of which were observed during fall migration and winter. Seasonal influxes of waterfowl are typical as they migrate through, and overwinter in, north-central Illinois^{9,10}. Many of the remaining large bird observations are species typical of Illinois agricultural fields¹¹.

Diurnal Raptors

The annual mean diurnal raptor use at the Project was relatively low in both years when compared with other large bird groups such as waterfowl, likely due to the Project having little suitable habitat and being almost exclusively cropland. Diurnal raptor fatalities are typically low in the Midwest and comprise less than 5% of total avian fatalities across Midwest wind energy facilities¹². Overall, risk to diurnal raptors at the Project is expected to be similar to other Midwest projects.

⁸ <https://dnr.illinois.gov/content/dam/soi/en/web/dnr/education/cdindex/goldeneagle.pdf>

⁹ Ely, C. R., A. X. Dzubin, C. Carboneras, G. M. Kirwan, and E. F. J. Garcia. 2020. Greater White-Fronted Goose (*Anser albifrons*), Version 1.0. S. M. Billerman, ed. *In: Birds of the World*. Cornell Lab of Ornithology, Ithaca, New York. Information online: <http://birdsoftheworld.org/bow/species/gwfgoo/1.0/>

¹⁰ Mowbray, T. B., F. Cooke, and B. Ganter. 2020. Snow Goose (*Anser caerulescens*), Version 1.0. P. G. Rodewald, ed. *In: Birds of the World*. Cornell Lab of Ornithology, Ithaca, New York. Available online: <http://birdsoftheworld.org/bow/species/snogoo/cur/>

¹¹ National Audubon Society (Audubon). 2020. Christmas Bird Count Historical Results. Accessed January 2022. Available online: <https://netapp.audubon.org/CBCObservation/>

¹² Western EcoSystems Technology, Inc. (WEST). 2021. Regional Summaries of Wildlife Fatalities at Wind Facilities in the United States and Canada. 2020 Report from the Renew Database. WEST, Cheyenne, Wyoming. June 30, 2021.

Bats

No federally listed endangered or threatened bat species were identified as likely present within the Project area during the summer maternity season. It is noted that the TRBA and LBBA are not listed at this time but are currently proposed to be listed. TRBA and LBBA may potentially occur with the Project during the summer maternity season; however, very few calls were positively identified during qualitative review of acoustic data. While the WEST studies suggest a relatively low risk to listed bat species, the Project has adopted IDNR's recommendation for operational curtailment during the fall migration season.

5.2.2 Natural Resource Inventory Report

A Natural Resource Inventory Report ("NRI Report") was prepared by the Livingston County Soil and Water Conservation District and is provided in Appendix S. The NRI Report identified the potential for erosion, sedimentation, and rutting, which are commonly associated with construction activities in agricultural lands. The Project will avoid and minimize these potential issues through the implementation of the Project's AIMA. The Project will not result in a significant increase in impervious surface as the area surrounding the turbine and access roads will be maintained with vegetation. During construction, the Project will adhere to a Stormwater Pollution Prevention Plan ("SWPPP") that is in alignment with Illinois requirements.

5.3 Cultural Report

Section 56-621 requires the facility owner to provide evidence of consultation with the Illinois State Historic Preservation Office ("SHPO") to assess potential impacts on State-registered historic sites under the Illinois State Agency Historic Resources Preservation Act of 1990 (20 ILCS 3420). The Illinois State Agency Historic Resources Preservation Act outlines procedures for the identification and protection of cultural resources which may be impacted by projects that are funded by, licensed by, or permitted by state agencies. It was amended in 1991 to limit archaeological surveys for state agency permit and license reviews to projects in high probability zones for prehistoric archaeological sites and to locations of previously recorded sites. Documentation of historic-age non-archaeological resources forty years of age or older (pre-1982) was prescribed as part of Project compliance with the Illinois State Agency Historic Resources Preservation Act, and the historic survey was conducted in accordance with Federal "Section 106" and State "Section 707" standards.

Phase I archaeological surveys were conducted in December 2022, March/April 2023, and May/June 2023 in accordance with Section 106 and Section 707 standards. The results of the survey were submitted to SHPO on November 8, 2023. SHPO responded on February 6, 2024, via email concurring with all the determinations and recommendations in the submitted report (Appendix T). The Project has been designed

to avoid all identified significant archeological sites; therefore, the Project will have no effect on National Register of Historic Places (“NRHP”) eligible archeological sites.

Due to the scope and size of the proposed Project, Burns & McDonnell Engineering Company, Inc. (“Burns & McDonnell”) coordinated with the Illinois SHPO to develop a methodology for assessment of historic-age resources. In lieu of preparation of a single largescale historic resources survey report, the results of the field survey are being submitted in installments of approximately 100 resources via eight summary memorandums (“memos”) with accompanying figures, resource inventory tables, and photographs. There are a total of two submittals associated with the Project in Livingston County (Sections 6 and 7 memos). The Section 6 memo documenting 116 properties containing 341 individual historic-age resources in Livingston County was submitted to the Illinois Historic Preservation Division (“IHPD”) in October 2023. Three individual properties were recommended eligible for NRHP inclusion, and a portion of the rural community of Campus was recommended NRHP eligible as a historic district. The IHPD concurred with the eligibility recommendations on November 9, 2023 (Appendix T). The Section 7 memo was submitted to IHPD on February 5, 2024, documenting 106 properties containing 279 individual historic-age resources. Review is still pending. Burns & McDonnell’s historians recommend the Project will have no adverse effect on the potentially eligible resources. Once the entire Project has been reviewed by IHPD, SHPO will review their recommendations and make their final effects determination for the Project.

Consultation will be completed prior to submitting for the General National Pollutant Discharge Elimination System (“NPDES”) Permit No. ILR10. Evidence of ongoing coordination with the SHPO, regarding archaeological and historic surveys is available in Appendix T.

6.0 PROJECT LIABILITY

6.1 Liability Insurance

Sec. 56-623 requires insurance coverage to be maintained without interruption from the date of construction permitting through the decommissioning of all wind turbines. The Applicant will maintain a current general liability policy covering bodily injury and property damage with limits of at least \$10,000,000.00 per occurrence and \$40,000,000.00 in the aggregate, with the county being added as an additional insured, with the designation of primary and noncontributory. An annual certificate of insurance will be provided to the county regional planning commission office. Liability insurance will be in place prior to the commencement of construction and will be provided to the Zoning Administrator.

7.0 PROJECT DECOMMISSIONING

7.1 Decommissioning

The Project is anticipated to have an operational life of 30 years. At the end of the Project's operational life, and assuming the facility is not repowered, the Project would be decommissioned by removing Project structures and equipment following specific stipulations outlined in the AIMA and individual landowner agreements. The land use of the Project Area is primarily cultivated agricultural land; therefore, future decommissioning efforts are intended to return the land to condition suitable for continued cultivation and crop production. Key components of the decommissioning effort include:

- Decommissioning Preparation. This stage will include reviewing and updating decommissioning plans, as necessary, stakeholder engagement, and review of regulatory requirements.
- Finalizing Engineering and Decommissioning Plan. This stage includes confirming waste management needs; finalizing a detailed Project schedule, sequencing, procedures, and timeline; and surveying work.
- Permitting. This stage ensures all local, state, and federal permits are received.
- Implementation. This stage will include turbine disassembly, component recycling, hazardous material management, and solid waste management. Deconstruction of the facility will include wind turbine towers and blades, wind turbine generators, wind turbine foundations (to depth of 5 feet), transformers, collection/interconnection substations, overhead collection system, O&M building, meteorological towers, and access roads (unless landowner requests to keep them).
- Final Stabilization. This stage involved decommissioning of the O&M yard/staging area, debris and litter removal, and site revegetating.

More details about the Project decommissioning plan are available in Appendix U. This plan outlines the process and techniques to bring the site back to predevelopment condition in compliance with the IDOA standard wind farm AIMA, template 81818. Financial assurances will be provided to the county prior to receiving County building permits in accordance with Sec. 56-624. Total Estimated net costs for decommissioning are estimated at \$4,304,750. This value is the difference of the Gross Cost of \$16,918,750 minus the Salvage Value, the value of reselling decommissioned material for scrap, of \$12,614,000.

7.2 Drain Tile

Prior to the issuance of building permits, the Project will make all reasonable efforts to locate the existing drain tiles in the area of construction. This includes locating through direct coordination with landowners and onsite field surveys. During construction, ground excavations will be monitored for the presence of previously unidentified tiles. The AIMA governs the identification and treatment of drain tiles to avoid, minimize, or mitigate impacts to drainage. As described in Section 6 of the AIMA, underground drainage tile damaged by construction or deconstruction will be repaired in a manner that assures the tile line's proper operation at the point of repair (Appendix W). In accordance with Sec. 56-624.1, any permanent drain tiles damaged during operation or decommissioning will be repaired within fourteen days of identification or notification of the damage, weather and soil conditions permitting. The Project is currently working with vendors to begin detailed drain tile investigations and mapping. The Project will have a dedicated drainage tile contractor on call during construction to promptly repair drain tiles that may be damaged during construction. The AIMA is available in Appendix W.

8.0 PROJECT APPLICATION

8.1 Special Use Permit – Standards for Special Use

The sections below list and answers the questions directly from the SUP Application – Standards for Special Use (Appendix A).

8.1.1 Is consistent in all respects with the Livingston County Comprehensive Plan and the Livingston County Zoning Ordinance;

The Project will conform to the applicable requirements of the Livingston County Comprehensive Plan¹³ and the requirements of the Code and, in particular, the Wind Ordinance, which is to be considered by the Zoning Board of Appeals in making their recommendation to the County Board regarding the approval or denial of SUP Applications. In line with the County's Comprehensive Plan, the Project recognizes the importance of the County's agricultural economy and has implemented an AIMA that includes methods to avoid, minimize and mitigate construction and operational impacts to cultivated lands. Specific provisions focus on drain tile repair, decompaction, and monitoring. This Project will follow the AIMA except where modified by private landowner agreements as permitted in the AIMA. Additionally, as detailed in the Application Narrative, the Project has been developed to be consistent with all aspects of the Livingston County Code, as applicable. Refer to Section 2 as well as Table 1-1 which includes a list of all applicable Wind Ordinance requirements and a cross-reference to the location of the material supporting compliance with each requirement in this Application.

8.1.2 Will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare:

Construction, operation, and maintenance of the Project will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare of the County. The Project has been sited in areas zoned AG and I2 which is compatible with siting, construction, and operation of wind generating facilities. The Applicant selected this location based on the proximity to existing electric infrastructure, compatible land use, landowner interest, and minimal environmental sensitivities. Extensive coordination with community officials and landowners interested in hosting the Facility confirmed that the agricultural areas selected for the Project were compatible with development of the Project.

The Project has been designed to meet the standards for wind facilities identified in the Code and, in particular, the Wind Ordinance. These design standards require safe construction and operation practices,

¹³ Livingston County. 2020. Livingston County Comprehensive Plan, Year 2020 Update. Revised November 11, 2004.

and that a wind energy generating plant will follow all applicable county ordinances and will be designed with safety in mind so as not to endanger public health. Wind facilities have a track record for safe operations while also providing a clean source of electric power. Low-voltage electric collection lines connecting wind turbine generators to the Project substation are proposed to be buried underground, with the exception of one small section of above ground collection line on one property. The Project will comply with all setback requirements of the Wind Ordinance as outlined in Section 3.7.

Detailed studies of the Facility design have further confirmed that the Project will not adversely affect the human environment. Specifically, the results of the shadow flicker study (Appendix P) indicate that any shadow flicker on non-participating residences and community buildings that exceed 30 hours per year will be mitigated by the Project with the implementation of operational curtailment, or through further mitigation with landowners. Similarly, the completed Sound Study for the Project (Appendix Q) illustrates compliance with all applicable IPCB and Livingston County sound level limits. The sound modeling results show that the Project, as designed, would not exceed the respective noise limits, and no additional noise mitigation is required.

The Project will provide reliable power to the community and the State. This renewable source of energy is emissions free, thereby promoting clean air for better living. Additional benefits of renewable energy are reducing the community's dependence on fossil fuels and other non-renewable energy sources. The Project will help contribute to Illinois' goal of a 100% zero-emissions power sector by 2045 under the Climate and Equitable Jobs Act (SB2408). Furthermore, the production of clean, renewable energy helps confront factors causing climate change and inherently reduces climate change caused public health and safety issues.

8.1.3 Is located in a zoning district where such use is permitted;

The Project has been sited in an areas zoned as AG and I2, which is compatible with siting, construction, and operation of wind generating facilities under 55 ILCS 5/5-12020. The Wind Ordinance requires that all wind farm developments are in compliance with an AIMA, as approved by the State of Illinois.

8.1.4 Complies with the requirements set forth in the zoning district where it is to be located and all requirements specified in Section 24.0, SPECIAL USES, REQUIREMENTS AND PROCEDURES, of the Livingston County Zoning Ordinance, except in each instance as such regulations may be modified by the Board of Appeals;

The Applicant is filing for a SUP for a commercial wind energy facility located in AG and I2 districts. Refer to Section 2 as well as Table 1-1 which includes a list of all applicable Wind Ordinance requirements

and a cross-reference to the location of the material supporting compliance with each requirement in this Application.

8.1.5 Will not be injurious to the use and enjoyment of other property in the immediate vicinity for the uses already permitted, or substantially reduce the value of neighboring property;

The Project will have no direct impacts on property values of properties adjacent to or in the immediate vicinity of the Project and will not substantially diminish or impair property values in the vicinity (see Appendix V for the Property Value Impact Report and the Site Specific Analysis Addendum). Like any new infrastructure development, the Project will be visible from neighboring parcels and public roads and will result in a change to the existing land use. However, the Project facilities have been designed to meet all applicable Livingston County design standards such as setback requirements from roads and adjoining parcels. The maximum height of the wind turbines (from the wind turbine foundation to the tip of the rotor blade at its highest point) will be approximately 640 feet, as permitted by the FAA. It is noted that the proposed maximum turbine height is compliant with the current Wind Ordinance, dated May 11, 2023.

Other benefits are that wind farms are consistent with and promote the continuance of agriculture as farmers may safely grow crops and graze livestock within 50 feet of the tower base. The annual income provided from the land use agreements also provides enhanced economic stability of farming operations. These agreements provide a stable, reliable, and long-term funding source for farmers. In addition, sound levels generated by turbines are not audible above ambient sound levels at the fence line of most facilities and the Project-specific noise modeling results show that the Project, as designed, would not exceed the respective noise limits ([Appendix Q](#)). Also, since wind farms require minimal operations support by staff, there will not be a noticeable increase in traffic during operations.

According to a peer review study completed in 2022, wind energy projects lead to economically meaningful increases in county-level gross domestic product per-capita starting in construction through operation¹⁴.

8.1.6 Will not impede orderly growth, development, and improvement of surrounding properties for those uses permitting in the zoning district;

The Project will not substantially impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. The majority of properties surrounding the Project are also zoned AG or I2. Any future development of these properties would be subject to the use restrictions

¹⁴ American Clean Power Association. 2022. Property Values and Land-Based Utility Scale Wind Turbines. Published August 30, 2022.

identified in the Wind Ordinance; however, the operation of the Project does not restrict the development activities on these lands. Also, the Project complies with the 2020 Comprehensive Plan for Livingston County with respect to “Agricultural Land Use” per “AG zoned areas”. The 2020 Comprehensive Plan discusses the protection of agricultural areas due to the strain that residential development places on a community, such as fire, police, road maintenance, etc. As such, the Project facilities are consistent with the 2020 Comprehensive Plan and will maintain the land in an open space type of environment. The Project will not include any large permanent structures, and following decommissioning, the land will return to its former agricultural use. Wind farms are consistent with and promote the continuance of agriculture as farmers may safely grow crops and graze livestock within 50 feet of the tower base. Additionally, the Project will not have an impact on traffic and utility services in the area as it will require limited maintenance during operation. Therefore, the Project is expected to meet the long-term goals of the 2020 Comprehensive Plan and would not restrict continued development of surrounding parcels. Lastly, the Project has been approved by the Villages of Dwight and Campus, demonstrating they do not believe it will impede the orderly growth or development of their communities.

8.1.7 Is provided or will be provided with adequate utilities, access roads, drainages and necessary facilities;

Adequate measures will be provided for utilities, access roads, and drainage. Low-voltage electric collection lines connecting wind turbine generators to the Project substation are proposed to be buried underground, with the exception of one small section of overhead collection line on one property. The Project site entrances and O&M building will be designed to County standards. The Project is currently negotiating and will execute a Road Use Agreement, between Livingston County and the applicable Townships, that will capture the standards use of design for public access roads. A preliminary road use map is provided in Appendix J.

The AIMA governs the identification and treatment of drain tiles to avoid, minimize, or mitigate impacts to drainage. In accordance with Section 56-624.1, any permanent drain tiles damaged during operation or decommissioning will be repaired within fourteen days of identification or notification of the damage, weather and soil conditions permitting. The Project will have a local drainage tile contractor on-call to initiate repairs upon identification. The drainage system will be designed to have adequate on-site storm water management systems. These systems will incorporate applicable County and NPDES requirements to ensure that ingress and egress of water is managed per regulations.

The Project will not result in a significant increase in impervious surface as the area surrounding the turbine and access roads will be maintained with vegetation. During construction, the Project will adhere to a

SWPPP that is in alignment with Illinois requirements. For more details, see Project Design and Site Plan Maps in the following Sections and Appendices, including Appendix C.

8.1.8 Is provided with ingress and egress so designed as to minimize traffic congestion in the public streets.

The Project will implement best management practices to avoid and minimize significant impact to traffic patterns during the construction period. No significant impacts to traffic patterns or increases in congestion are expected during the operations phase. All applicable entrance road permits, weight and size permits will be received from local, county and state authorities prior to construction. Appendix J provides a preliminary map of the public roads that will likely be used during construction of this Project. The final decision on which roads will ultimately be used will be determined through consultations with Livingston County, the applicable Townships and the State of Illinois. Road Use Agreements will be attained, as necessary, prior to utilizing public roads including Livingston County roads and local township roads.

APPENDIX A - SPECIAL USE PERMIT APPLICATION

LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE,
112 W. Madison St., Pontiac, Illinois 61764

APPLICANT FILING PROCEDURES FOR SPECIAL USES

1. Complete the original application and any required attachments. Attachments are considered a part of the application.
2. File the application in the office of the Livingston County Regional Planning Commission, accompanied with the required fee. The Commission shall assign a case number to the application.
3. All fees shall be payable to the General Fund of Livingston County. (The required fee is \$175.00).
4. The Livingston County Regional Planning Commission will transmit one copy of the application with the assigned case number noted on same to the Livingston County Soil and Water Conservation, Route 1, Box 199, Pontiac, IL 61764.
5. The Livingston County Soil & Water Conservation District shall forward the NOTICE OF TRANSMITTAL, as provided, to the Zoning Administrator, Livingston County Historic Courthouse, 112 W. Madison St., Pontiac, IL 61764.
6. The Livingston County Regional Planning Commission shall advertise the notice of public hearing for each case to be held before the Board of Appeals.
7. The Livingston County Regional Planning Commission shall serve notice to the applicant and owners or occupants of property abutting the affected area not less than five (5) days prior to the hearing advising the location and nature of the subject matter contained in the application and the date, time and place of the hearing.
8. The applicant shall be billed by the Livingston County Regional Planning Commission for the cost of the required notice of public hearing. No final action shall be taken on any case until the cost of advertising the required notice of public hearing has been paid.

You may refer to the sheet that is part of the application package that refers to the example of fees that provides you with more information on the potential costs of proceeding with this property development.

-----DETACH HERE-----

NOTICE OF TRANSMITTAL

Forward to:

Zoning Administrator
Livingston County Historic Courthouse
112 W. Madison St.
Pontiac, Illinois 61764

A copy of the application and attachments for a (zoning map amendment, special use) Case No. _____ was transmitted to the Livingston County Soil and Water Conservation District on _____.

Signature of Receiver

LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE, 112 W. MADISON ST., PONTIAC, IL 61764

APPLICATION FOR SPECIAL USE – LIVINGSTON COUNTY ZONING ORDINANCE

Applicant
Name Illinois Generation LLC
Address 888 Westheimer Rd Suite 350
Houston, TX 77006
Phone 713-308-4200

Property Owner(s)
Name See Appendix D in SUP Application
Address Narrative (Property Owners List)
Phone _____

(attach list if necessary)

For Office Use Only
Filed Date _____ Case No. SU-
Fee \$ 175.00
Receipt No. _____
Publication Cost _____
Receipt No. _____
Hearing Date _____
Decision Date _____ File Date _____
Approved _____ Denied _____
For Office Use Only

Legal description of property: See Appendix F in SUP Application Narrative (Lease Agreements)

Street address: _____

Property interest of applicant: Renewable energy development

Present Use: Agricultural / Industrial Zoning District: Agricultural District (AG) / Industrial (I2)

A special use is requested to allow the property described above to be used as: Renewable energy facility - wind farm

Yes No A previous special use has not been requested with respect to the described property.

Yes No A previous special use was requested with respect to the described property. Such previous special use request was made on _____, _____ and _____
Date Year Granted or Denied

Attachment No. 1 – Submit a map drawn to scale (as required by the Zoning Administrator) of the area included in the application and the abutting area within 200 feet (additional area may be required by the Zoning Administrator) showing the zoning classification; dimensions and use of all buildings and/or structures (existing and proposed); driveways; parking areas; right-of-way lines for streets and roads; easements; provision for surface drainage; proposals for sewage disposal systems; distance of building(s) and/or structure(s) from front, side and rear property lines; and distance of building(s) and/or structure(s) from center of public access road(s). See Appendix C of the SUP Application Narrative

Additional Attachments – Submit additional attachments as required by the Zoning Administrator.

I (we) certify that all of the information presented above is true to the best of my (our) knowledge and belief.

Cristal Cottman 2/21/24
Applicant(s) Signature Cristal Cottman, Authorized Signatory Date
Caton Fenz, Authorized Signatory 2/22/2024
Applicant(s) Signature _____ Date

STATEMENT OF APPLICANT – OWNER STATUS

APPLICANT Illinois Generation LLC

OWNERS -

Individual (s)

Alter ego or representative of individual (s)

(List the name (s) and address (es) of the actual and true principal)

Corporation

(List the names and addresses of all officers and directors and identify by title; also list the names and addresses of all stockholders and shareholders owning an interest in excess of 20% of all outstanding stock)

Business or entity doing business under an assumed name

(List the names and addresses of all true and actual owners)

Partnership

(List the names and addresses of all partners)

X Joint Venture

(List the names and addresses of all joint venturers)

Syndicate

(List the names and addresses of all syndicate members)

Unincorporated Voluntary Association

(List the names and addresses of all members)

LIST OF NAMES AND ADDRESSES REQUIRED ABOVE

Illinois Generation LLC:

Pattern Energy Group LP
888 Westheimer Rd. Suite 350, Houston, TX 77006

ConnectGen LLC
1001 McKinney St. Suite 700, Houston, TX 77002

APPLICATION EXPLANATION

Project Name: Heritage Prairie Wind

Requested Zoning: Special Use Permit

Explanation and description of request or project:

The Heritage Prairie Wind Project ("Project") proposed is an approximately 600-MW utility-scale wind energy facility, a portion of which will be located in Livingston County. The Project will primarily be located east of Dwight, and within Dwight, Broughton, and Round Grove townships. The Project includes approximately 12,350 acres of private land, for which the Applicant has secured site control to host the facilities. The Project will consist primarily of the following facilities and the infrastructure and equipment that support them: wind turbines, the electrical system including underground collection wires and an overhead transmission line, meteorological towers, access roads, a Project substation and an operations and maintenance building. The Project will consist of a maximum of 71 wind turbines within Livingston County. The aggregate net generating capacity will be up to 320 MW of electricity, based on a generating capacity of the individual wind turbines selected for the Project. This application is consistent with the requirements for a Commercial Wind Energy Facility in accordance with the provisions of the Code of Ordinances for Livingston County and, in particular, Article VIII of Chapter 56 governing Commercial Wind Energy Facilities. The Applicant is also seeking a single variance to the operation requirements specified in Section 56-619 of Article VIII of Chapter 56 governing Commercial Wind Energy Facilities; however, the variance will not exceed industry standards set forth in House Bill 4412 that was passed by the Illinois General Assembly in January 2023.

STANDARDS FOR SPECIAL USE

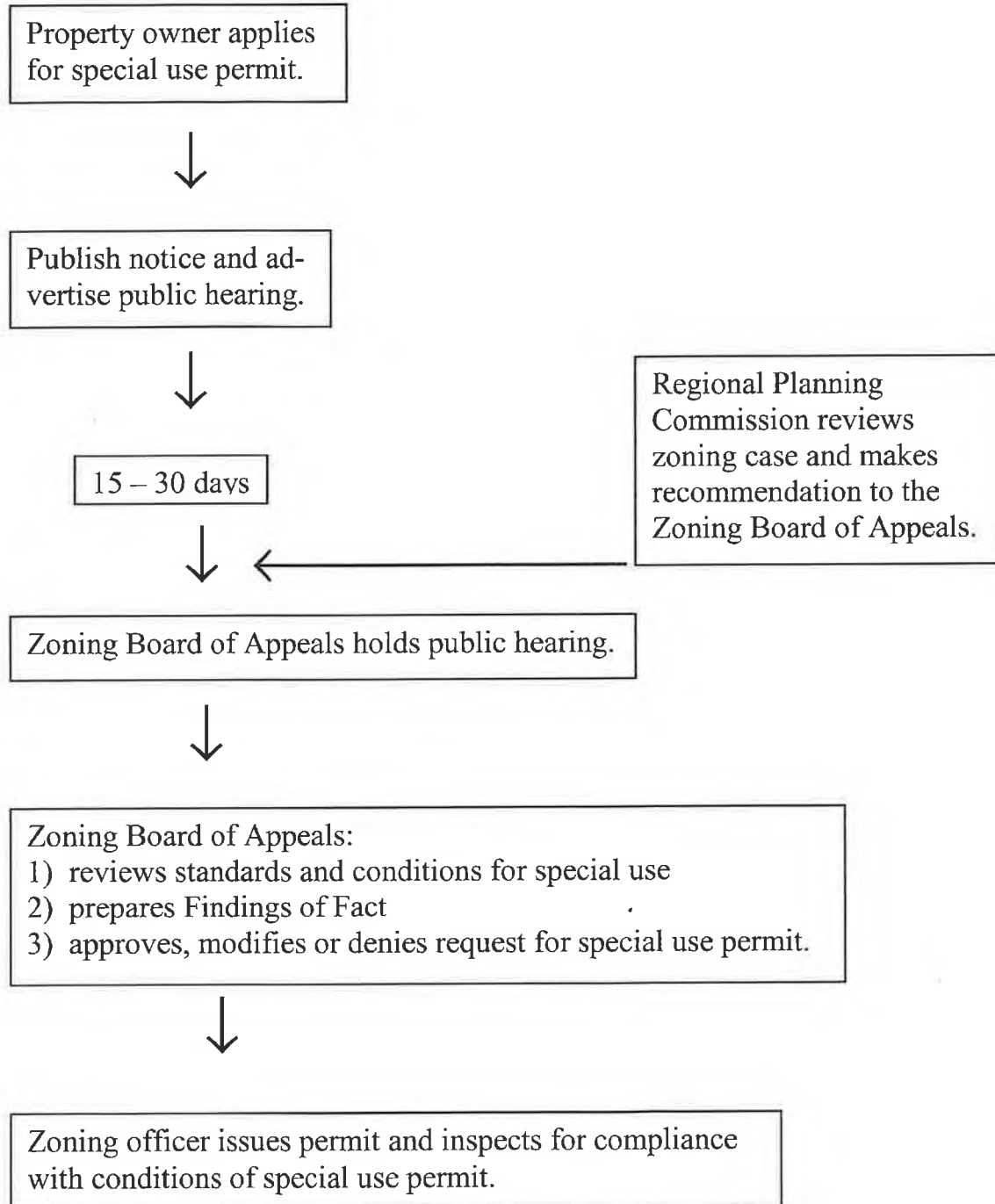
Members of the Board of Appeals must find the proposed Special Use complies with these required standards; however, the criteria for determining the acceptability of a Special Use shall not be limited to the following standards:

1. Is consistent in all respects with the Livingston County Comprehensive Plan and the Livingston County Zoning Ordinance;
The project is consistent with all respects with the Livingston County Comprehensive Plan and the Livingston County Zoning Ordinance. See Section 8.1.1 in the Heritage Praire Wind Special Use Permit Application narrative.
2. Will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare;
The project will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare. See Section 8.1.2 in the Heritage Praire Wind Special Use Permit Application narrative.
3. Is located in a zoning district where such use is permitted;
The project is located in a zoning district where such use is permitted.
See Section 8.1.3 in the Heritage Praire Wind Special Use Permit Application narrative.
4. Complies with the requirements set forth in the zoning district where it is to be located and all requirements specified in Section 24.0, SPECIAL USES, REQUIREMENTS AND PROCEDURES, of the Livingston County Zoning Ordinance, except in each instance as such regulations may be modified by the Board of Appeals;
The project complies with zoning district requirements. See Section 8.1.4 in the Heritage Praire Wind Special Use Permit Application narrative.
5. Will not be injurious to the use and enjoyment of other property in the immediate vicinity for the uses already permitted, or substantially reduce the value of neighboring property;
The project will not be injurious to the use and enjoyment of the other properties in the immediate vicinity. See Section 8.1.5 in the Heritage Praire Wind Special Use Permit Application narrative.
6. Will not impede orderly growth, development and improvement of surrounding properties for those uses permitted in the zoning district;
The project will not impede orderly growth, development and improvement of surrounding properties for those uses permitted in the zoning district. See Section 8.1.6 in the Heritage Praire Wind Special Use Permit Application narrative.
7. Is provided or will be provided with adequate utilities, access roads, drainage and necessary facilities;
The project will be provide adequate utilities, access roads, drainage and necessary facilities.
See Section 8.1.7 in the Heritage Praire Wind Special Use Permit Application narrative.
8. Is provided with ingress and egress so designed as to minimize traffic congestion in the public streets.
The project design incorporates ingress and egress to minimize traffic congestion in the public streets.
See Section 8.1.18 in the Heritage Praire Wind Special Use Permit Application narrative.

NOTE:

The Board may, at its discretion, qualify any approval for a Special Use subject to certain conditions being imposed upon and agreed to by the applicant prior to requesting the Zoning Administrator issue an Improvement Location Permit.

ZONING PROCESS: SPECIAL USE



Livingston County Soil and Water Conservation District
P.O. Box 80 – Rt. 116 West – Pontiac, IL 61764
Phone: (815) 844-6128 – FAX (815) 844-6344

Natural Resource Information Report Application
Livingston County Soil and Water Conservation District

P.O. Box 80 – Rt. 116 West – Pontiac, IL 61764 Phone: (815) 844-6128 Fax: (815) 844-6344

Soil and Water Conservation Districts (SWCD) are mandated by Illinois State Statute 405/22.02a to furnish Natural Resource Information Reports to county municipal agencies considering zoning ordinances or variances. See the last paragraph for further explanation of the statute.

The Livingston County SWCD has thirty (30) days to complete this report after receipt of all the following items:

- Copy of the Livingston County Regional Planning Commission application with the assigned case number, which will include an Application Explanation and a Plat of Survey.
- NRI application fee which is payable to the Livingston County SWCD.

Fee Schedule:

Full NRI Report: \$150

Letter: \$40

The following guidelines are intended to clarify when a full NRI report will be necessary and when a simple letter of exemption will be sufficient.

Full report format criteria:

1. Land use change involves a change in zoning from agriculture to another classification
2. Land use change involves activities such as mining, quarrying, regional pollution control facility etc.

Letter format criteria:

1. Land use change is minor.
2. Parcels with existing residential or industrial zoning requesting other non-agricultural zoning.

- **As other circumstances arise it will be the decision of the SWCD Ag. Resource Coordinator in consultation with the County Zoning Administrator when a full NRI report will be necessary and when a simple letter of exemption will be sufficient.**

22.02a states: The Soil and Water Conservation District (SWCD) shall make all natural resource information available to the appropriate county agency or municipality in the promulgation of zoning ordinances or variances. Any person who petitions any municipality or county agency in the district for variation, amendment, or other relief from that municipality's or county's zoning ordinance or who proposes to subdivide vacant or agricultural lands therein shall furnish a copy of such petition or proposal to the Soil and Water Conservation District. The SWCD shall be given not more than 30 days from the receipt of the petition or proposal to issue its written opinion concerning the petition or proposal and submit the same to the appropriate county agency or municipality for further action.

The District does not discriminate against any person on the basis of race, religion, color, gender, sexual orientation, national origin, ancestry, age, marital status, veteran status or disability. The policy covers all programs, services and procedures of the District, including employment.

CONSERVATION DEVELOPMENT SELF-GOVERNMENT

EXAMPLE OF FEES FOR SPECIAL USES

Application Filing Fee: \$175.00

Publication Fee: Usually between \$40 and \$70. (The exact amount varies according to the length of the notice.)

Livingston County Soil and Water Conservation District Fee: \$40.00 (\$150.00 if a full NRI Report is required.)

Location Improvement Permit Fee: \$20.00 - \$100.00+ (The exact amount varies according to the type and size of the improvement.)

Other fees *may* be applicable, such as fees to the Livingston County Health Department.

APPENDIX B – ZONING VARIANCE APPLICATION

LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE
112 W. MADISON ST., PONTIAC, ILLINOIS 61764

VARIATIONS

APPLICANT FILING PROCEDURES

1. Complete the original application and any required attachments. Attachments are considered a part of the application.
2. File the application in the office of the Livingston County Regional Planning Commission, accompanied with the required fee. The Commission shall assign a case number to the application.
3. All fees shall be payable to the General Fund of Livingston County.
4. The Livingston County Regional Planning Commission shall advertise the notice of public hearing for each case to be held before the Zoning Board of Appeals.
5. The Livingston County Regional Planning Commission shall serve notice to the applicant and owners or occupants of property abutting the affected area not less than five (5) days prior to the hearing advising the location and nature of the subject matter contained in the application and the date, time and place of the hearing.
6. The applicant shall be billed by the Livingston County Regional Planning Commission for the cost of the required notice of public hearing. No final action shall be taken on any case until the cost of advertising the required notice of public hearing has been paid.

You may refer to the sheet that is part of the application package that refers to the example of fees that provides you with more information on the potential costs of proceeding with this property development.

LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE
112 W. Madison St., Pontiac, Illinois 61764

APPLICATION FOR VARIATION – LIVINGSTON COUNTY ZONING ORDINANCE

		For Office Use Only	
Name	<u>Illinois Generation LLC</u>	Filed Date	_____
Address	<u>888 Westheimer Rd Suite 350</u>	Fee	_____ Case V-
	<u>Houston, TX 77006</u>	Receipt No.	_____
Phone	<u>713-308-4200</u>	Publication Cost	_____
<u>Owner(s)</u>			
Name	<u>See Appendix D of the SUP Narrative Application (Property Owners List)</u>	Receipt No.	_____
Address	_____	Hearing Date	_____ DATE FILED
			_____ Decision Date
Phone	_____ (attach list if necessary)	Approved	_____ Denied _____
		For Office Use Only	

Legal description of property See Appendix F of the SUP Narrative Application (Lease Agreements)

Street address _____
Property interest of applicant Renewable Energy Development
Present Use Agricultural / Industrial Zoning District AG / I2
A variation in _____ requirements is request to allow for _____ on the above described property.
Specific distances (if applicable): _____

Attachment No. 1 – Submit a map drawn to scale (as required by the Zoning Administrator) of the area included in the application and the abutting area within 200 feet (additional area may be required by the Zoning Administrator) showing the zoning classification; dimensions and use of all buildings and/or structures (existing and proposed); driveways; parking areas; right-of-way lines for streets and roads; easements; provision for surface drainage; proposals for sewage disposal systems; distance of building(s) and/or structure(s) from front, side and rear property lines; and distance of building(s) and/or structure(s) from center of public access road(s).
See Appendix C of the SUP Application Narrative.
Additional Attachments – Submit additional attachments as required by the Zoning Administrator.

I (we) certify that all of the information presented above is true to the best of my (our) knowledge and belief.

Crystal Coffman
Applicant (s) Signature (s) Crystal Coffman, Authorized Signatory Date 2/21/24
Caton FENZ, Authorized Signatory Date 2/22/2024

STATEMENT OF APPLICANT – OWNER STATUS

Indicate correct status by signifying with an X

X APPLICANT Illinois Generation LLC

 OWNER

 Individual (s)

 Alter ego or representative of individual (s)
(List the name (s) and address (es) of the actual and true principal)

 Corporation
(List the names and addresses of all officers and directors and identify by title; also list the names and addresses of all stockholders and shareholders owning an interest in excess of 20% of all outstanding stock)

 Business or entity doing business under an assumed name
(List the names and addresses of all true and actual owners)

 Partnership
(List the names and addresses of all partners)

X Joint Venture
(List the names and addresses of all joint venturers)

 Syndicate
(List the names and addresses of all syndicate members)

 Unincorporated Voluntary Association
(List the names and addresses of all members)

LIST OF NAMES AND ADDRESSES REQUIRED ABOVE

Pattern Energy Group LP
888 Westheimer Rd. Suite 350, Houston, TX 77006

ConnectGen LLC
1001 McKinney St. Suite 700, Houston, TX 77002

EXAMPLES OF FEES FOR VARIATIONS

Application Filing Fee: \$ 125.00

Publication Fee: Usually between \$40 and \$70. (The exact amount varies according to the length of the notice.)

Location Improvement Permit Fee: \$20.00 - \$100.00+ (The exact amount varies according to the type and size of the improvement.)

Other fees *may* be applicable, such as fees to the Livingston County Health Department.

Heritage Prairie Wind Variation Application Explanation

Applicant seeks a variation of a requested Special Use Permit for a proposed wind energy facility in Livingston County. The Heritage Prairie Wind project (“Project”) is a proposed 600-MW commercial-scale facility, with a portion of the proposed Project located in the townships of Dwight, Broughton, and Round Grove, within Livingston County.

The Project is seeking a variation of the application of the requirements of Section 56-619(e).

Specifically, the Project seeks to adhere to the requirements of state law 55 ILCS 5/5-12020(e)(2), which allows

a wind tower of a commercial wind energy facility to be sited so that industry standard computer modeling indicates that any occupied community building or nonparticipating residence will not experience more than 30 hour per year of shadow flicker under planned operating conditions.

Industry standard computer modeling utilizes local, historical climate data to make calculations relevant to determining shadow flicker. The data includes typical weather pattern information relevant to sunlight, such as cloud cover. The data utilizes actual local weather recordings, rather than assuming 100% sunshine each day of the year – as required under the ordinance – an unrealistic assumption in central Illinois.

Livingston County’s ordinance does not include the “industry standard computer modeling” language, as required by state statute. Instead, the ordinance includes a definition of the phrase “planned operating conditions,” which was not defined in the state statute. However, that definition runs directly counter to the “industry standard computer modeling” language of the state statute. If Livingston County’s definition is applied, then it forces the applicant to use a non-industry standard computer modeling to determine shadow flicker. The result is a more restrictive standard, which would be in violation of the state law’s strict mandate, which demands a county’s regulation must be “not more restrictive” than the requirements of the state law. (55 ILCS 5/5-12020(b)).

Accordingly, Applicant requests the Zoning Board of Appeals vary the application of Section 56-619(e) to this Special Use Permit by imposing only the requirements of 55 ILCS 5/5-12020(e)(2) and allowing the applicant to use industry standard computer modeling to determine shadow flicker.

STANDARDS FOR VARIATIONS

Members of the Zoning Board of Appeals shall require evidence that the proposed Variation Will not:

- 1) Conflict in any respect with the Livingston County Comprehensive Plan.

Comments: This variance will not conflict with the Livingston County Comprehensive Plan and is consistent with its direction to preserve farmland.

- 2) Impair an adequate supply of light and air to adjacent property.

Comments: This variance will not impair adequate supply of light and air to adjacent property.

- 3) Increase the hazard from fire and other dangers to said property.

Comments: This project and variance will not increase hazard from fire and other dangers to said property.

- 4) Diminish the taxable value of land and buildings in the vicinity and throughout the Jurisdictional Area.

Comments: This variance will not diminish the taxable value of land and buildings in the vicinity or throughout the Jurisdictional Area.

- 5) Increase or cause congestion in the public streets.

Comments: This variance will not increase or cause congestion in the public streets.

- 6) Otherwise impair the public health, safety, comfort, morals and welfare of the inhabitants of the Jurisdictional Area.

Comments: This variance will not impair the public health, safety, comfort, morals and welfare of the inhabitants.

- 7) The plight of the owner is due to unique circumstances.

Comments: The need for this variance is to comply industry standard to model shadow flicker impacts based on local climate conditions.

- 8) The variation, if granted, will not alter the essential character of the locality.

Comments: This variance will not alter the essential character of the locality.

- 9) Give the owner or occupant of the property in question privileges not generally held by other property owners or occupants in the same vicinity or district.

Comments: This will not extend any privileges to the owners or occupants of the properties subject to the variance.

The Board of Appeals will also consider the following criteria in reviewing the proposed variation.

- 10) The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in the district in which it is located.

Comments:

The current zoning ordinance requirements for shadow flicker will not allow the Project, for which the Special Use Permit is sought, to be constructed in the designed configuration and impede reasonable return of the Project.

- 11) The particular physical surroundings shape or topographical condition of the specific property involved would result in a particular hardship, as distinguished from a mere inconvenience, if the strict letter of the restrictions were carried out.

Comments: This does not apply. The variance seeks to apply local climate conditions for shadow flicker models, rather than the 100 percent sunshine assumptions stated by the zoning ordinances.

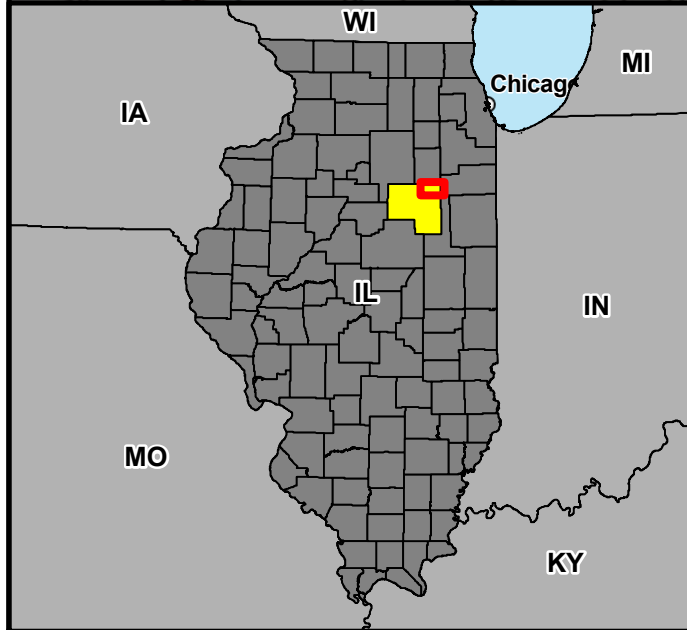
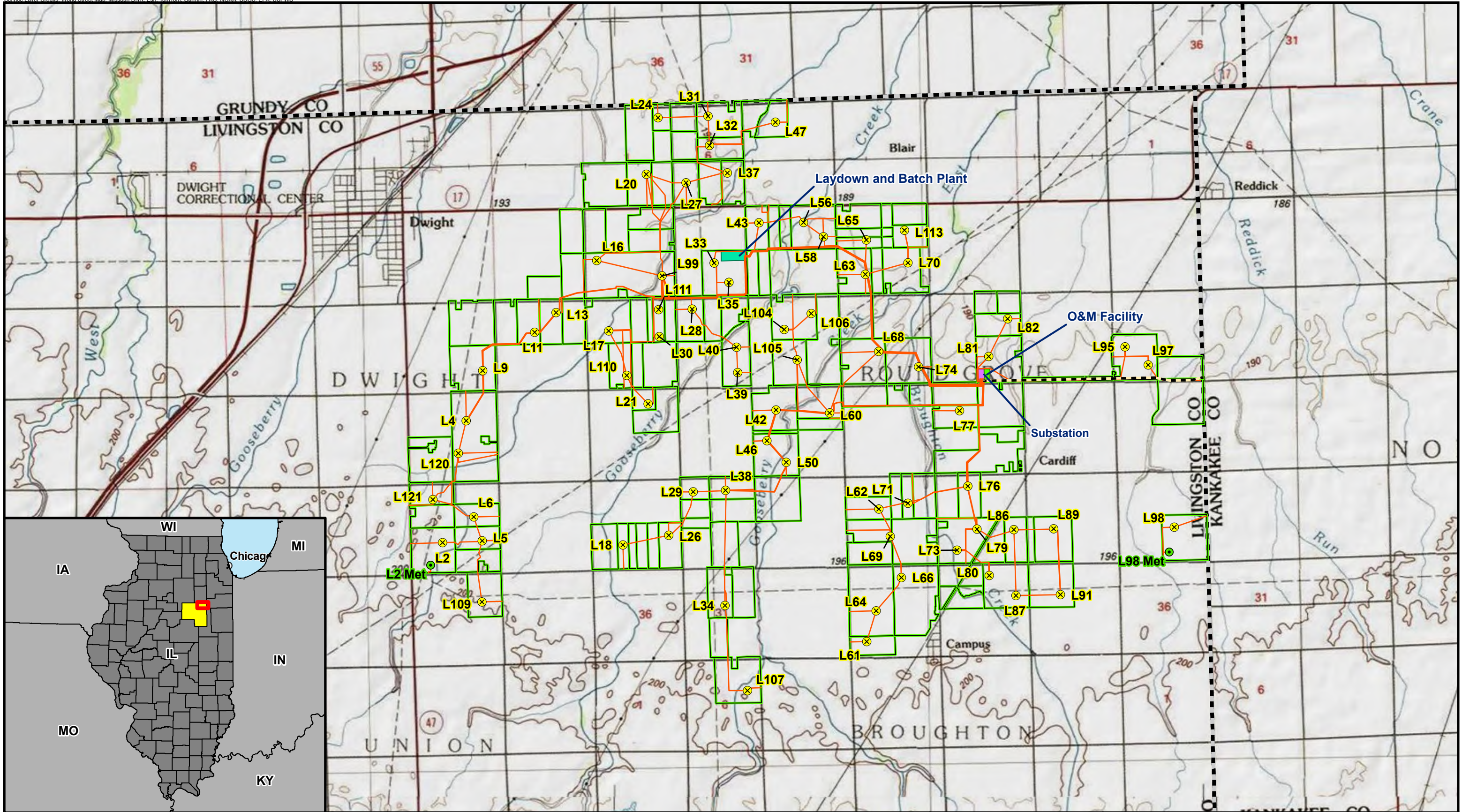
- 12) The purpose of the variation is not based exclusively on a desire to increase the value of the property.

Comments: Please see response to Question 10.

- 13) The alleged difficulty or hardship has not been created by any person presently having an interest in the property.

Comments: The difficulty has not been created by the current landowners.

APPENDIX C – SITE PLAN MAPS



- ✕ Proposed Turbines
- Permanent Met Towers
- Project Access Roads & Collection Lines
- Laydown and Batch Plant
- Substation
- O&M Facility
- - - Project Gen-Tie
- Participating Parcels
- County Boundary

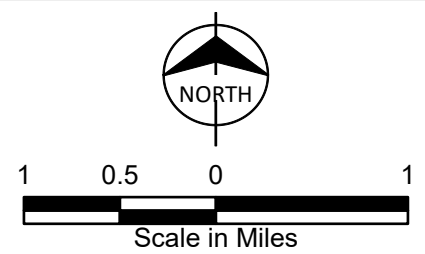
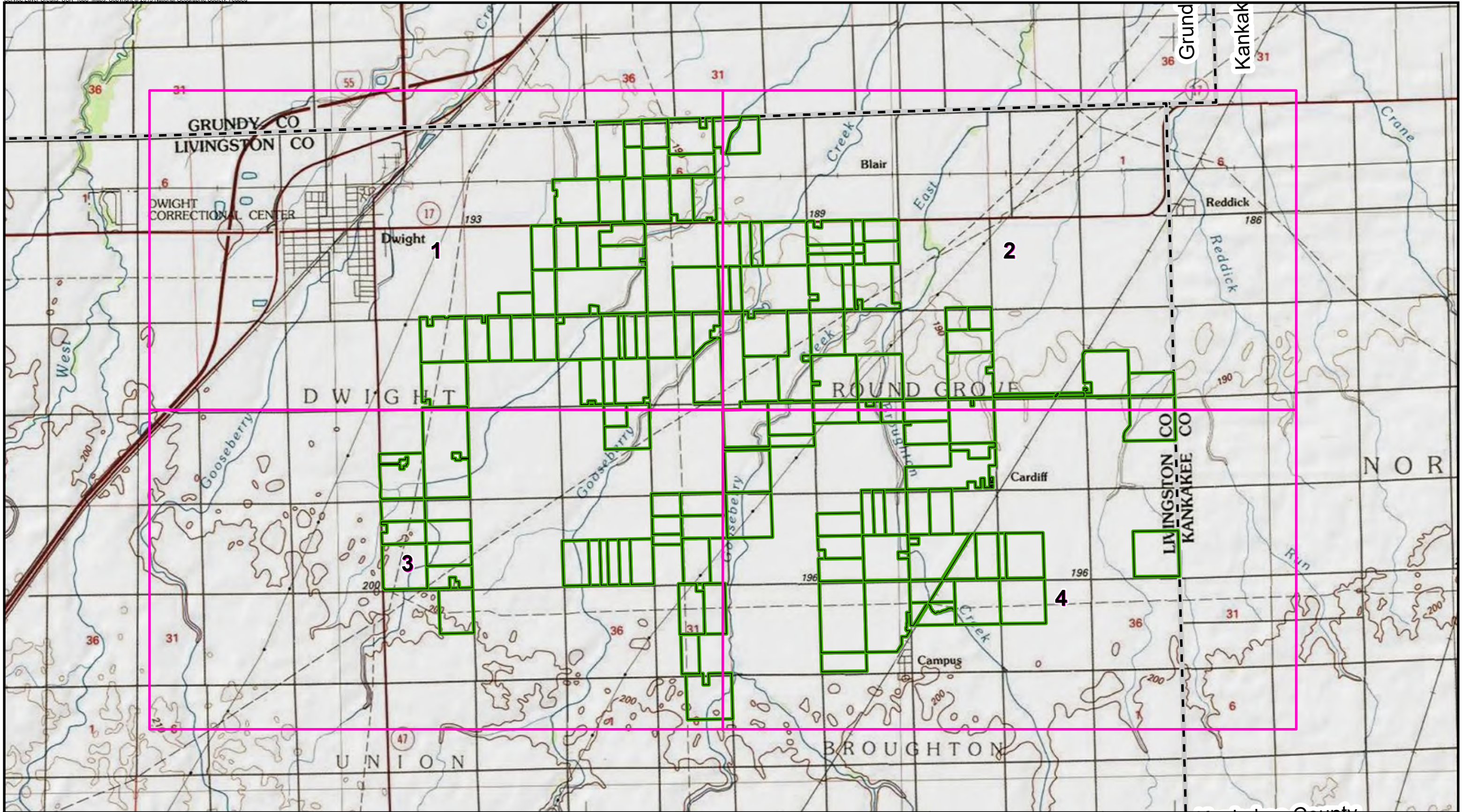


Figure 1
 Heritage Prairie Wind Project
 Project Vicinity Map
 Livingston County, Illinois



- Grid
- Participating Parcel
- County Boundary

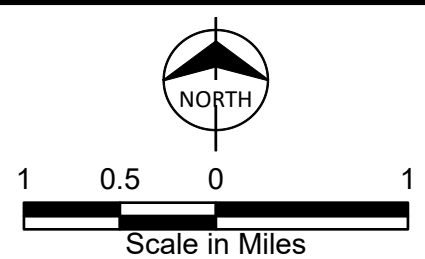


Figure 2
Heritage Prairie Wind Project
Site Plan - Parcel Overview Map
Livingston County, Illinois



- Participating Parcel
- Agriculture
- County Boundary

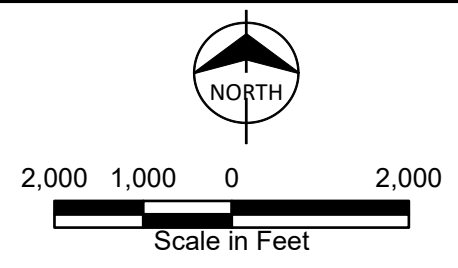
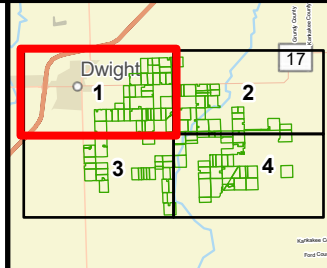
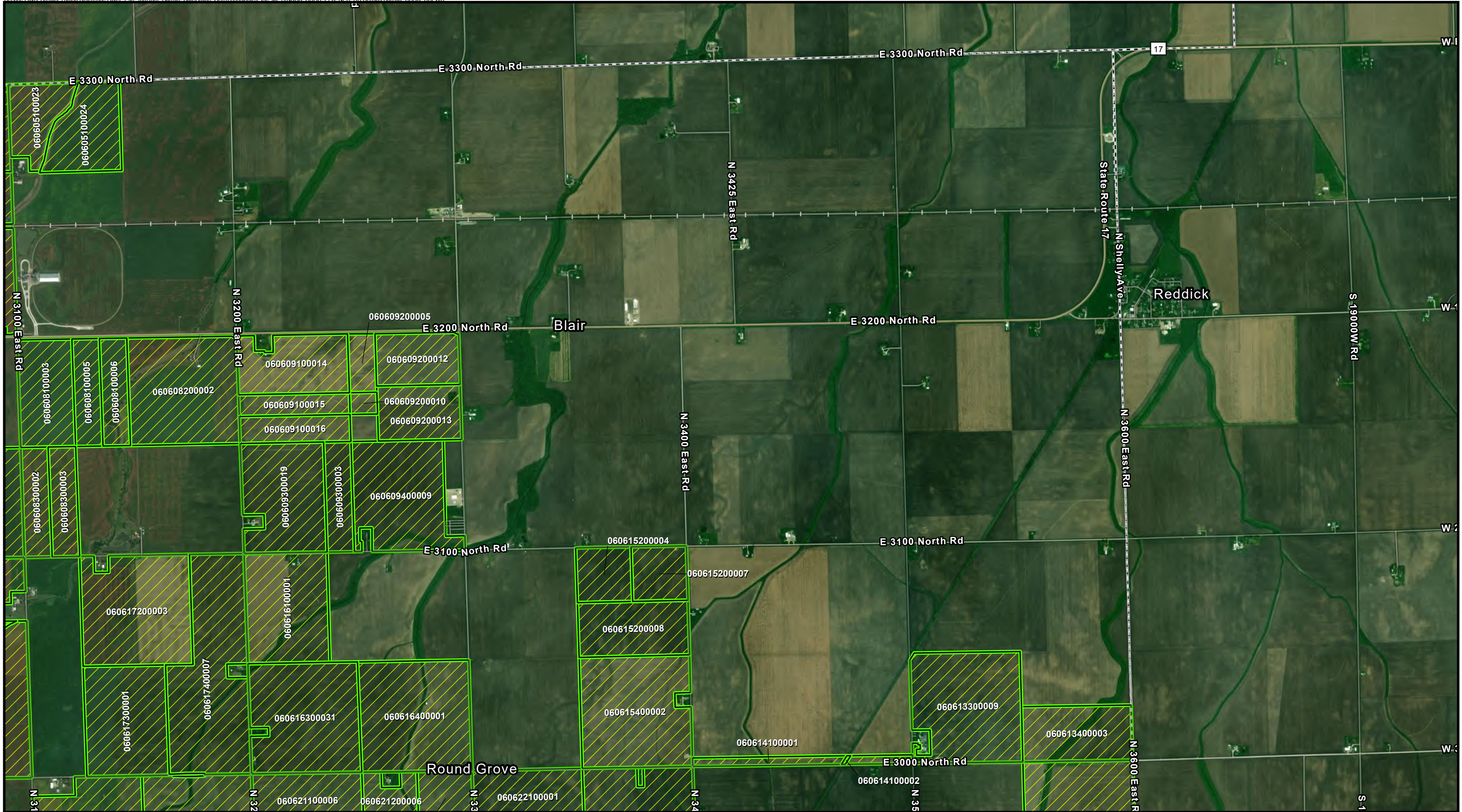


Figure 2-1
 Heritage Prairie Wind Project
 Site Plan - Parcel Map
 Livingston County, Illinois



- Participating Parcel
- Agriculture
- County Boundary

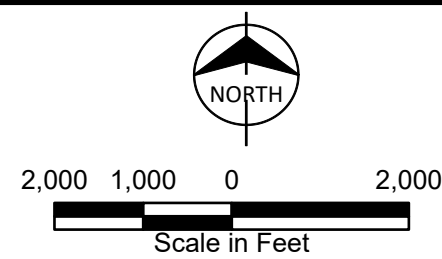
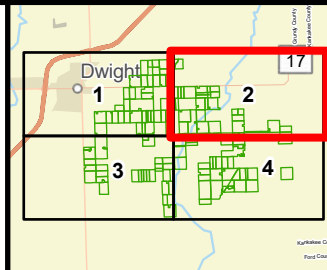


Figure 2-2
Heritage Prairie Wind Project
Site Plan - Parcel Map
Livingston County, Illinois



- Participating Parcel
- Agriculture
- County Boundary

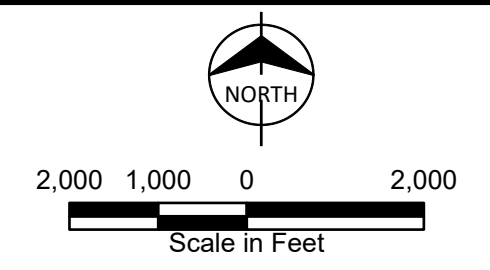
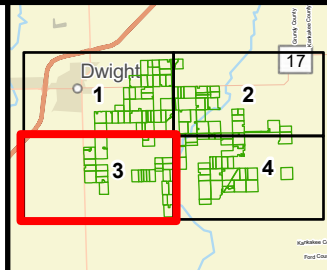
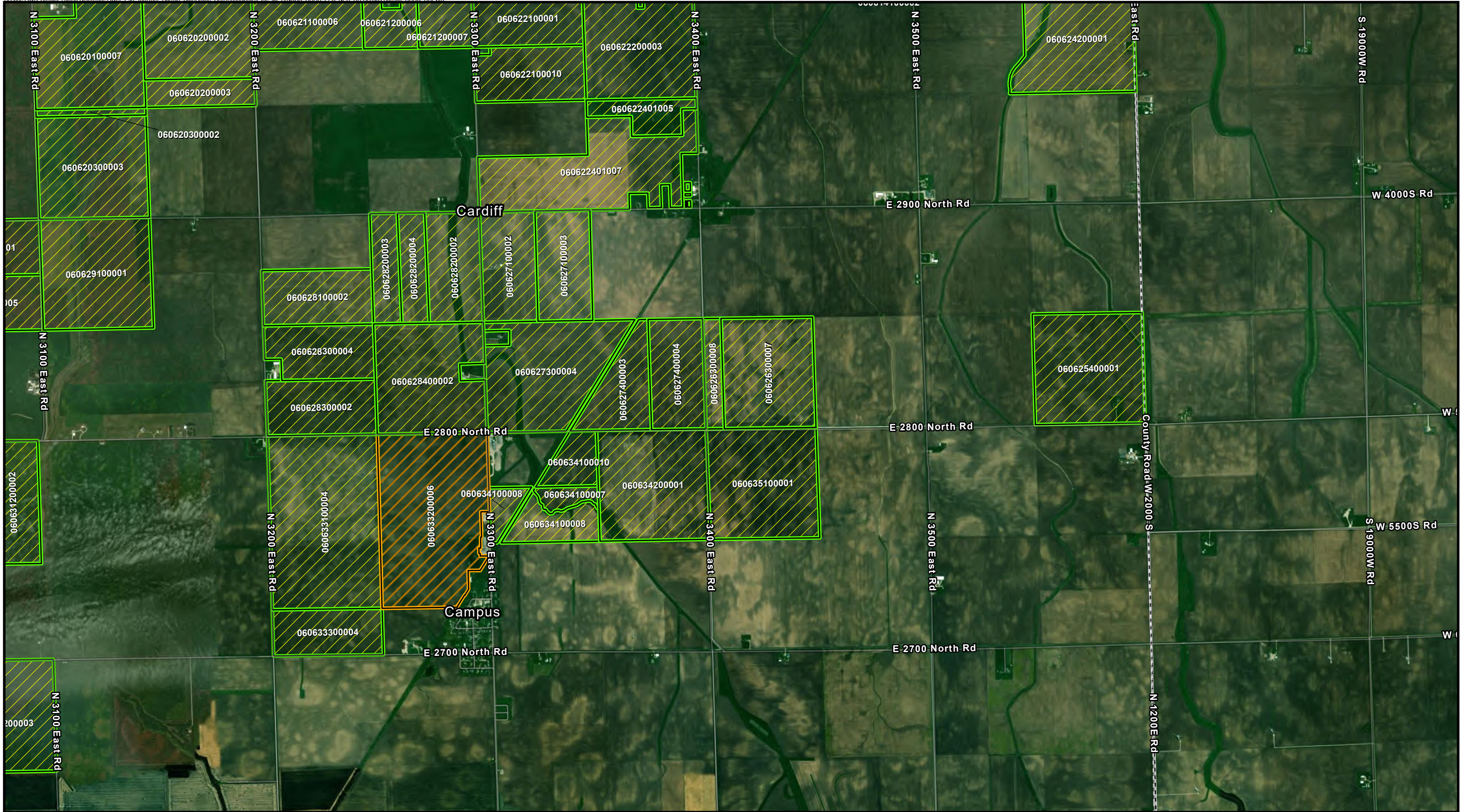



Figure 2-3
 Heritage Prairie Wind Project
 Site Plan - Parcel Map
 Livingston County, Illinois



-  Participating Parcel
-  Agriculture
-  Light Industrial
-  County Boundary

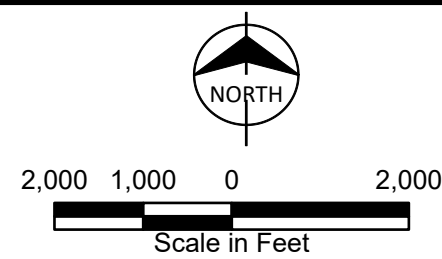
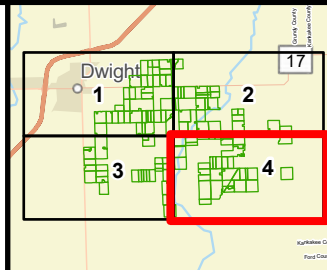
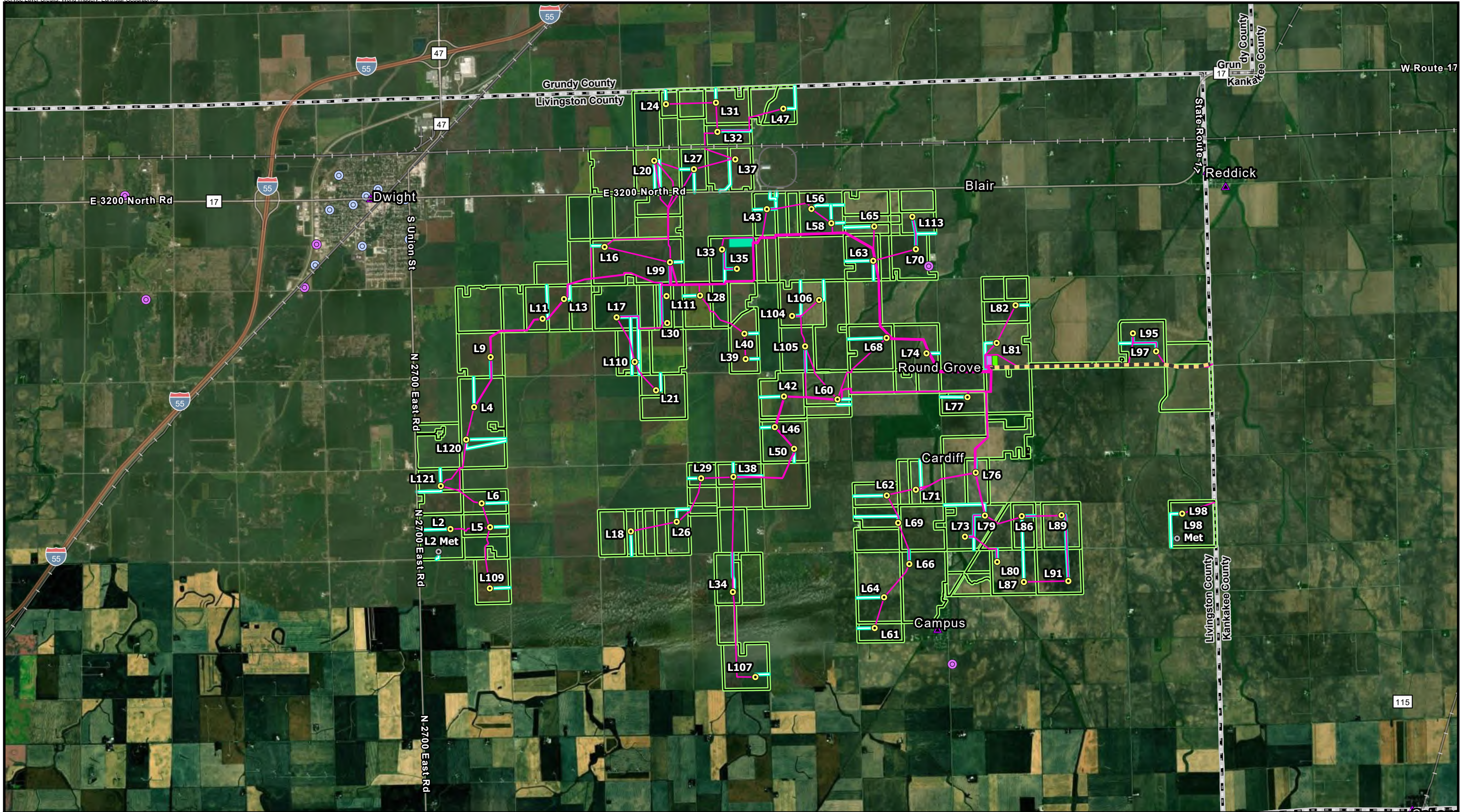


Figure 2-4
 Heritage Prairie Wind Project
 Site Plan - Parcel Map
 Livingston County, Illinois



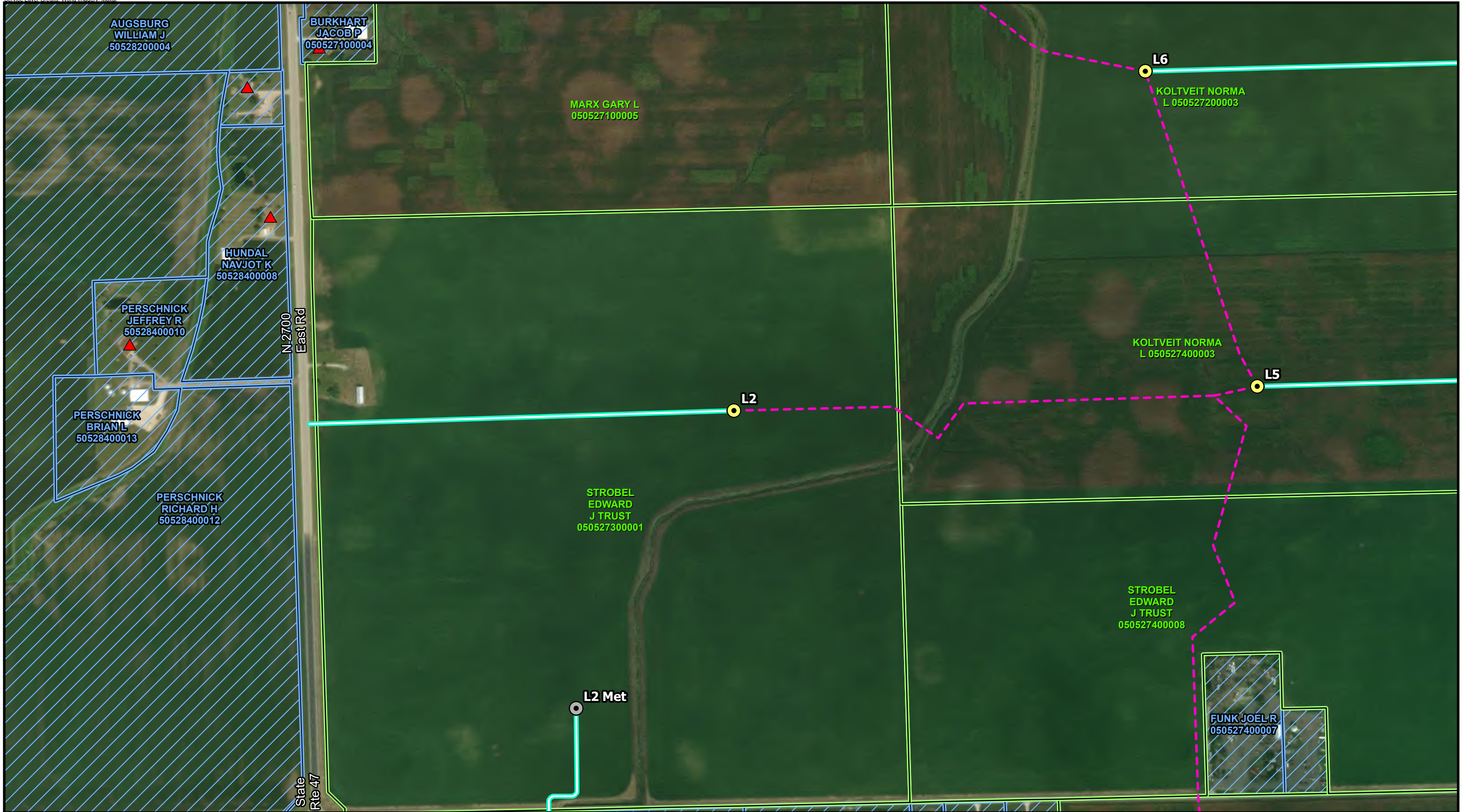
● Met Towers	■ Laydown and Batch Plant	⊙ Church
● Proposed Turbines	■ Substation	▲ Community Building
— Access Road	■ O&M Facility	▬ County Boundary
— Collection Line	■ Participating Parcel	— Rail Line
— Project Gen-Tie	● Cemetery	



NORTH

**BURNS
MCDONNELL™**

Figure 3
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Map Series Index



- Met Towers
- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

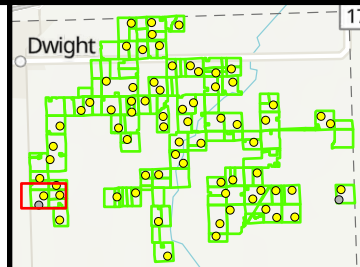
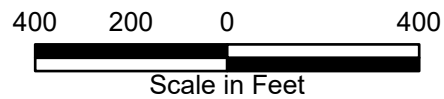


Figure 3-1
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L2



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

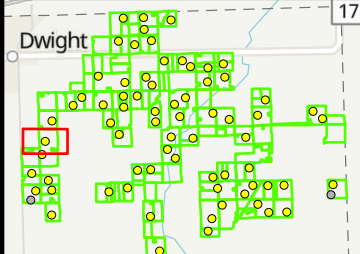
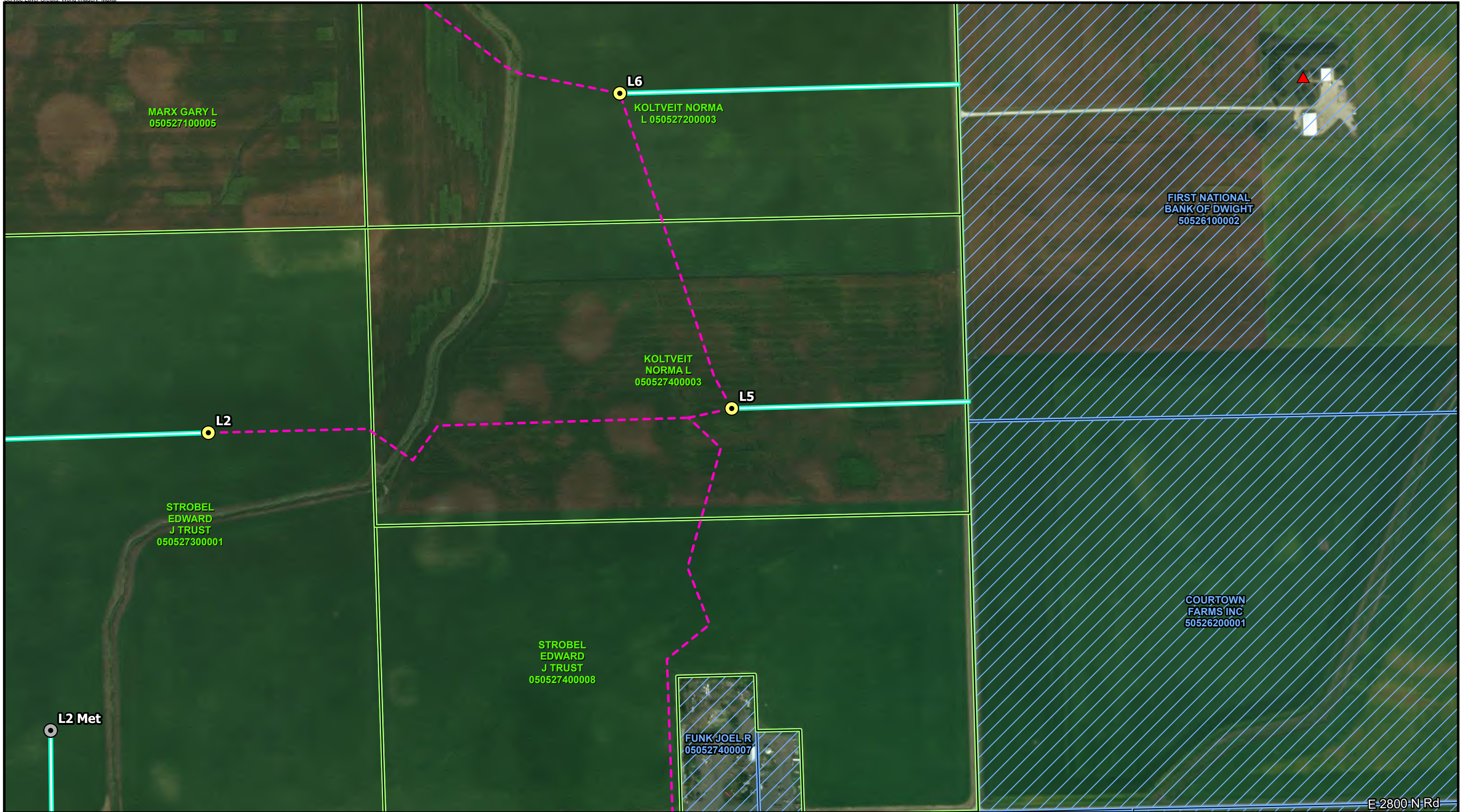


Figure 3-2
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L4



- Met Towers
- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

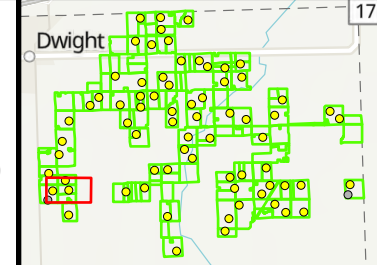
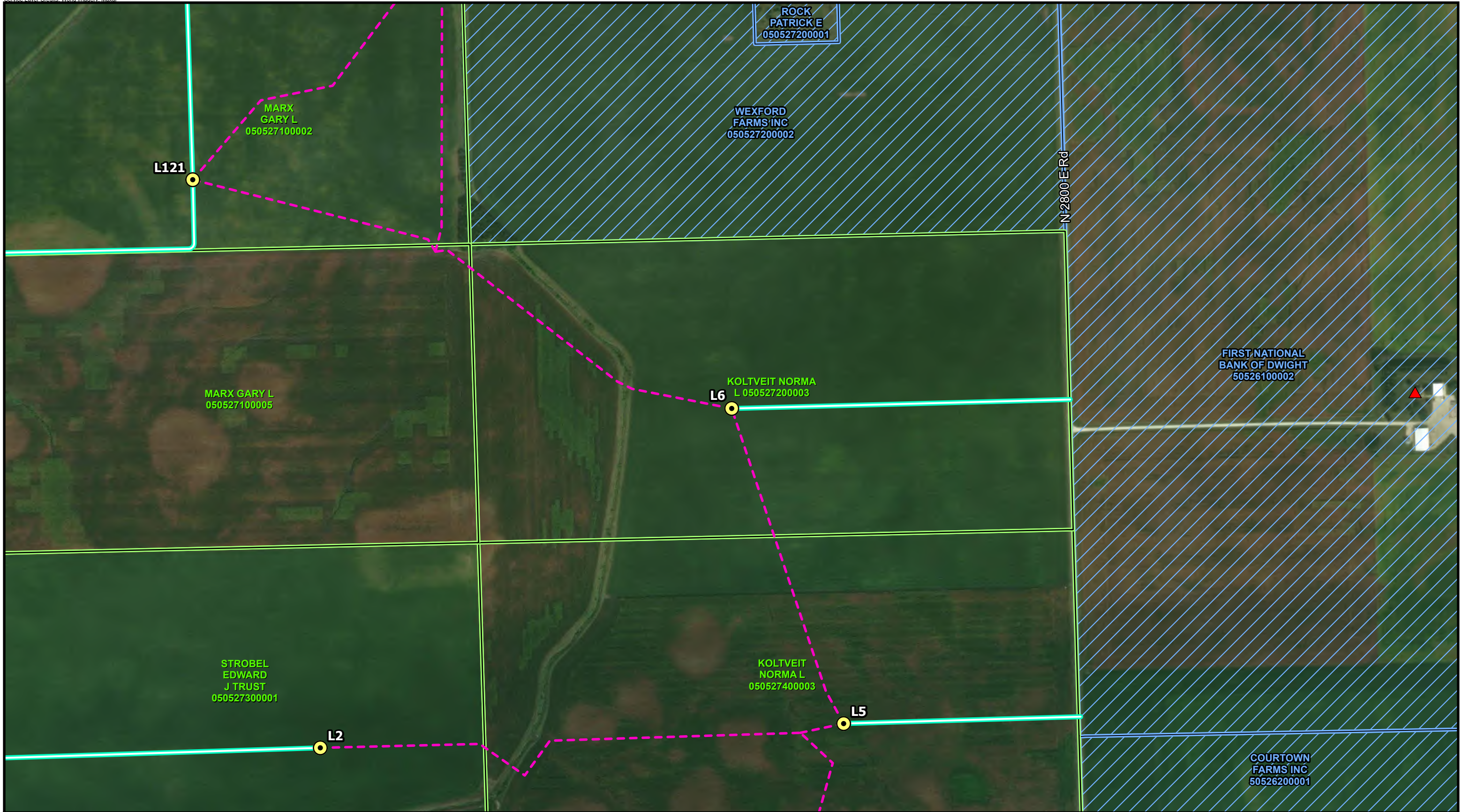


Figure 3-3
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L5



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

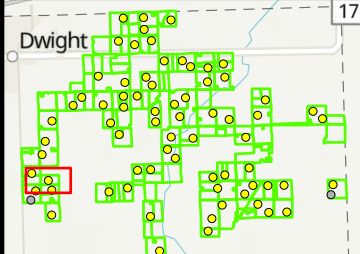


Figure 3-4
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L6



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

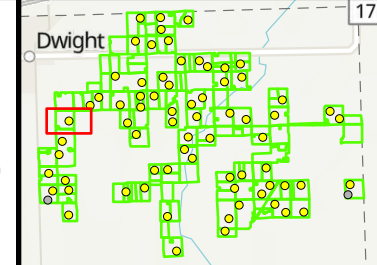
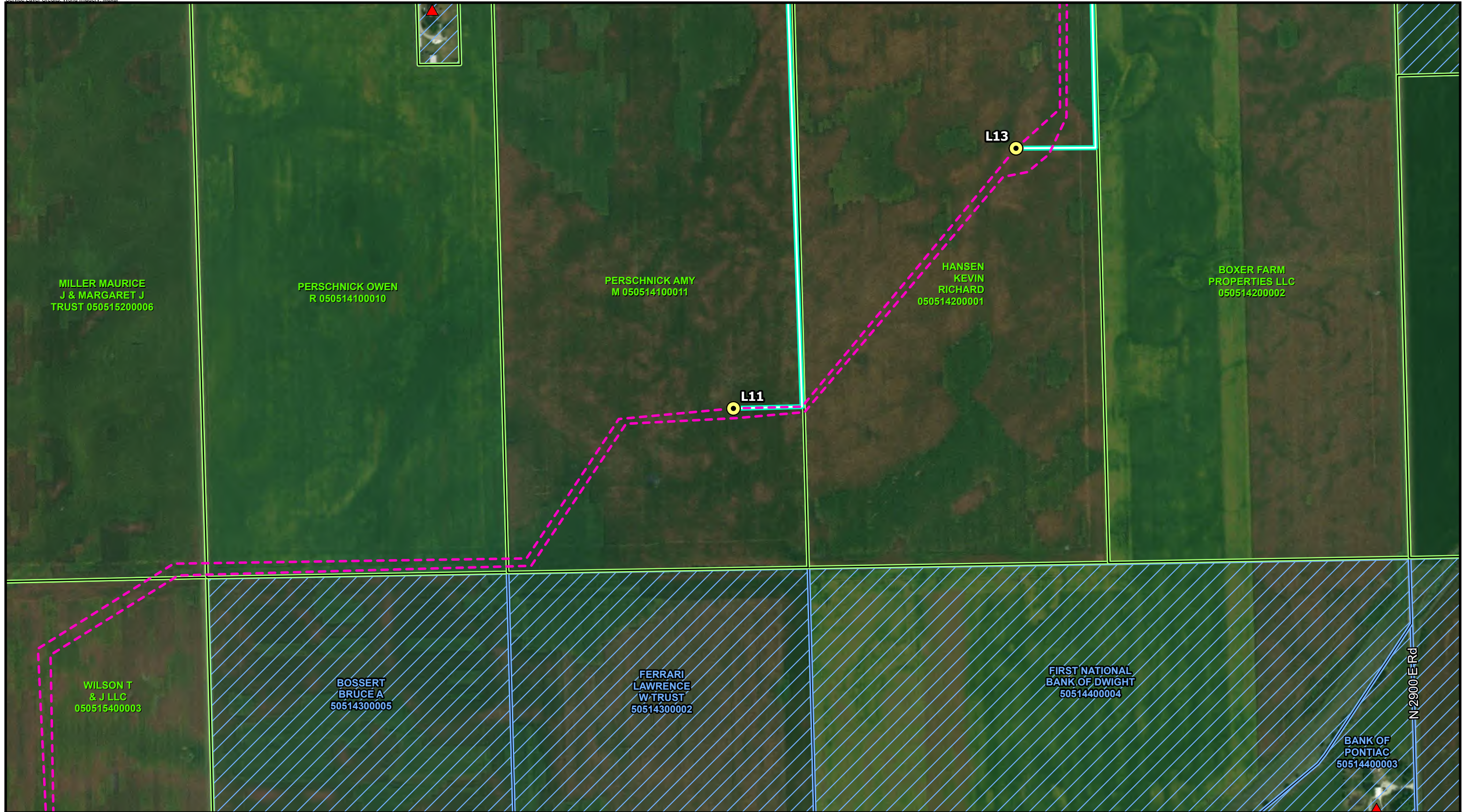


Figure 3-5
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L9



*All residences shown as participating are under wind lease or good neighbor agreements.

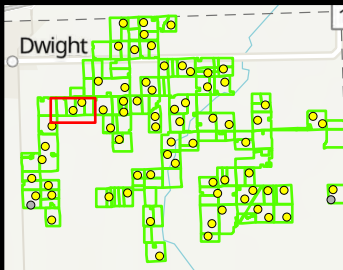
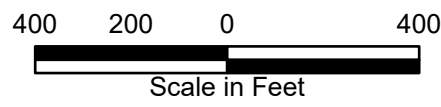
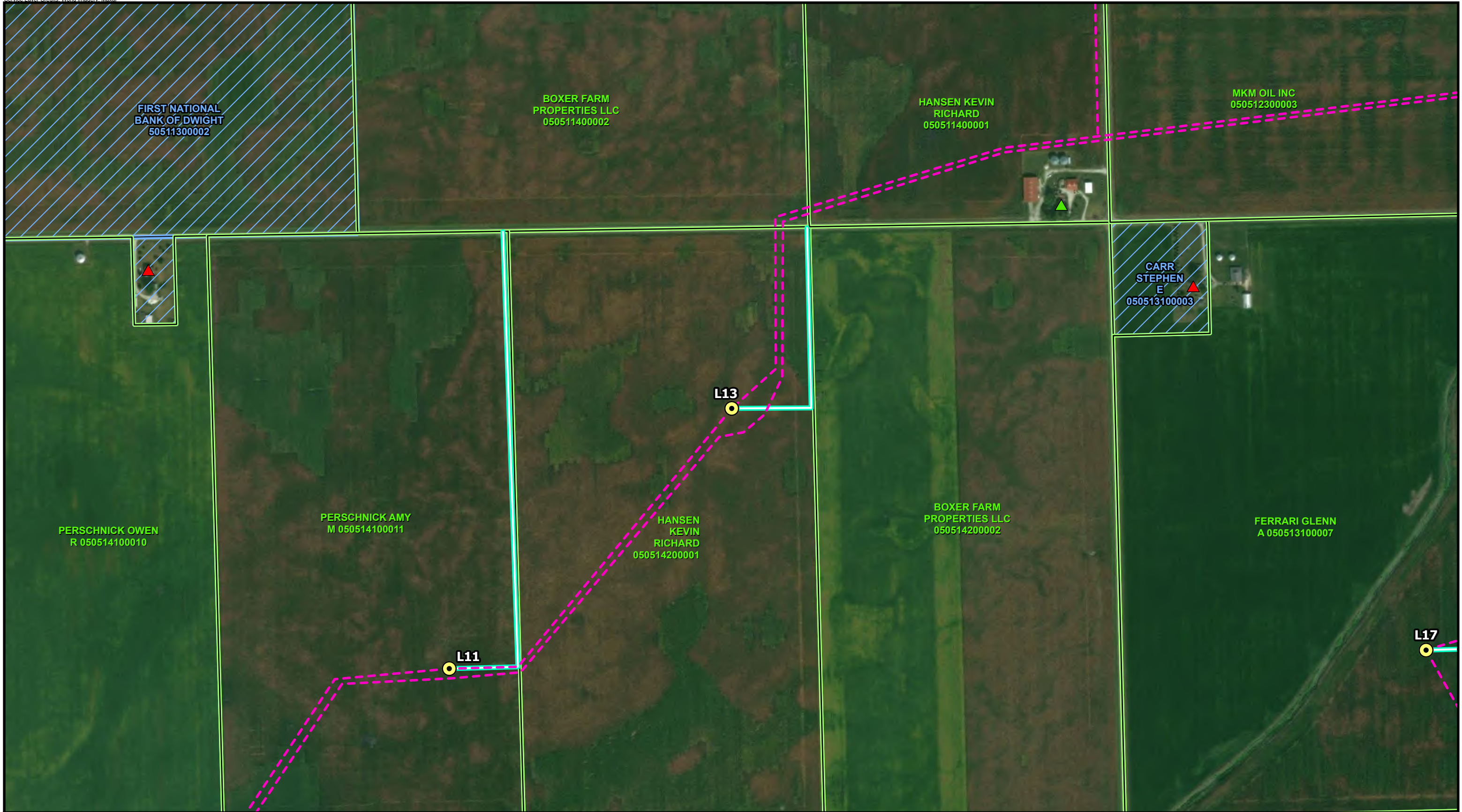


Figure 3-6
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L11



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

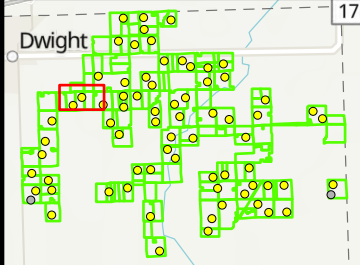
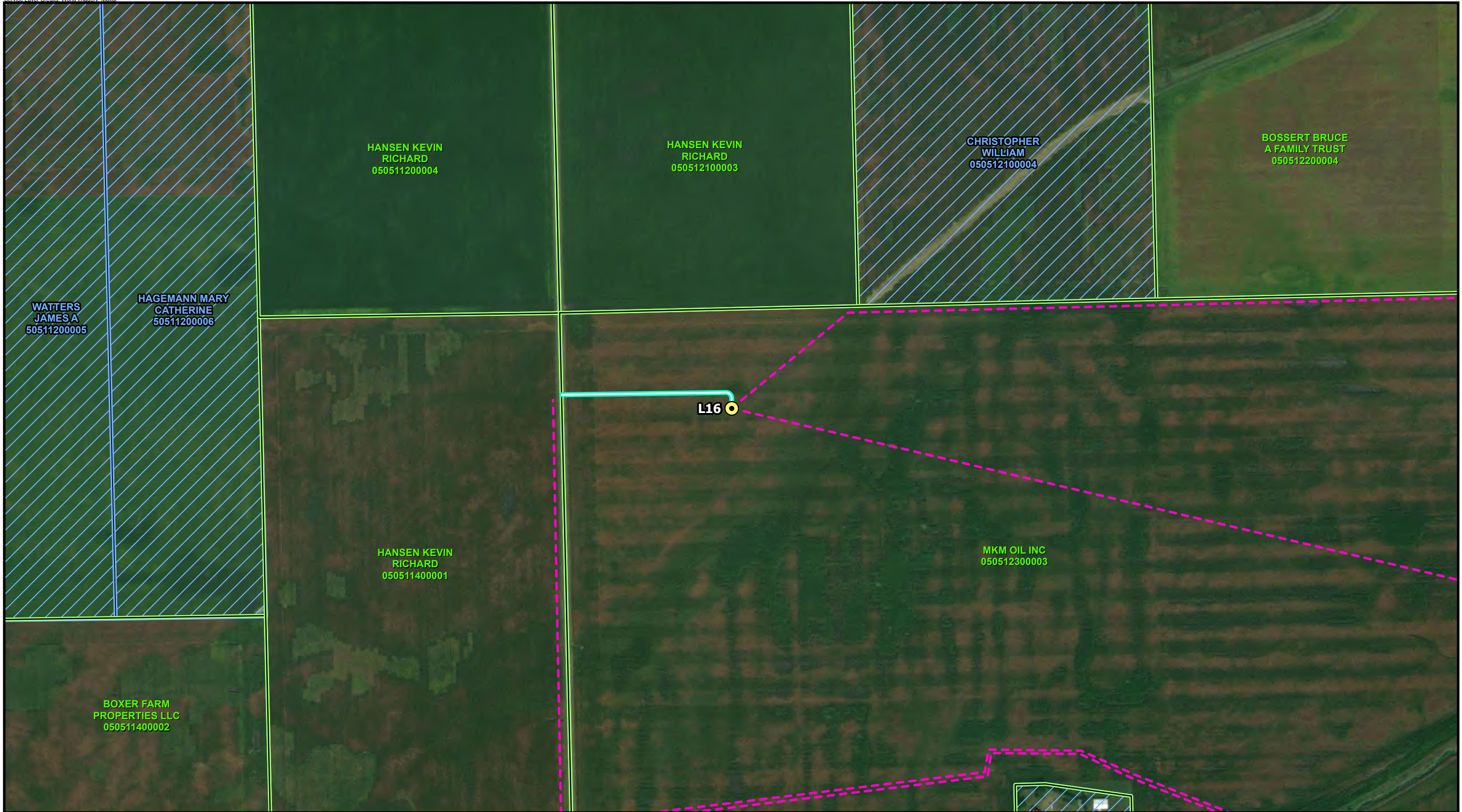


Figure 3-7
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L13



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

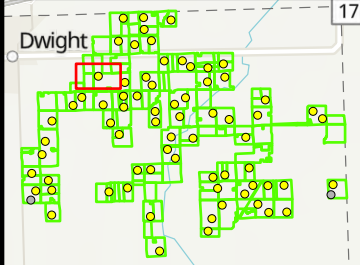
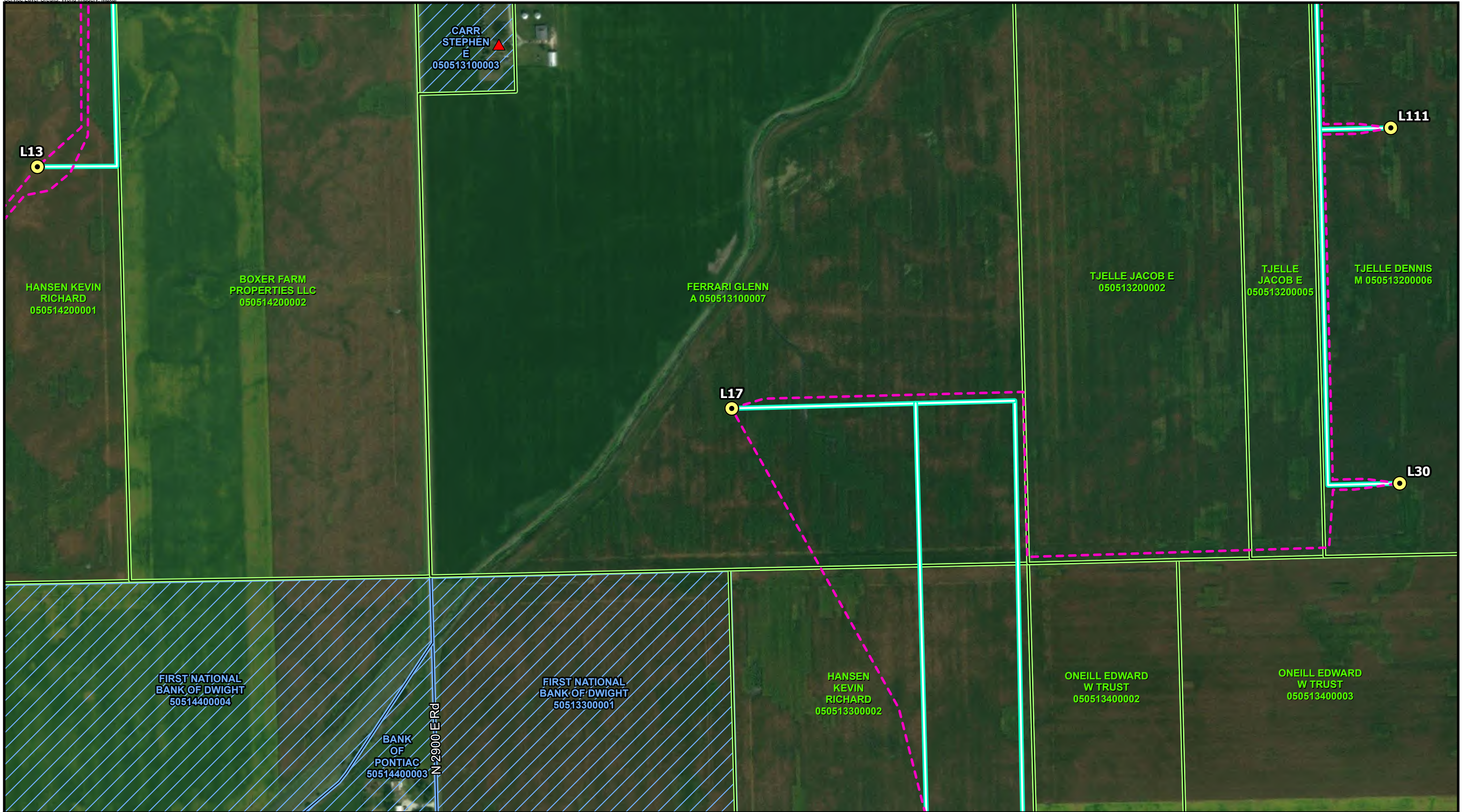


Figure 3-8
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L16



CARR
STEPHEN
E
050513100003

L13

HANSEN KEVIN
RICHARD
050514200001

BOXER FARM
PROPERTIES LLC
050514200002

FERRARI GLENN
A 050513100007

TJELLE JACOB E
050513200002

TJELLE
JACOB E
050513200005

TJELLE DENNIS
M 050513200006

L111

L17

L30

FIRST NATIONAL
BANK OF DWIGHT
50514400004

BANK
OF
PONTIAC
50514400003

N-2900 E Rd

FIRST NATIONAL
BANK OF DWIGHT
50513300001

HANSEN
KEVIN
RICHARD
050513300002

ONEILL EDWARD
W TRUST
050513400002

ONEILL EDWARD
W TRUST
050513400003

- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

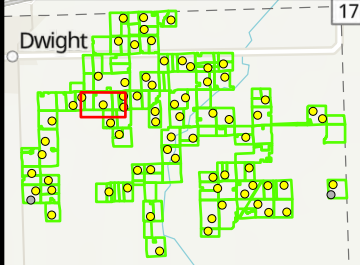
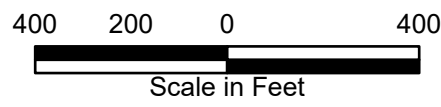


Figure 3-9
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L17



- Proposed Turbines
- Participating Residence
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

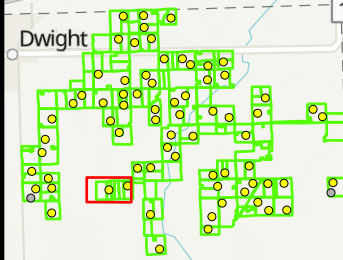
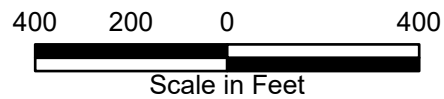
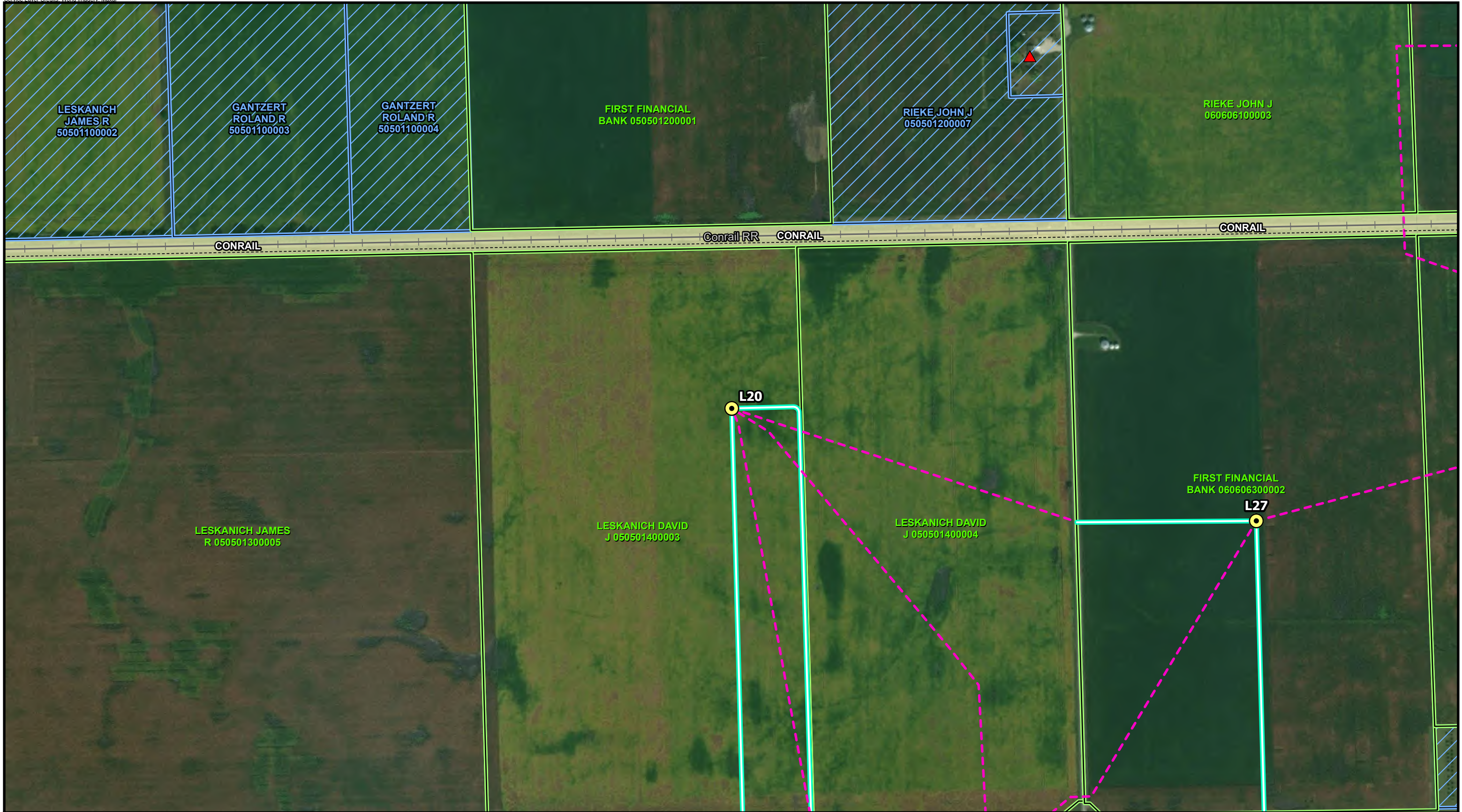


Figure 3-10
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L18



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Rail Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

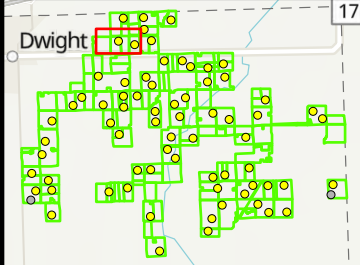
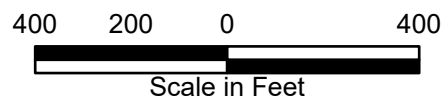


Figure 3-11
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L20



- Proposed Turbines
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Access Road
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

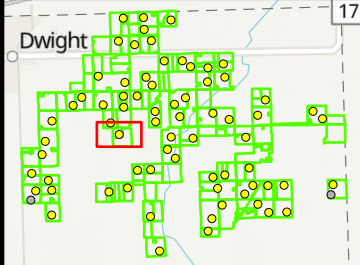


Figure 3-12
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L21



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- County Boundary

*All residences shown as participating are under wind lease or good neighbor agreements.

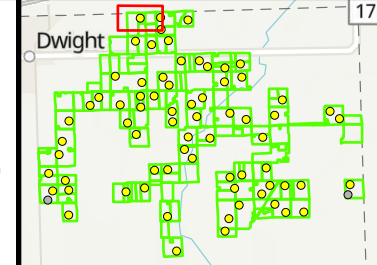
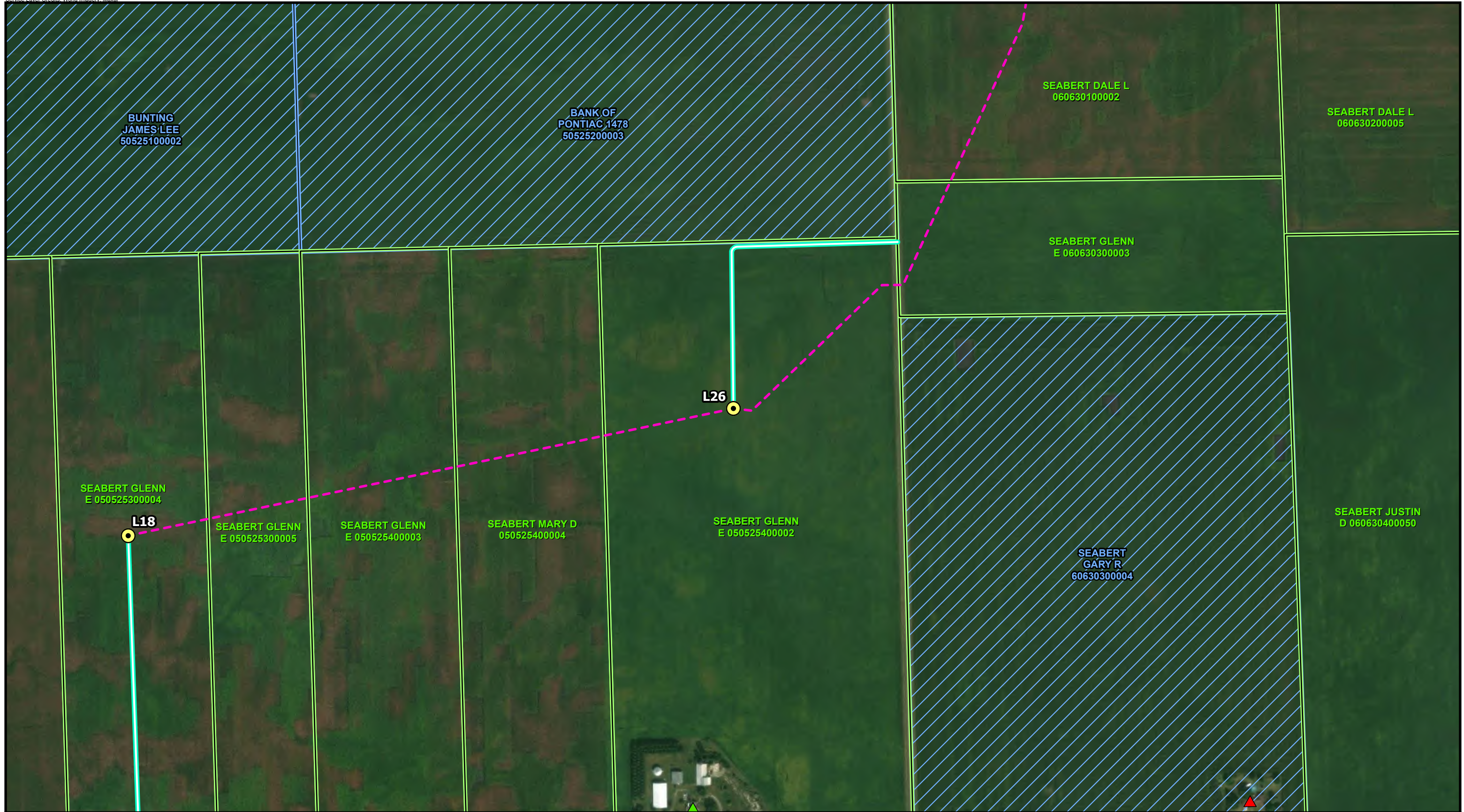


Figure 3-13
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L24



- Proposed Turbines
- Participating Residence
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

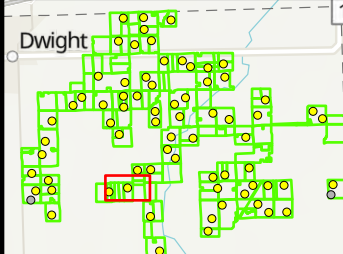
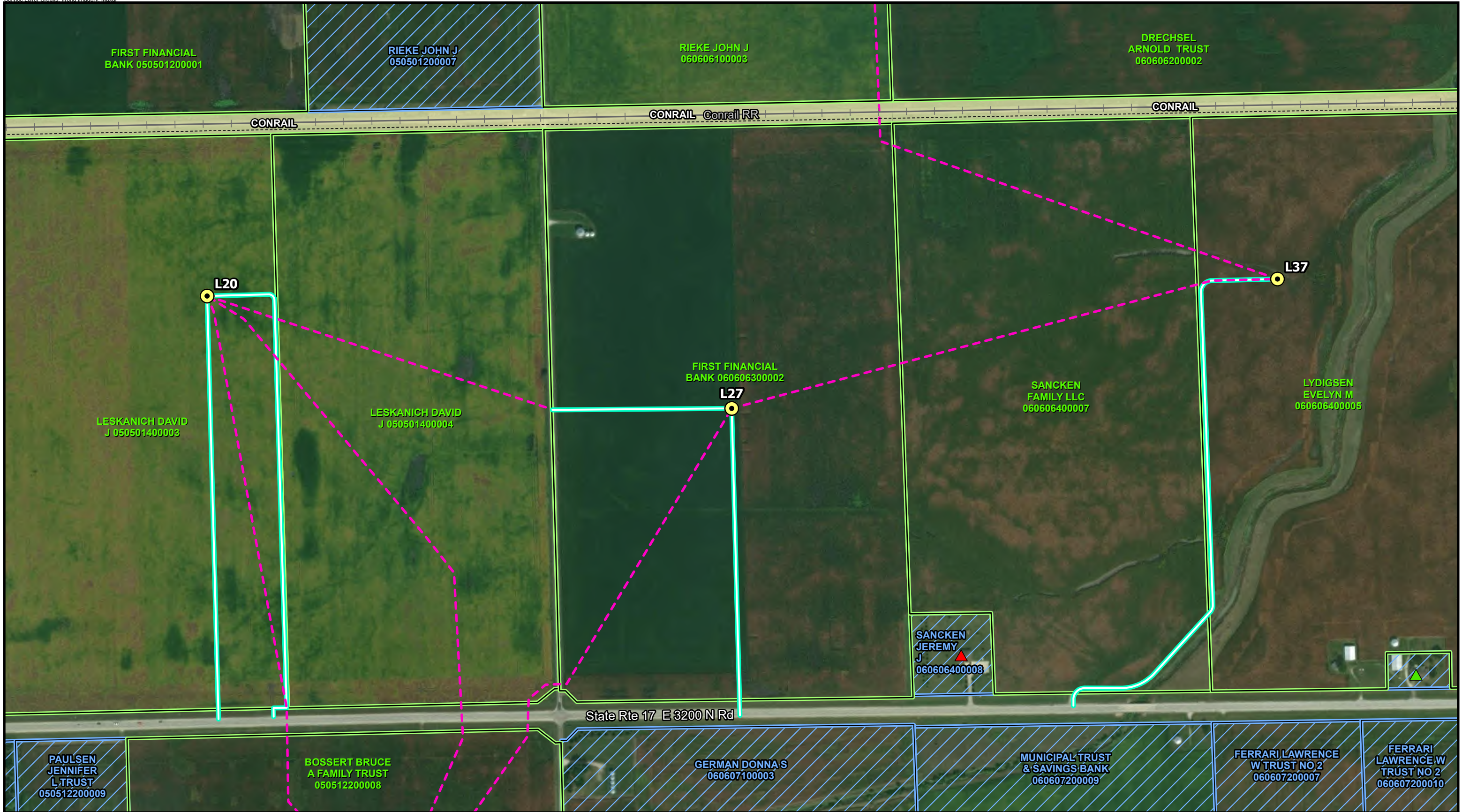
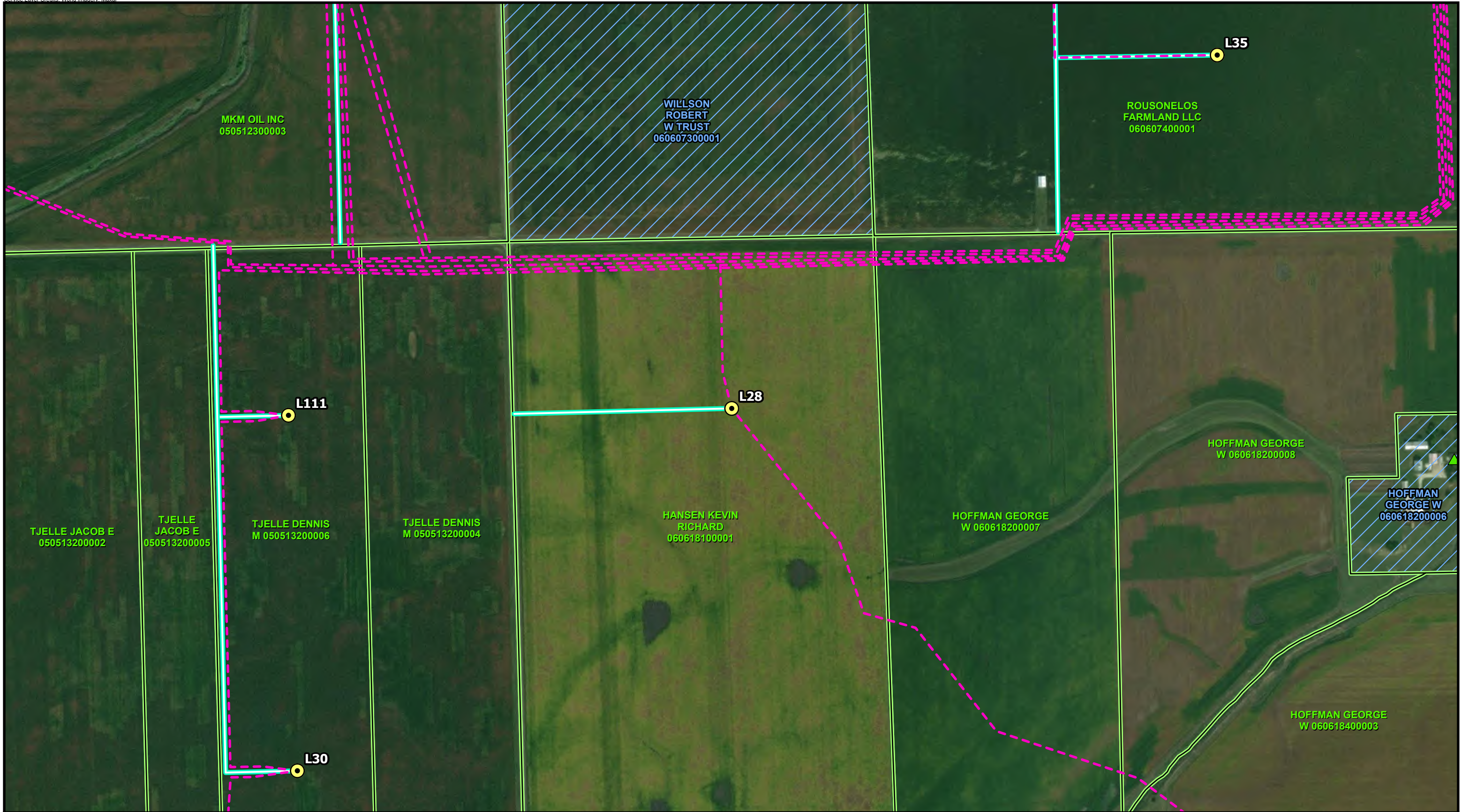


Figure 3-14
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L26



<ul style="list-style-type: none"> Proposed Turbines Participating Residence Non-Participating Residence Access Road Collection Line 	<ul style="list-style-type: none"> Rail Line Participating Parcel Non-Participating Parcel Railroad ROW 	<p>*All residences shown as participating are under wind lease or good neighbor agreements.</p>				<p align="center"> Figure 3-15 Heritage Prairie Wind Project Site Plan - Proposed Features Livingston County, Illinois Page name: L27 </p>
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- Proposed Turbines
- Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

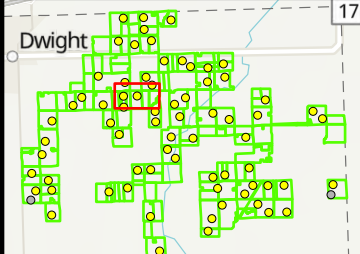
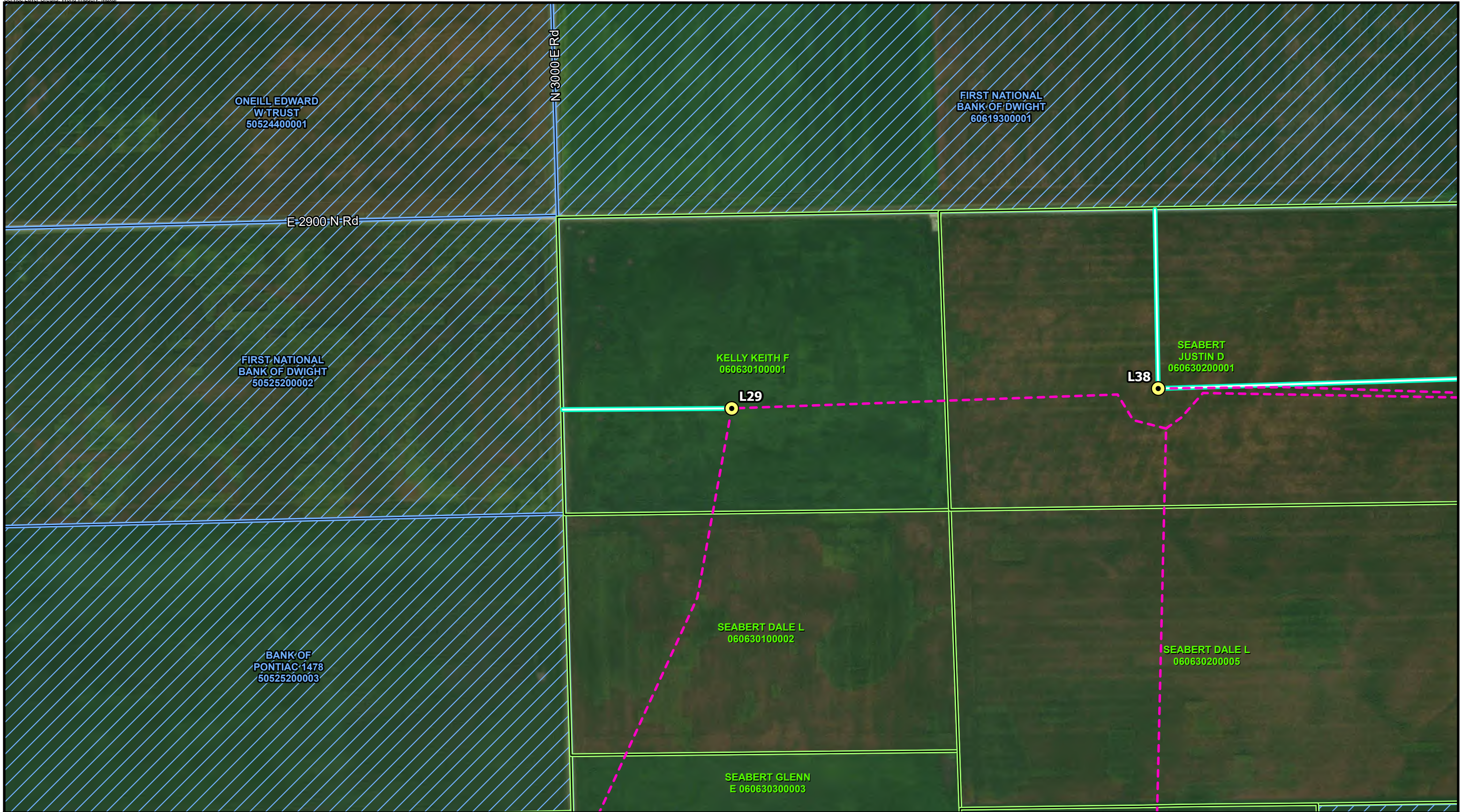


Figure 3-16
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L28



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

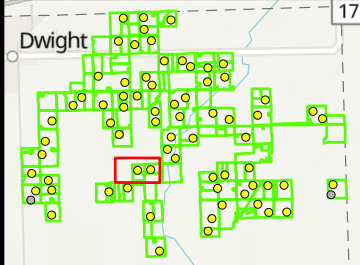
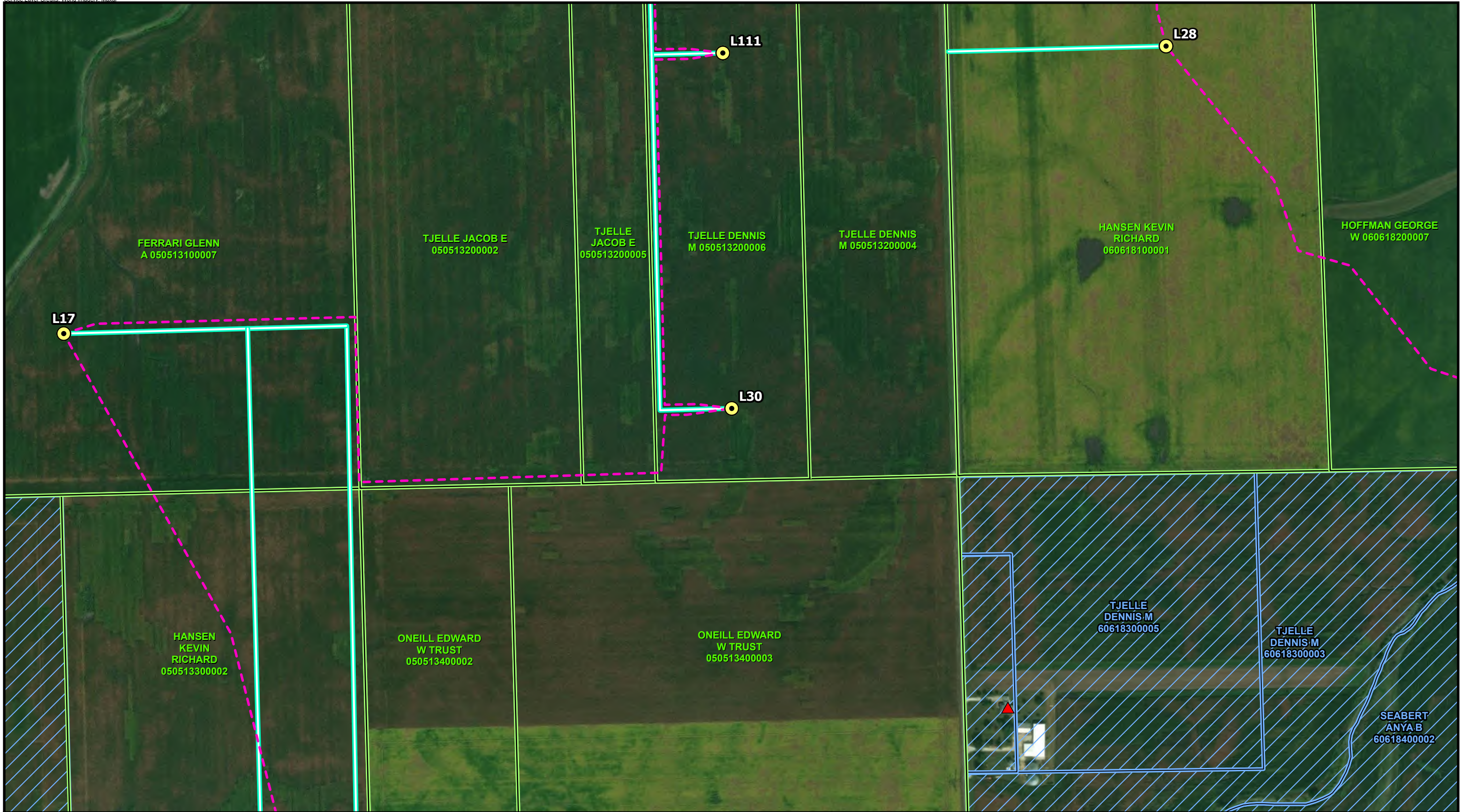


Figure 3-17
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L29



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

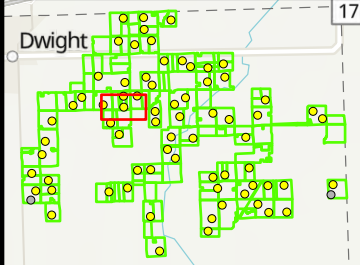
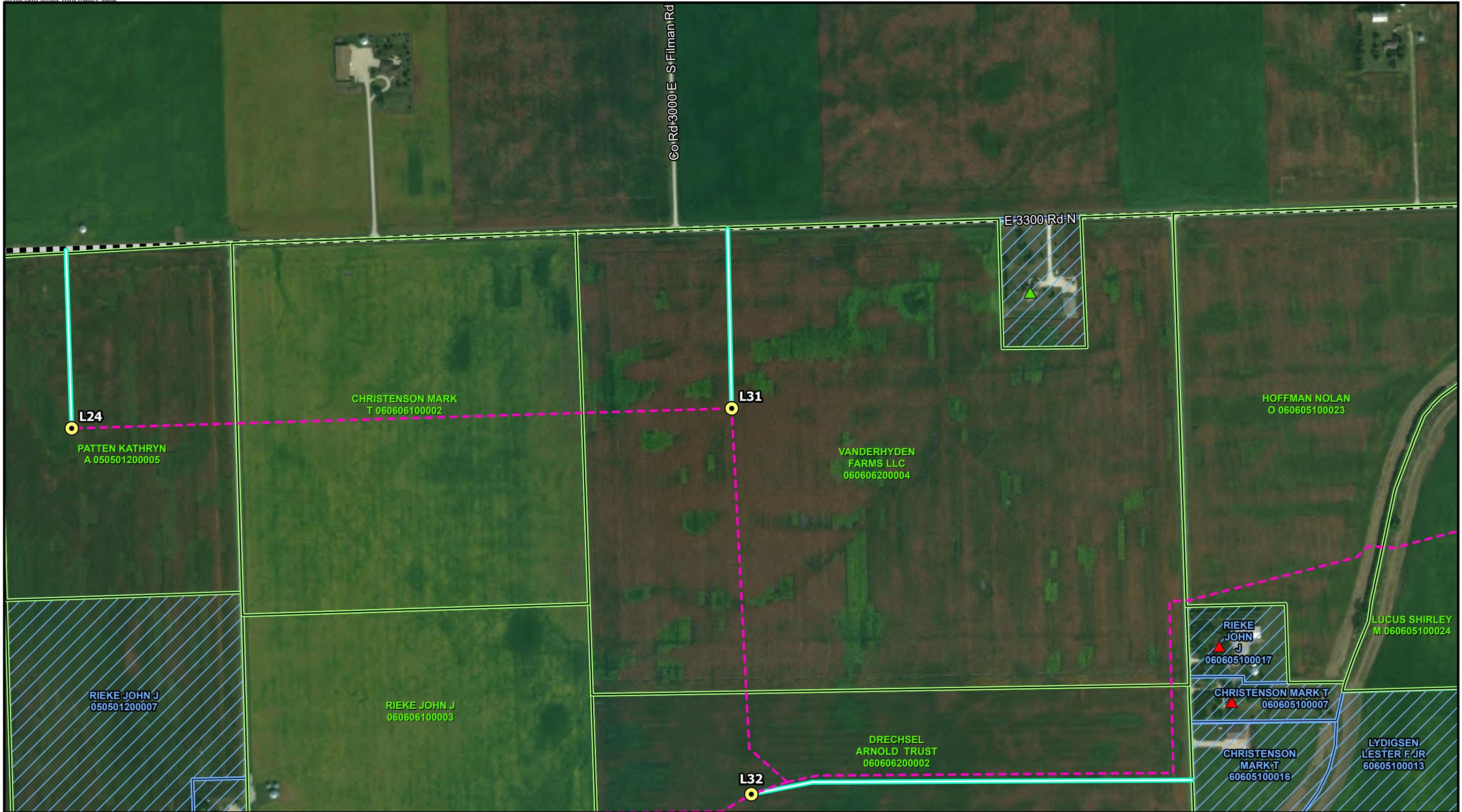


Figure 3-18
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L30



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road
- County Boundary

*All residences shown as participating are under wind lease or good neighbor agreements.

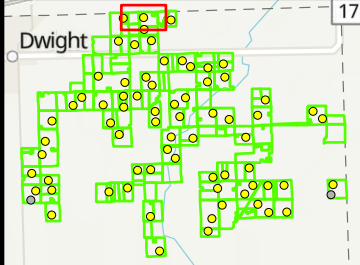
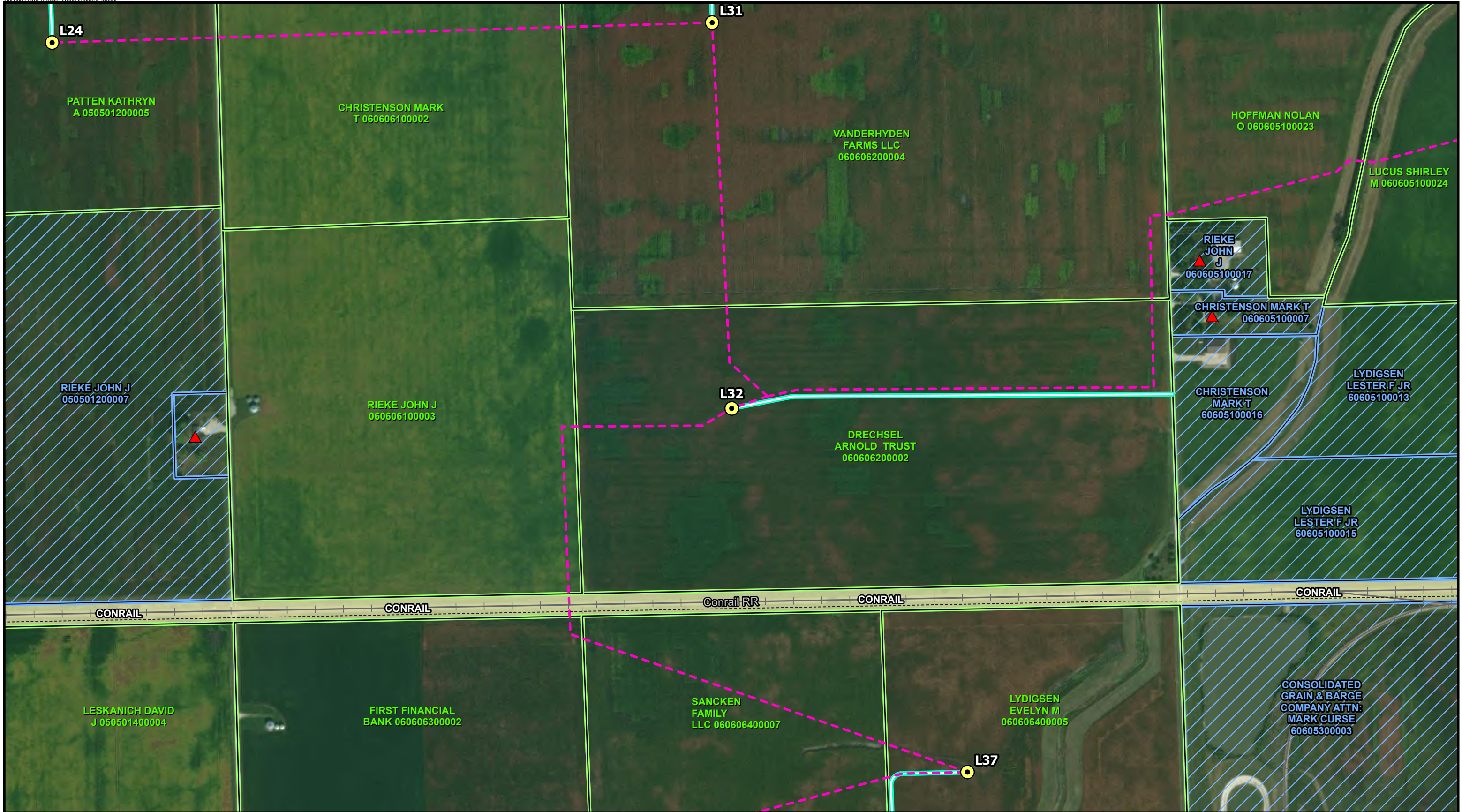


Figure 3-19
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L31



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Rail Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

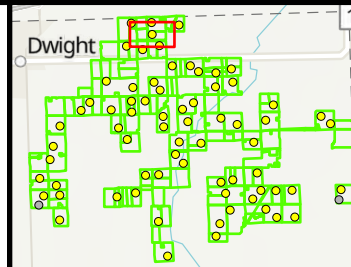
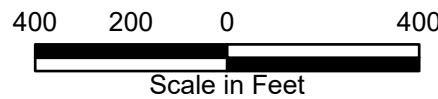
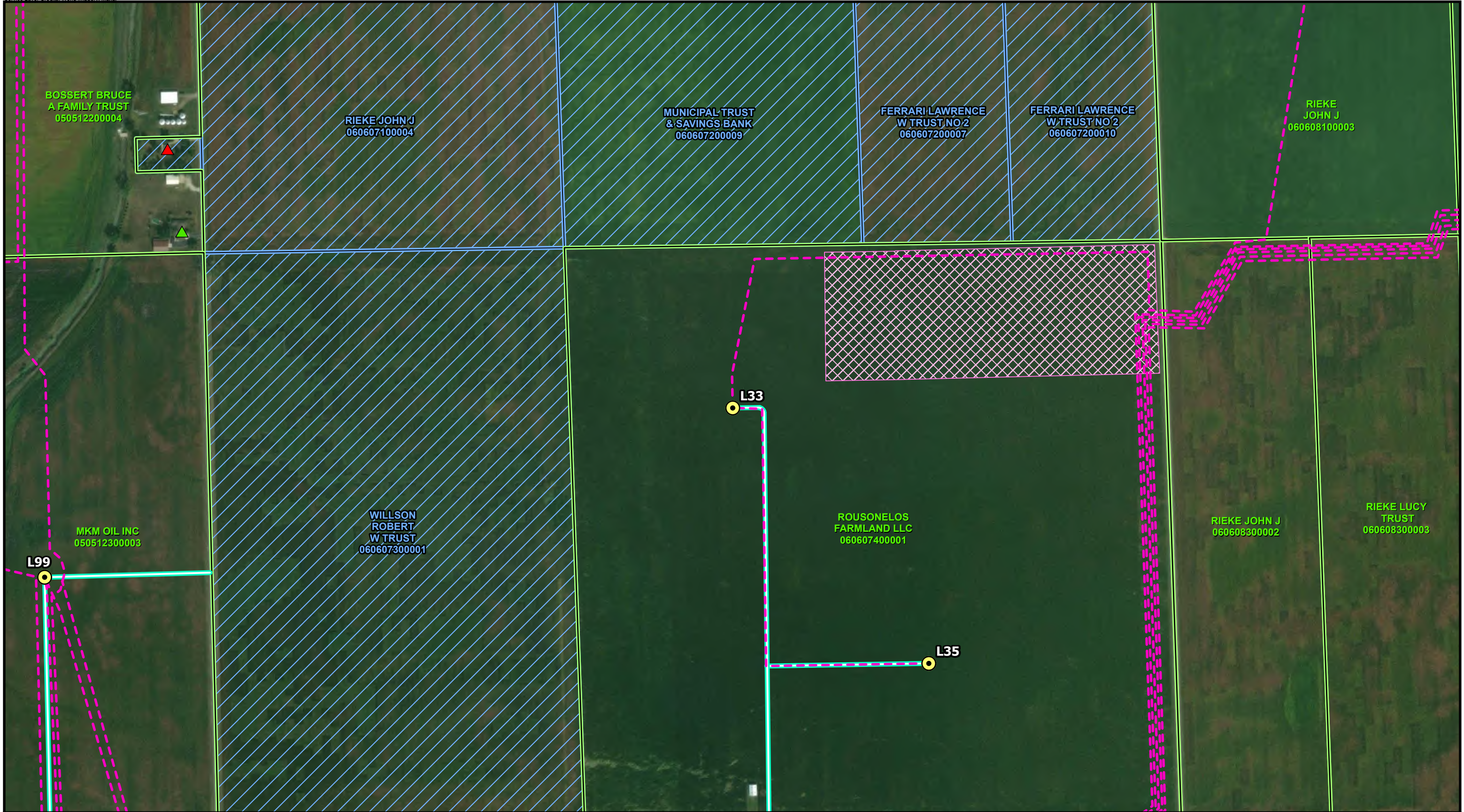


Figure 3-20
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L32



*All residences shown as participating are under wind lease or good neighbor agreements.

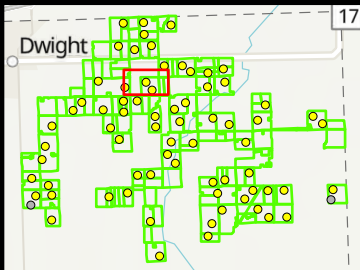
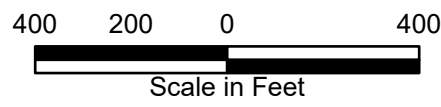
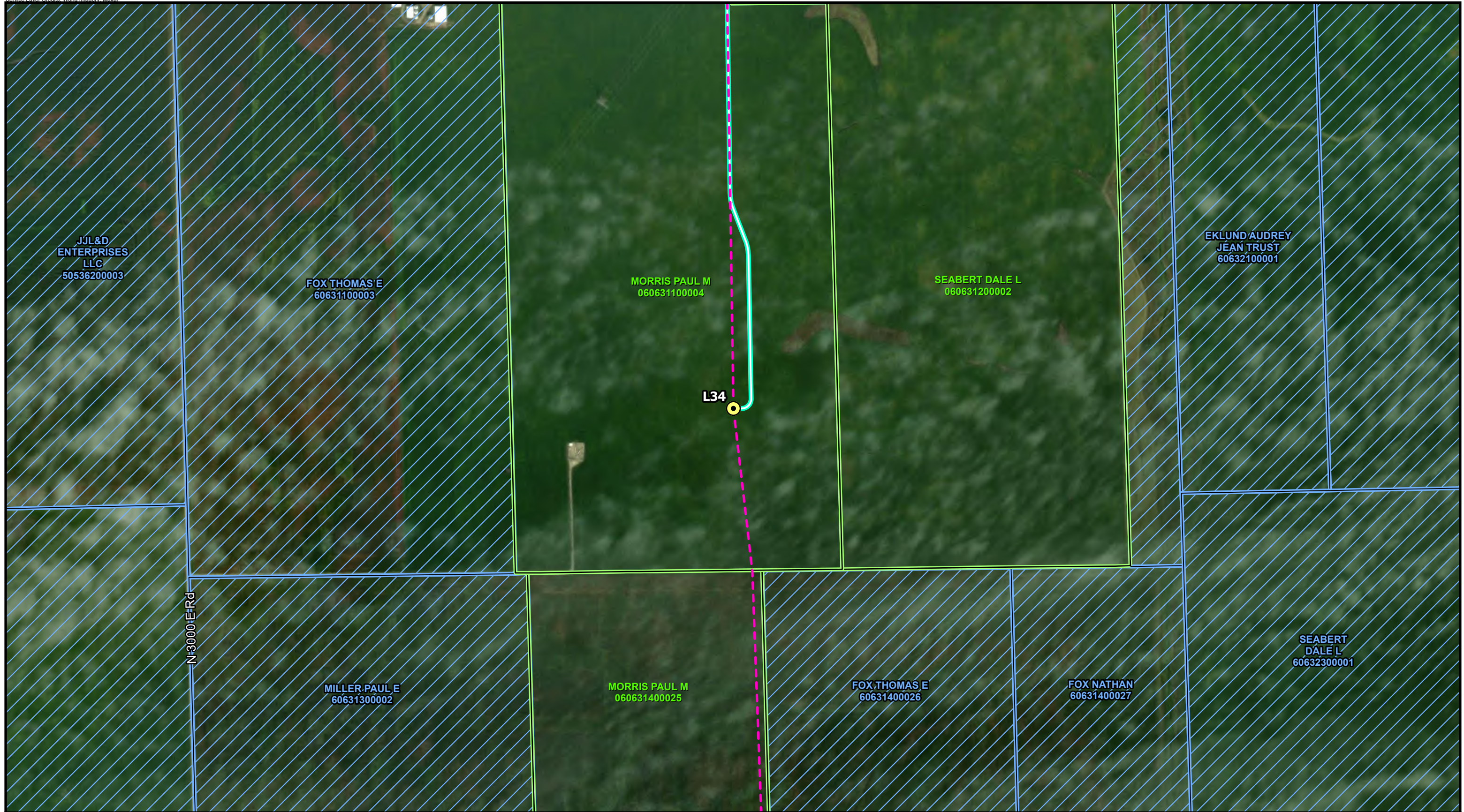


Figure 3-21
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L33



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

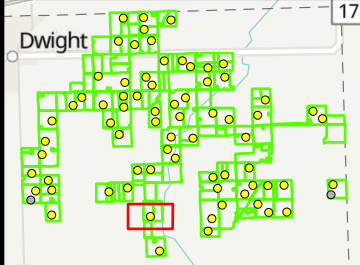


Figure 3-22
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L34



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Laydown and Batch Plant
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

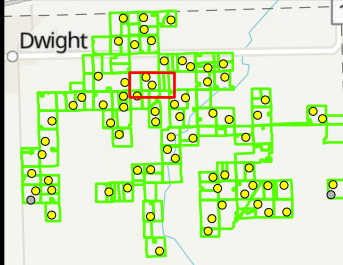
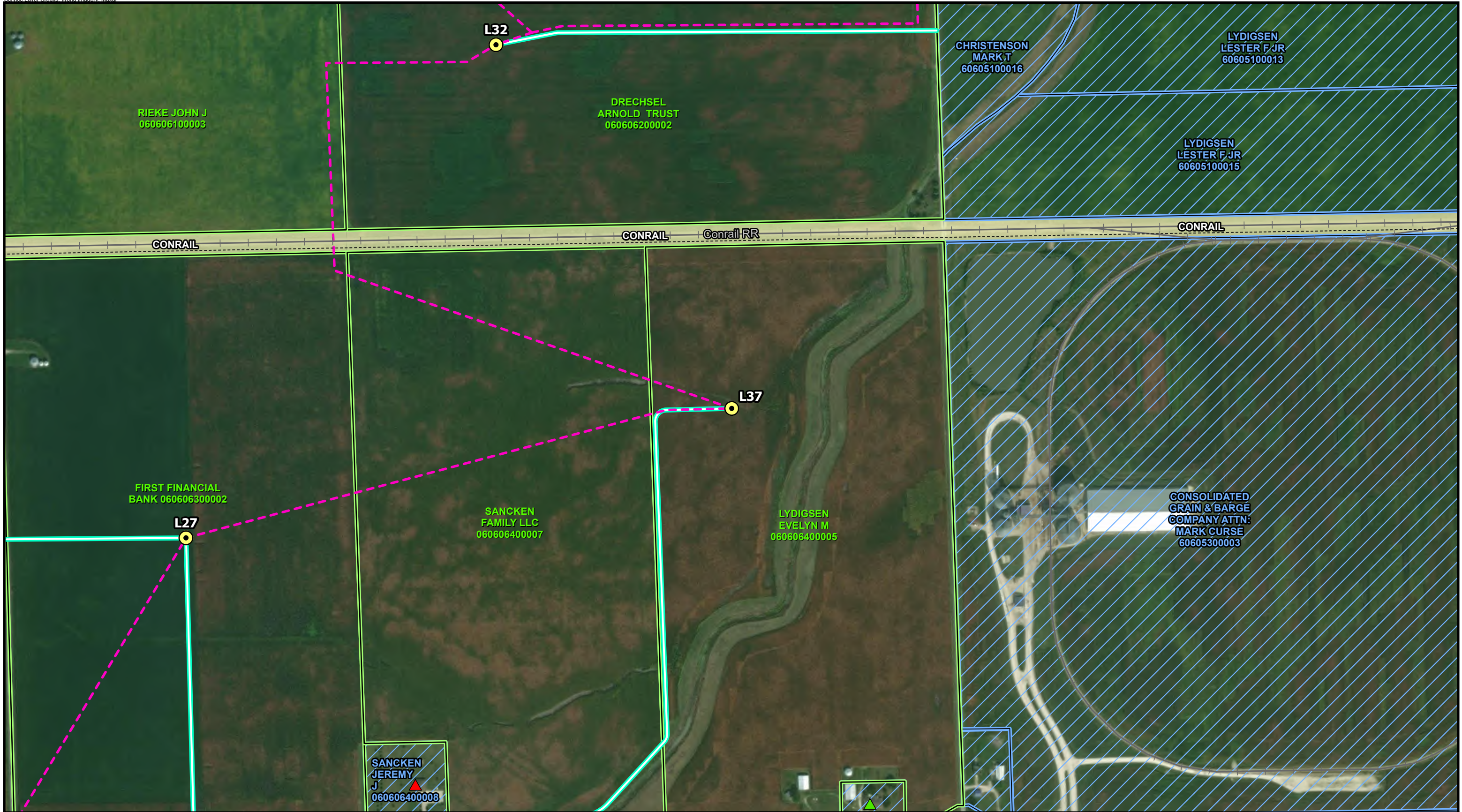


Figure 3-23
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L35



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Rail Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

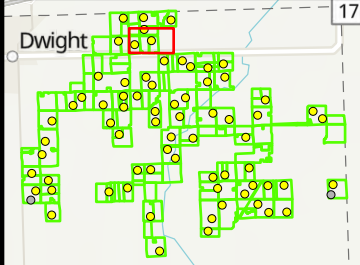
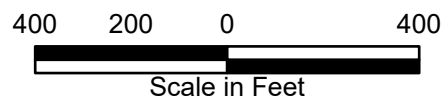
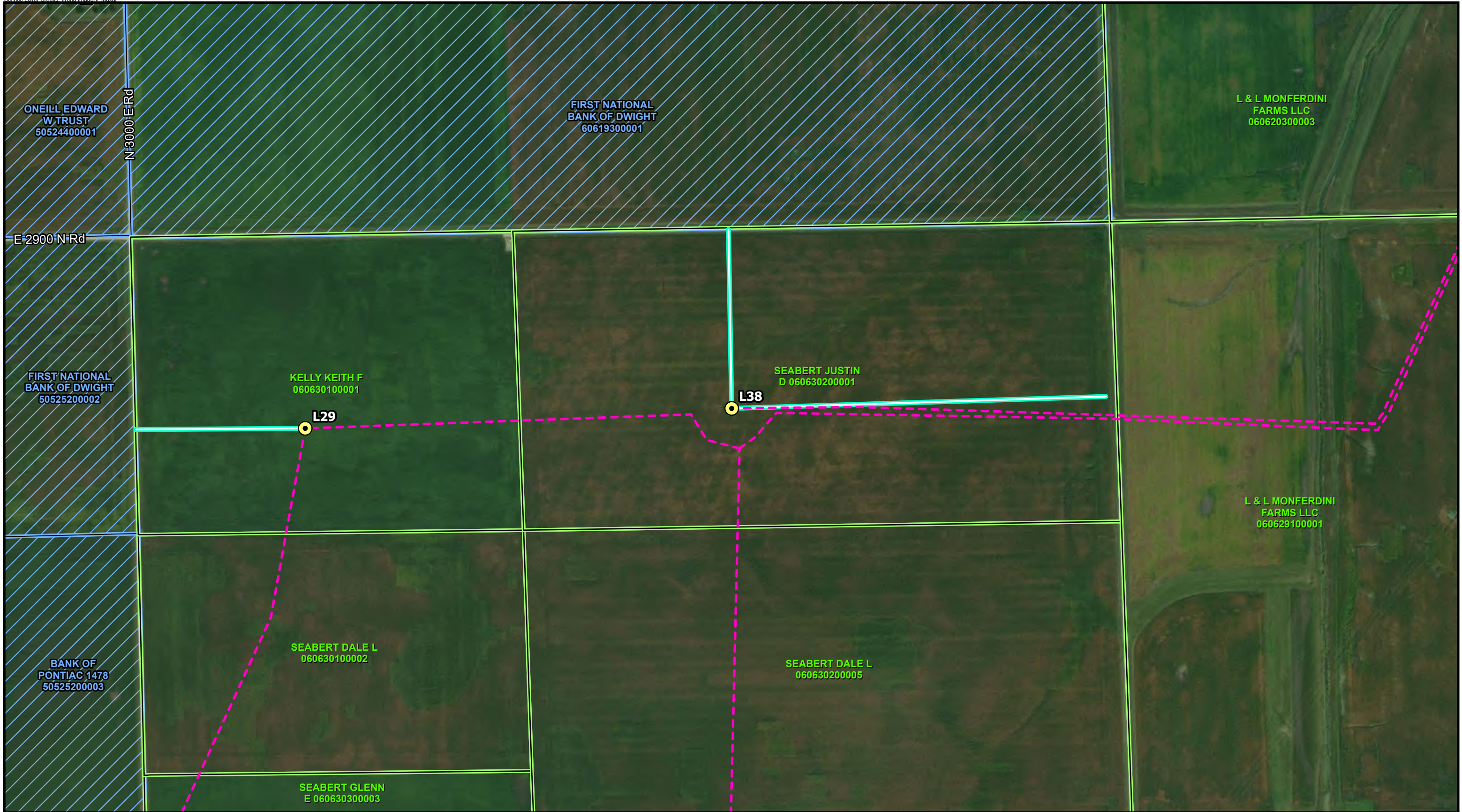


Figure 3-24
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L37



- Proposed Turbines
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Access Road
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

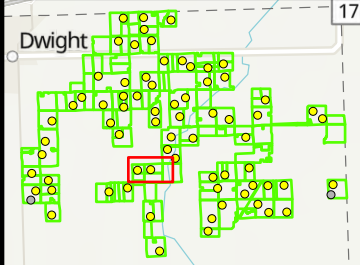
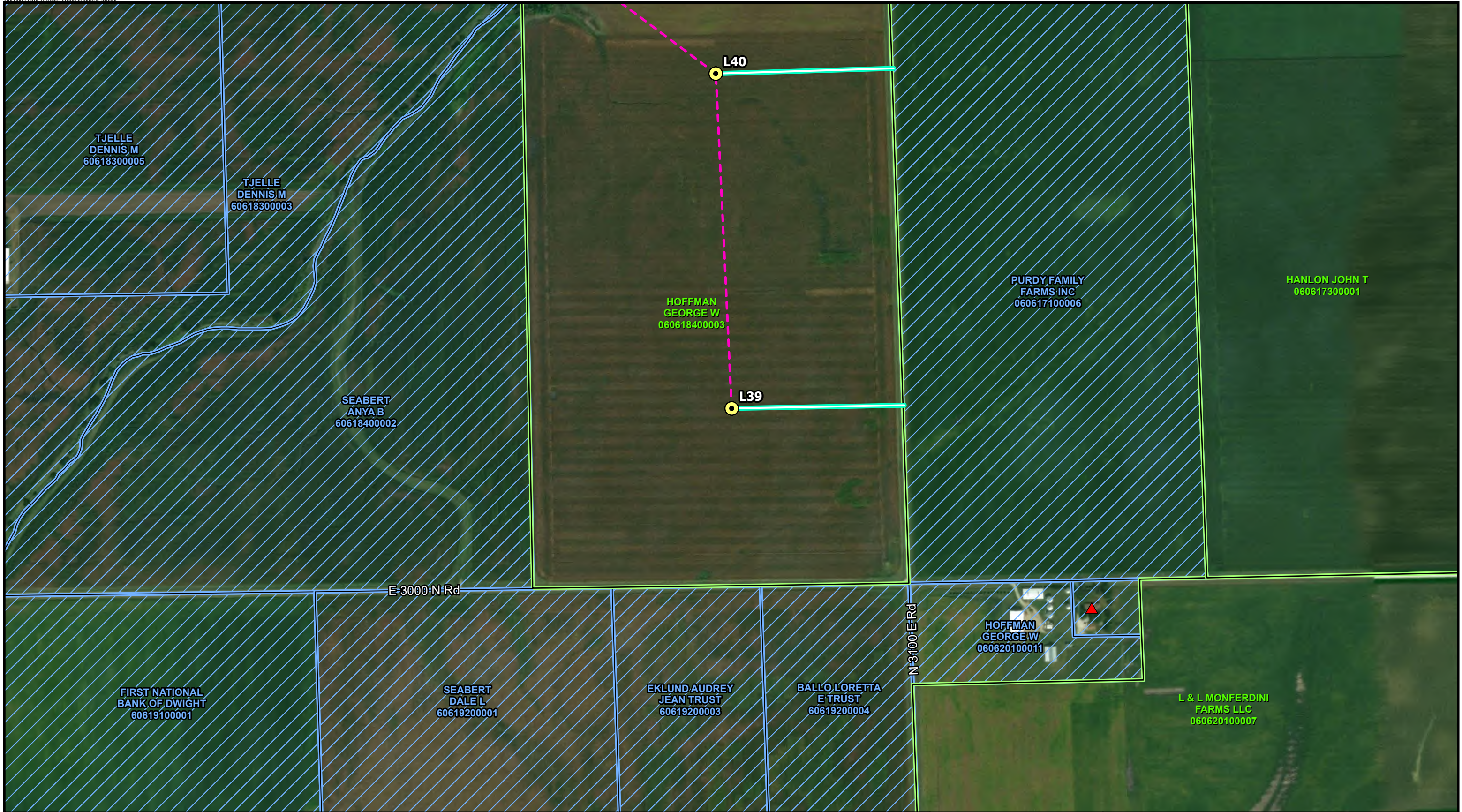


Figure 3-25
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L38



- Proposed Turbines
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Access Road
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

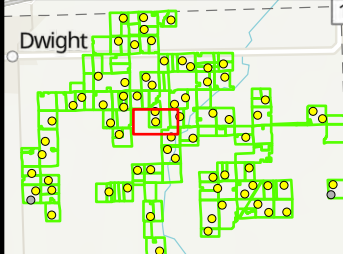


Figure 3-26
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L39



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

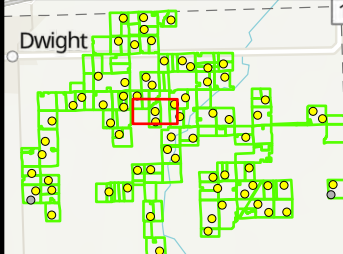


Figure 3-27
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L40



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

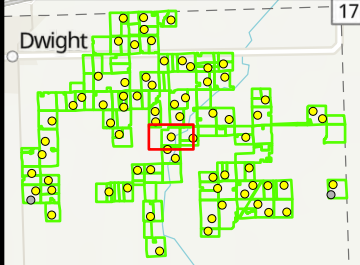


Figure 3-28
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L42



- Proposed Turbines
- Participating Residence
- Non-Participating Residence
- Access Road
- Collection Line
- Rail Line
- Laydown and Batch Plant
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

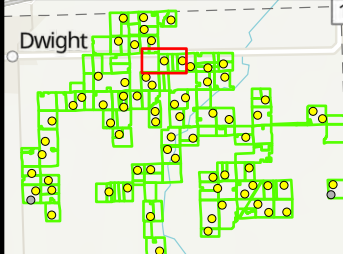
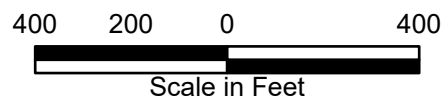
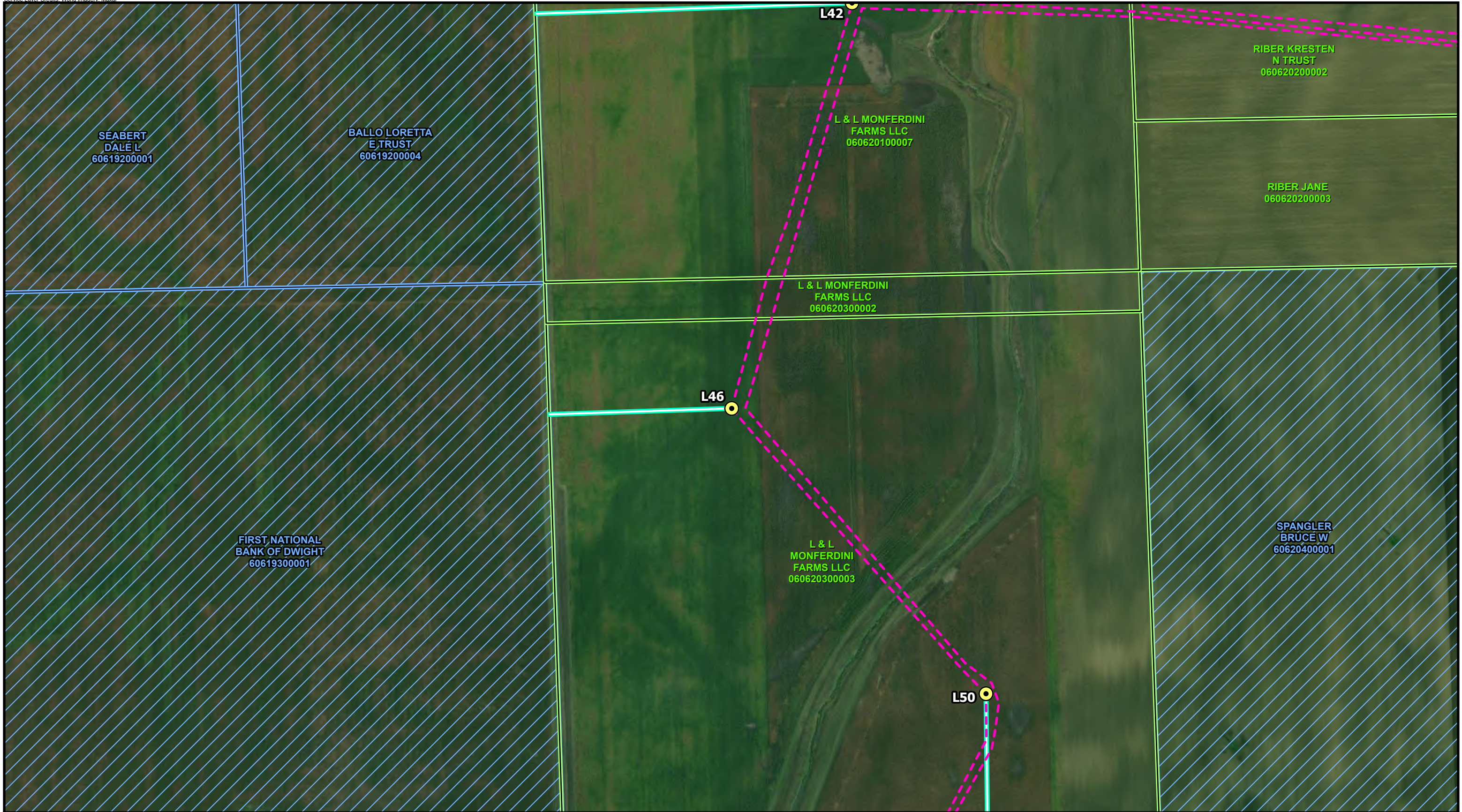


Figure 3-29
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L43



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

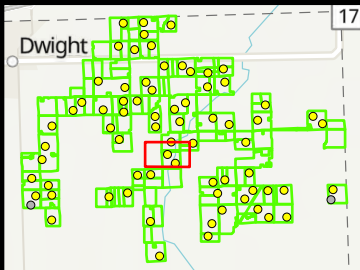


Figure 3-30
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L46



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- County Boundary

*All residences shown as participating are under wind lease or good neighbor agreements.

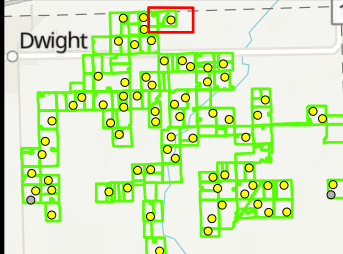
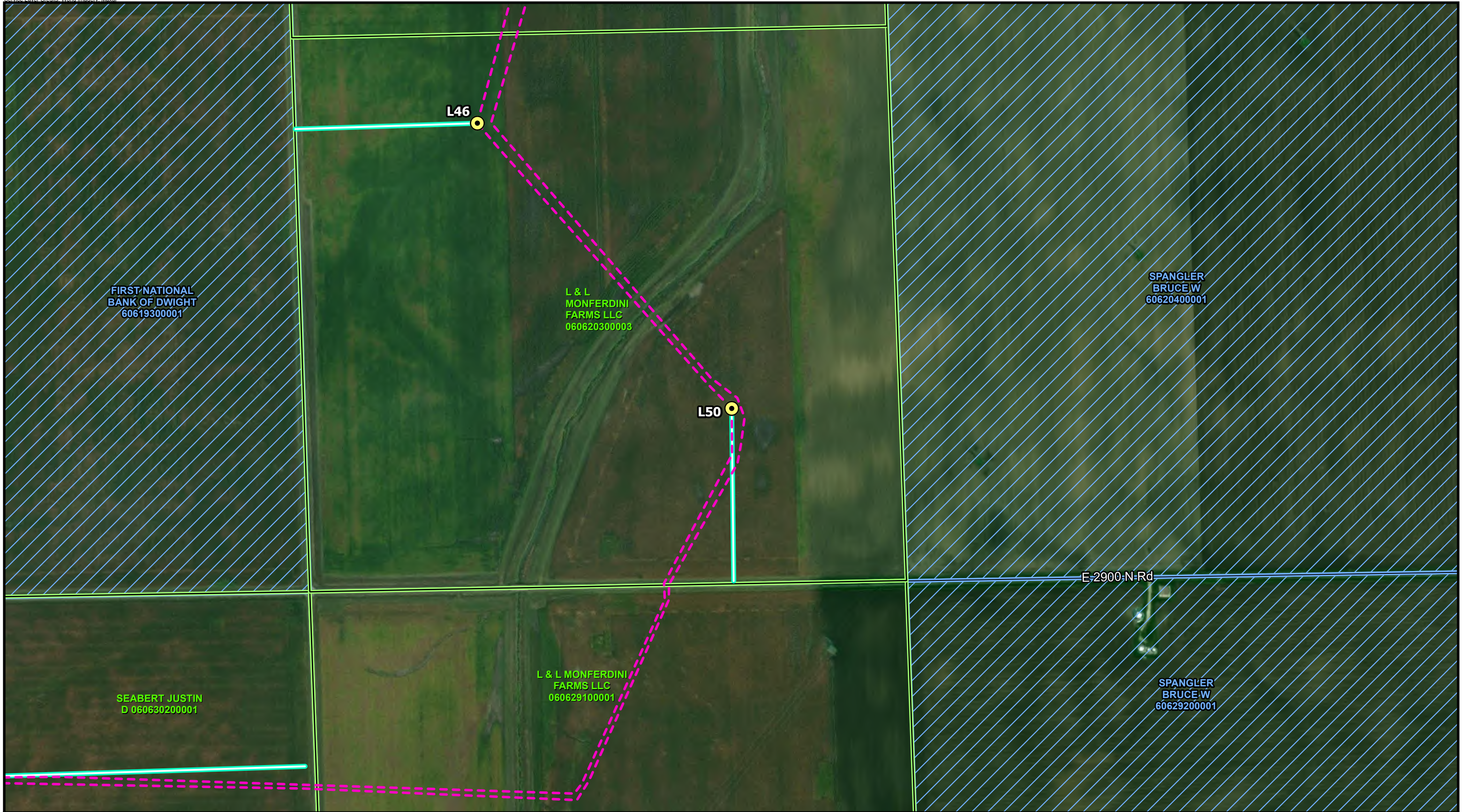


Figure 3-31
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L47



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

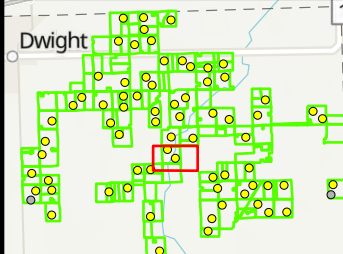


Figure 3-32
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L50



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- + + + Rail Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

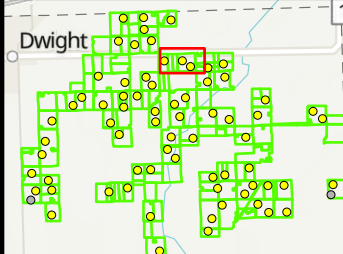
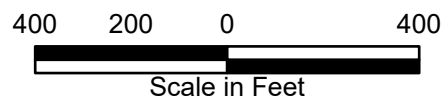


Figure 3-33
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L56



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

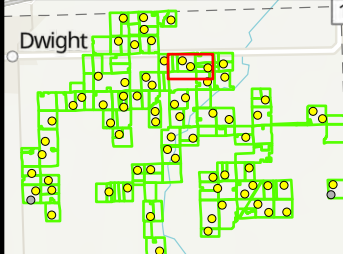
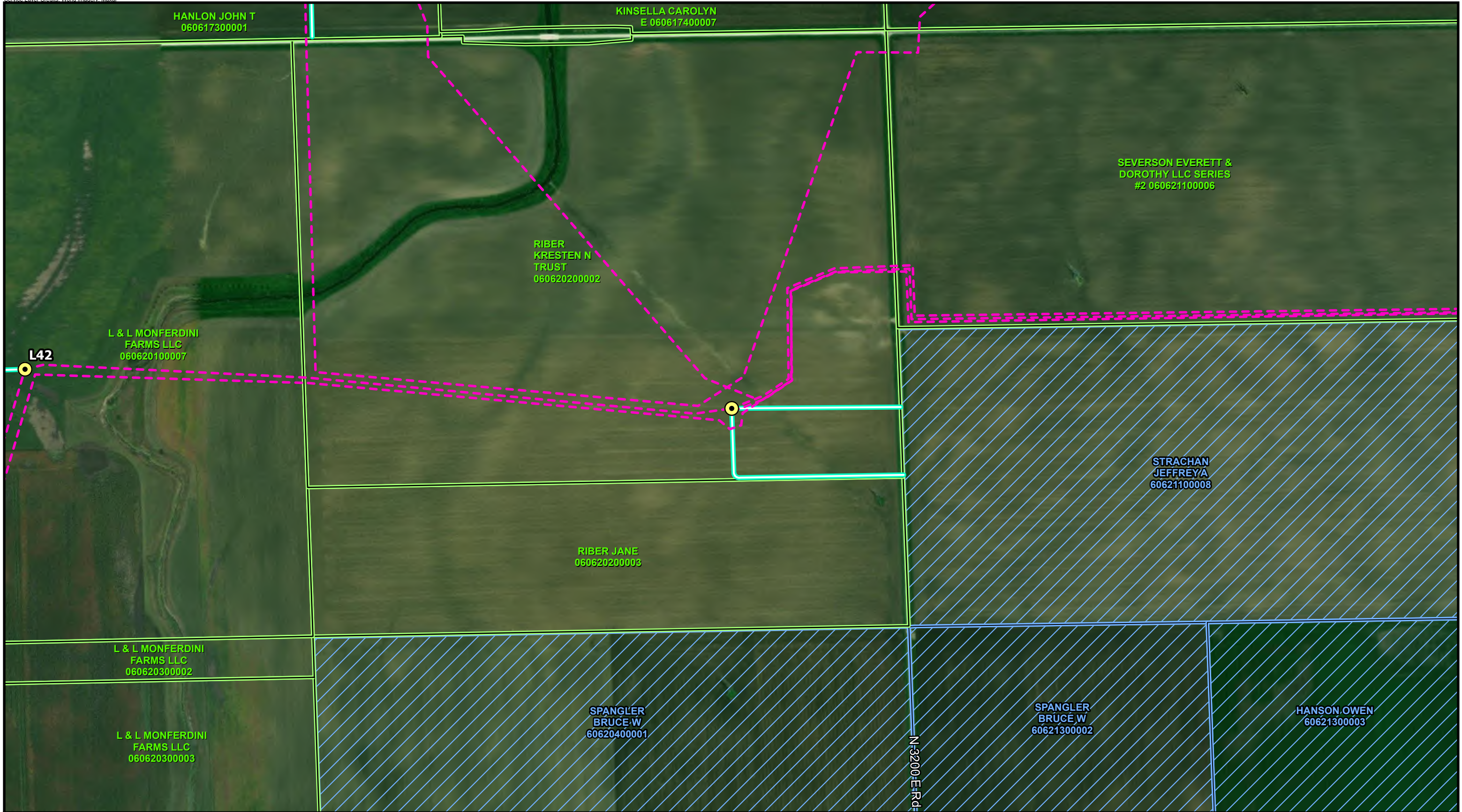


Figure 3-34
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L58



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

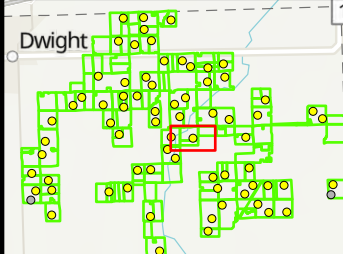
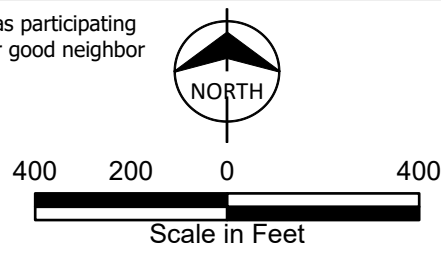
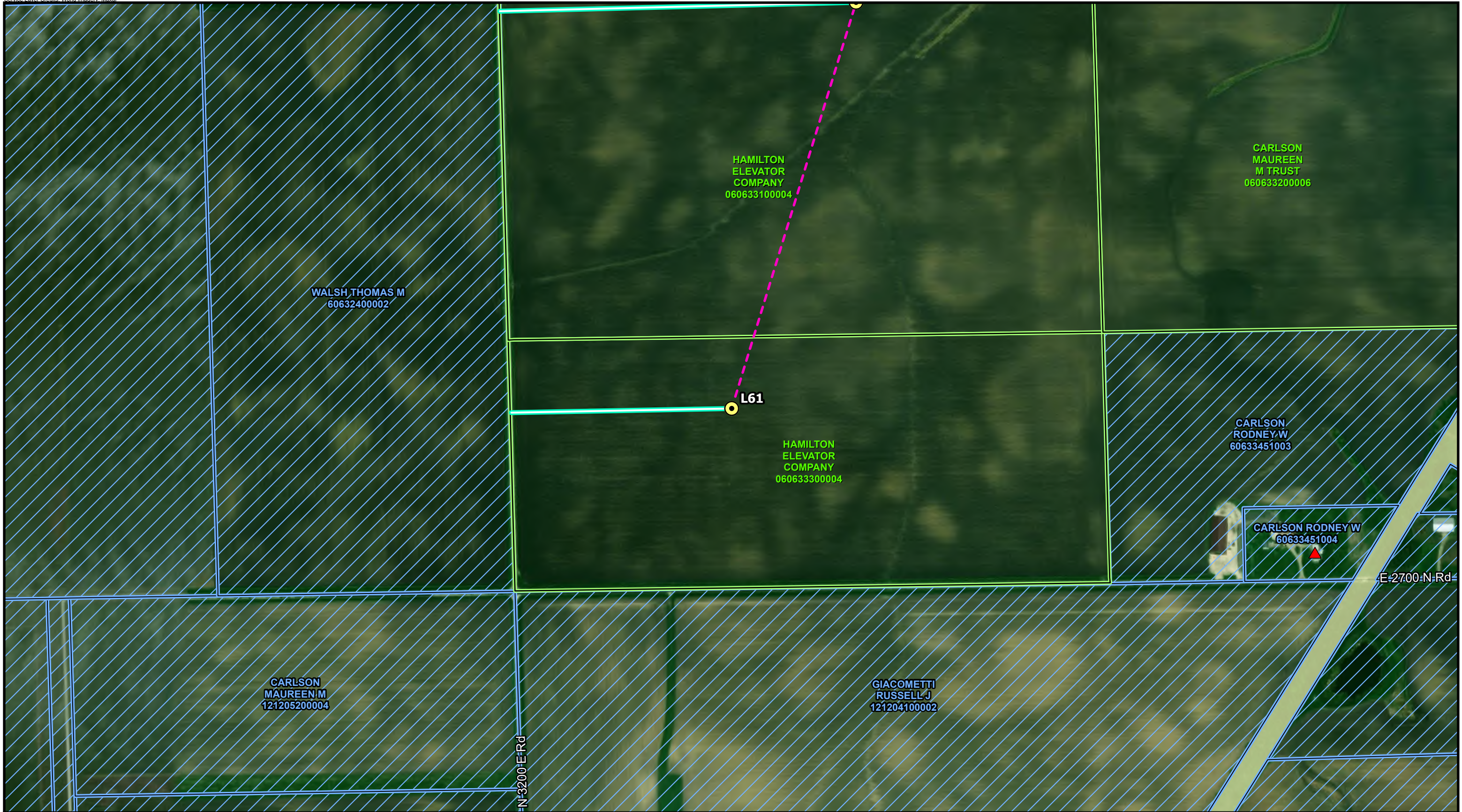


Figure 3-35
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L60



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

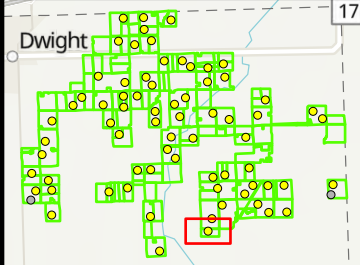
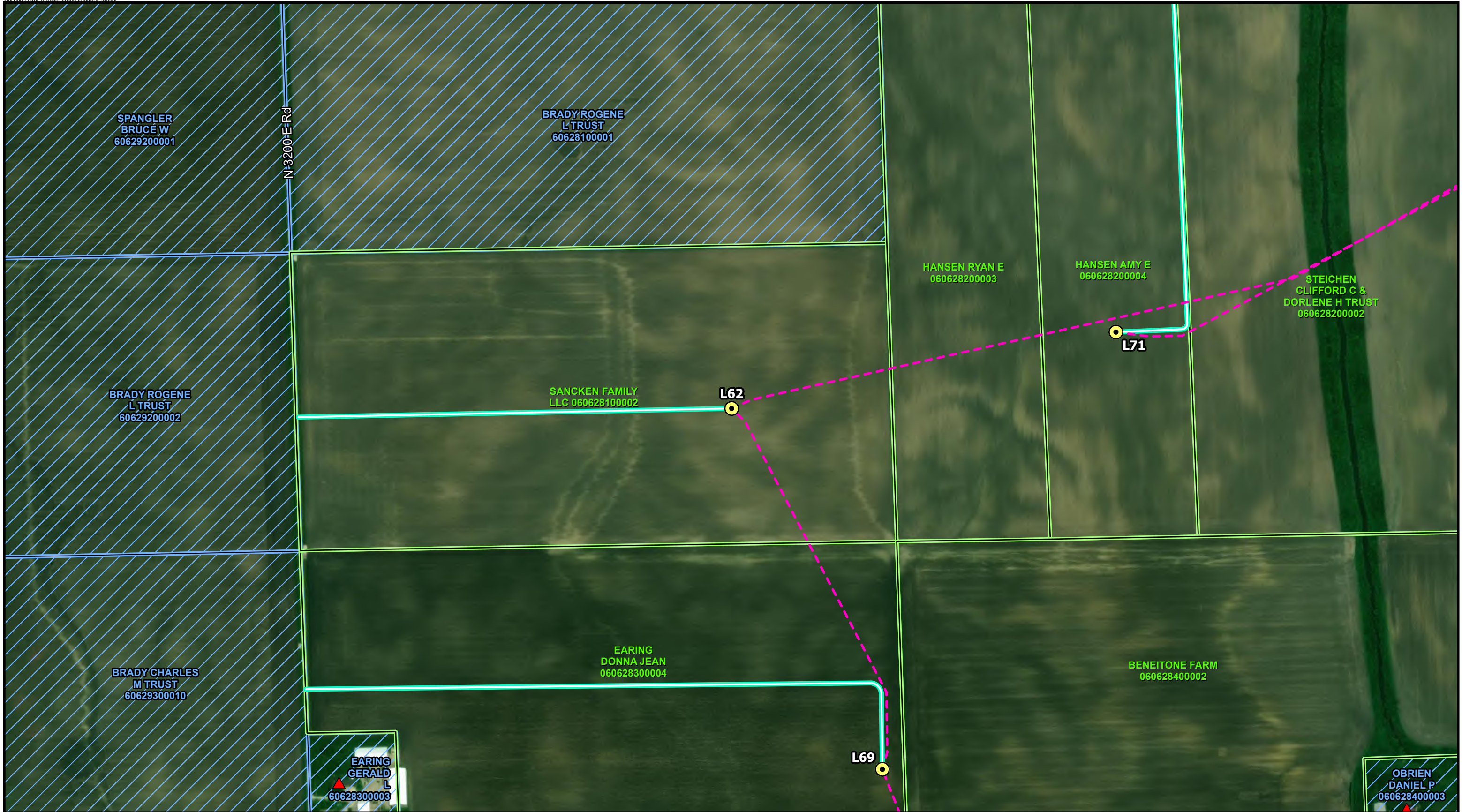


Figure 3-36
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L61



*All residences shown as participating are under wind lease or good neighbor agreements.

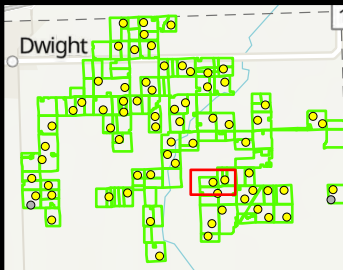
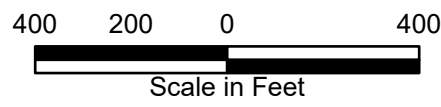


Figure 3-37
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L62



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Cemetery
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

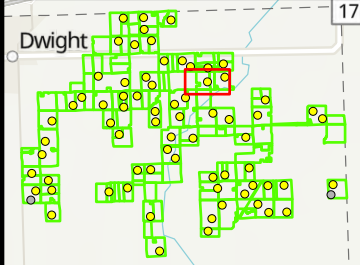
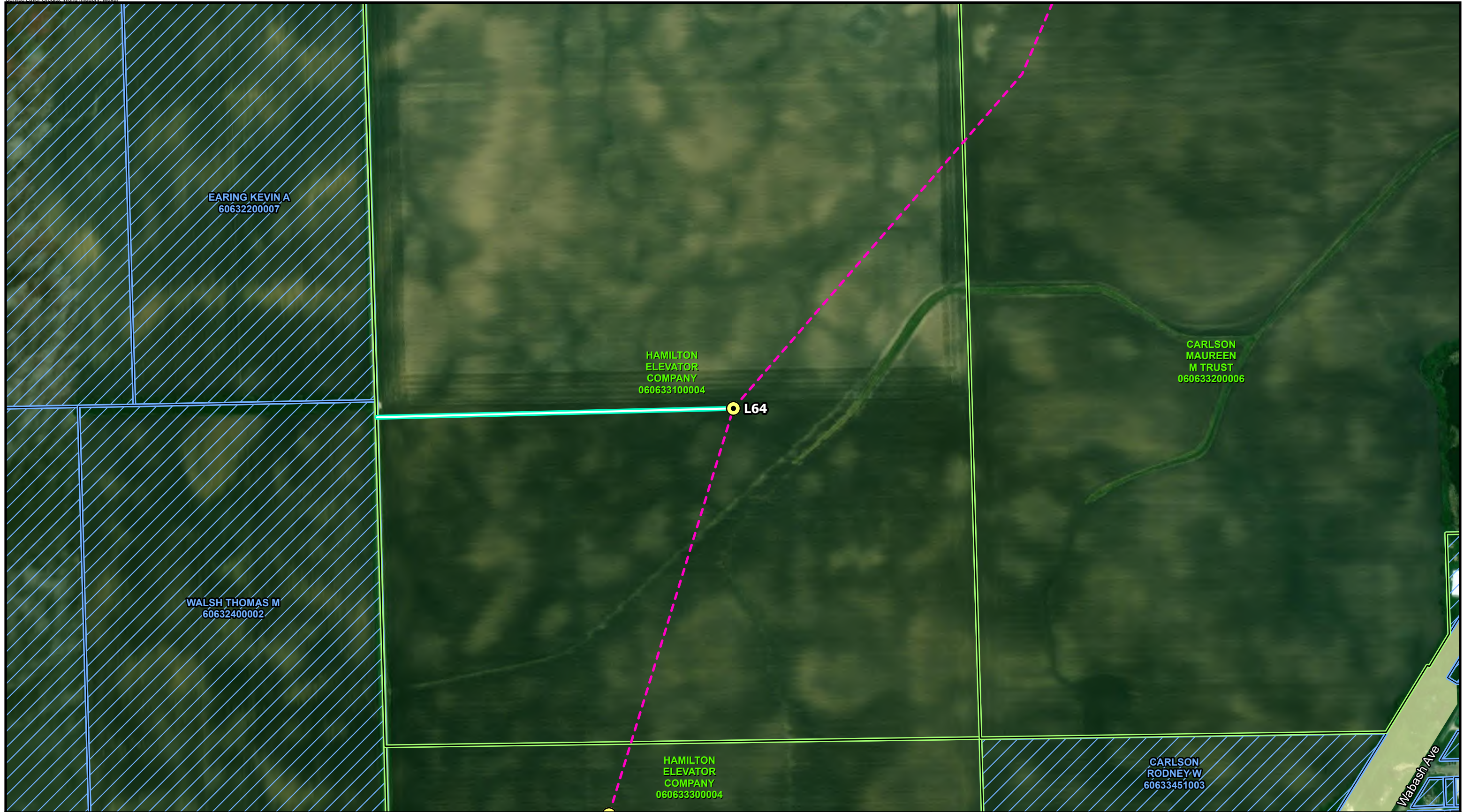


Figure 3-38
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L63



EARING KEVIN A
60632200007

HAMILTON
ELEVATOR
COMPANY
060633100004

CARLSON
MAUREEN
M TRUST
060633200006

WALSH THOMAS M
60632400002

HAMILTON
ELEVATOR
COMPANY
060633300004

CARLSON
RODNEY W
60633451003

Wabash Ave

- Proposed Turbines
- Access Road
- Collection Line
- Community Building
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

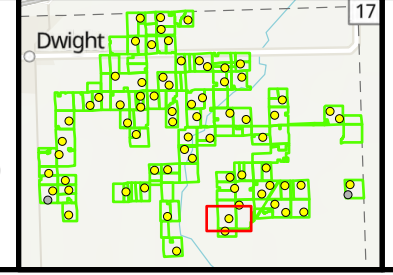
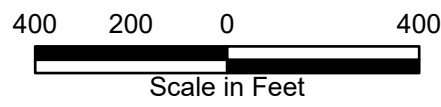
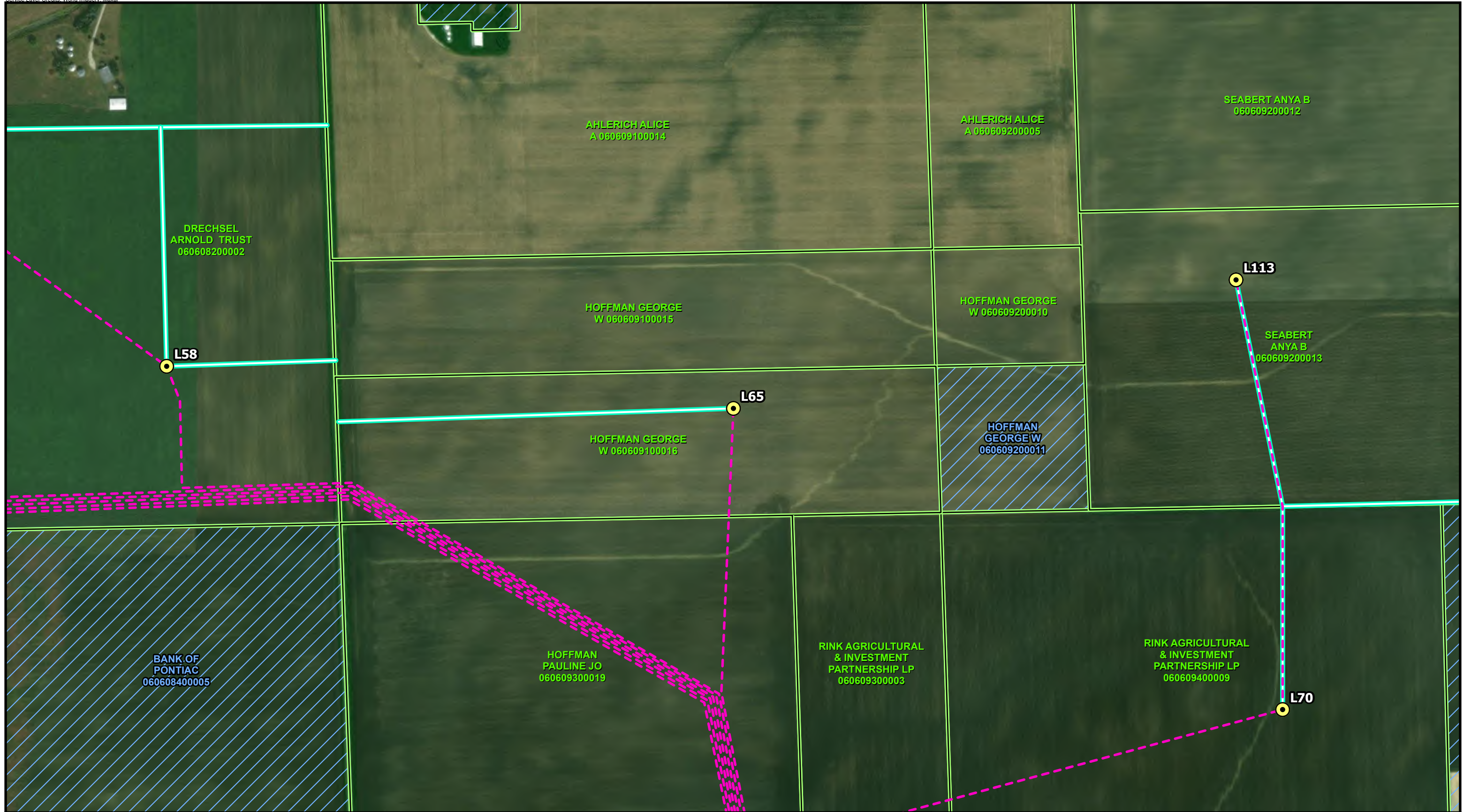


Figure 3-39
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L64



*All residences shown as participating are under wind lease or good neighbor agreements.

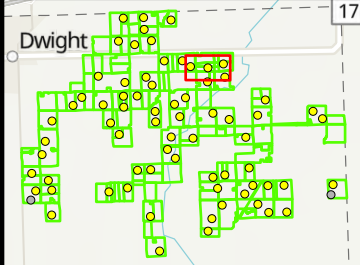
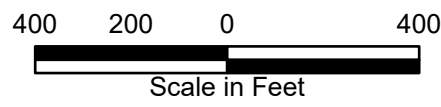


Figure 3-40
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L65



- Proposed Turbines
- Access Road
- Collection Line

- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

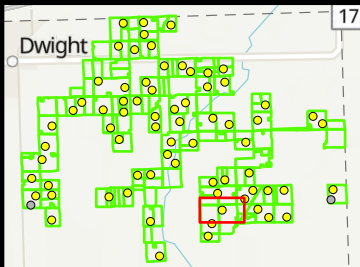
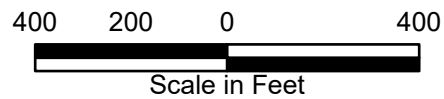
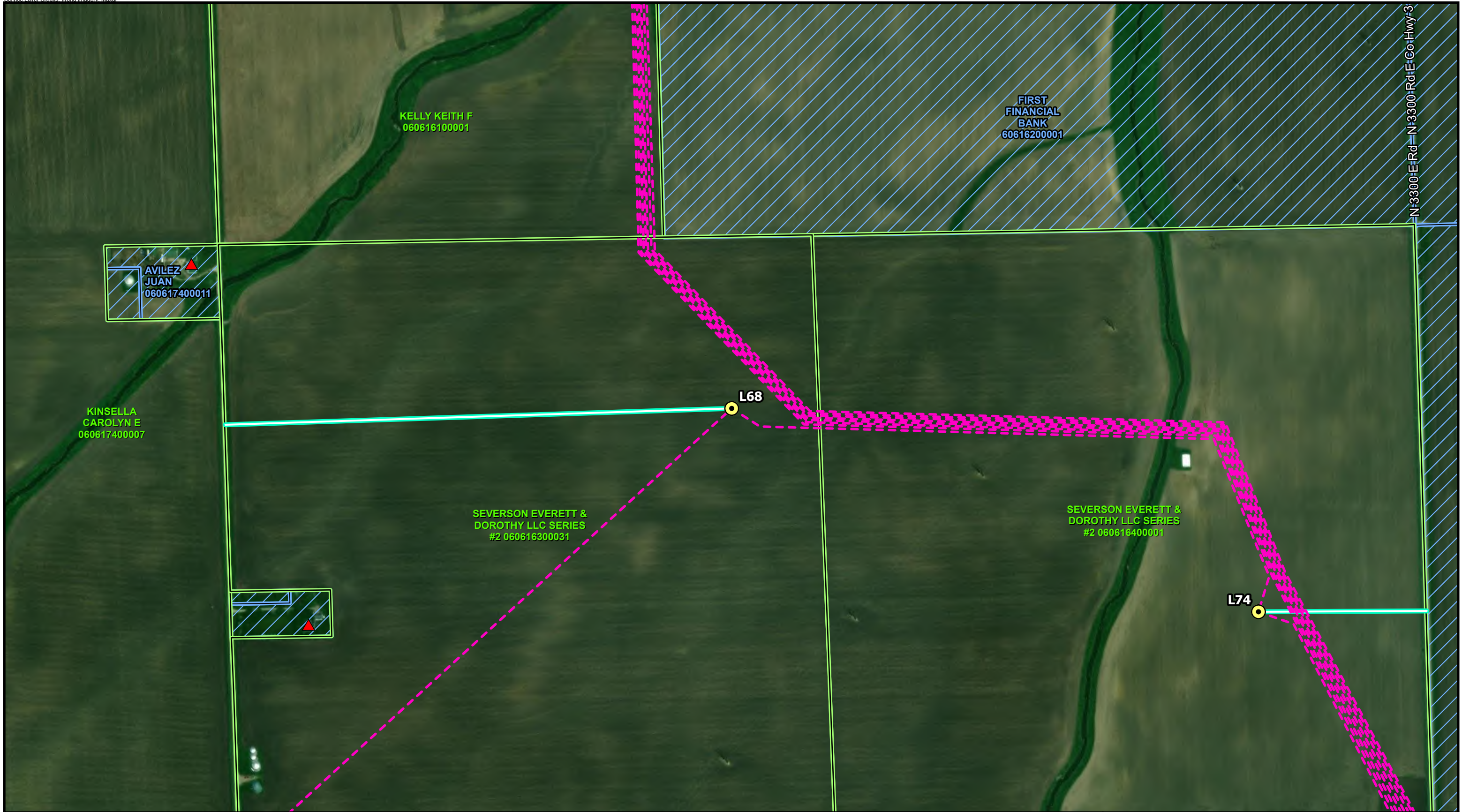


Figure 3-41
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L66



-  Proposed Turbines
-  Non-Participating Residence
-  Access Road
-  Collection Line
-  Participating Parcel
-  Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

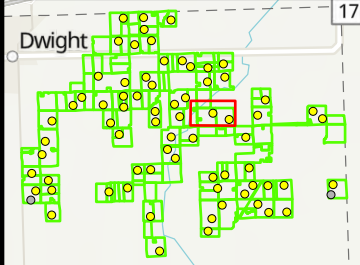


Figure 3-42
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L68



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

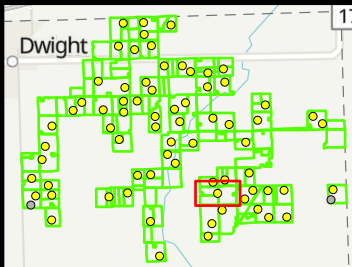
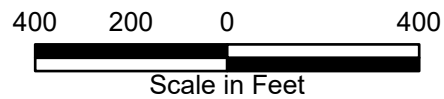


Figure 3-43
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L69



- Proposed Turbines
- ▲ Non-Participating Residence
- Cemetery
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

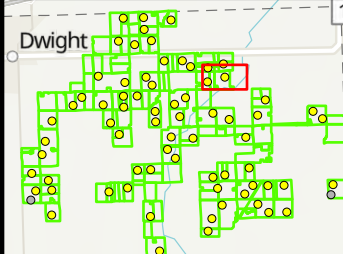


Figure 3-44
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L70



- Proposed Turbines
- Collection Line
- Non-Participating Residence
- Participating Parcel
- Access Road
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

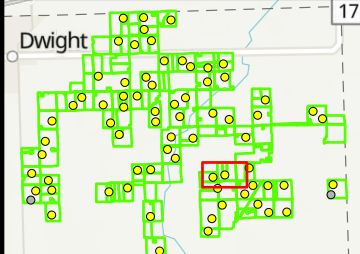


Figure 3-45
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L71



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

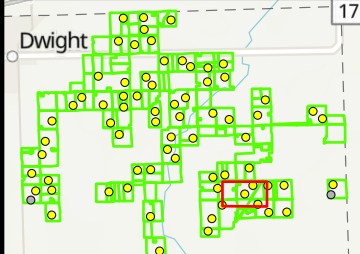
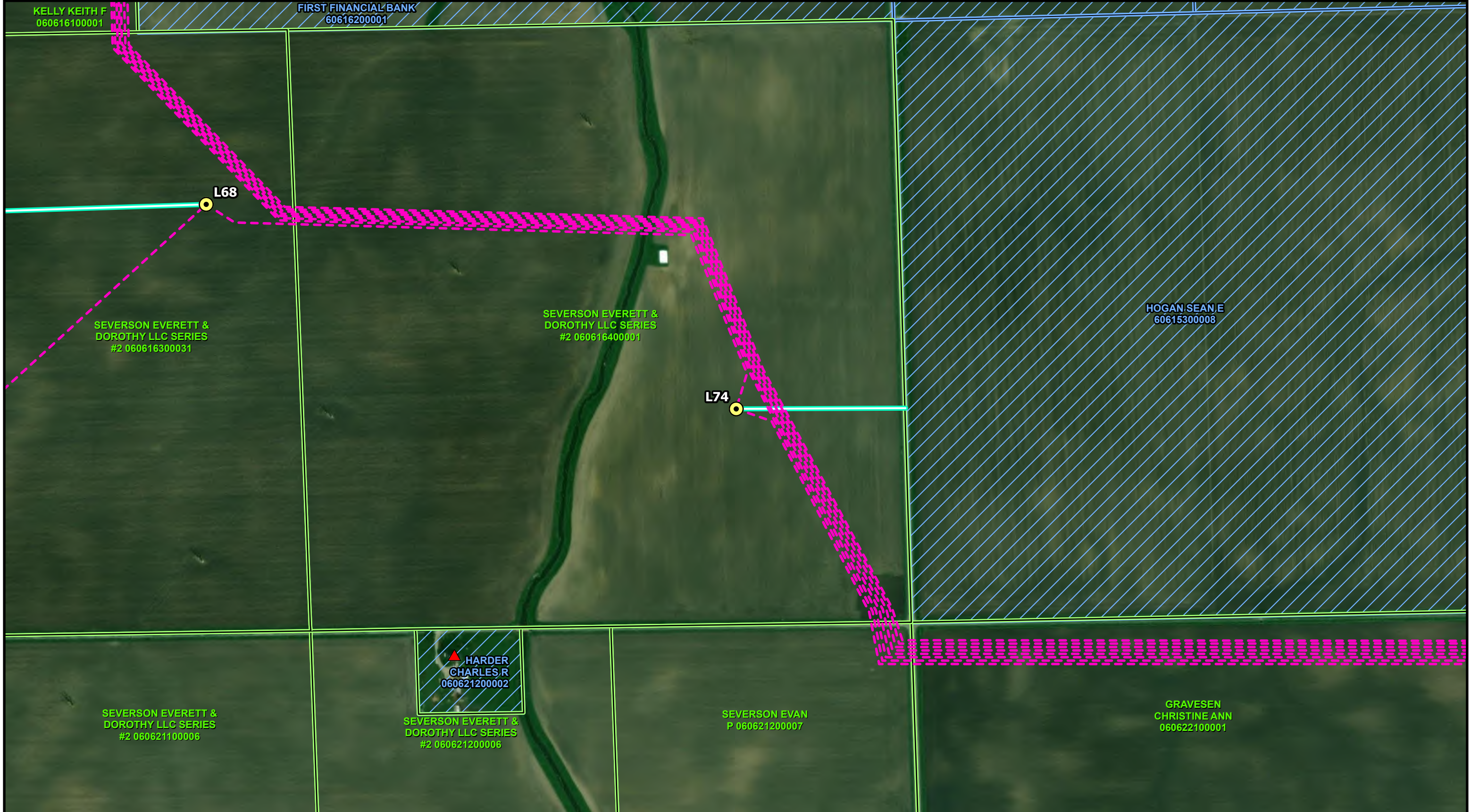


Figure 3-46
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L73



-  Proposed Turbines
-  Non-Participating Residence
-  Access Road
-  Collection Line
-  Participating Parcel
-  Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

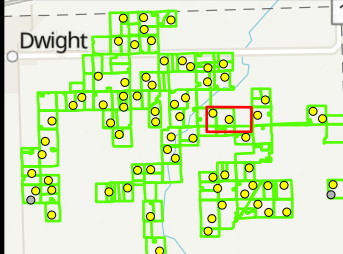
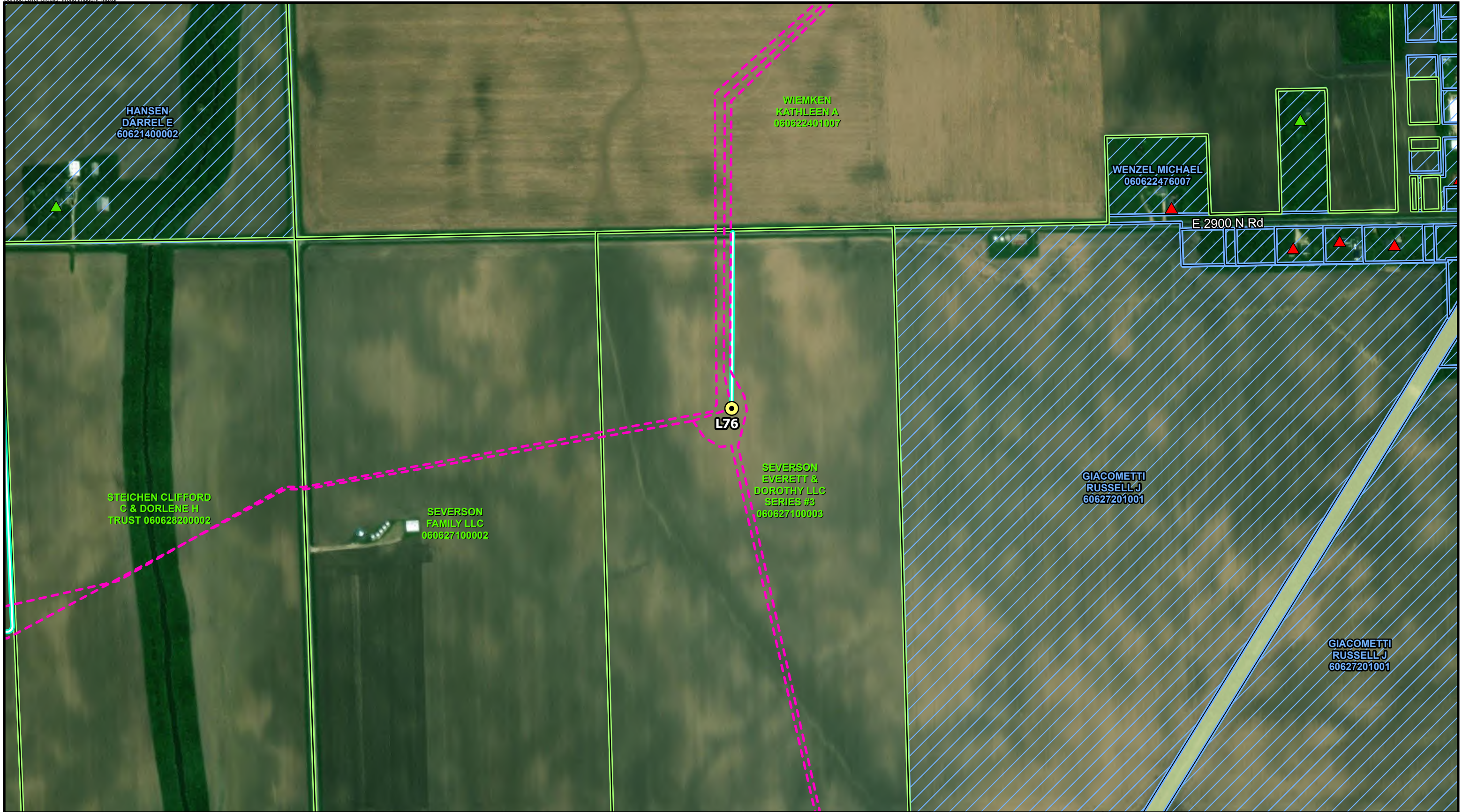


Figure 3-47
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L74



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

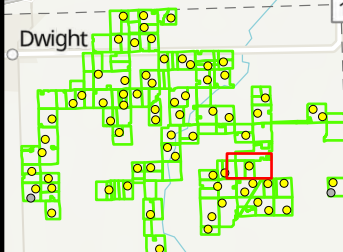


Figure 3-48
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L76



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Project Gen-Tie
- Substation
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

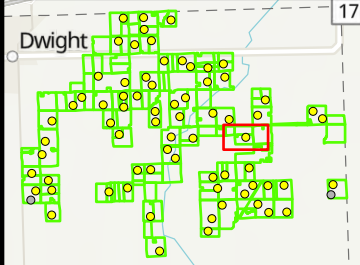


Figure 3-49
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L77



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

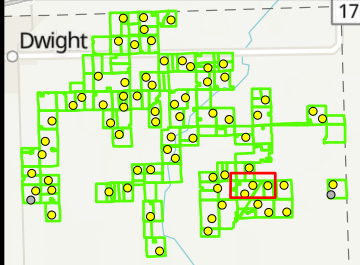
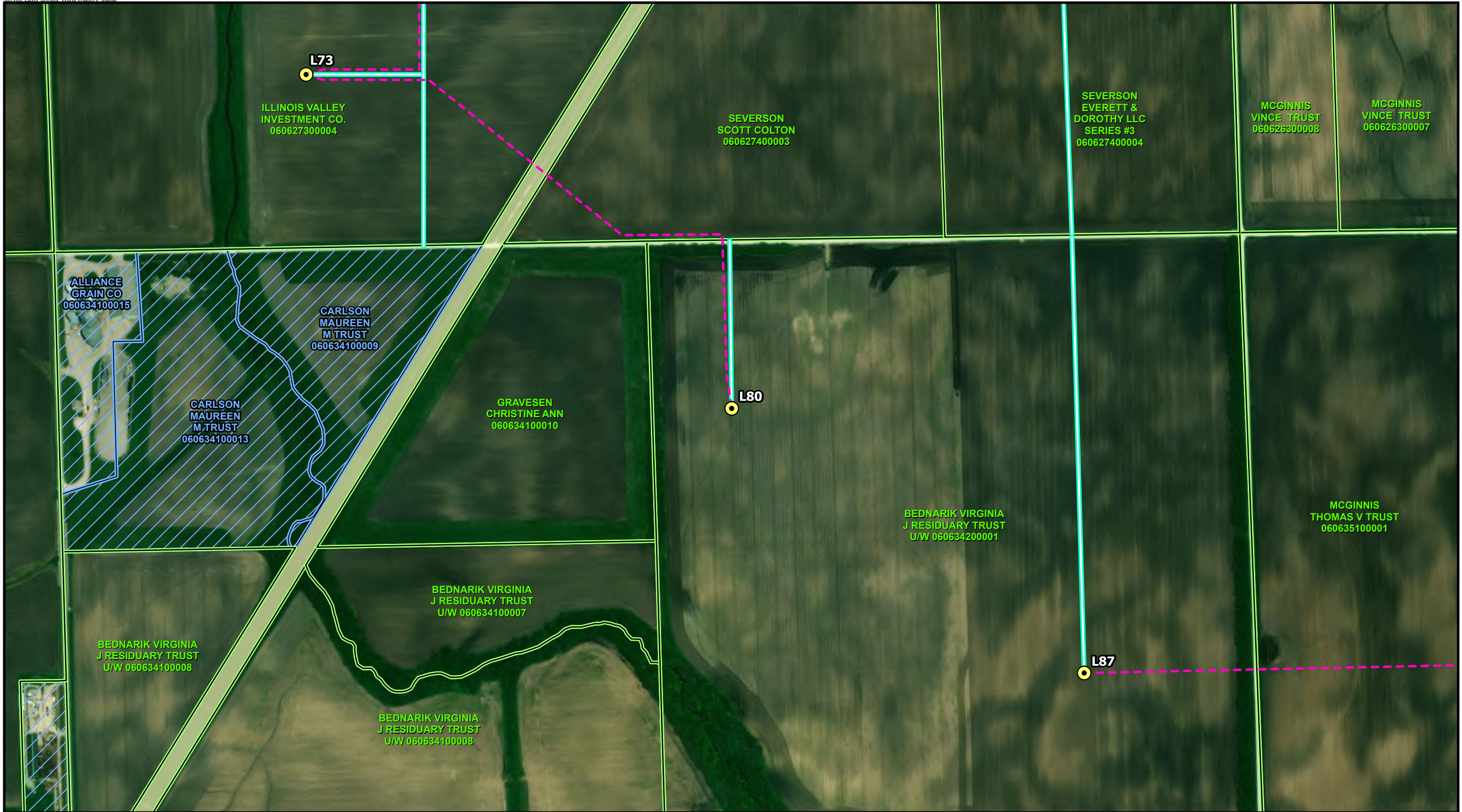


Figure 3-50
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L79



- Proposed Turbines
- Access Road
- - - Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

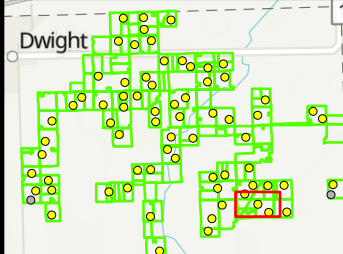


Figure 3-51
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L80



<ul style="list-style-type: none"> Proposed Turbines Non-Participating Residence Access Road Collection Line Project Gen-Tie 	<ul style="list-style-type: none"> Substation O&M Facility Participating Parcel Non-Participating Parcel 	<p>*All residences shown as participating are under wind lease or good neighbor agreements.</p>	<p style="text-align: center;">Scale in Feet</p>			<p style="text-align: center;">Figure 3-52 Heritage Prairie Wind Project Site Plan - Proposed Features Livingston County, Illinois Page name: L81</p>
--	--	---	--	--	--	--



GANTZERT
ROLAND, R
60610300002

BARNUM/PHILIP T
60610400005

CARLSON RODNEY W
60611300007

E-3100 N Rd

CARLSON
MAUREEN
M TRUST
060615200004

CARLSON
MAUREEN
M TRUST
060615200007

MCCLATCHEY
SHIRLEY
ANN TRUST
60615100003

SCULLY PETER
D, 1954 T/U/W
060614100001

CARLSON
MAUREEN
M TRUST
060615200008

L82

HOGAN SEAN E
60615300008

FRERICHS
DOREEN T
060615400002

- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

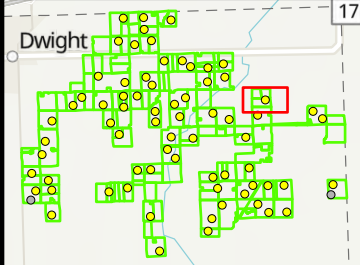
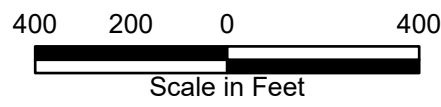


Figure 3-53
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L82



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

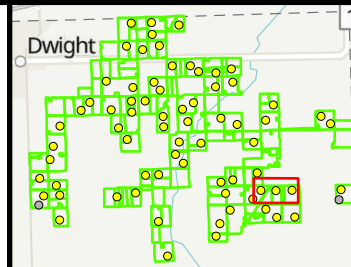


Figure 3-54
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L86



- Proposed Turbines
- Access Road
- Collection Line

- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

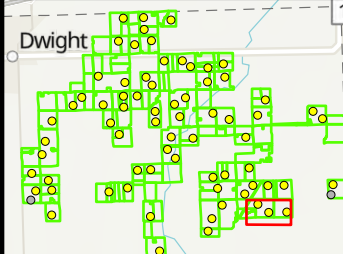
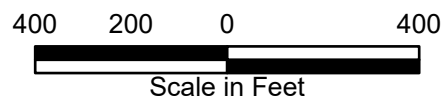
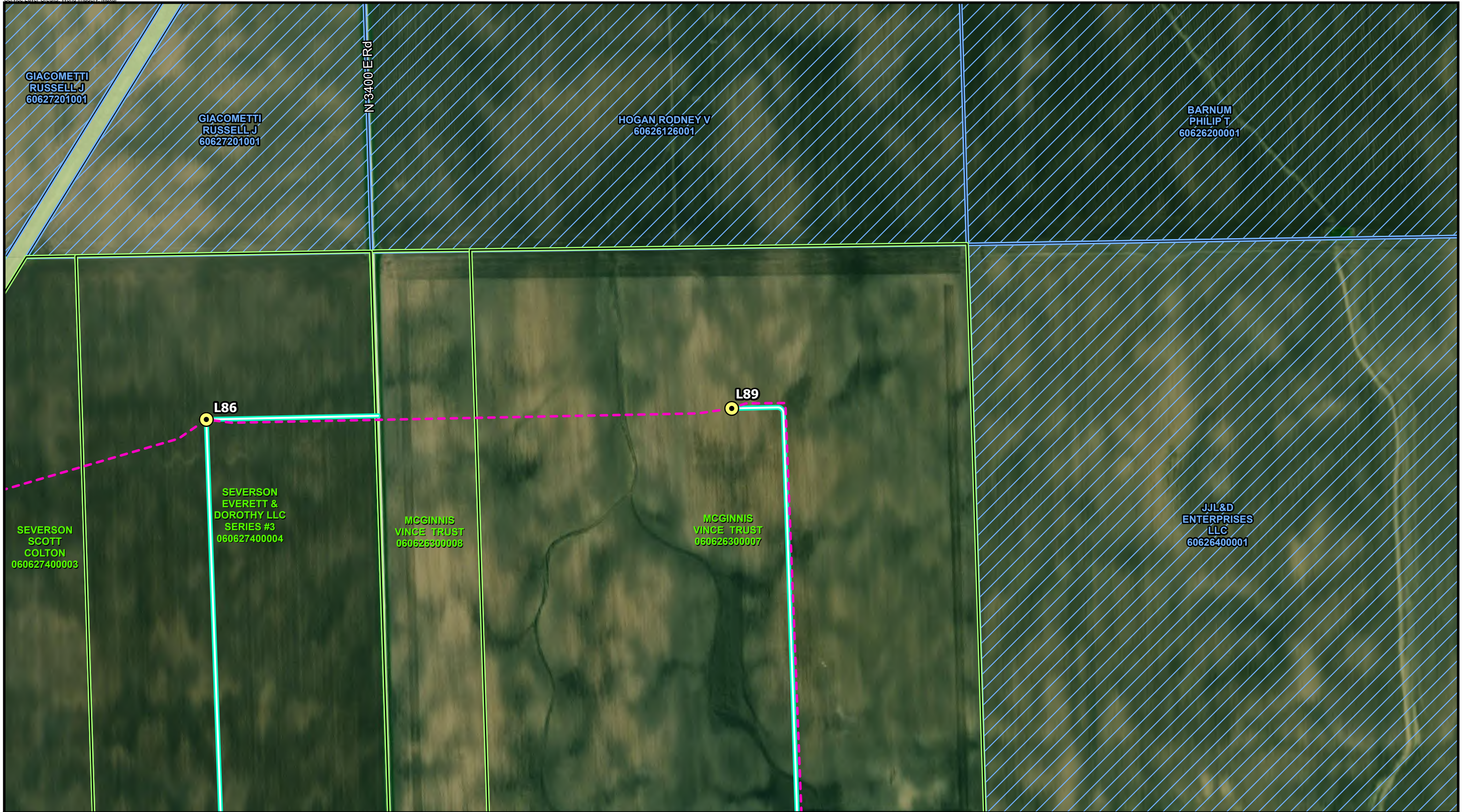


Figure 3-55
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L87



- Proposed Turbines
- Access Road
- Collection Line

- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

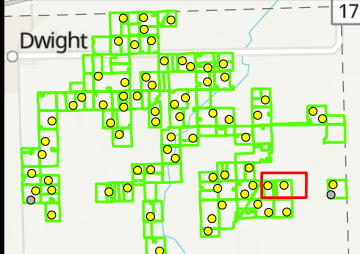
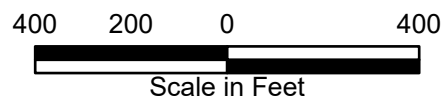
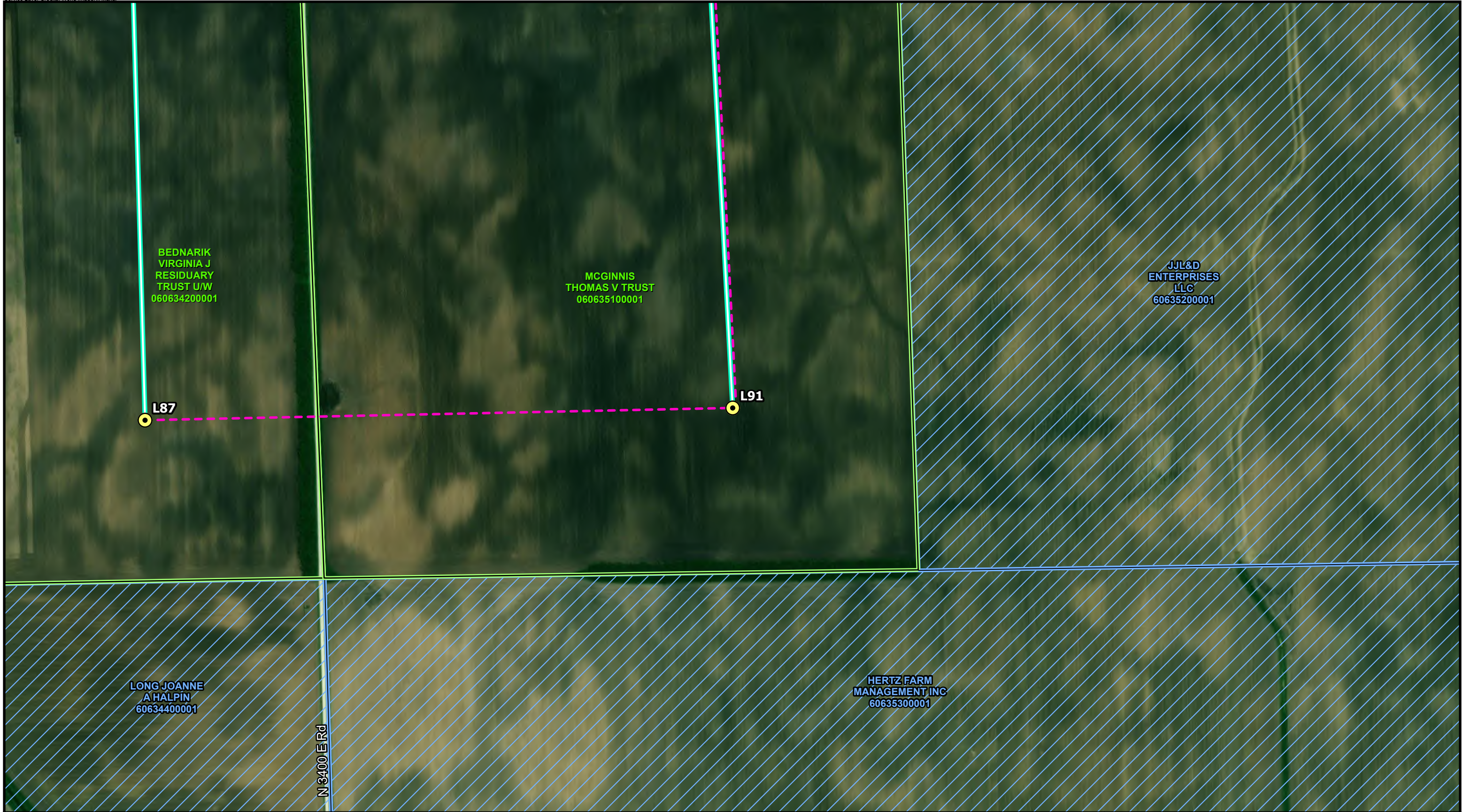


Figure 3-56
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L89



- Proposed Turbines
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

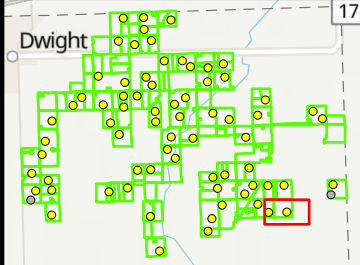


Figure 3-57
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L91



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Collection Line - Overhead
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

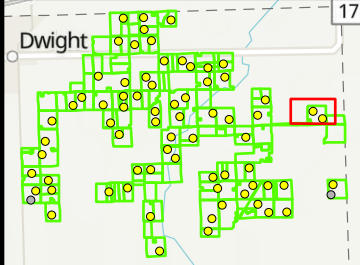
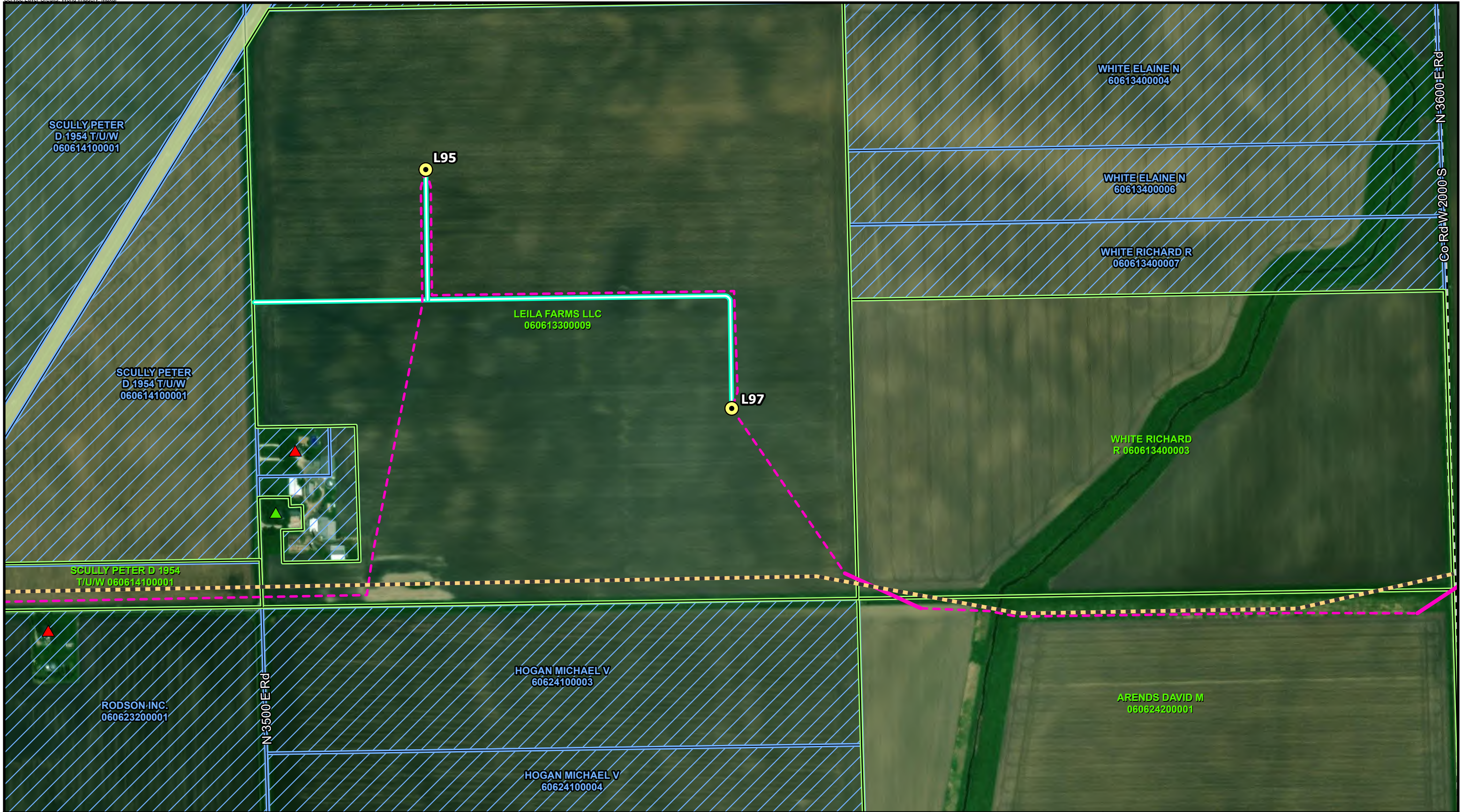


Figure 3-58
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
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 L95



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Collection Line - Overhead
- Project Gen-Tie
- Participating Parcel
- Non-Participating Parcel
- County Boundary
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

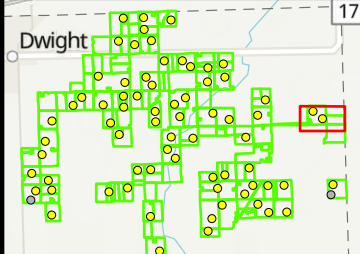


Figure 3-59
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L97



-  Met Towers
-  Proposed Turbines
-  Participating Residence
-  Access Road
-  Collection Line
-  Participating Parcel
-  Non-Participating Parcel
-  County Boundary

*All residences shown as participating are under wind lease or good neighbor agreements.

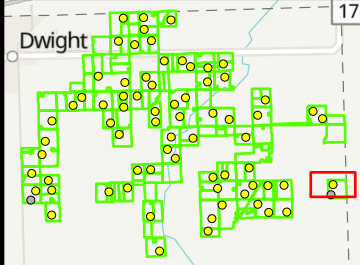
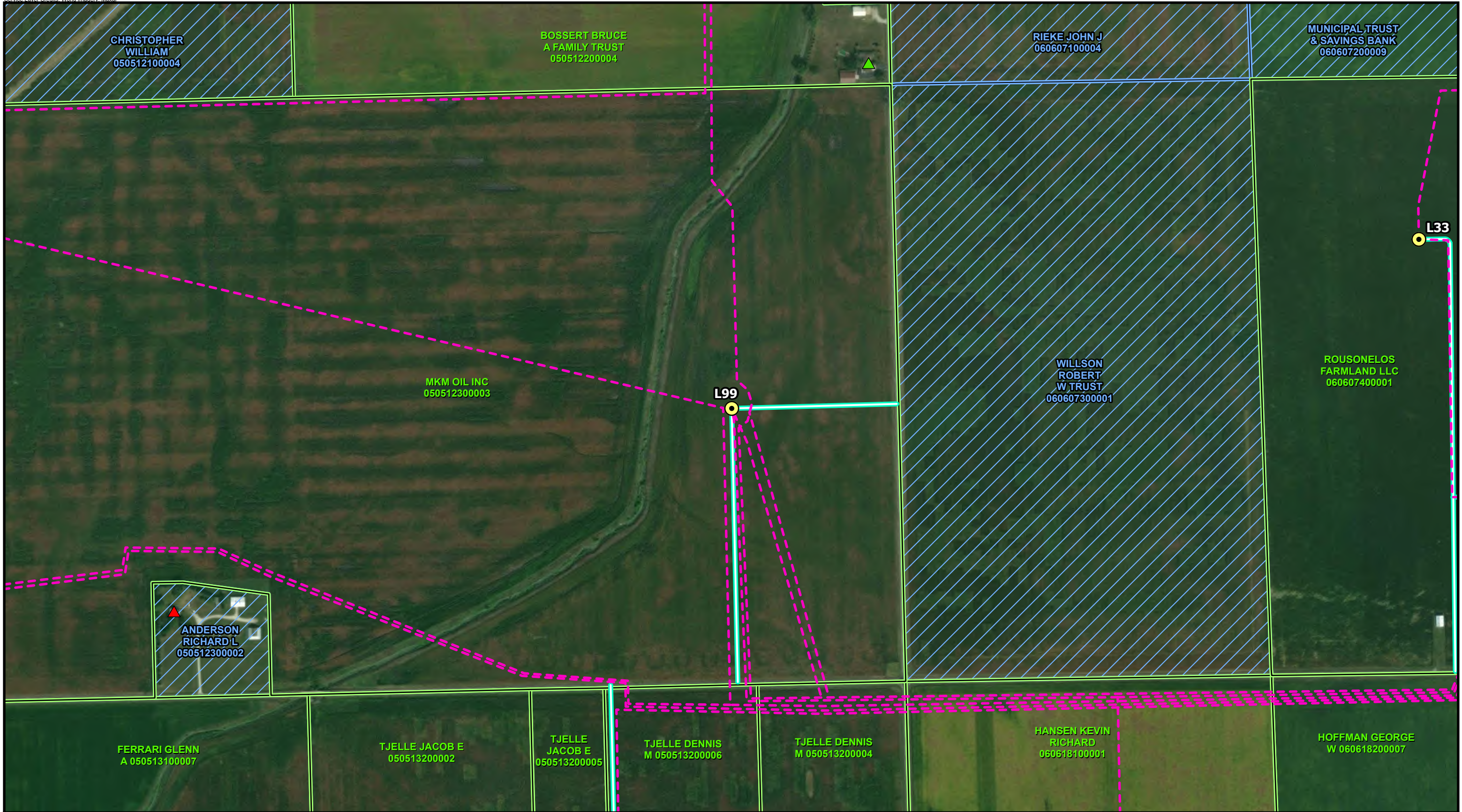


Figure 3-60
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L98



- Proposed Turbines
- Participating Residence
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

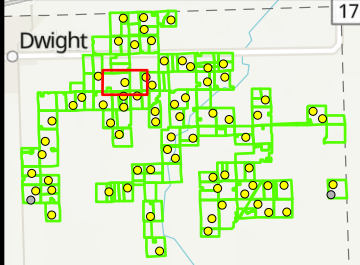
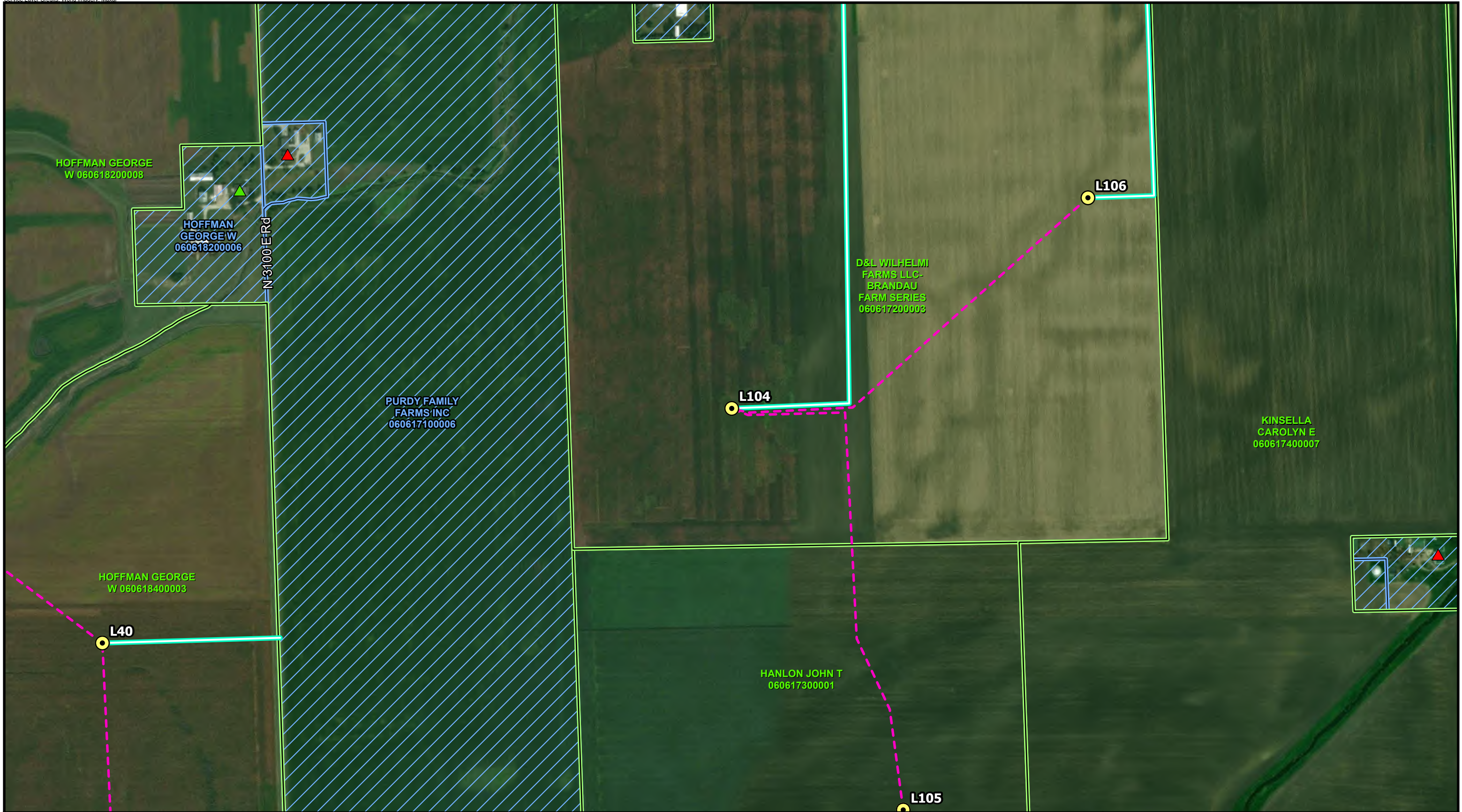


Figure 3-61
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L99



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

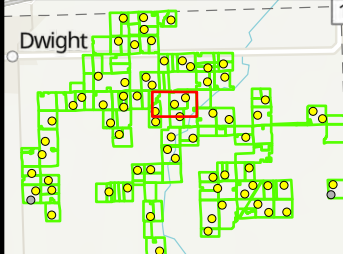
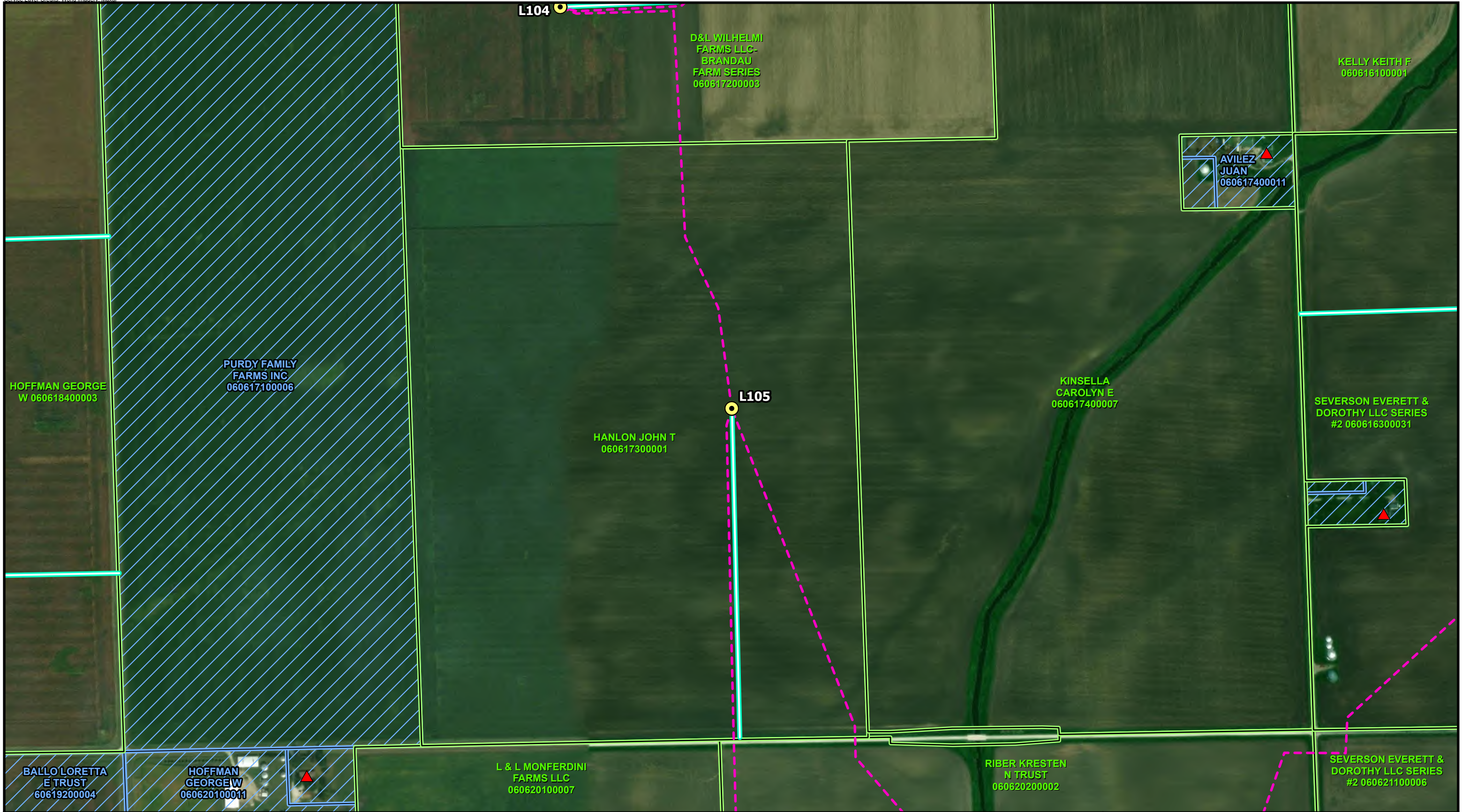


Figure 3-62
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L104



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

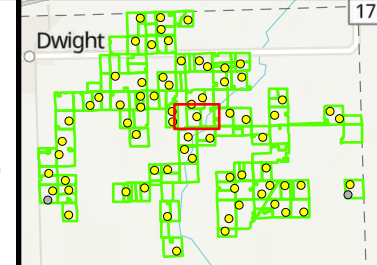


Figure 3-63
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L105



- Proposed Turbines
- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

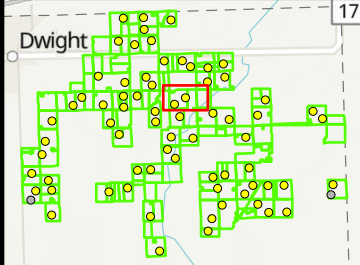


Figure 3-64
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L106



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

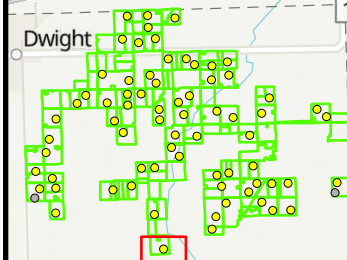
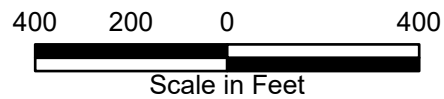


Figure 3-65
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L107



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

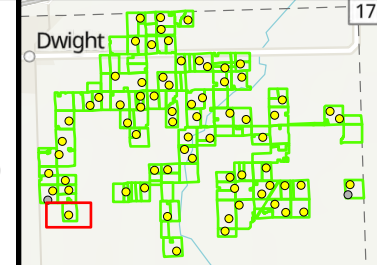
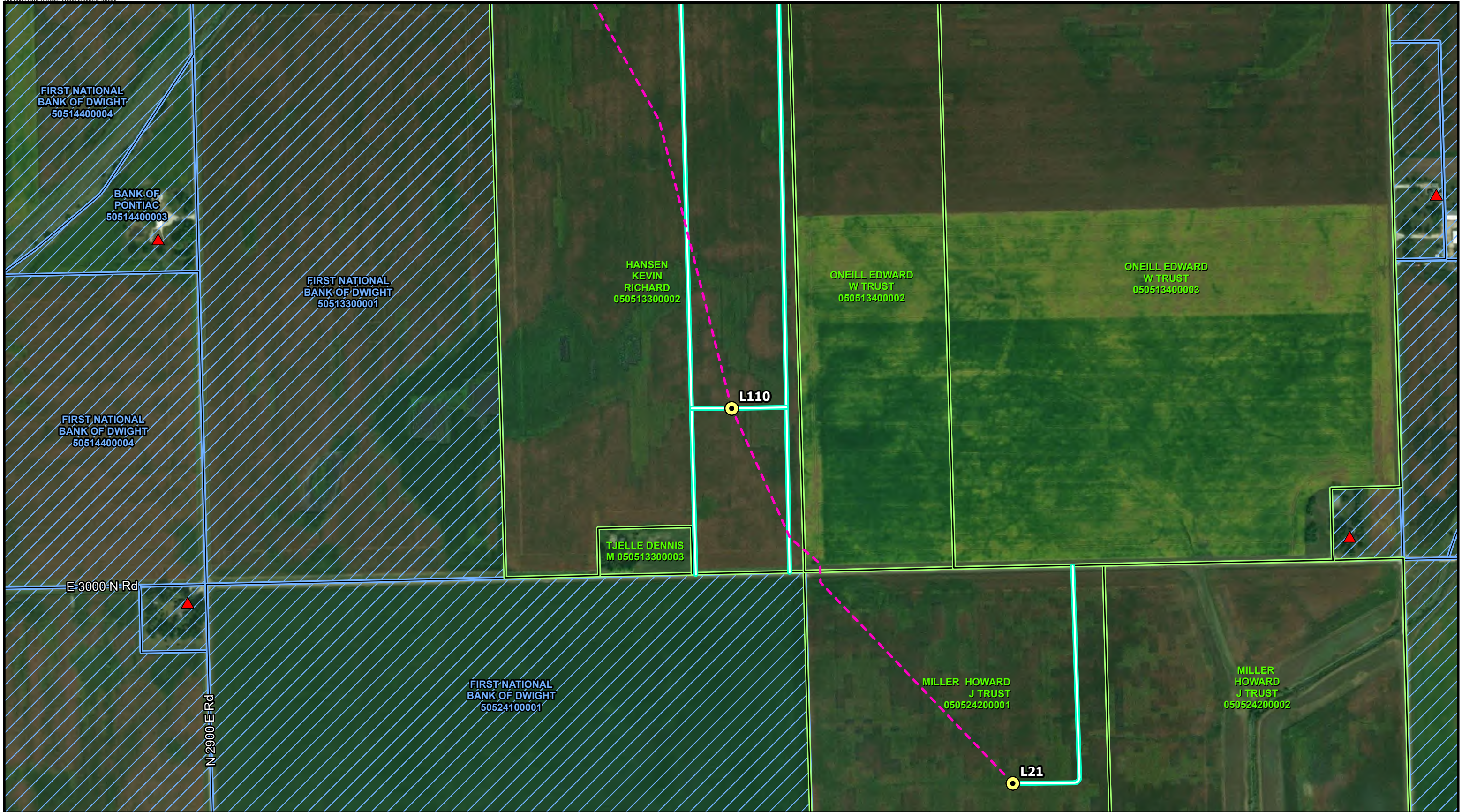


Figure 3-66
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L109



- Proposed Turbines
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

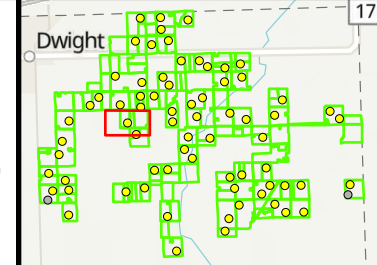
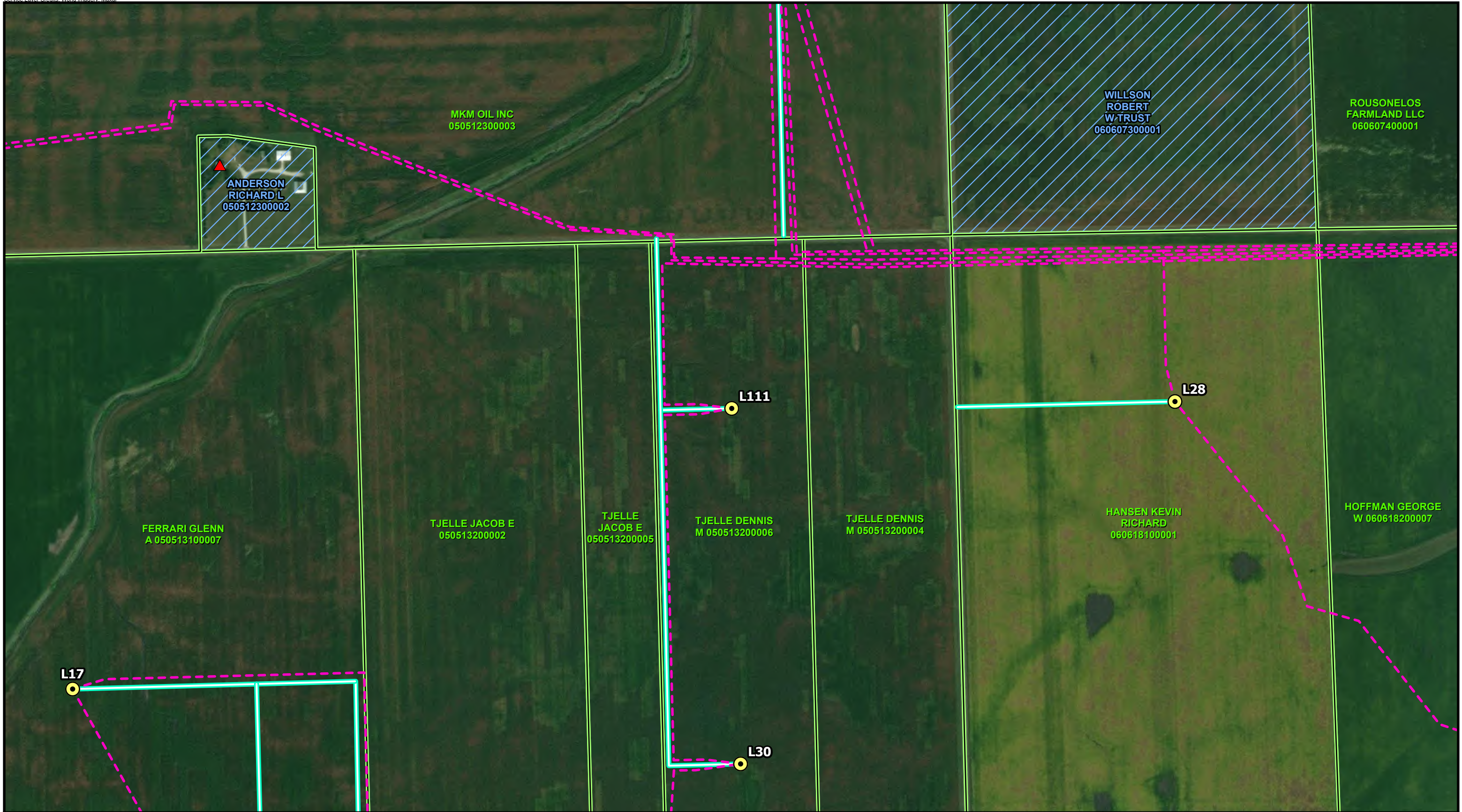


Figure 3-67
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L110



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

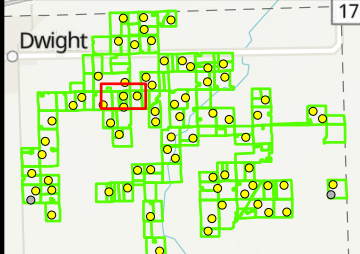


Figure 3-68
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L111



- Proposed Turbines
- Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

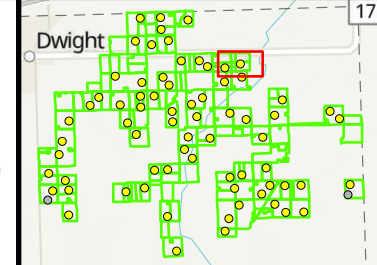
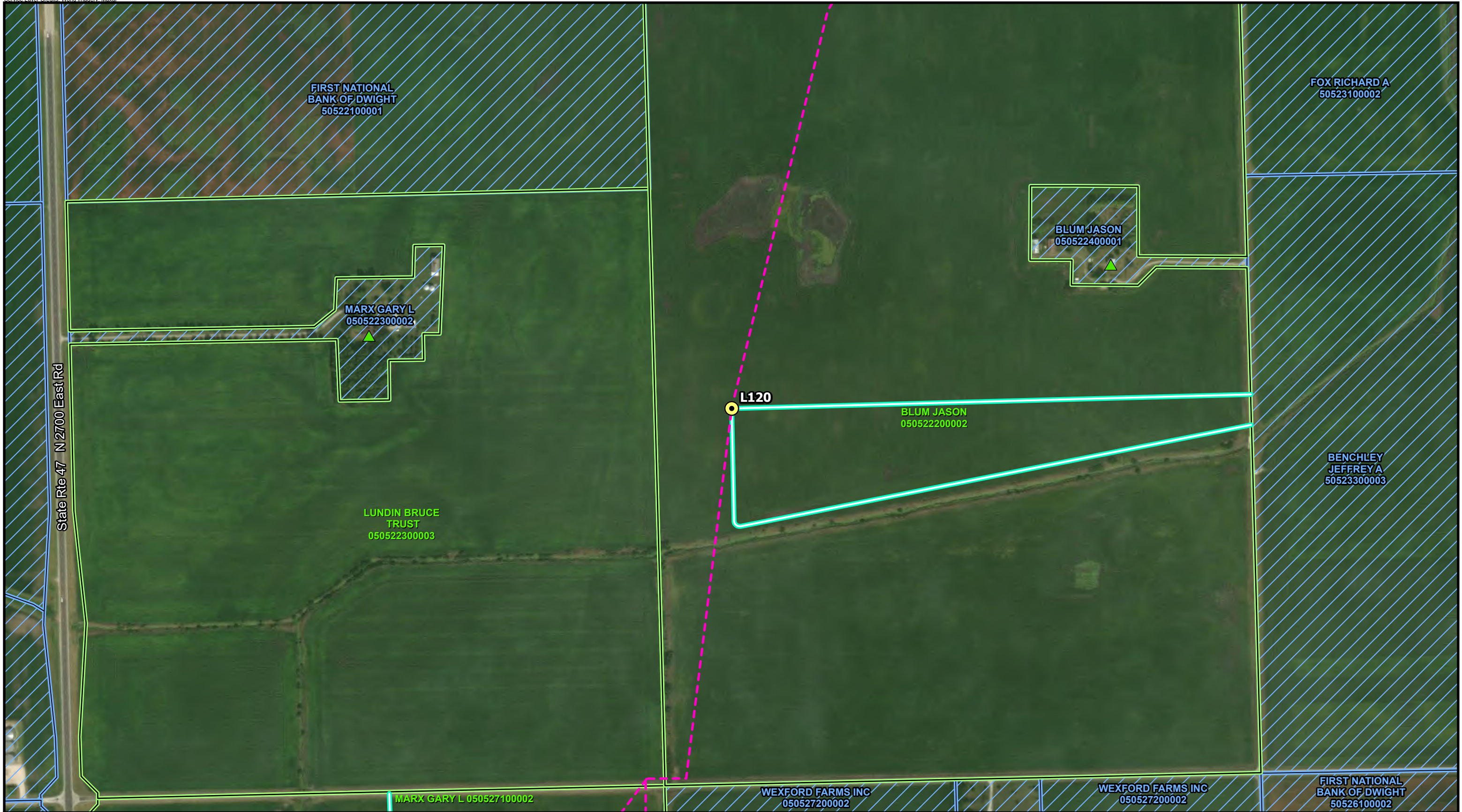


Figure 3-69
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L113



- Proposed Turbines
- Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

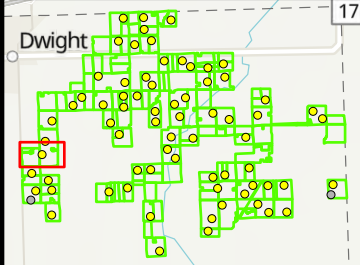


Figure 3-70
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
L120



- Proposed Turbines
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Access Road
- Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

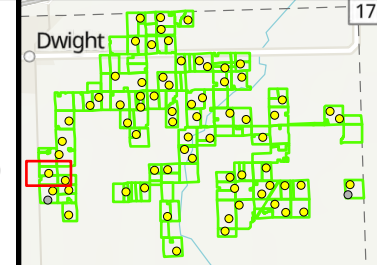
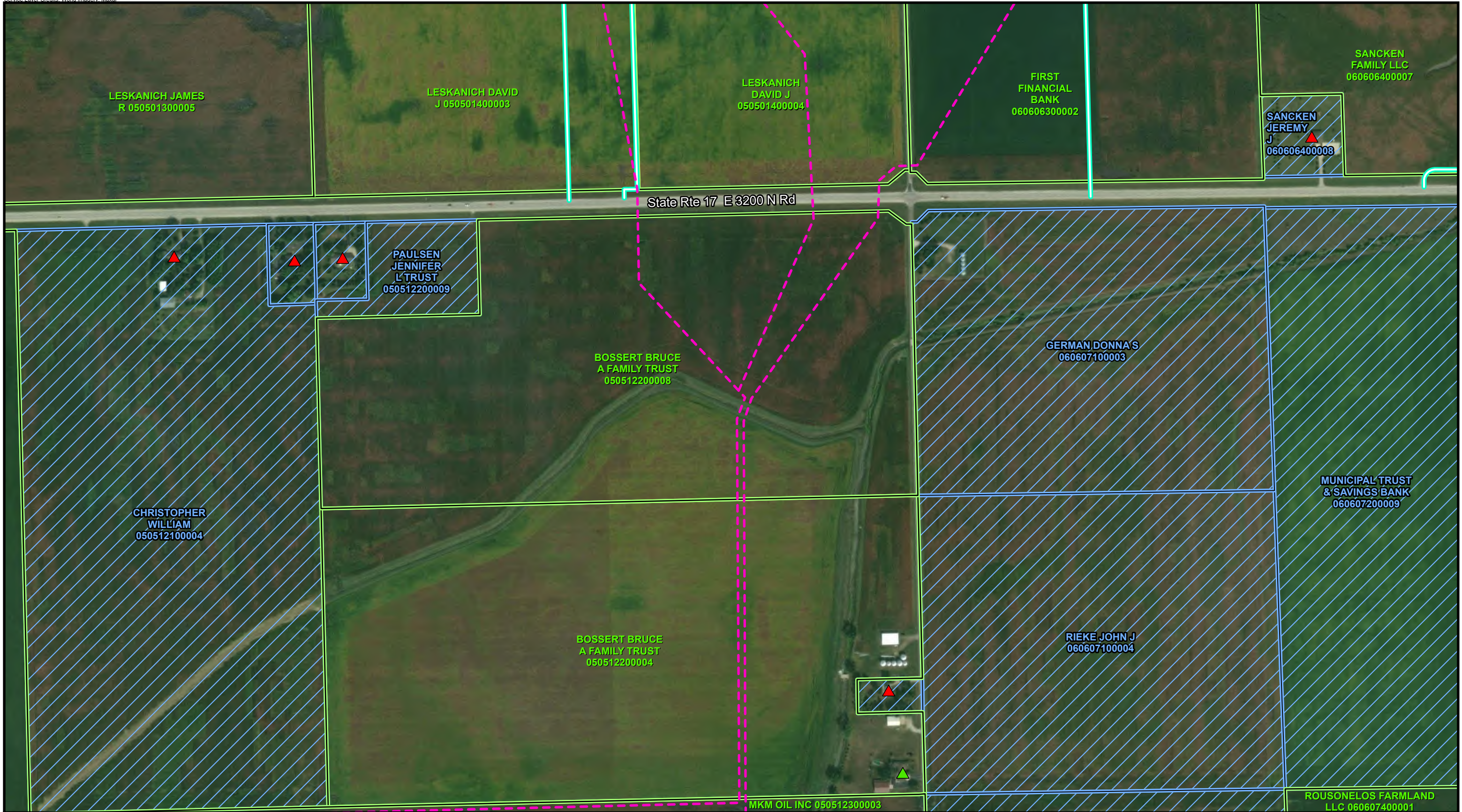


Figure 3-71
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 L121



- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- ▭ Participating Parcel
- ▭ Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

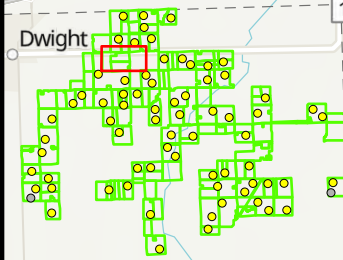
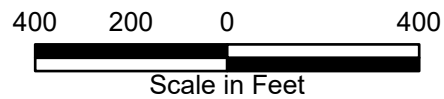
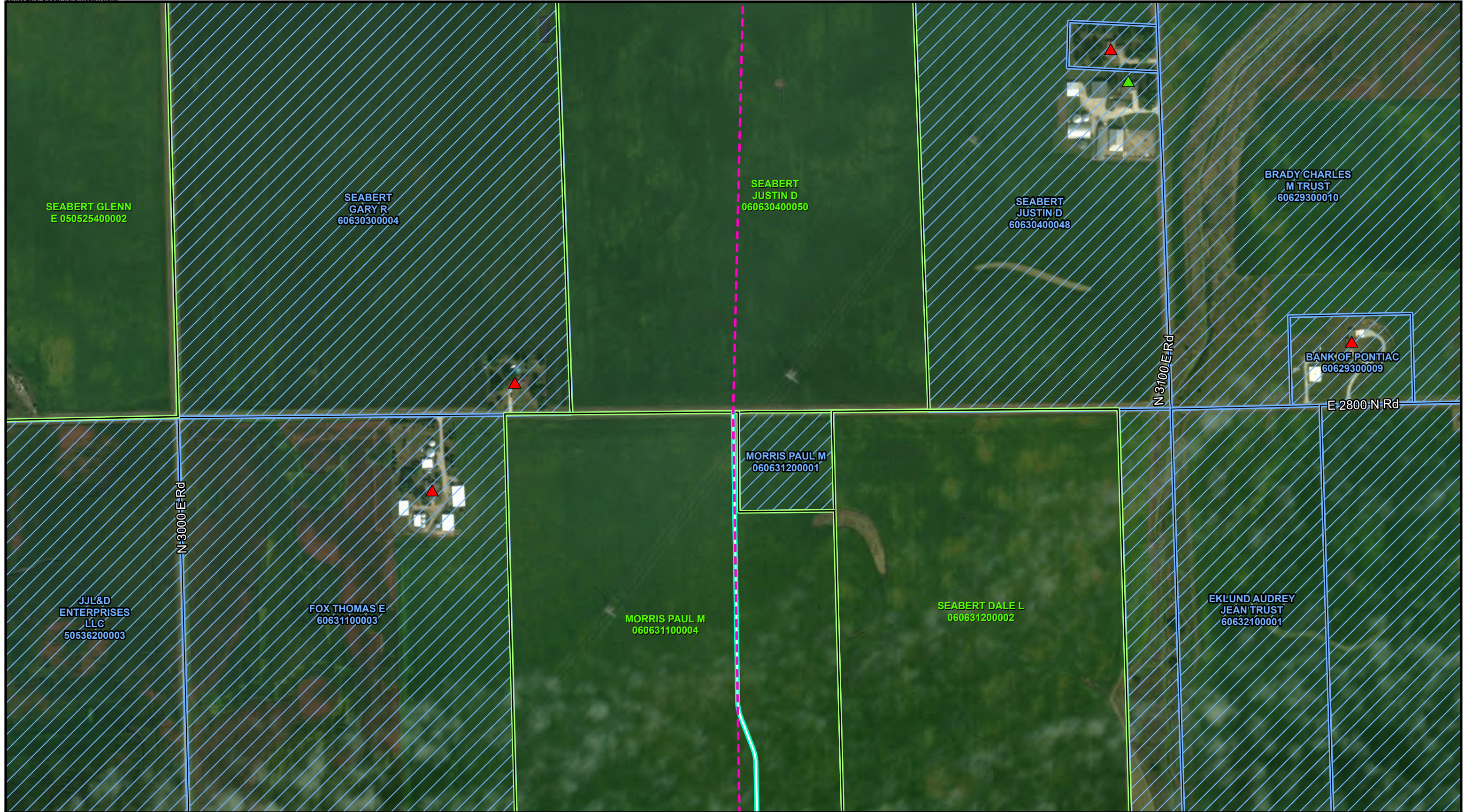


Figure 3-72
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
Site Features 1



- ▲ Participating Residence
- ▲ Non-Participating Residence
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Access Road

*All residences shown as participating are under wind lease or good neighbor agreements.

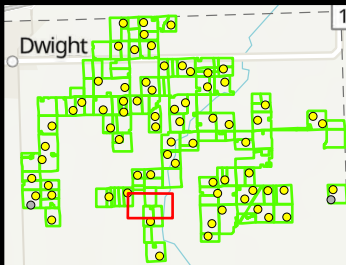
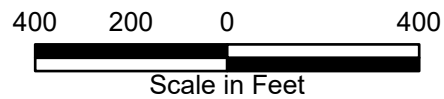
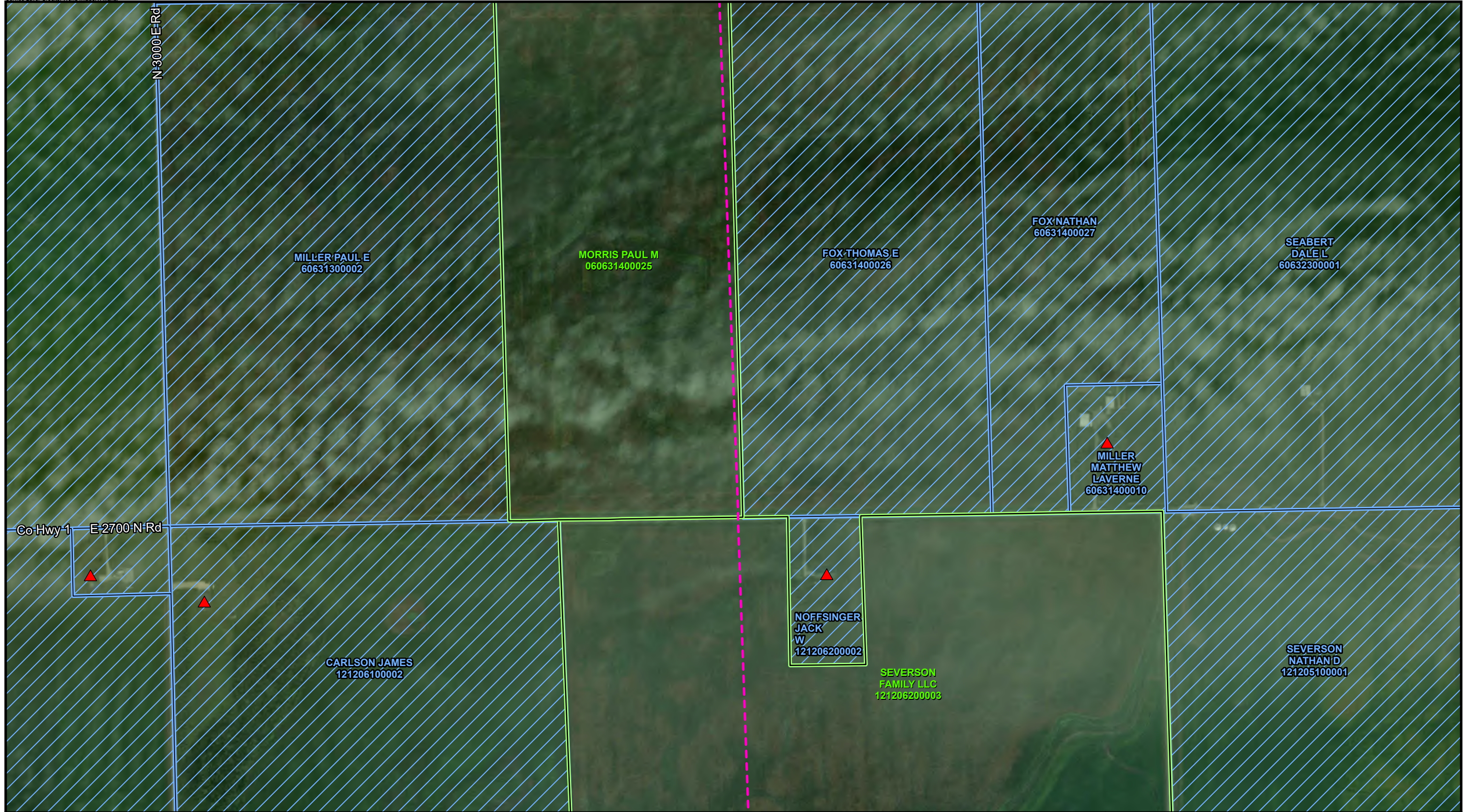


Figure 3-73
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 Site Features 2



- ▲ Non-Participating Residence
- - - Collection Line
- ▭ Participating Parcel
- ▭ Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

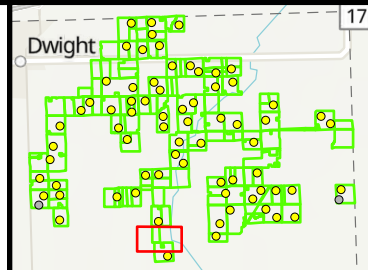
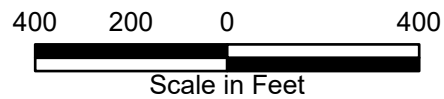




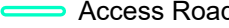



Figure 3-74
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
Site Features 3



 Participating Residence	 Collection Line
 Non-Participating Residence	 Participating Parcel
 Access Road	 Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

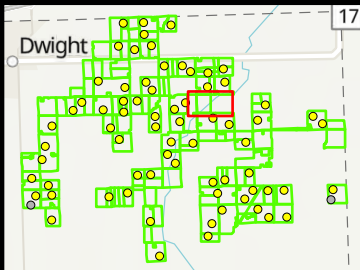
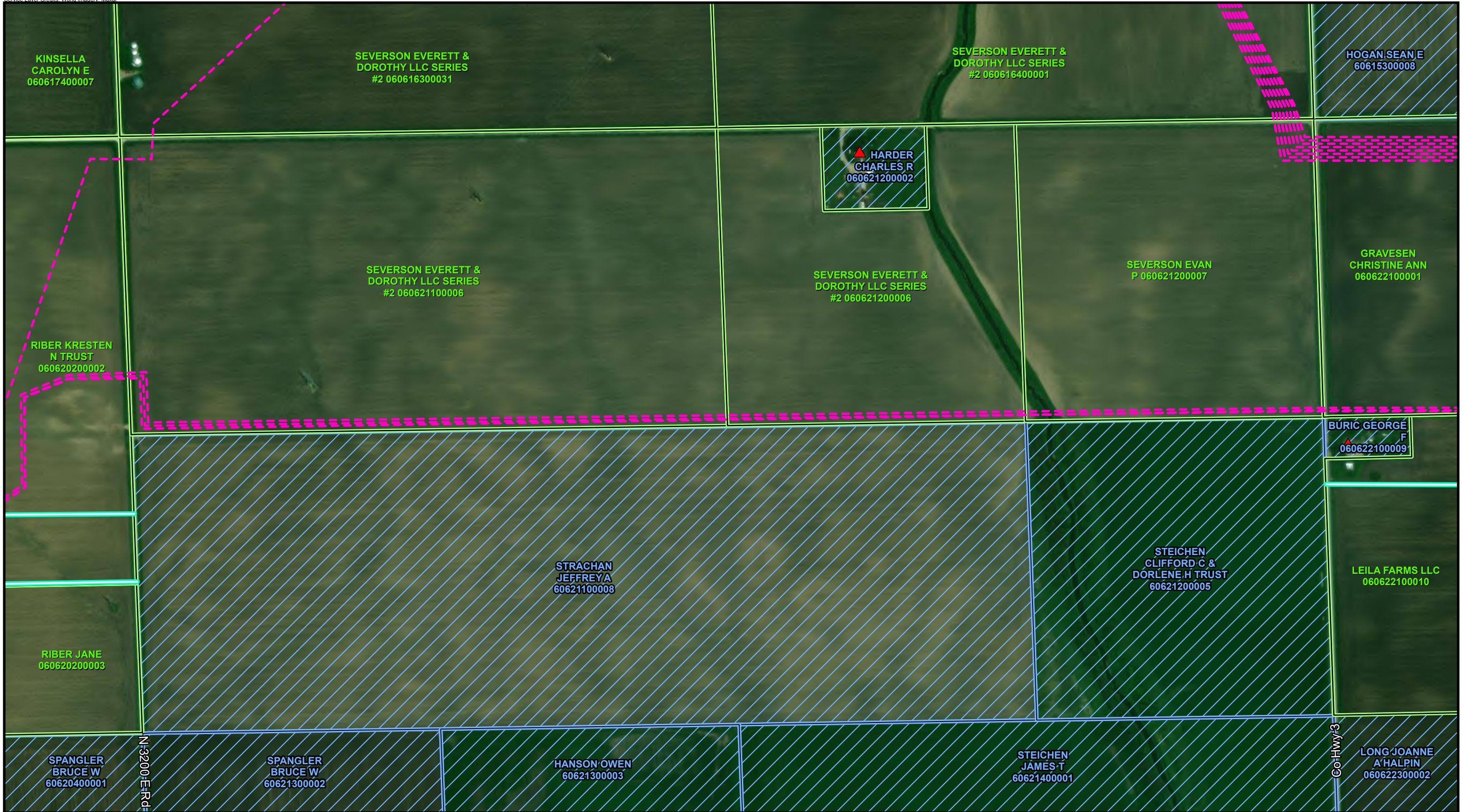


Figure 3-75
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
Site Features 4



- ▲ Non-Participating Residence
- Access Road
- - - Collection Line
- ▭ Participating Parcel
- ▭ Non-Participating Parcel

*All residences shown as participating are under wind lease or good neighbor agreements.

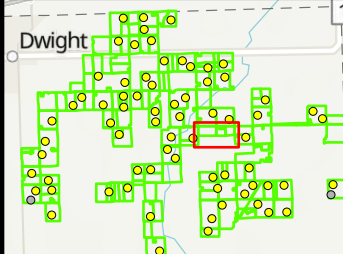
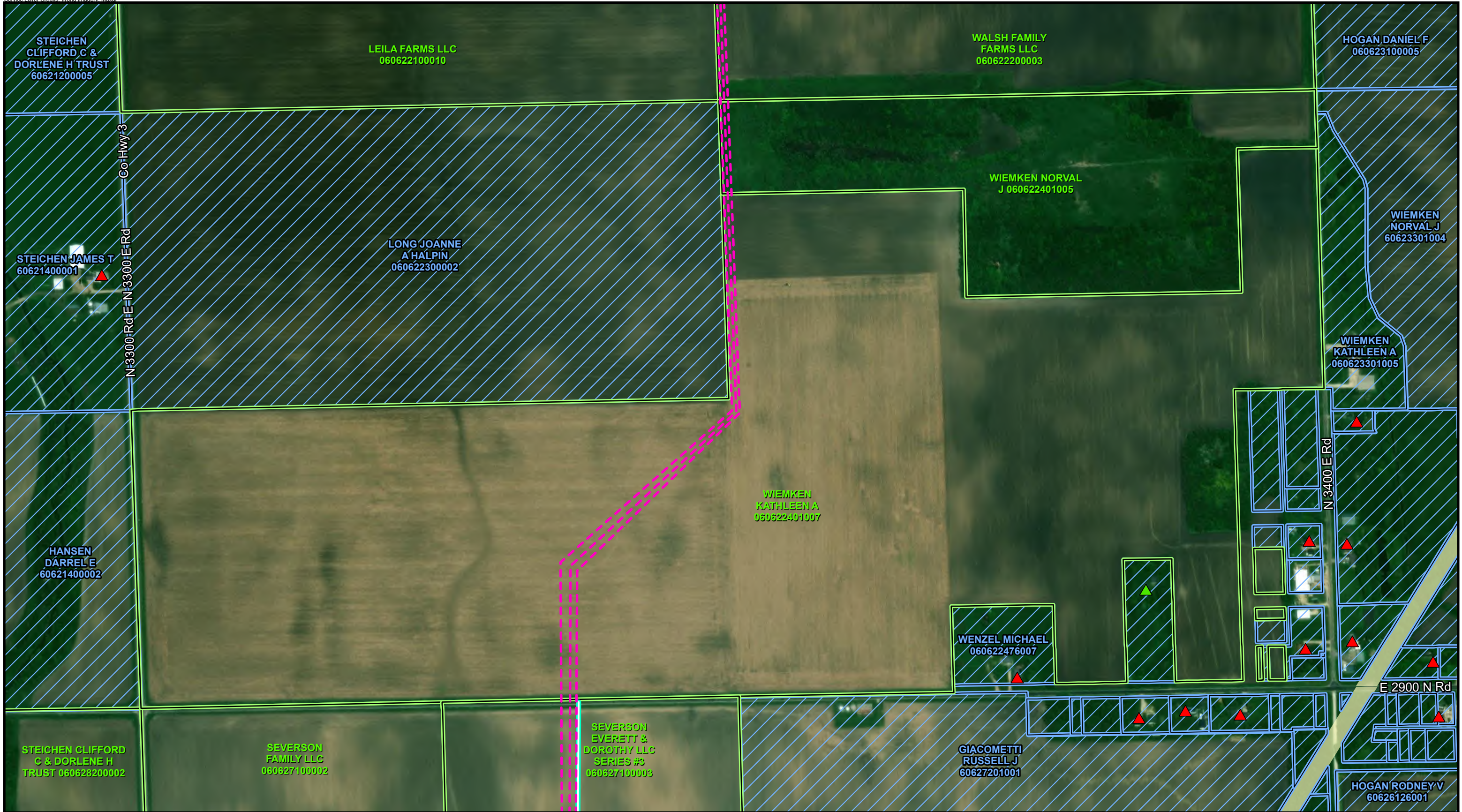


Figure 3-76
Heritage Prairie Wind Project
Site Plan - Proposed Features
Livingston County, Illinois
Page name:
Site Features 5



- ▲ Participating Residence
- ▲ Non-Participating Residence
- Participating Parcel
- Non-Participating Parcel
- Access Road
- Collection Line
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

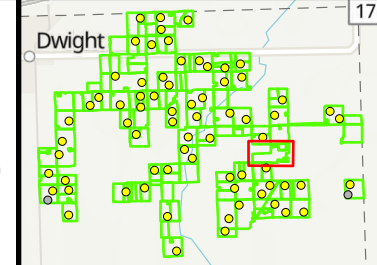


Figure 3-77
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 Site Features 6



- ▲ Participating Residence
- ▲ Non-Participating Residence
- Access Road
- Collection Line
- Participating Parcel
- Non-Participating Parcel
- Railroad ROW

*All residences shown as participating are under wind lease or good neighbor agreements.

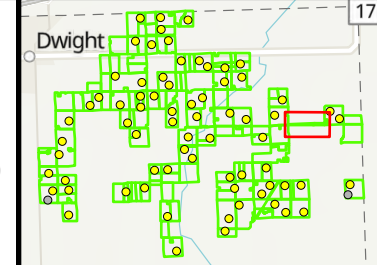
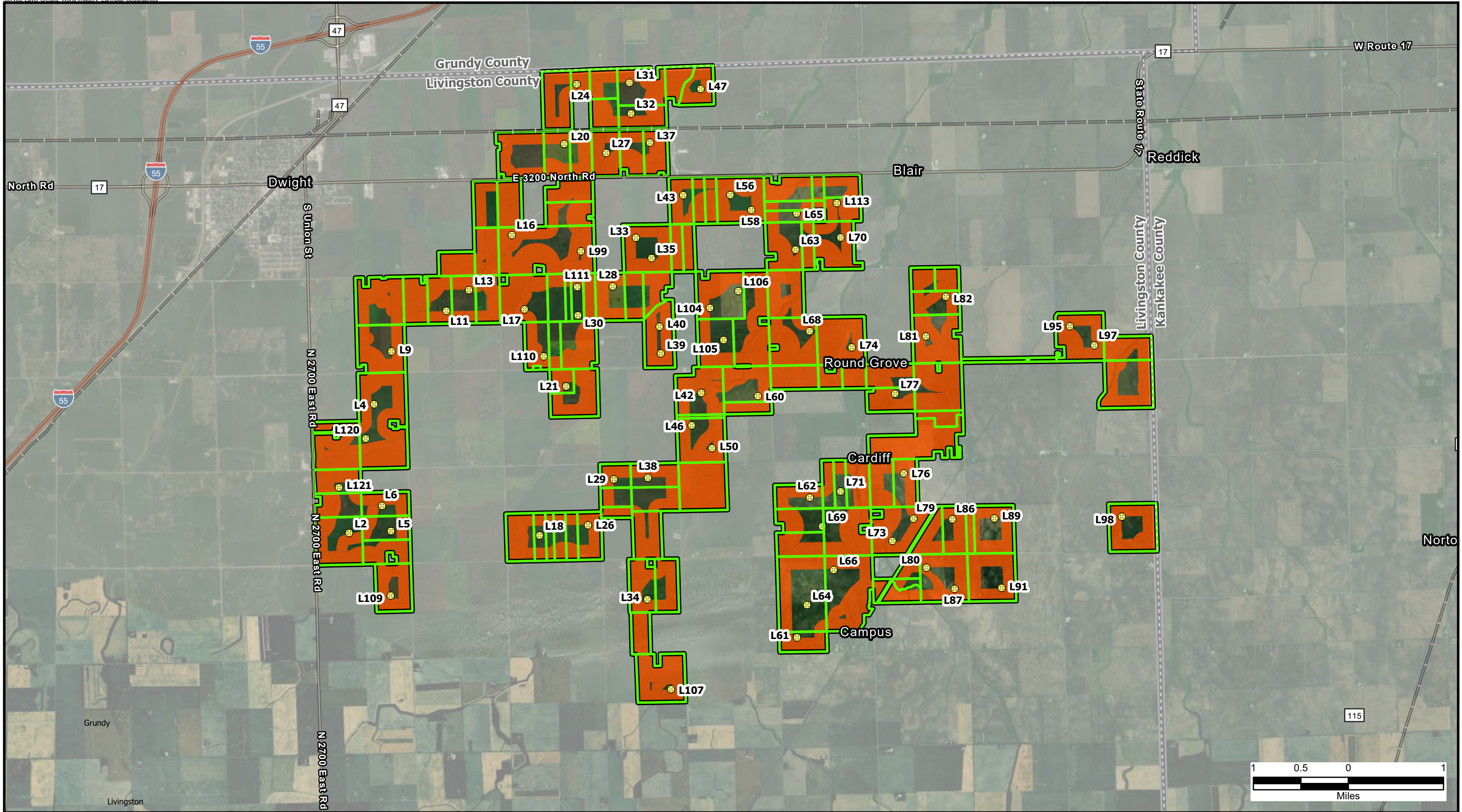


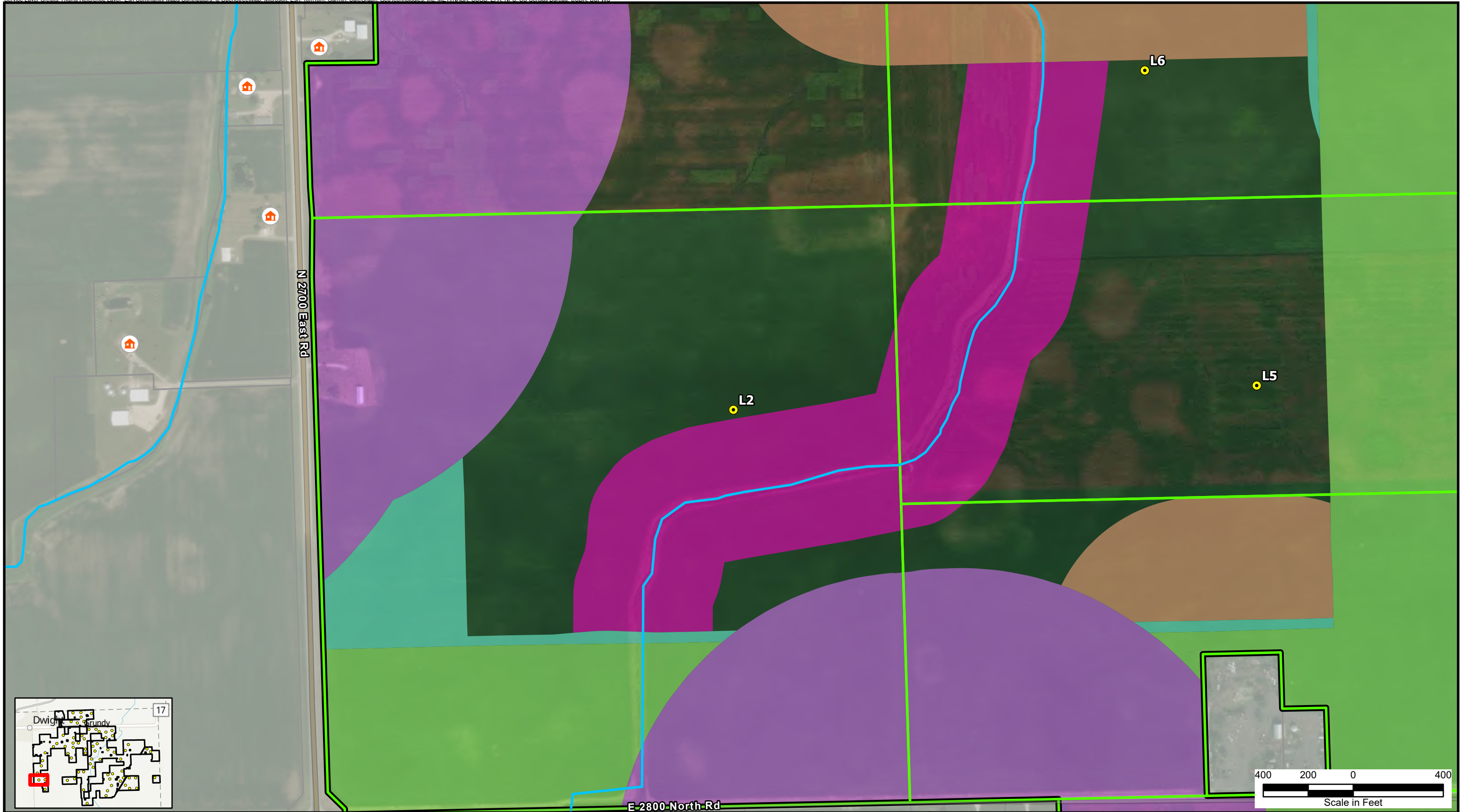
Figure 3-78
 Heritage Prairie Wind Project
 Site Plan - Proposed Features
 Livingston County, Illinois
 Page name:
 Site Features 7



- ⊗ Proposed Turbines
- ▭ Project Boundary
- ▭ Participating Property Boundary
- ▭ Outside Project Area
- ▭ Setback Data



Figure 4
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois
Setback Map Series Index Map



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

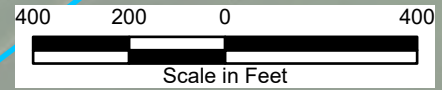
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

**BURNS
 McDONNELL™**

Figure 4-1
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois
 Page Name:
 L2



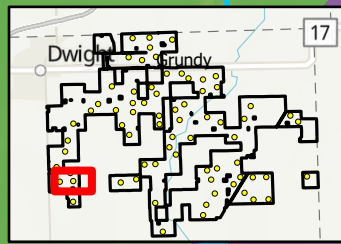
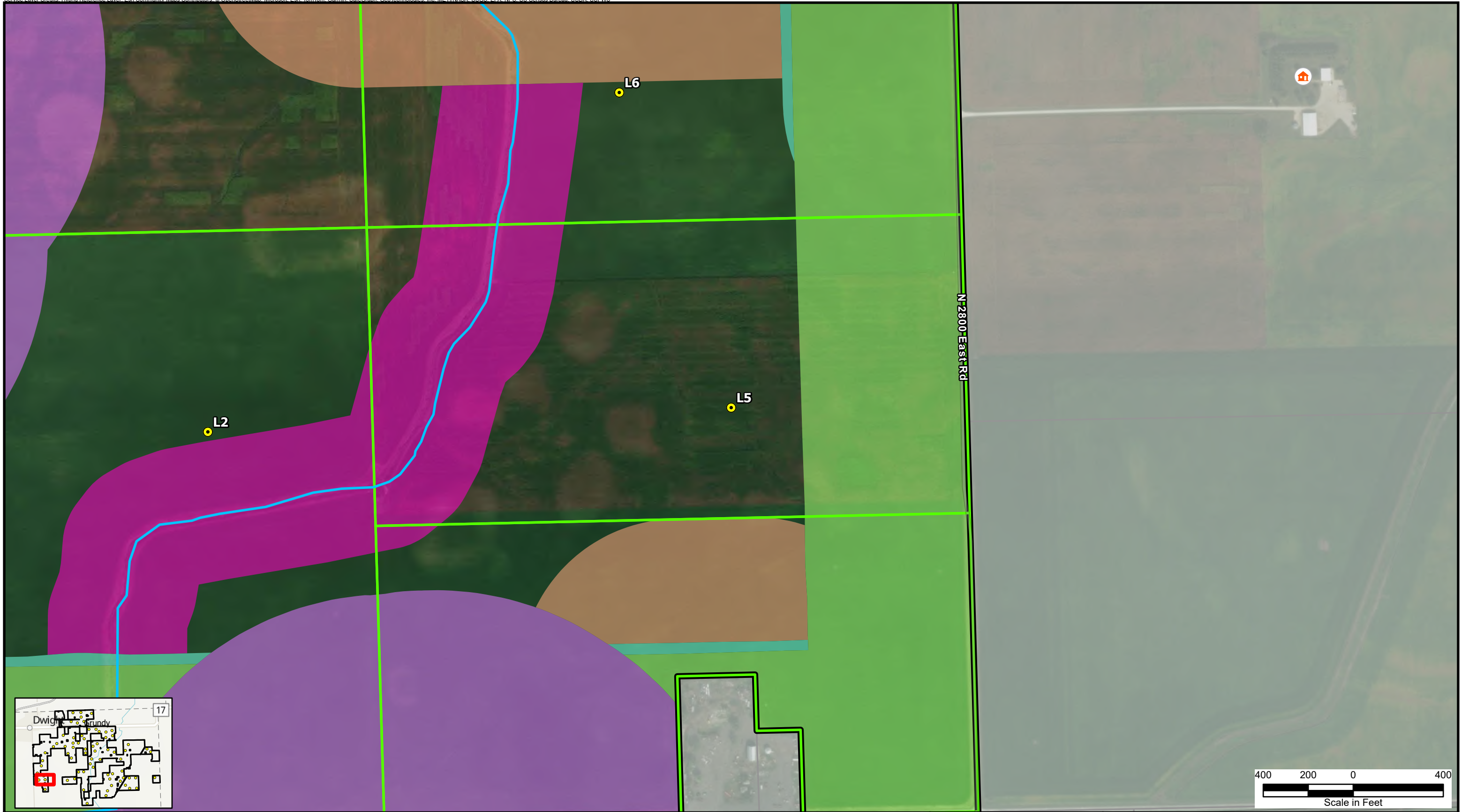
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-2
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L4



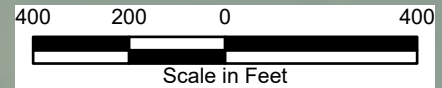
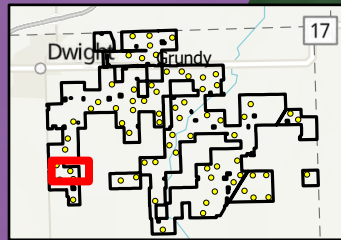
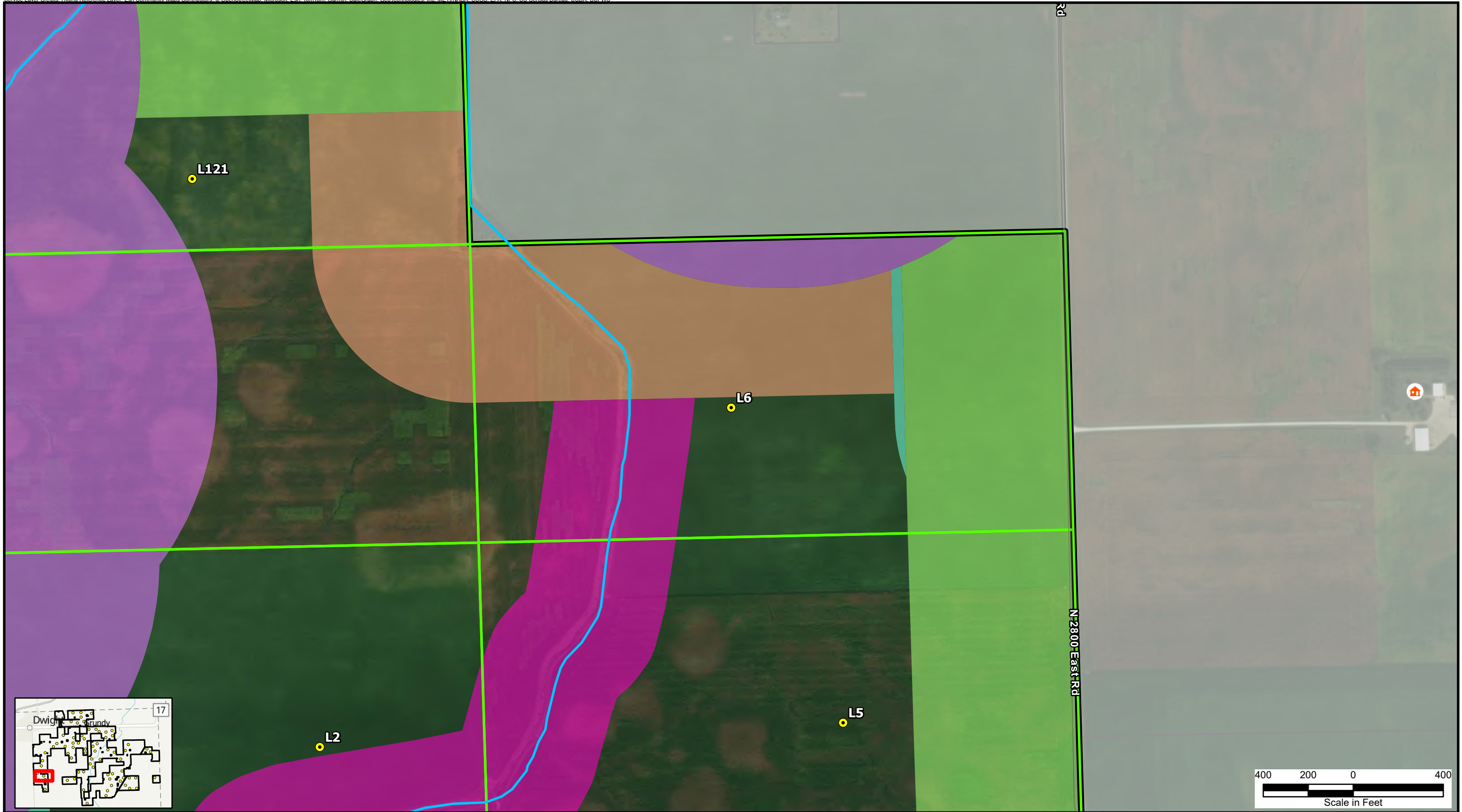
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River



- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

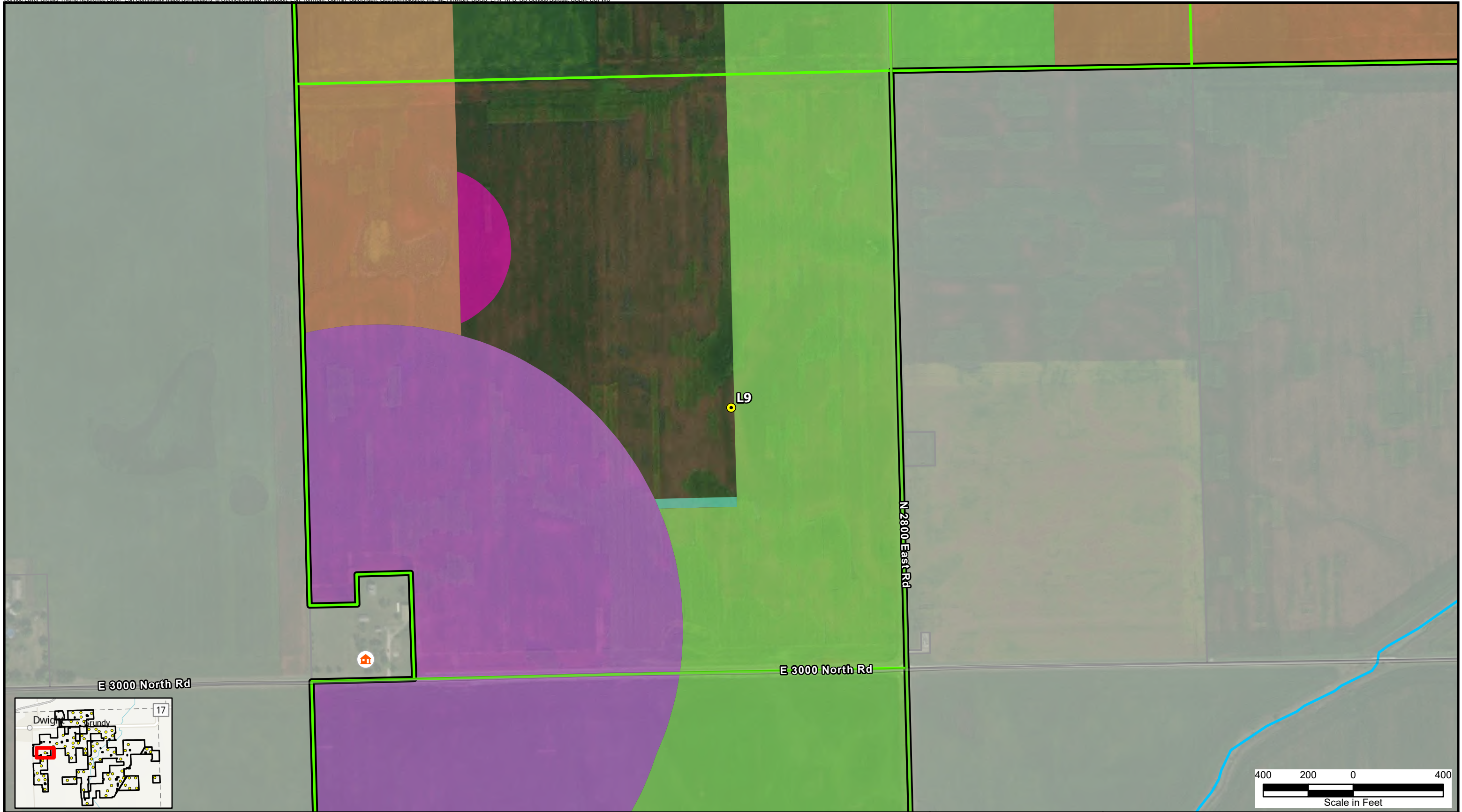
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-3
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L5



<p>Legend</p> <ul style="list-style-type: none"> ● Proposed Turbines Project Boundary Participating Property Boundary Non-Participating Property Boundary 	<ul style="list-style-type: none"> Outside Project Area 🏠 Non-Participating Residence — Perennial Stream/River 	<p>Setback Feature</p> <ul style="list-style-type: none"> Local Road Setback (701.9 ft) Overhead Distribution Line (701.9 ft) Non-Participating Residence Setback (1,340.1 ft) Non-Participating Property Lines Setback (701.9 ft) Illinois Department of Natural Resources Setbacks 	<p>*Turbines are not drawn to scale. **Only setback features affecting the turbine siting are shown. ***All residences shown as participating are under wind lease or good neighbor agreements.</p>	 	<p>Figure 4-4 Heritage Prairie Wind Project Ordinance Setback Map Livingston County, Illinois</p> <p>Page Name: L6</p>
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

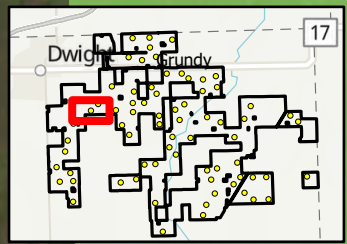
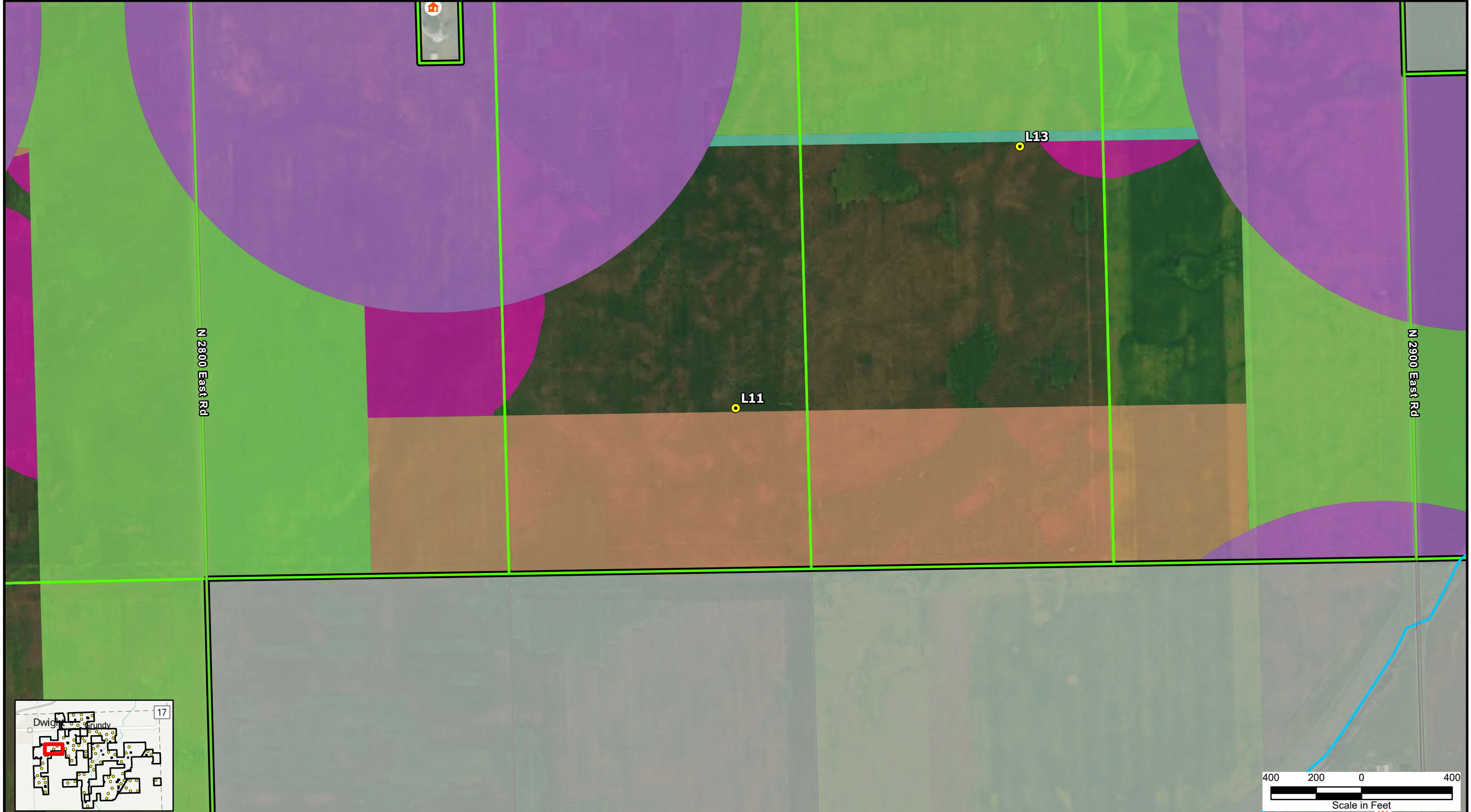
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

**BURNS
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Figure 4-5
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois
 Page Name:
 L9



- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary

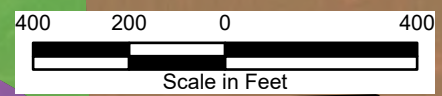
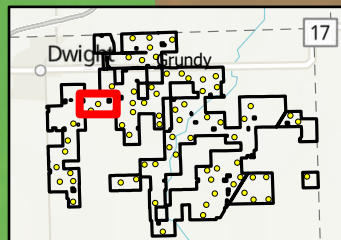
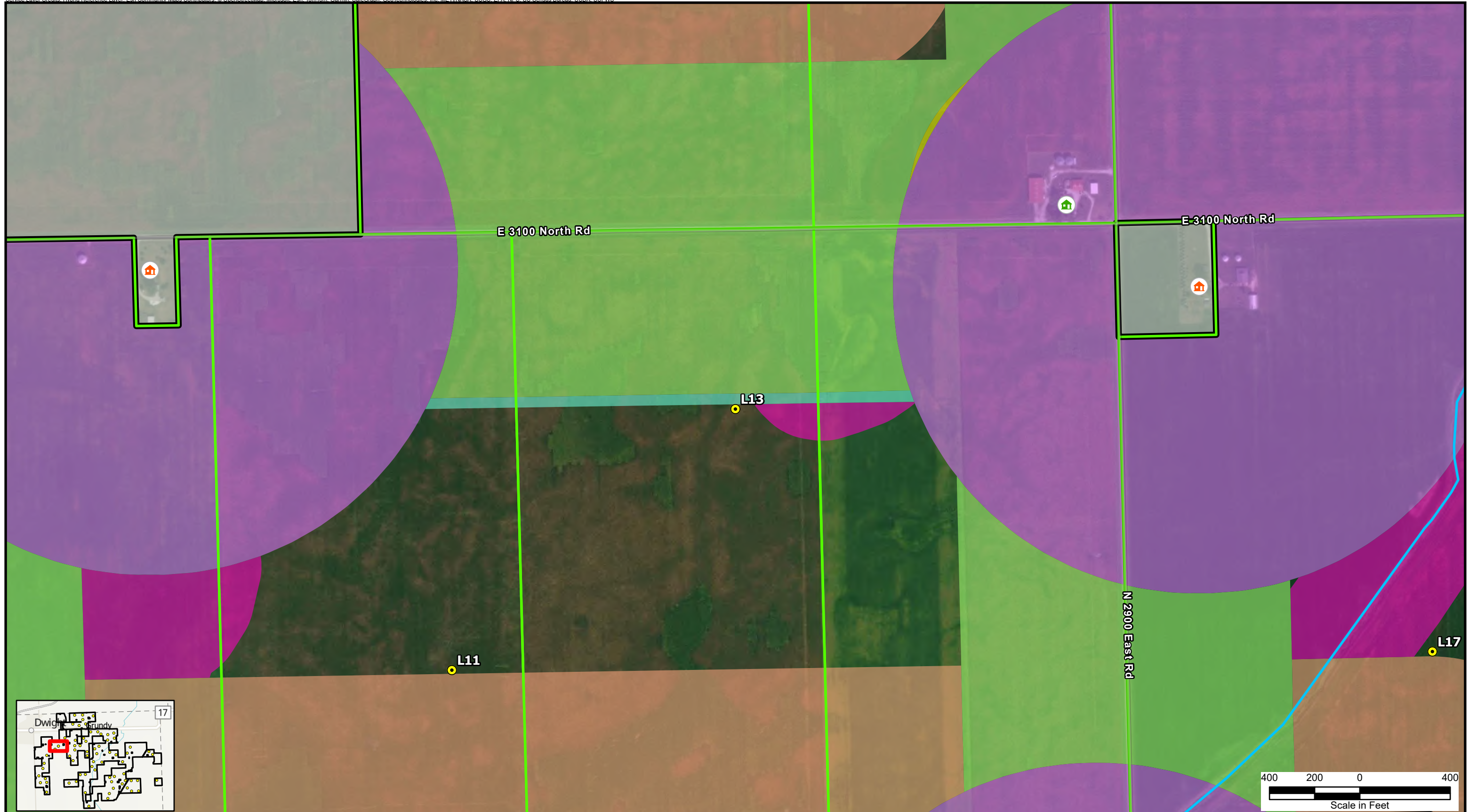
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-6
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L11



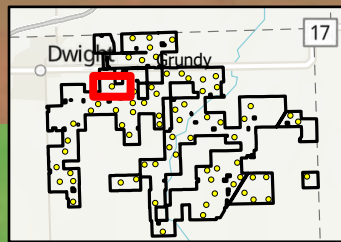
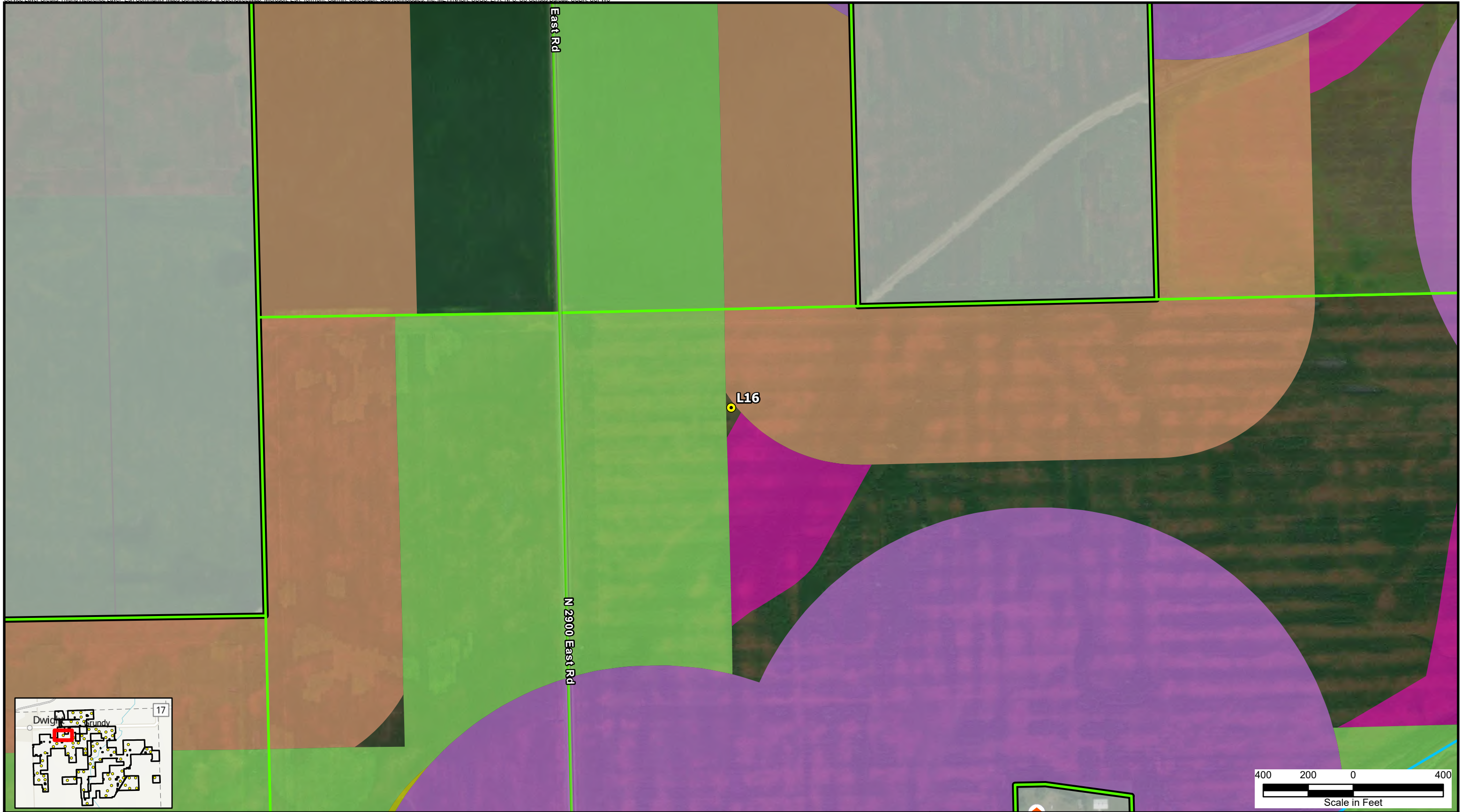
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-7
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L13



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

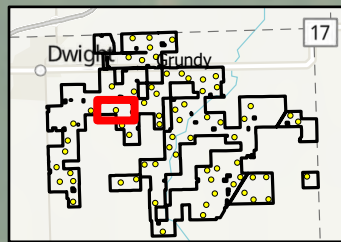
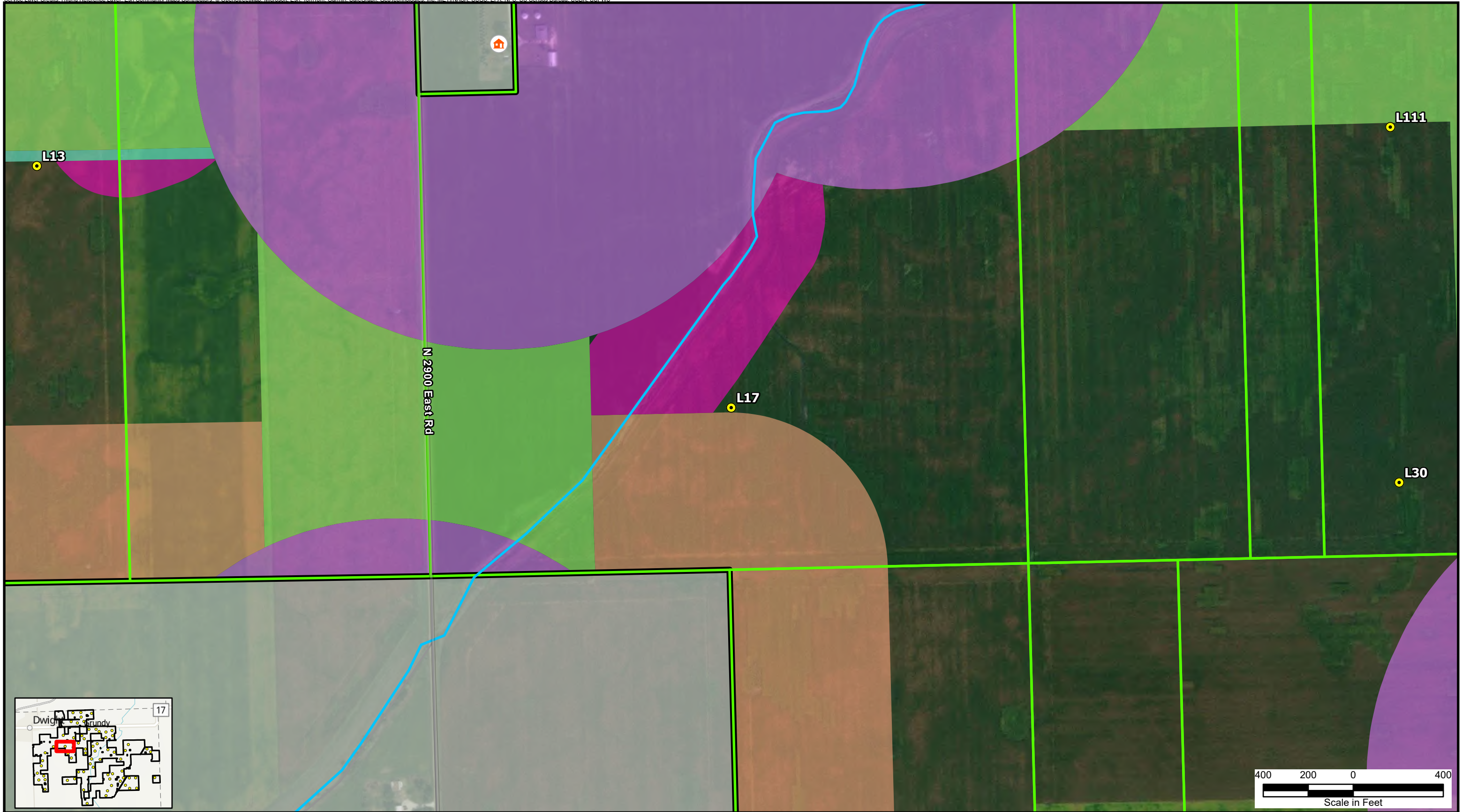
- Local Road Setback (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-8
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
 L16



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

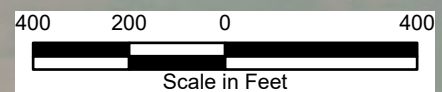
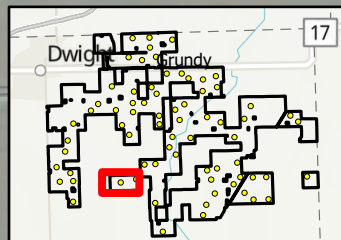
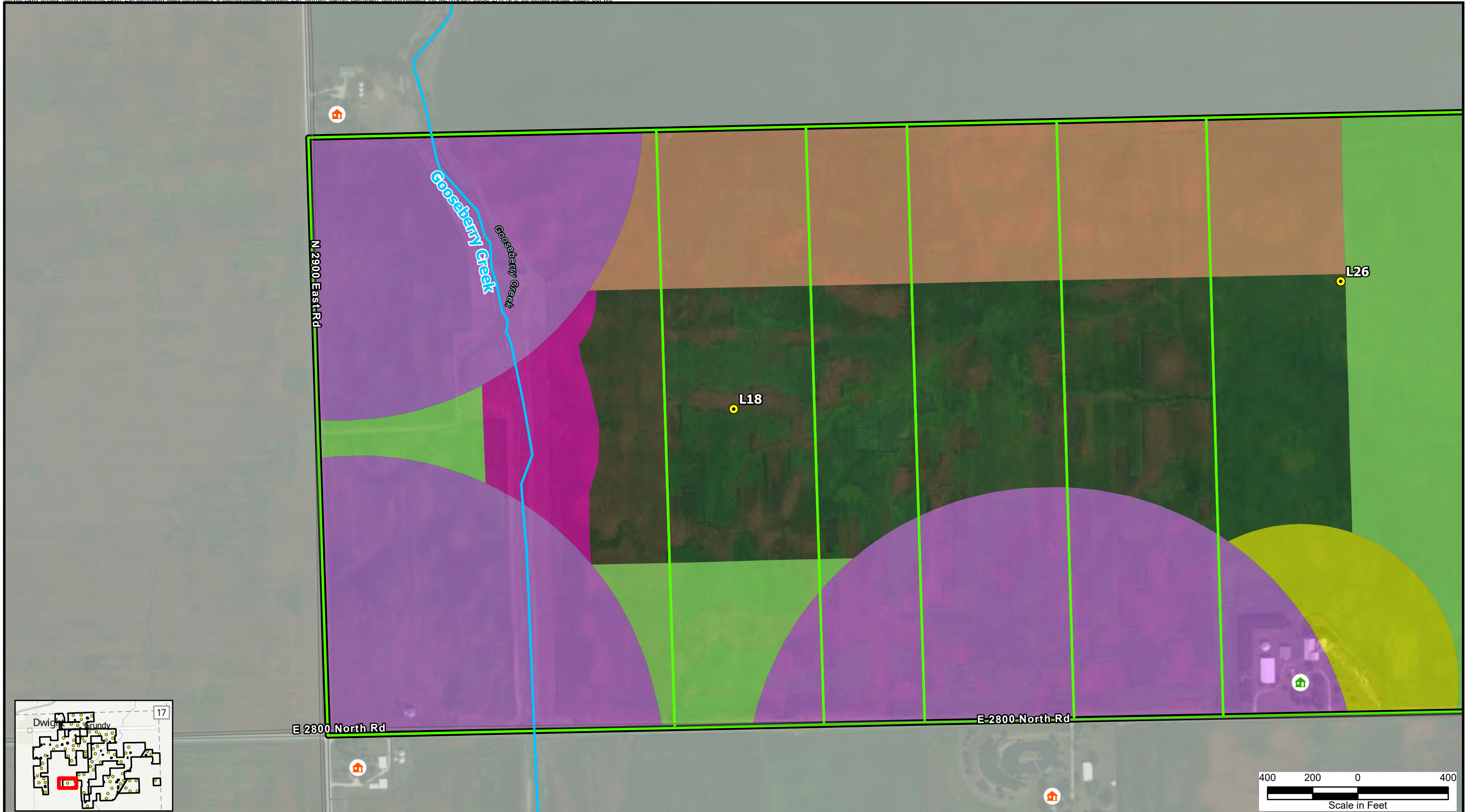
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-9
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
 L17



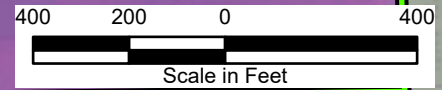
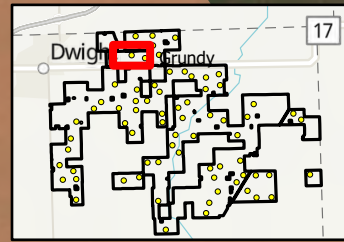
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Non-Participating Residence Setback (1.340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-10
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L18



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence

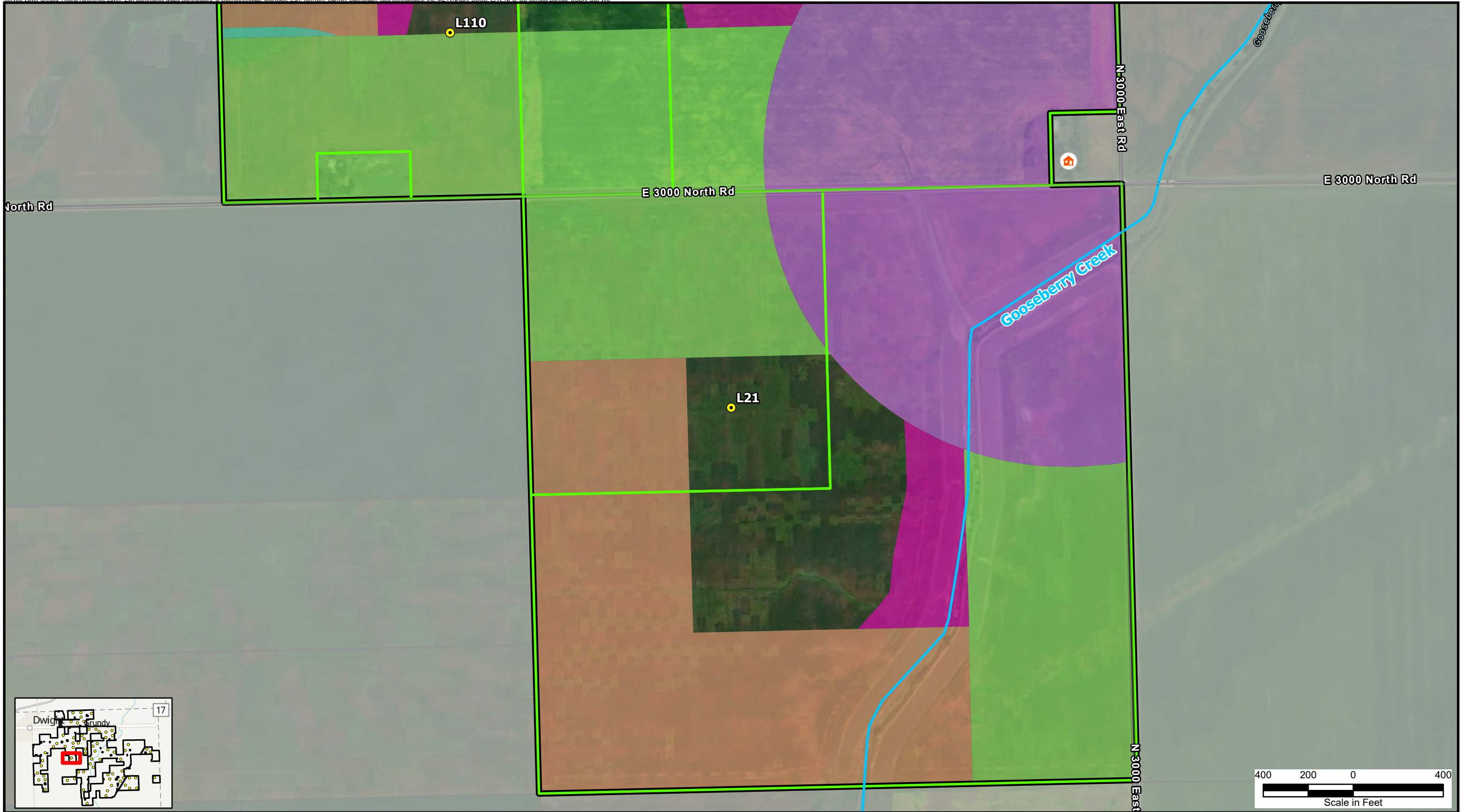
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-11
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



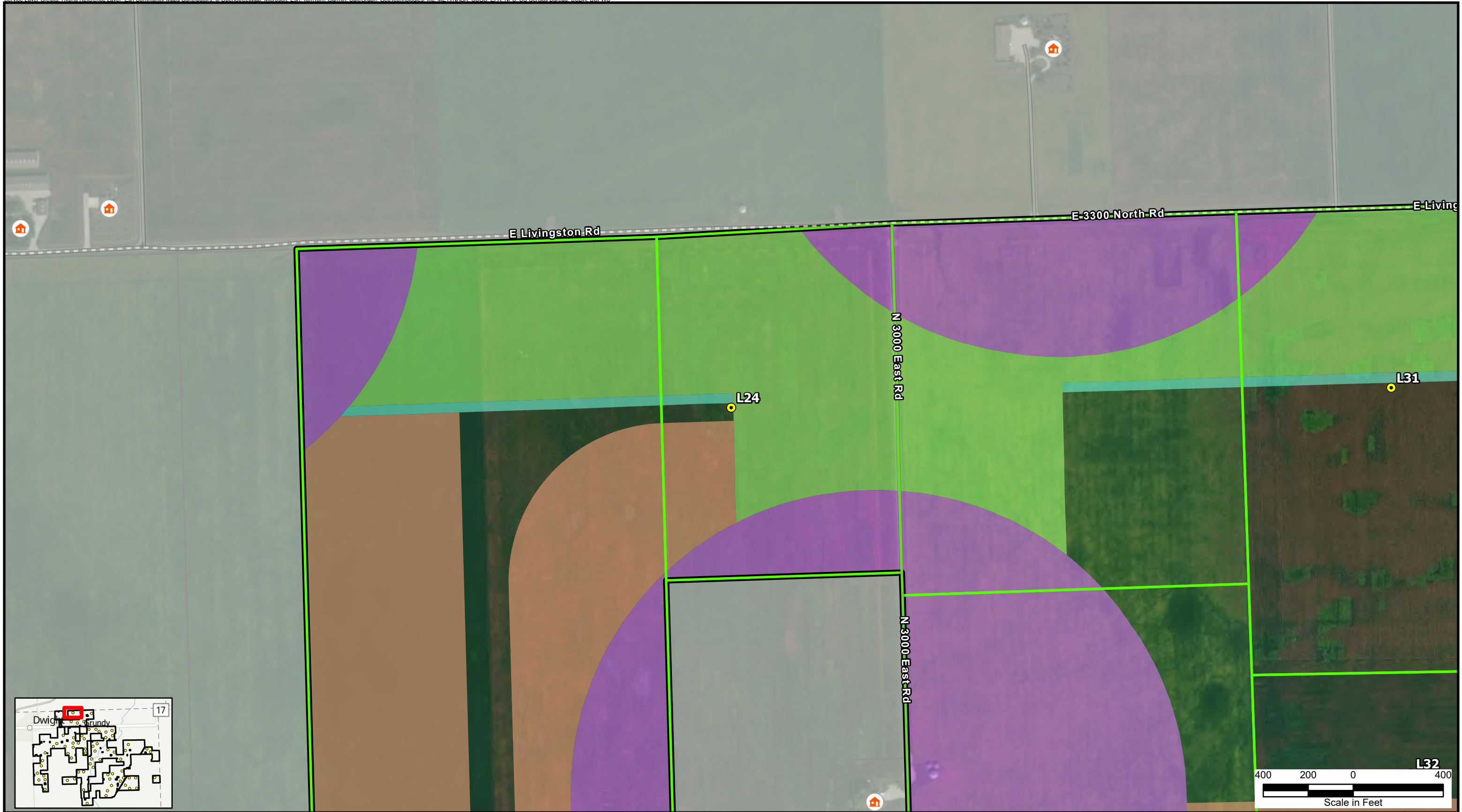
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-12
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L21



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- 🏠 Non-Participating Residence

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)

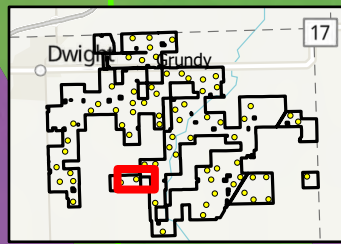
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

**BURNS
MCDONNELL™**

Figure 4-13
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
L24



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary

- Outside Project Area
- Participating Residence
- Non-Participating Residence

Setback Feature

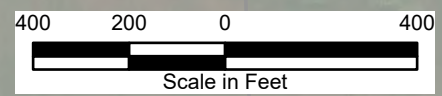
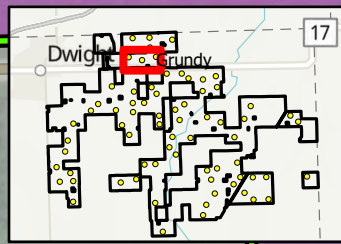
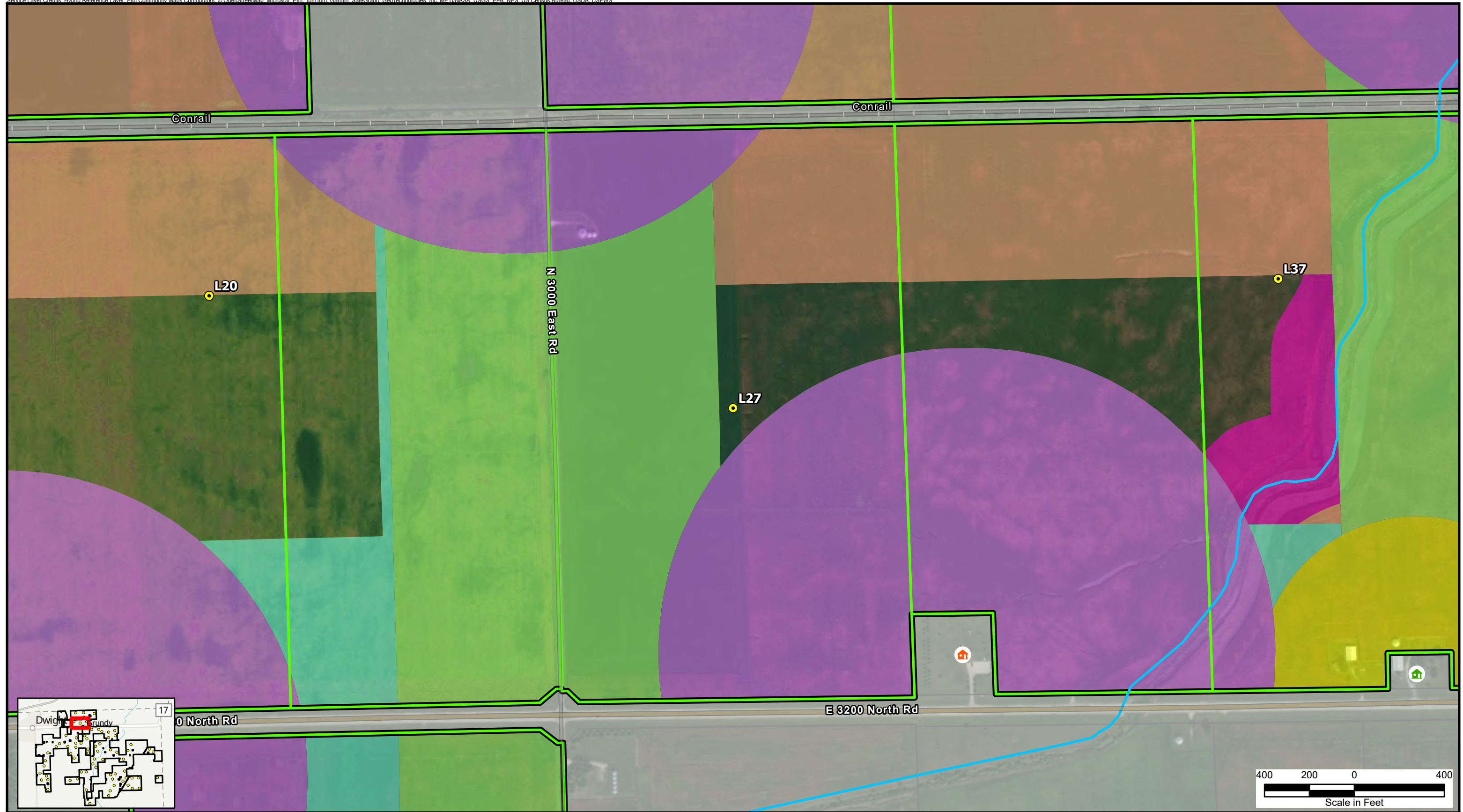
- Local Road Setback (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-14
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
 L26



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

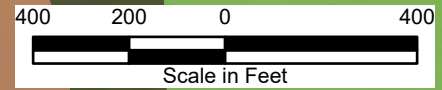
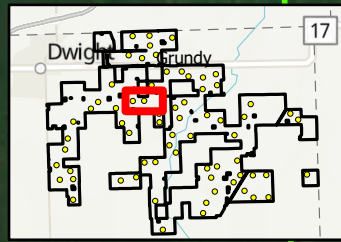
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

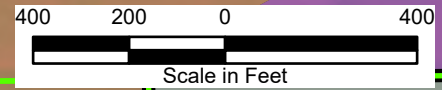
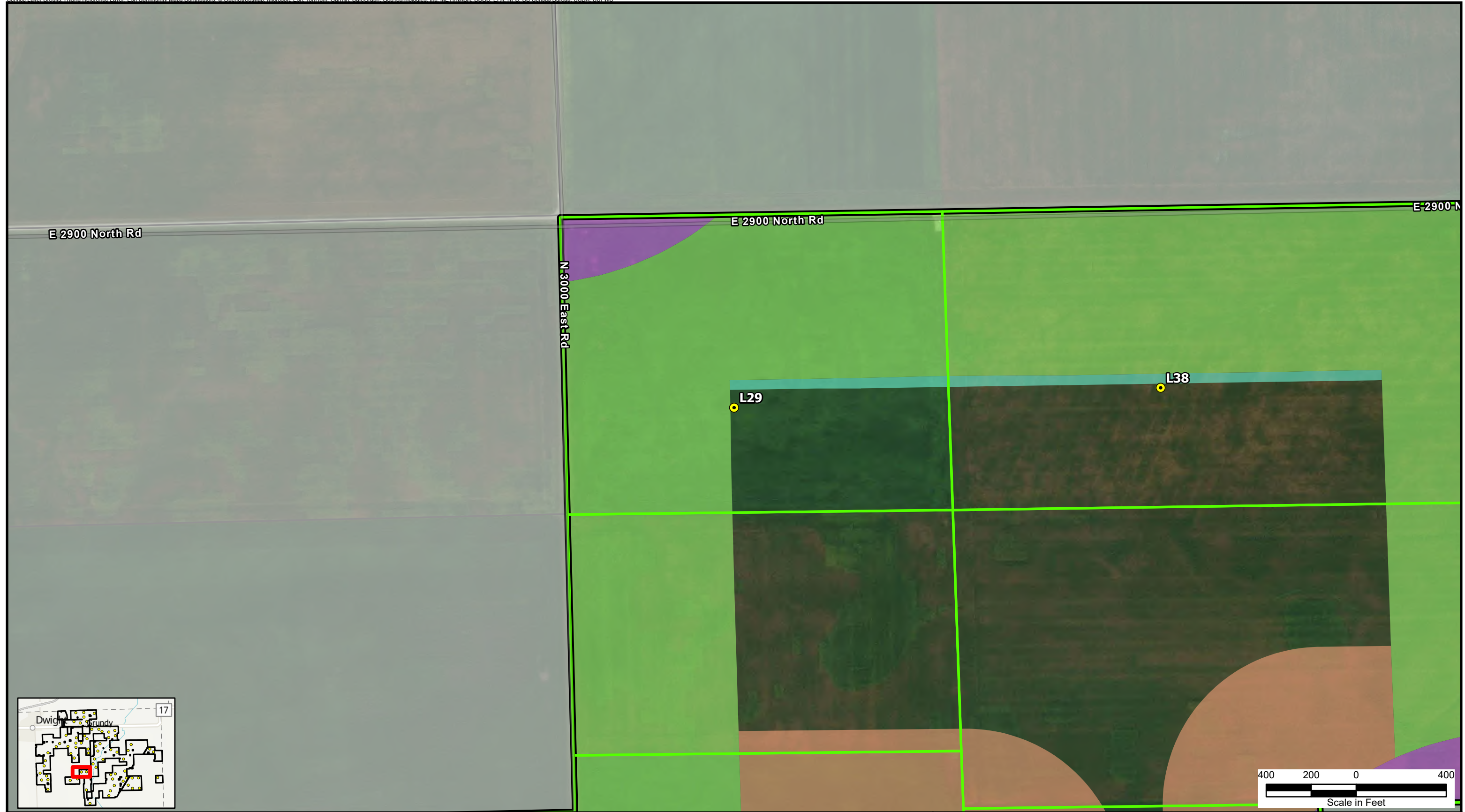


Figure 4-15
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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 L27



<p>Legend</p> <ul style="list-style-type: none"> Proposed Turbines Project Boundary Participating Property Boundary Non-Participating Property Boundary 	<ul style="list-style-type: none"> Outside Project Area Participating Residence Perennial Stream/River 	<p>Setback Feature</p> <ul style="list-style-type: none"> Local Road Setback (701.9 ft) Overhead Distribution Line (701.9 ft) Non-Participating Residence Setback (1,340.1 ft) Non-Participating Property Lines Setback (701.9 ft) Illinois Department of Natural Resources Setbacks <p>*Turbines are not drawn to scale. **Only setback features affecting the turbine siting are shown. ***All residences shown as participating are under wind lease or good neighbor agreements.</p>	<p>BURNS MCDONNELL™</p>	<p>Figure 4-16 Heritage Prairie Wind Project Ordinance Setback Map Livingston County, Illinois</p> <p>Page Name: L28</p>
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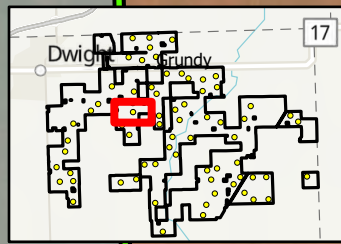
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-17
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L29



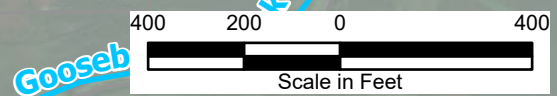
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River

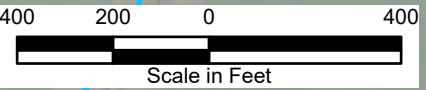
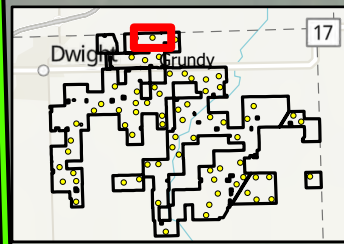
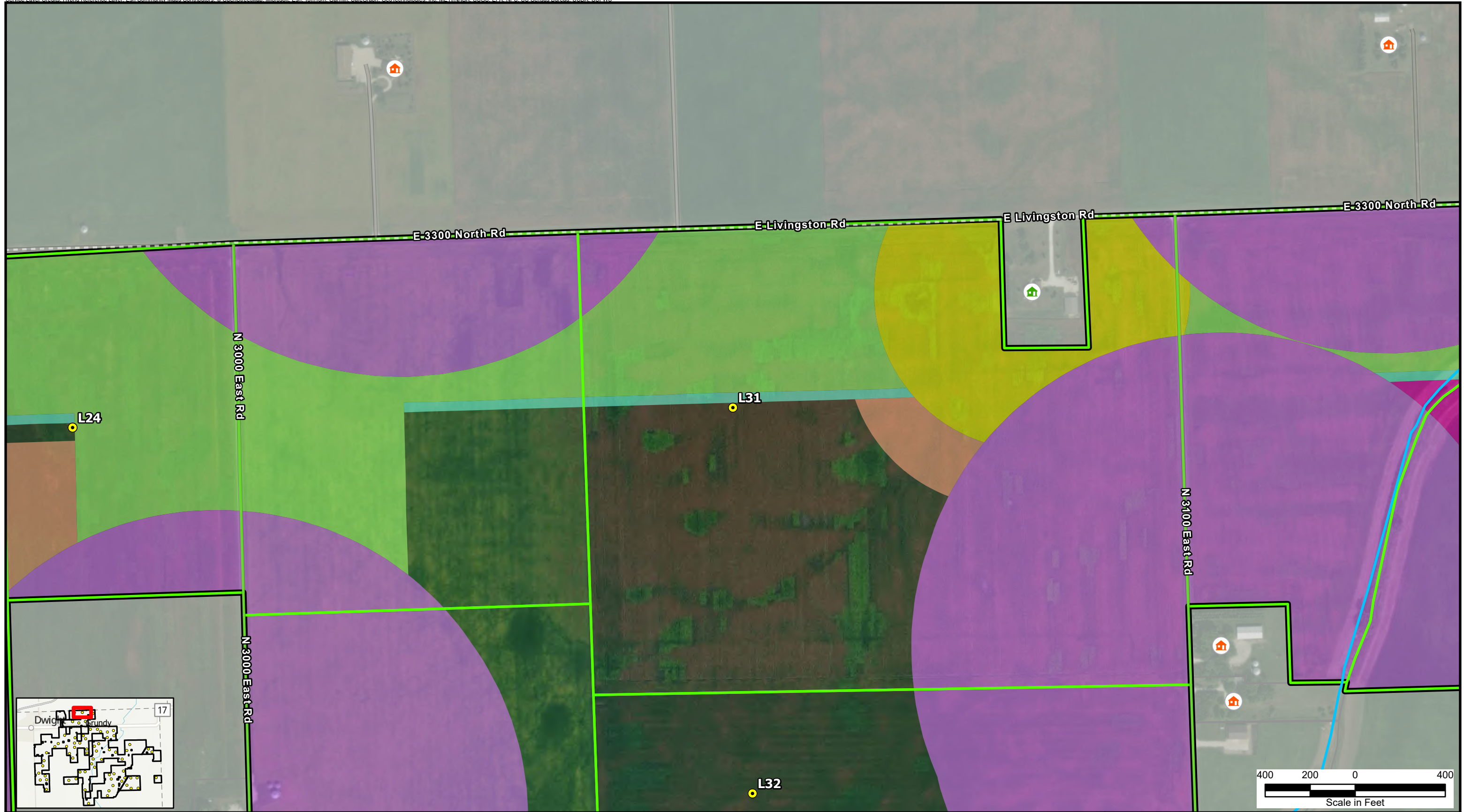
- Setback Feature**
- Local Road Setback (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-18
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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 L30





Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

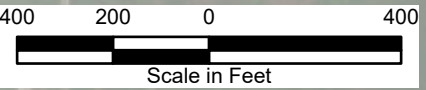
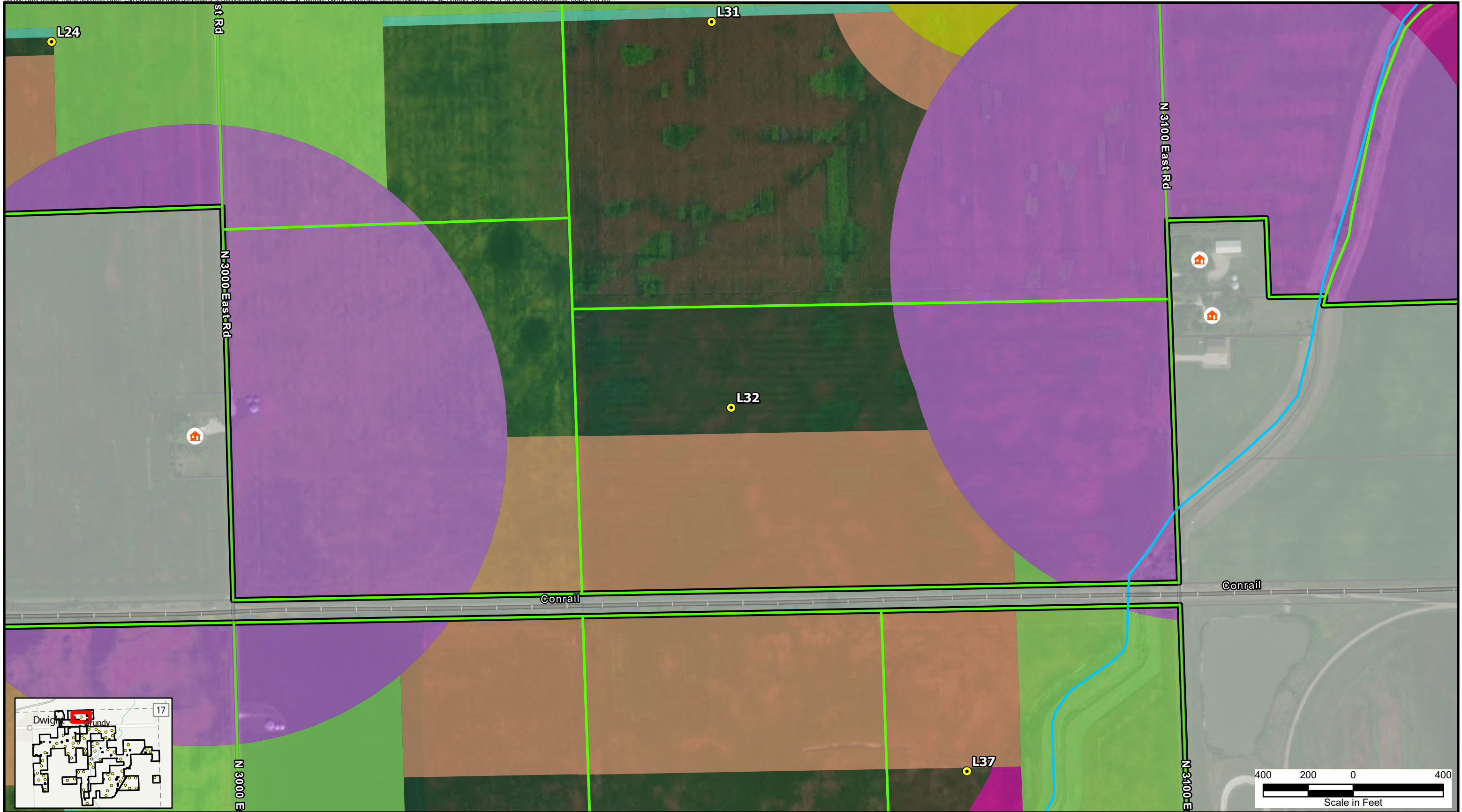
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-19
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



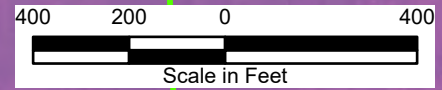
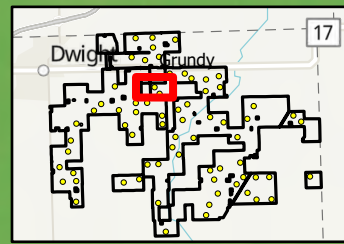
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River



- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Participating Residence Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

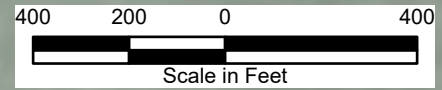
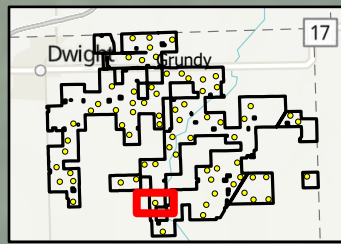
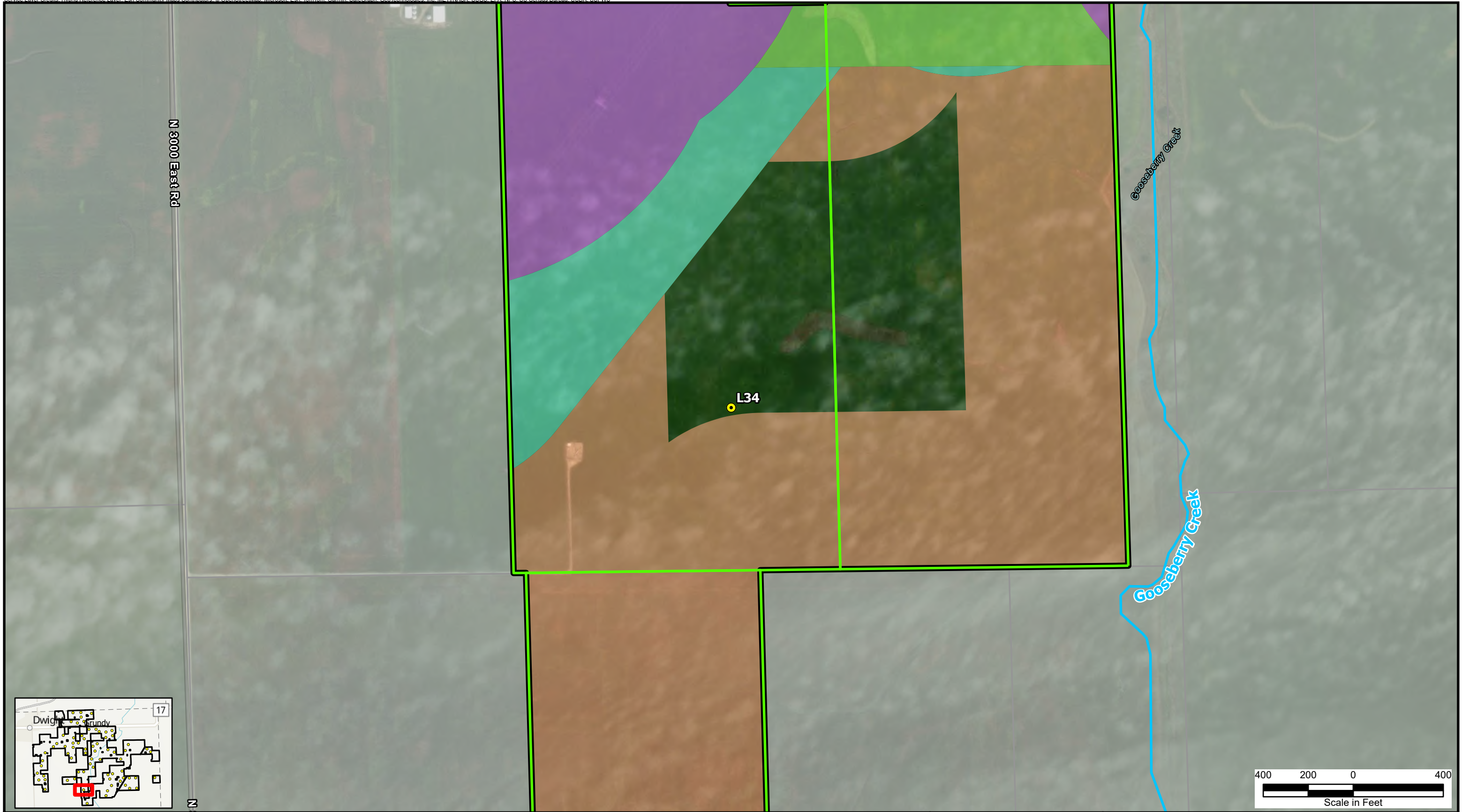
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-20
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L32







<p>Legend</p> <ul style="list-style-type: none"> ● Proposed Turbines Project Boundary Participating Property Boundary Non-Participating Property Boundary 🏠 Participating Residence 🏠 Non-Participating Residence — Perennial Stream/River 	<p>Setback Feature</p> <ul style="list-style-type: none"> Local Road Setback (701.9 ft) Overhead Distribution Line (701.9 ft) Non-Participating Residence Setback (1,340.1 ft) Non-Participating Property Lines Setback (701.9 ft) Illinois Department of Natural Resources Setbacks 	<p>*Turbines are not drawn to scale. **Only setback features affecting the turbine siting are shown. ***All residences shown as participating are under wind lease or good neighbor agreements.</p>	 	<p>Figure 4-21 Heritage Prairie Wind Project Ordinance Setback Map Livingston County, Illinois</p> <p>Page Name: L33</p>
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Legend

-  Proposed Turbines
-  Project Boundary
-  Participating Property Boundary
-  Non-Participating Property Boundary
-  Outside Project Area
-  Perennial Stream/River

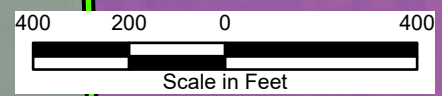
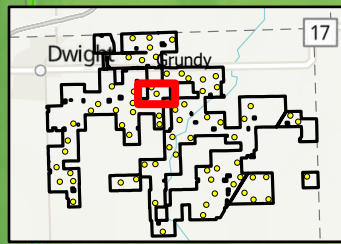
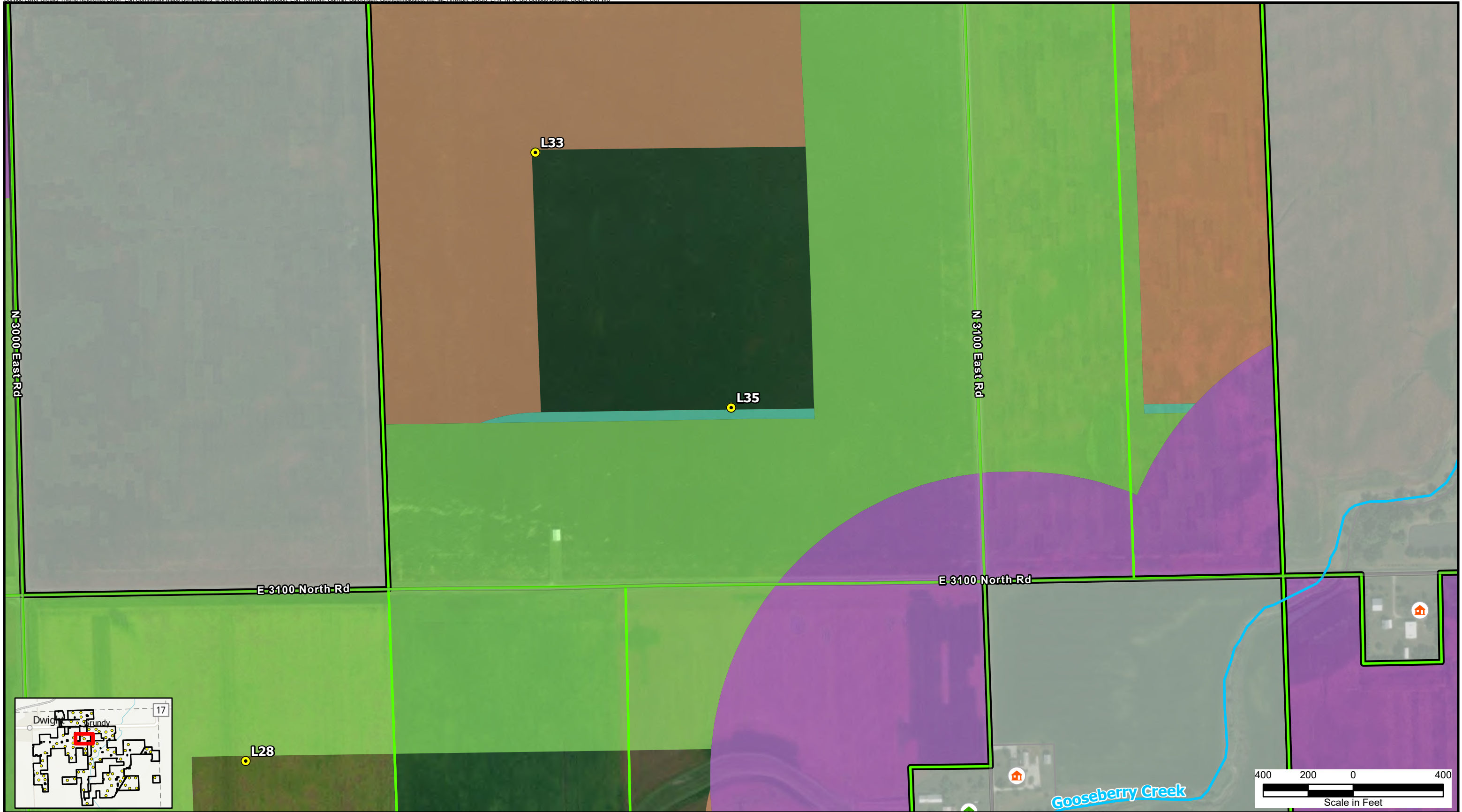
Setback Feature

-  Local Road Setback (701.9 ft)
-  Overhead Distribution Line (701.9 ft)
-  Non-Participating Residence Setback (1,340.1 ft)
-  Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-22
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

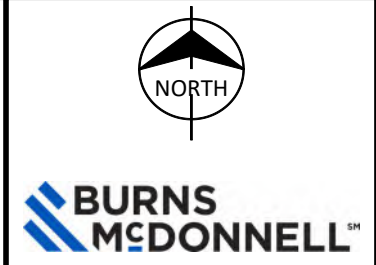
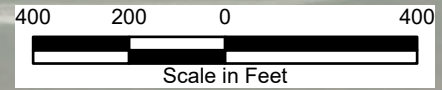
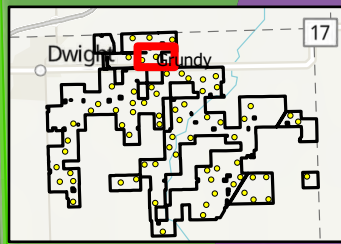
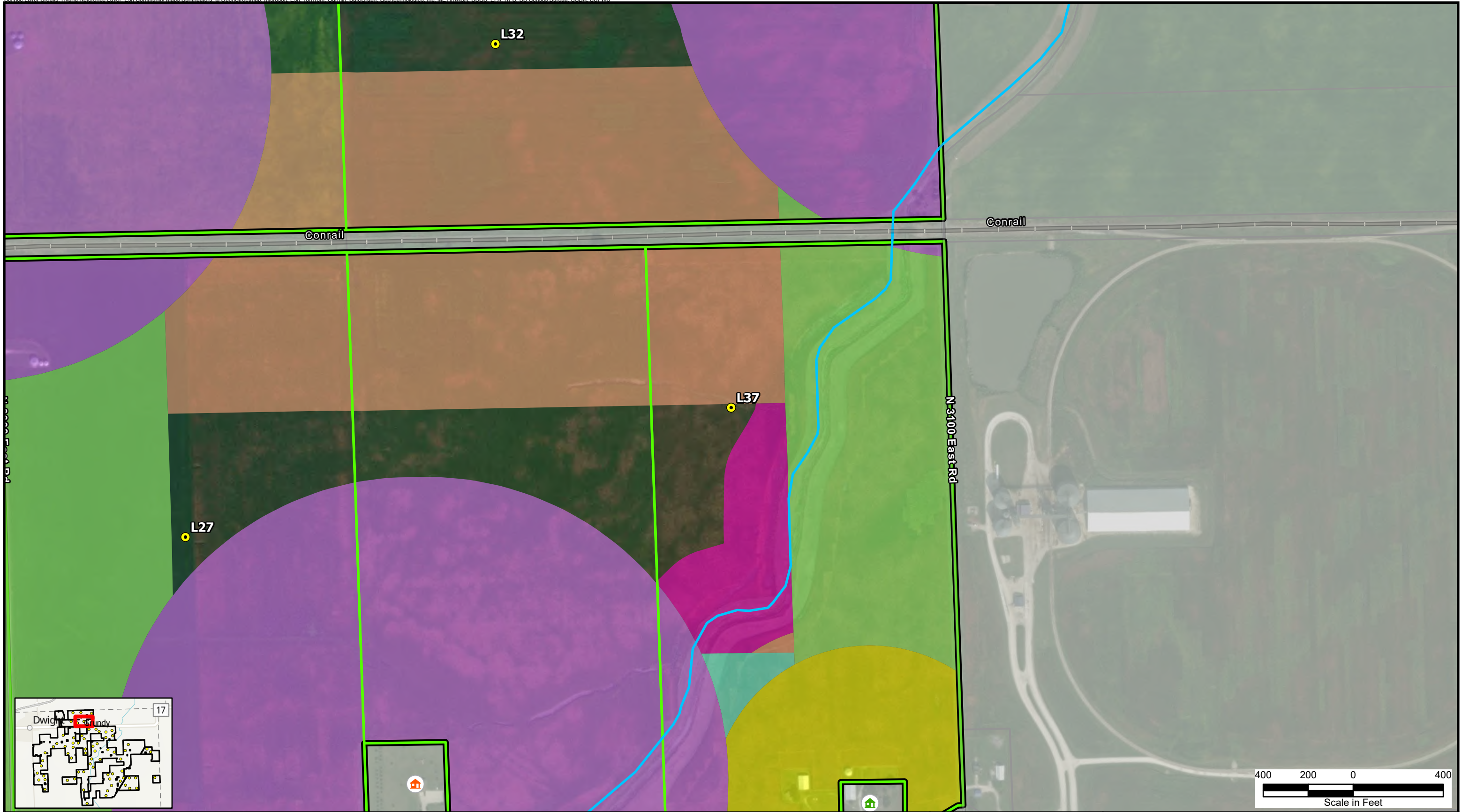


Figure 4-23
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

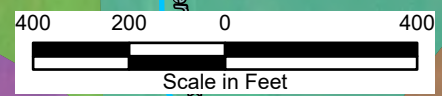
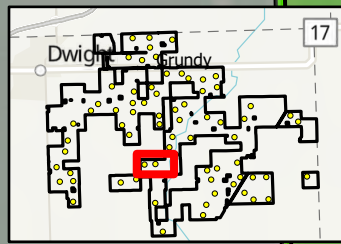
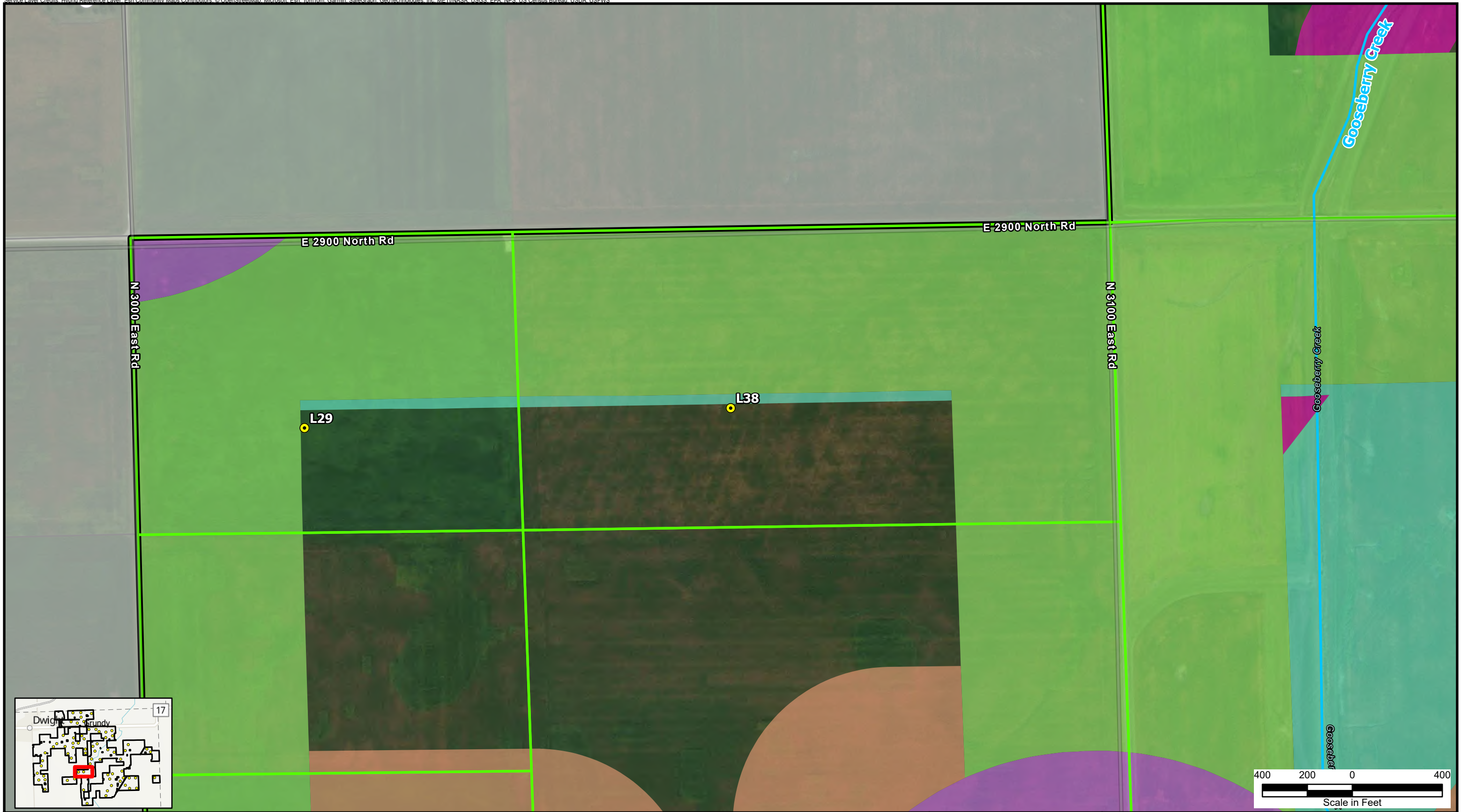
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

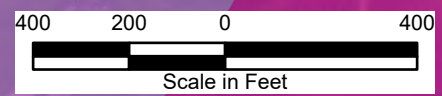
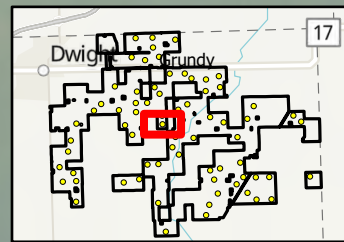
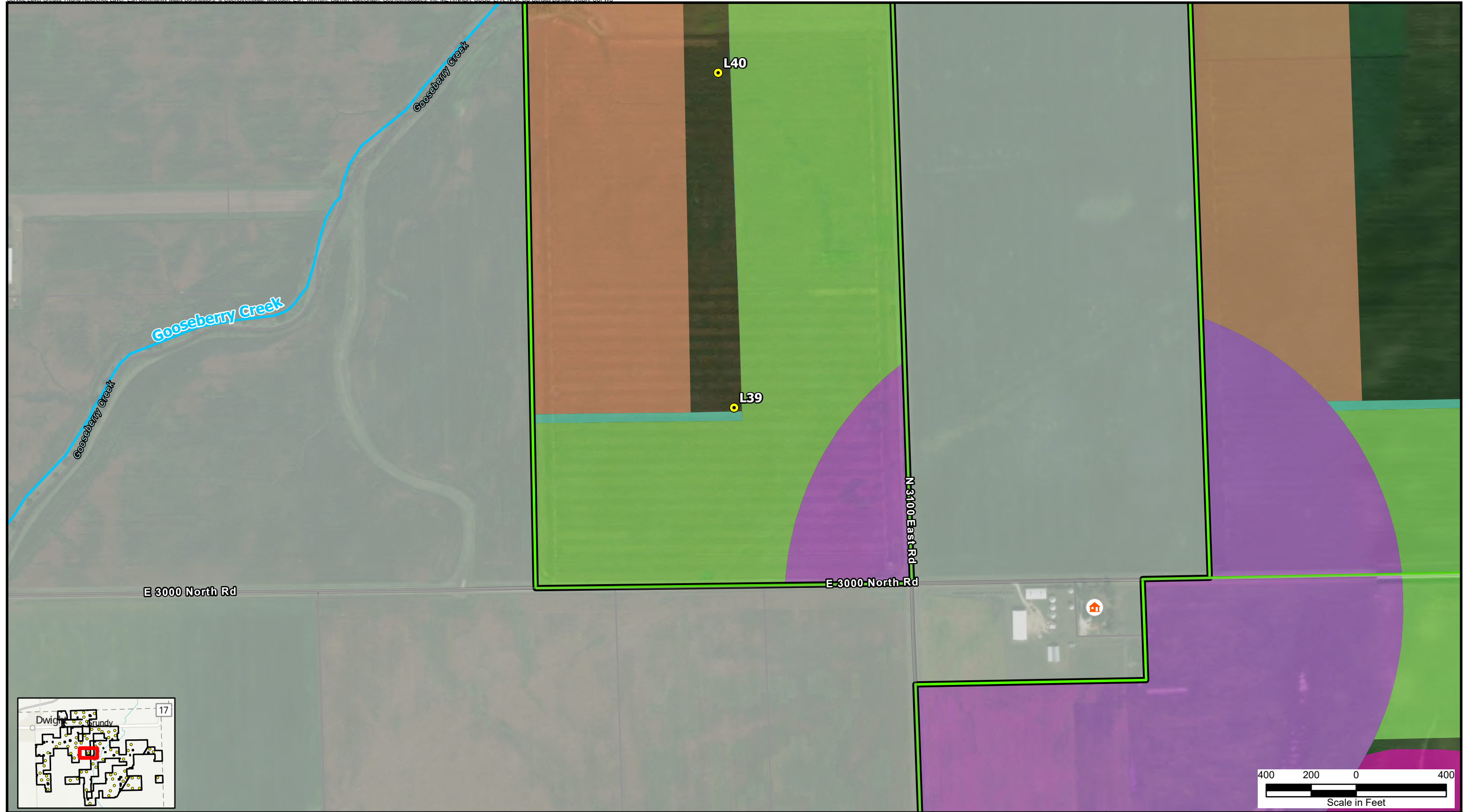
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-24
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend <ul style="list-style-type: none"> ● Proposed Turbines Project Boundary Participating Property Boundary Non-Participating Property Boundary Outside Project Area 🏠 Non-Participating Residence — Perennial Stream/River 		Setback Feature <ul style="list-style-type: none"> Local Road Setback (701.9 ft) Overhead Distribution Line (701.9 ft) Non-Participating Residence Setback (1,340.1 ft) Non-Participating Property Lines Setback (701.9 ft) Illinois Department of Natural Resources Setbacks 		<p>*Turbines are not drawn to scale. **Only setback features affecting the turbine siting are shown. ***All residences shown as participating are under wind lease or good neighbor agreements.</p>	 BURNS MCDONNELL™	<p>Figure 4-25 Heritage Prairie Wind Project Ordinance Setback Map Livingston County, Illinois</p> <p>Page Name: L38</p>
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- 🏠 Non-Participating Residence
- Perennial Stream/River

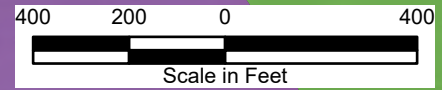
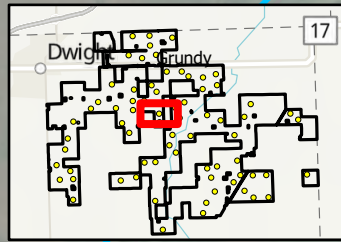
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-26
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

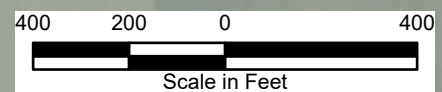
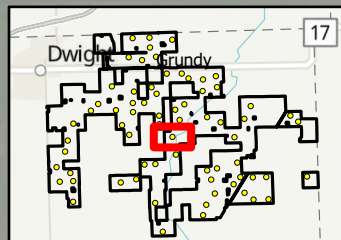
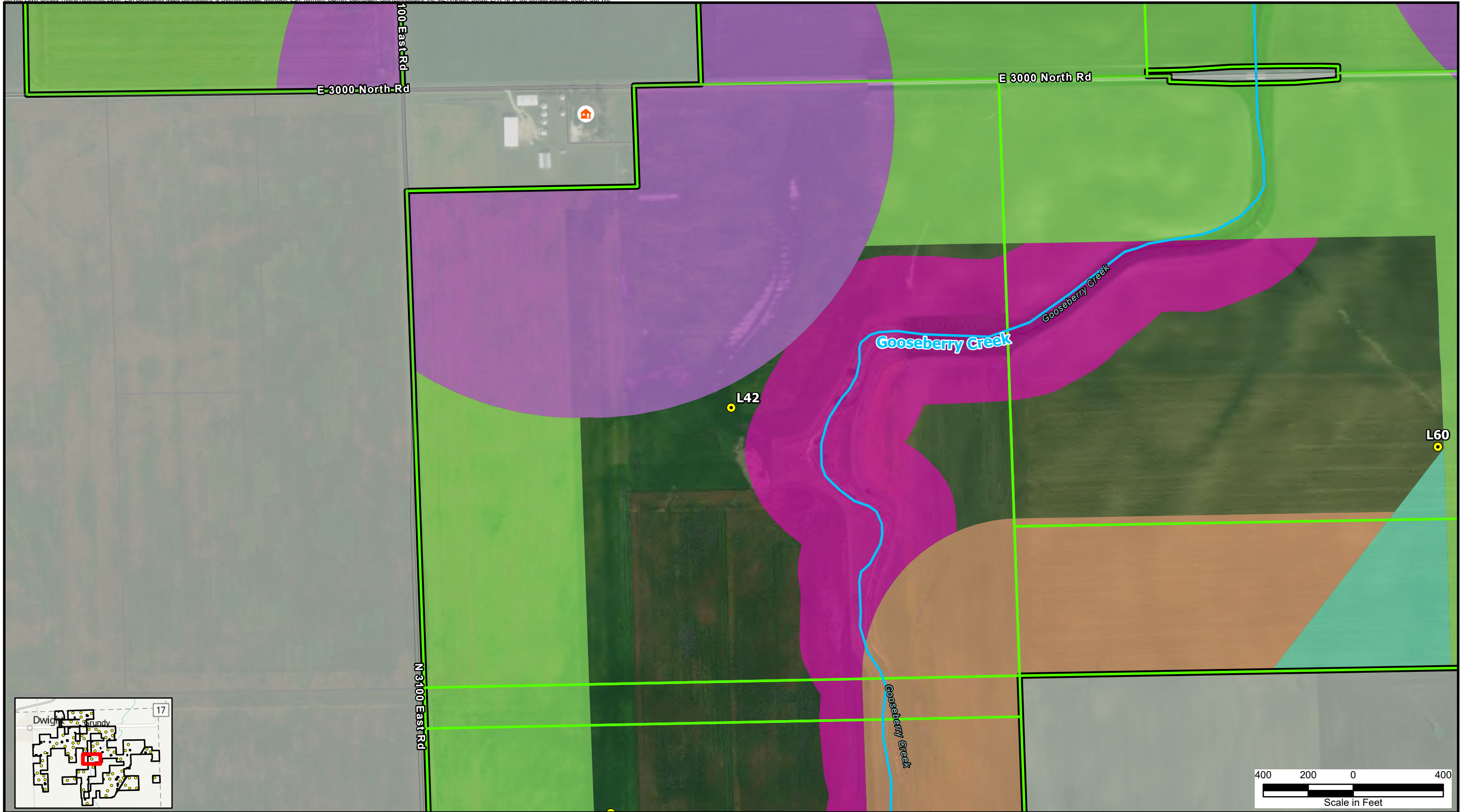
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-27
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



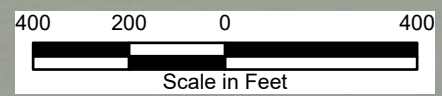
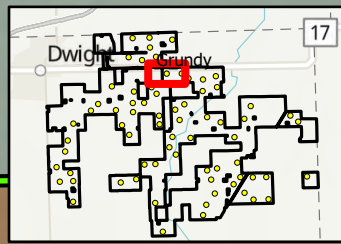
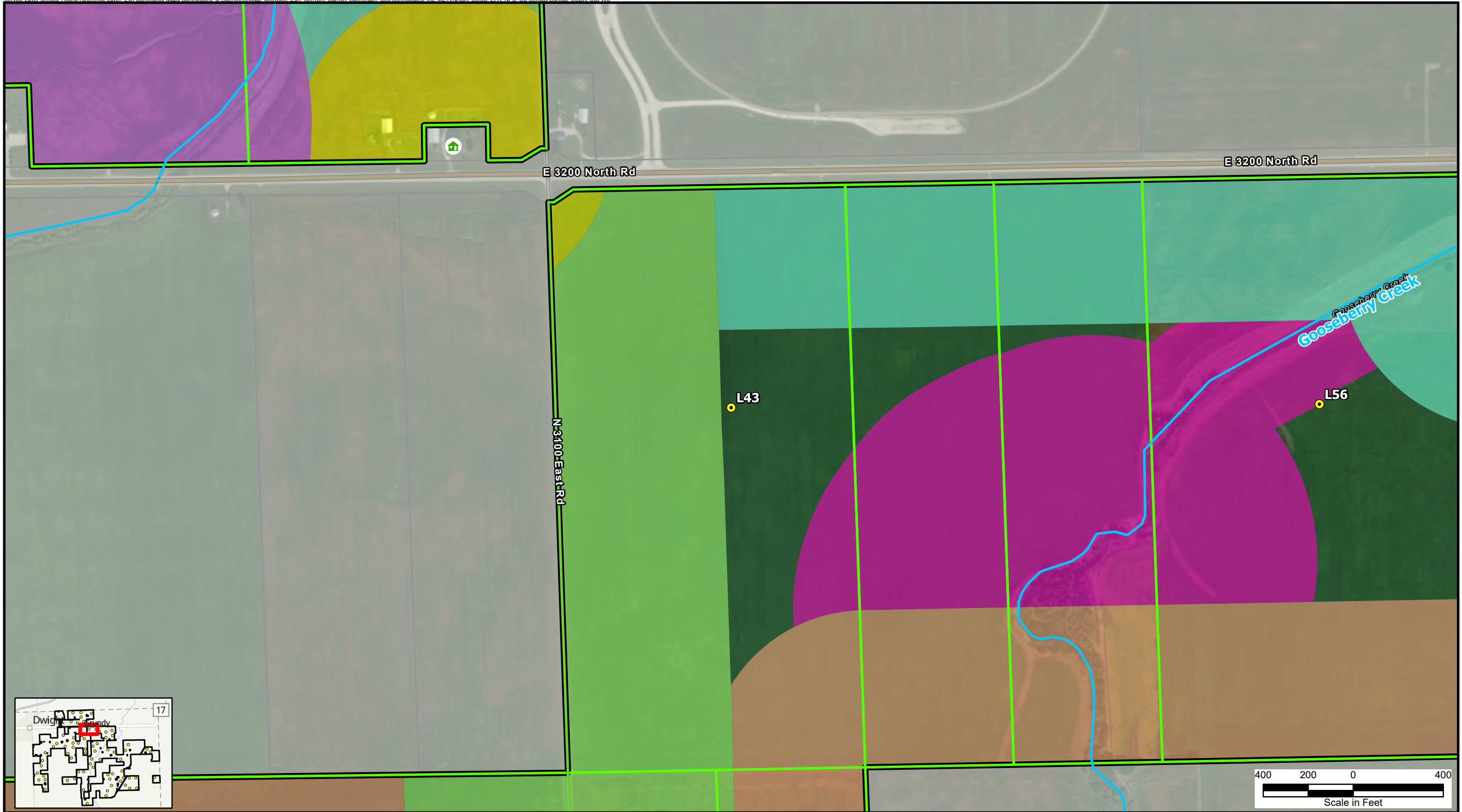
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - 🏠 Non-Participating Residence
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-28
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

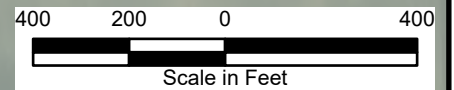
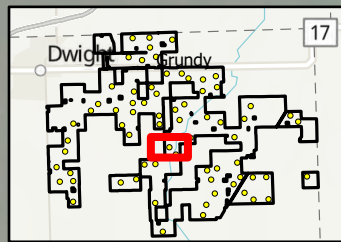
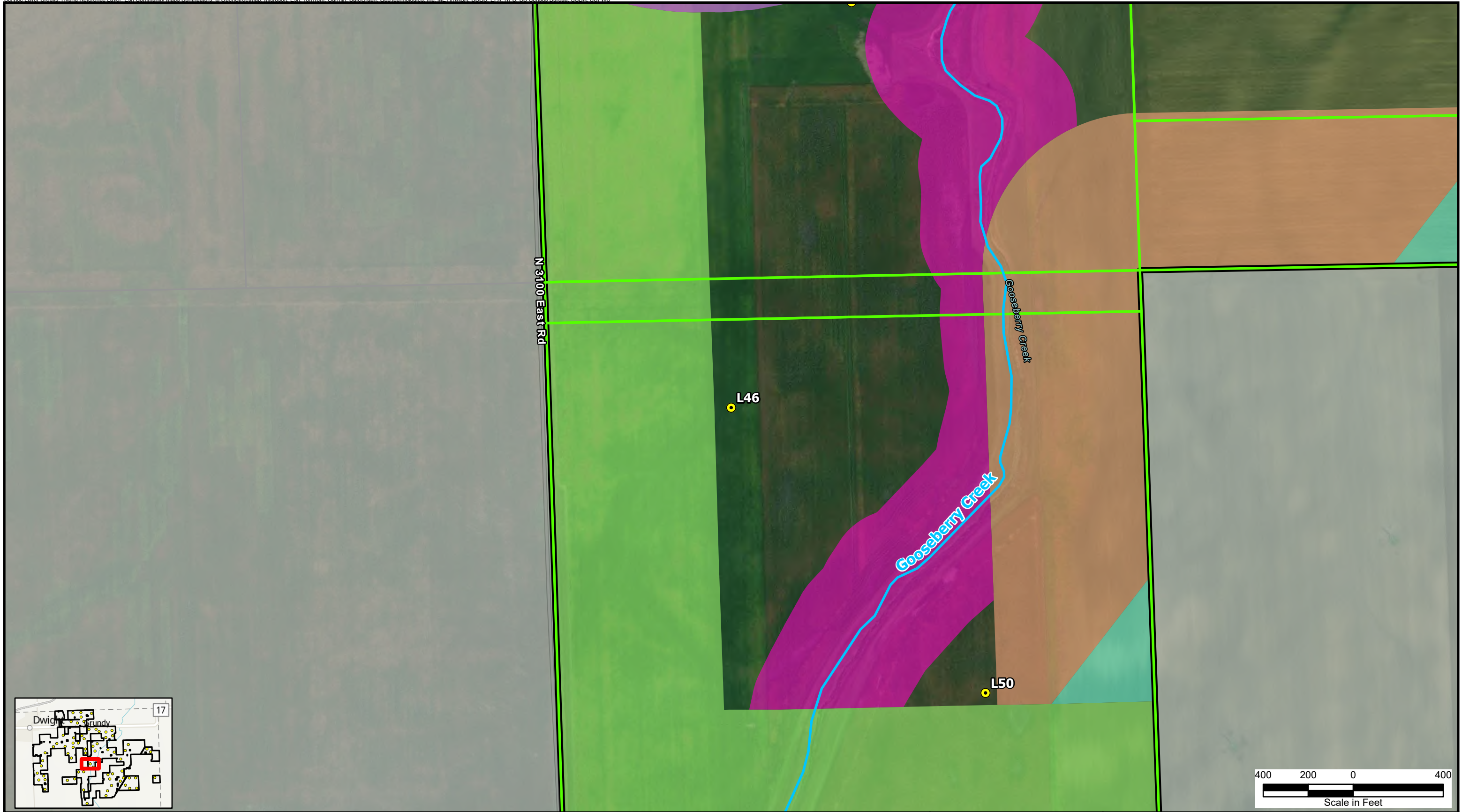
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-29
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

Setback Feature

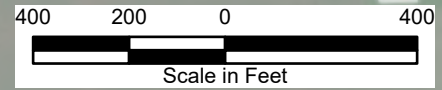
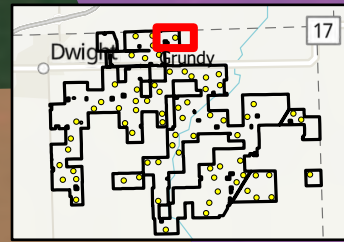
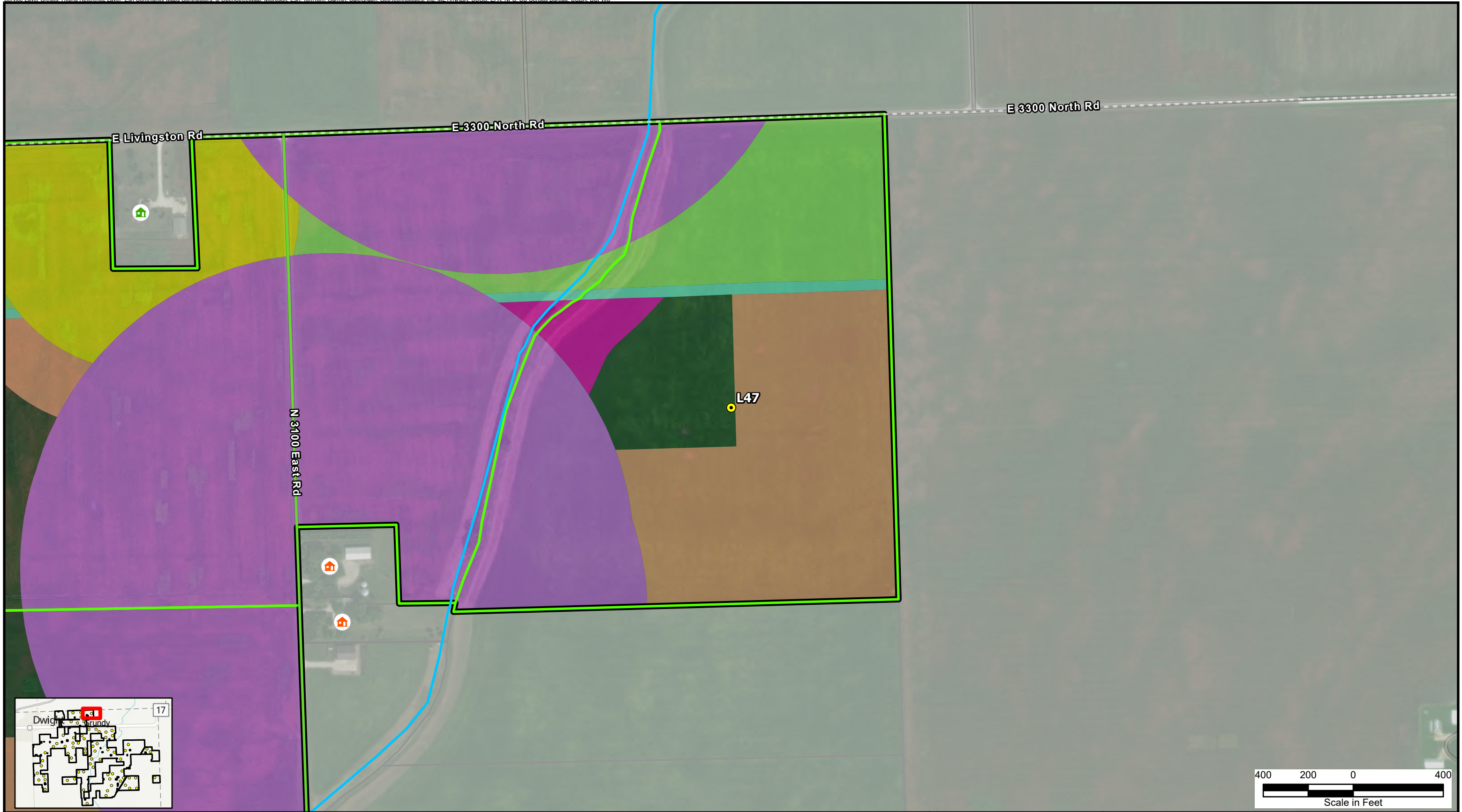
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-30
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River
- Outside Project Area

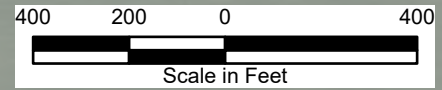
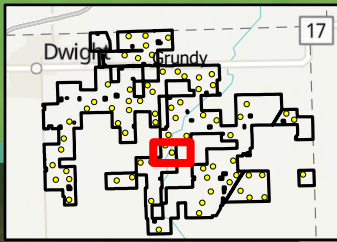
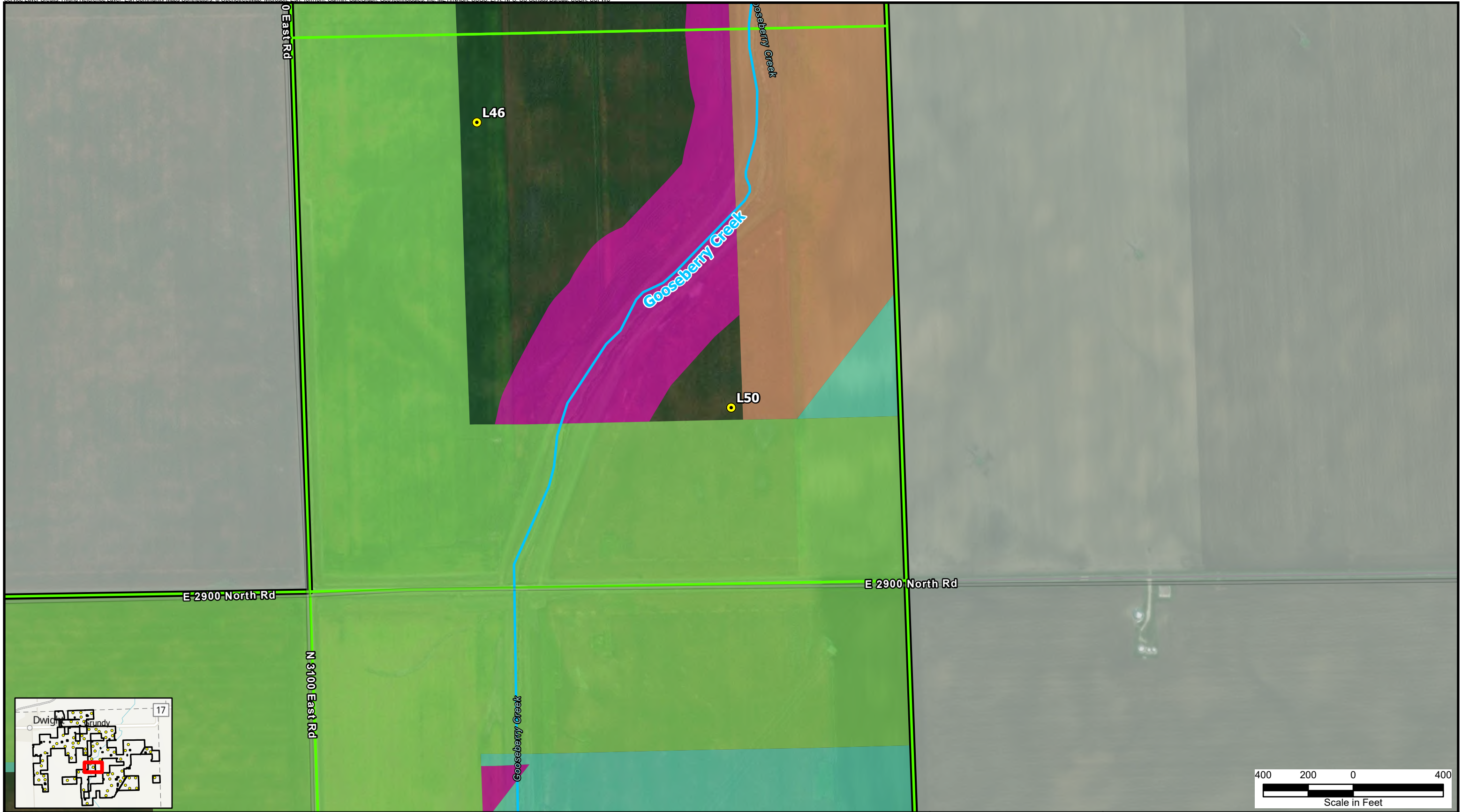
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-31
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

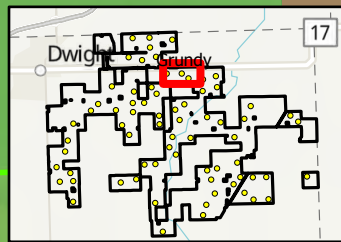
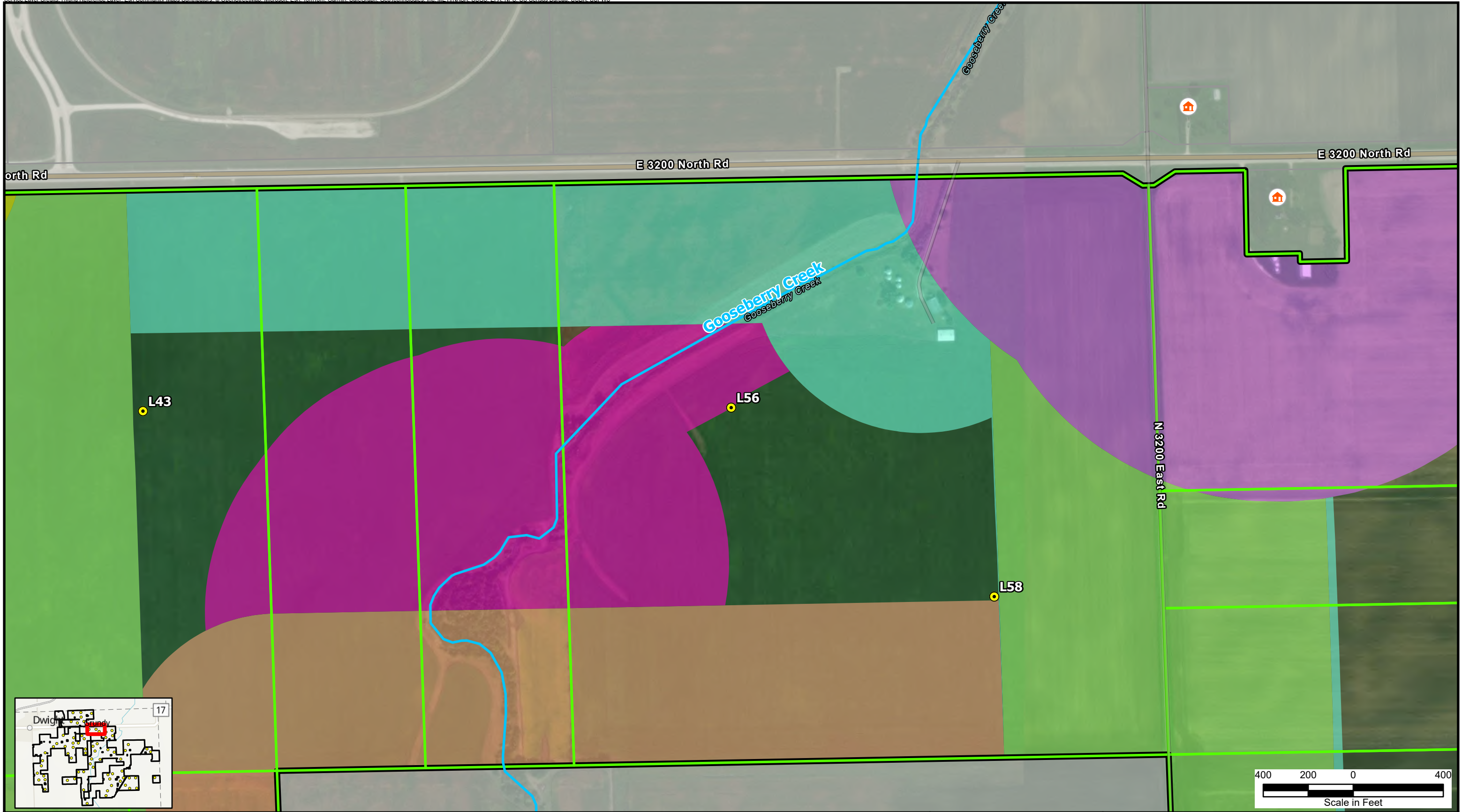
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-32
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- 🏠 Non-Participating Residence
- Perennial Stream/River

Setback Feature

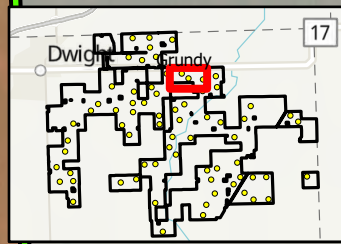
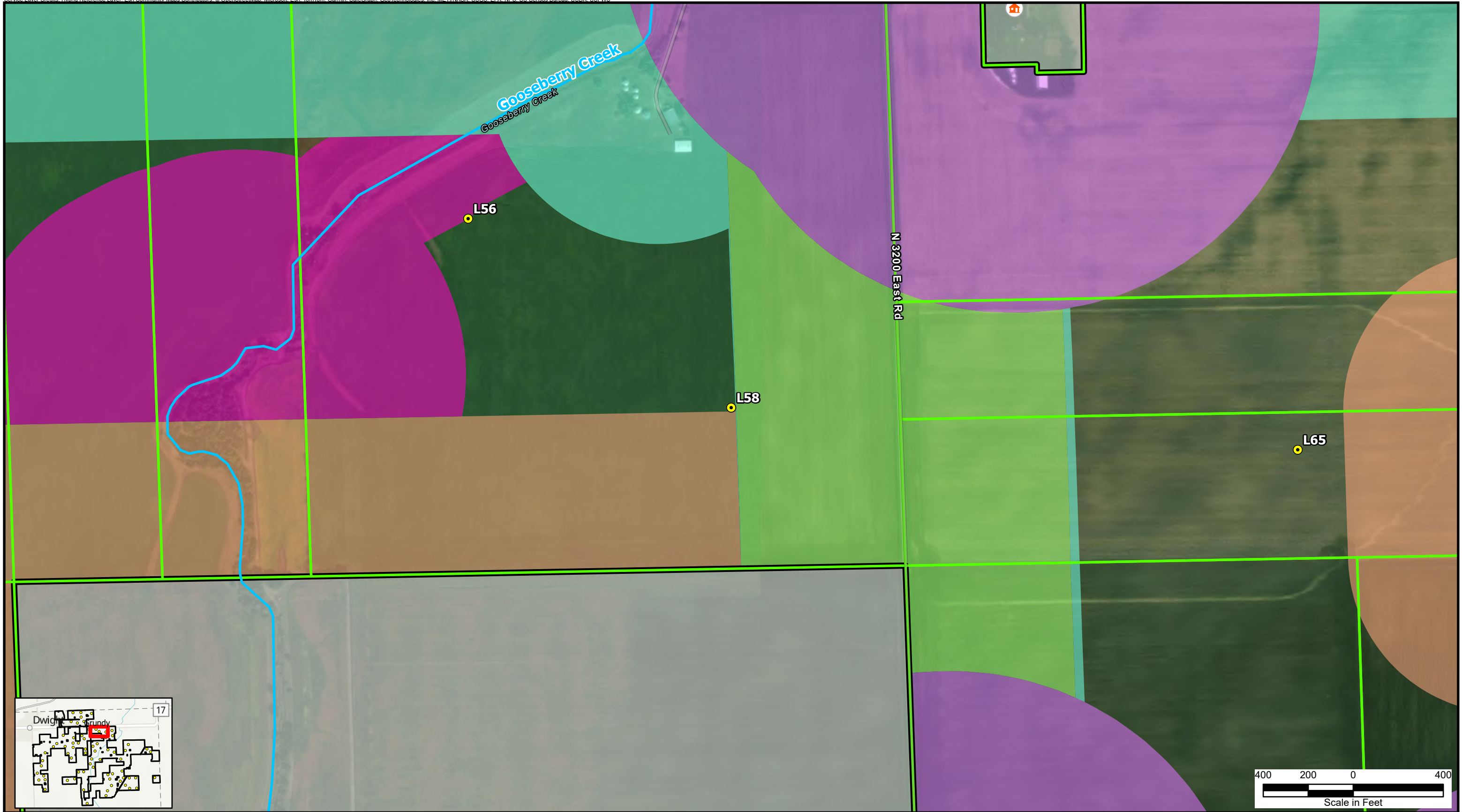
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-33
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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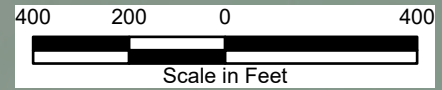
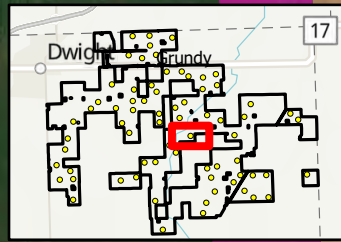
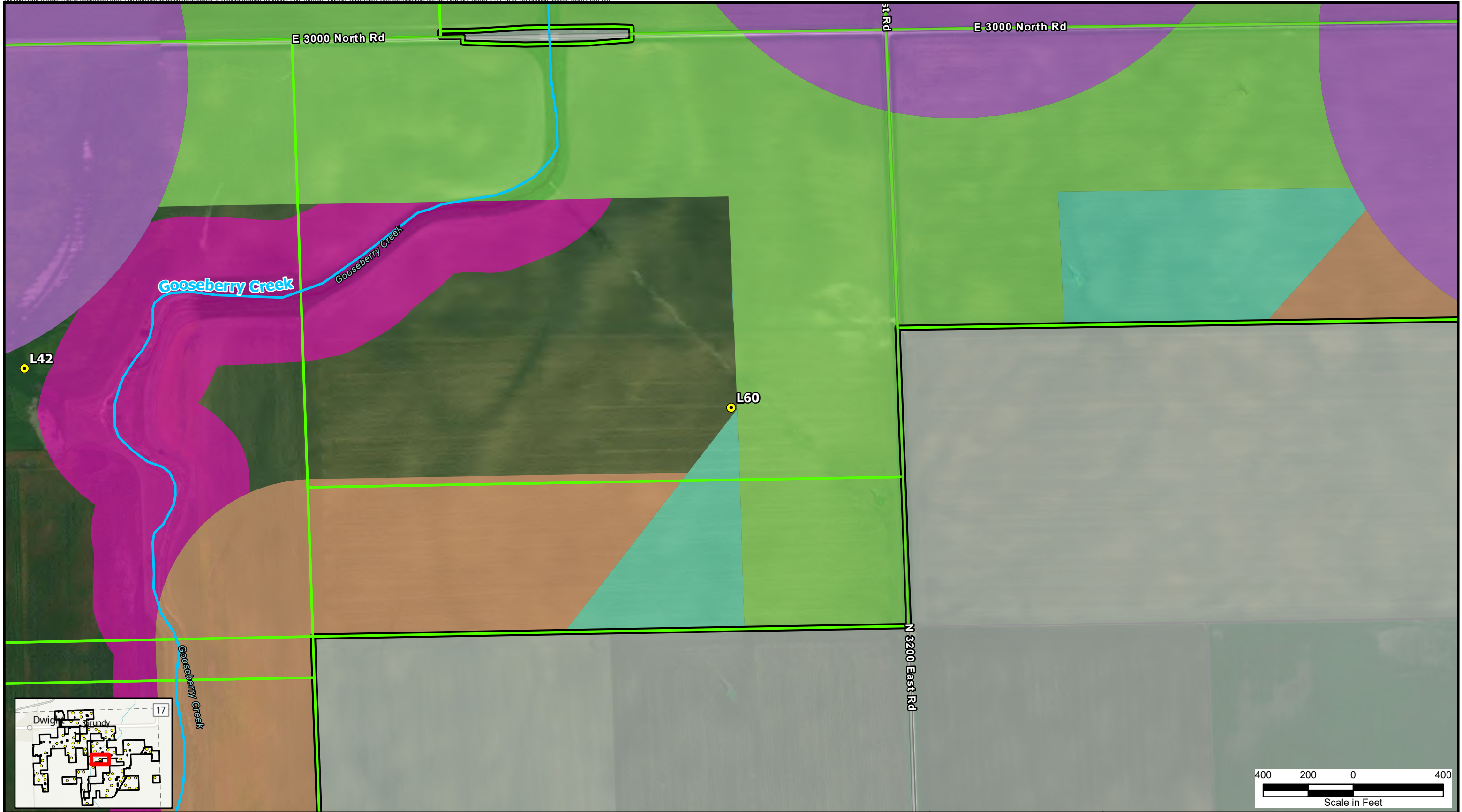
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-34
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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 L58



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

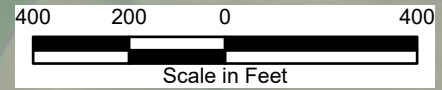
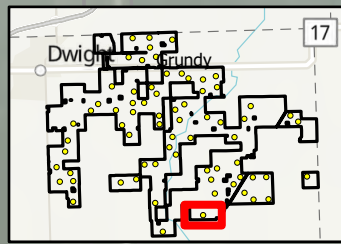
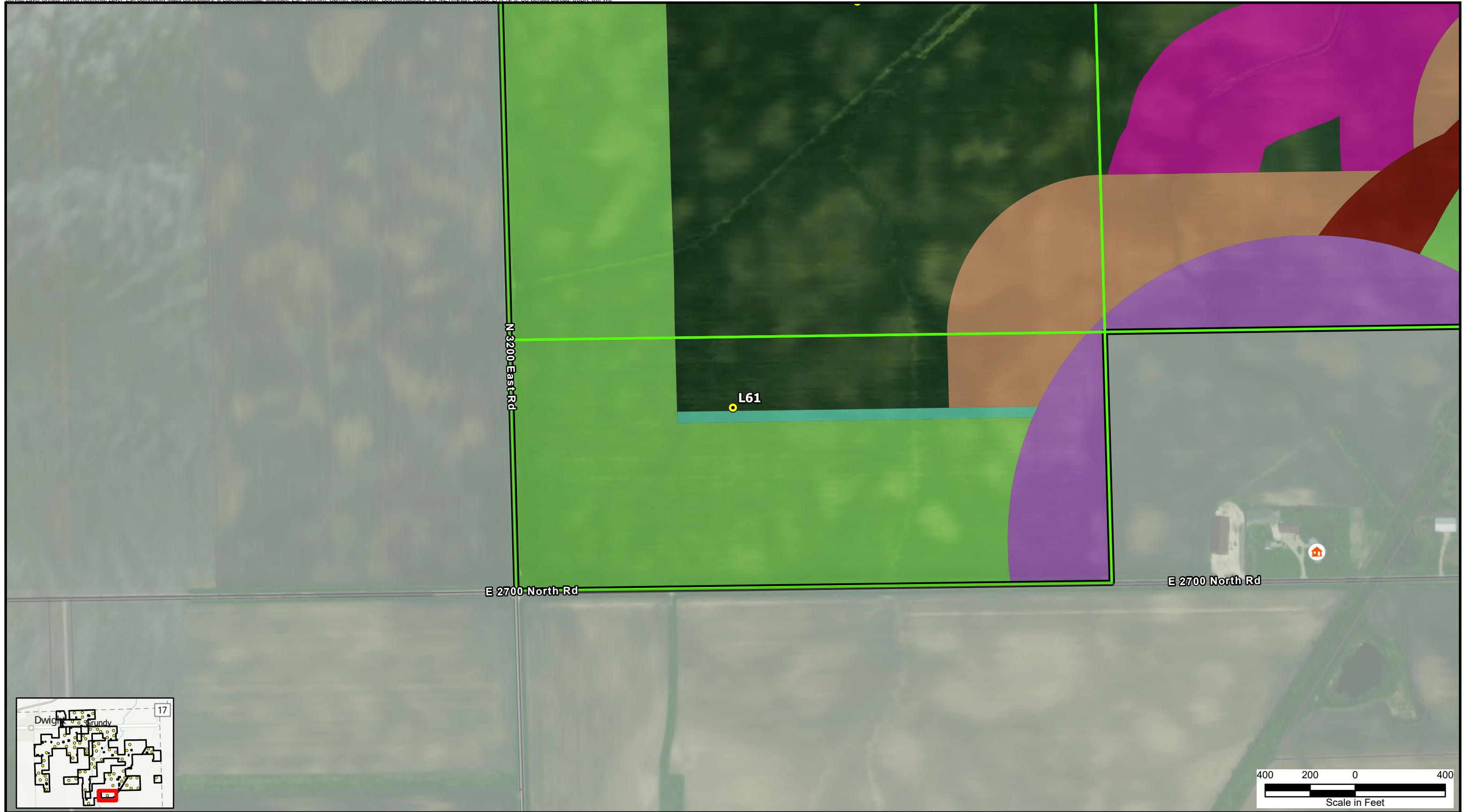
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-35
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary

- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence

Setback Feature

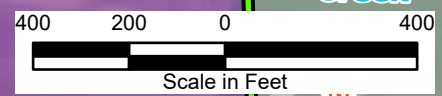
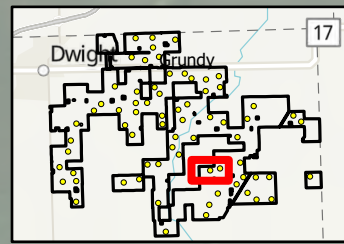
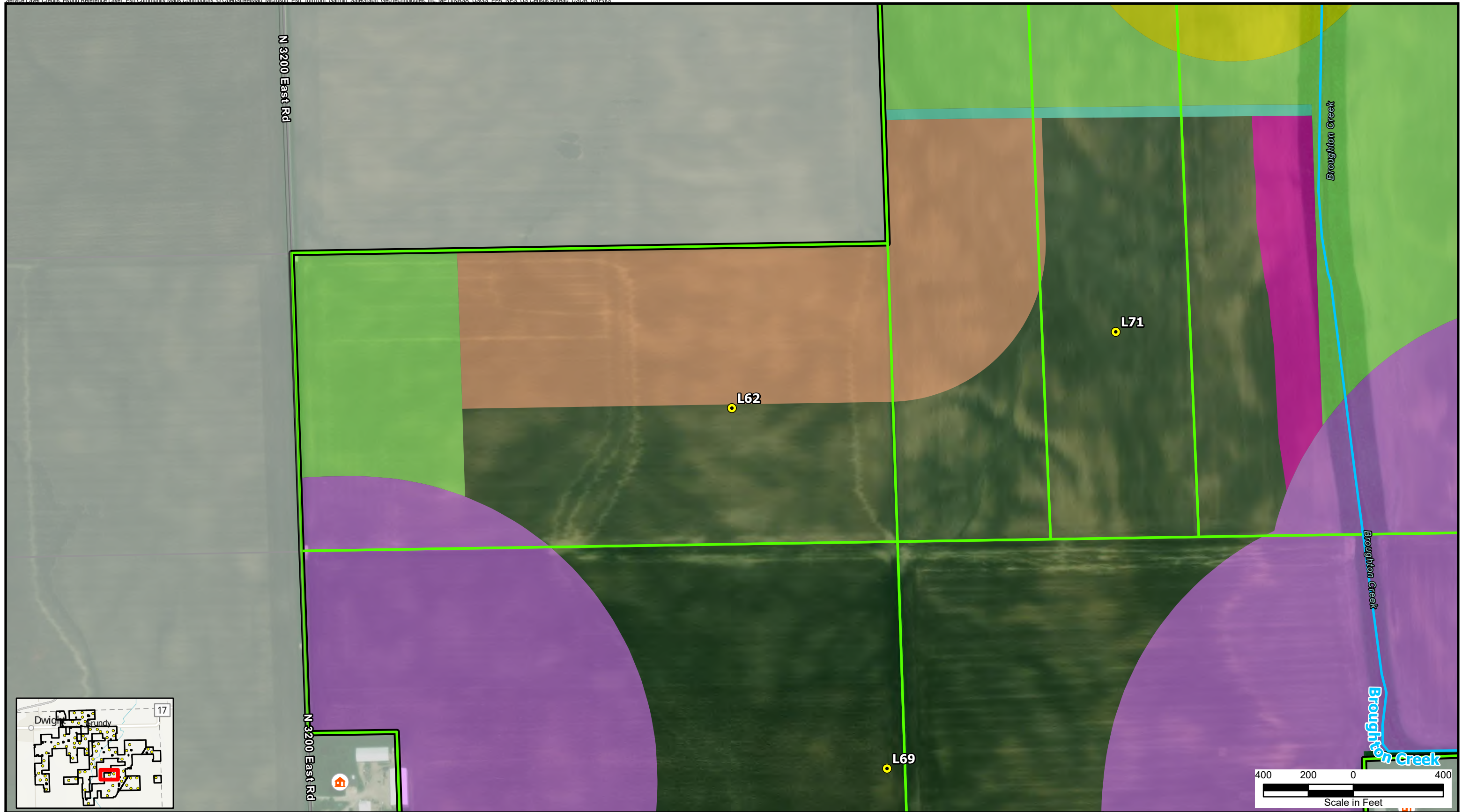
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Community Building Setback (1,340.1 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-36
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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 L61



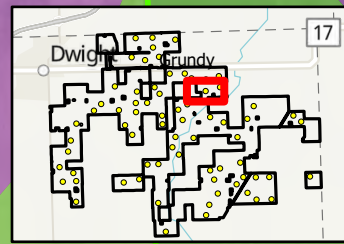
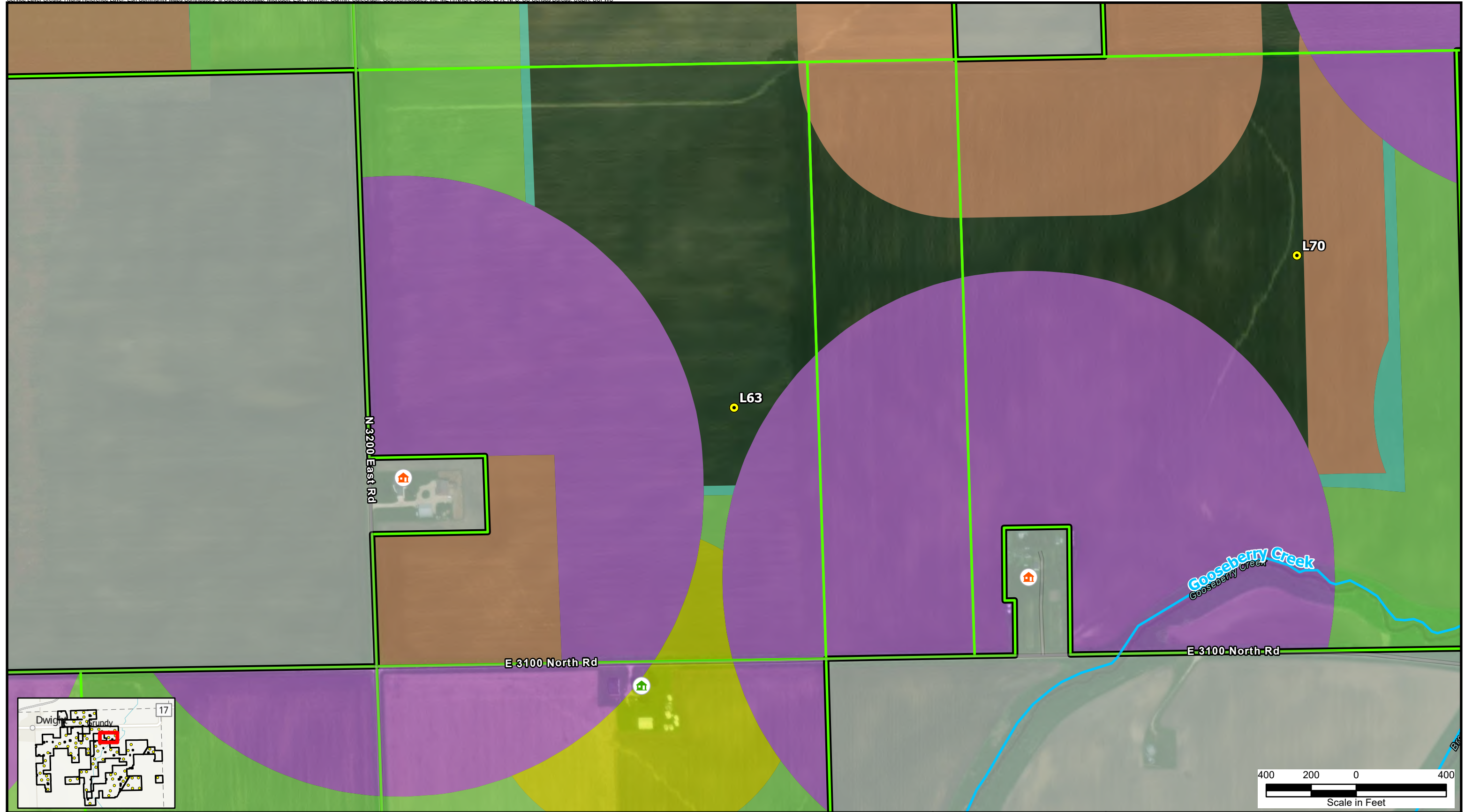
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-37
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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 L62



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- 🏠 Participating Residence
- 🏠 Non-Participating Residence
- Perennial Stream/River

Setback Feature

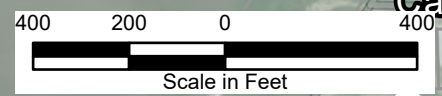
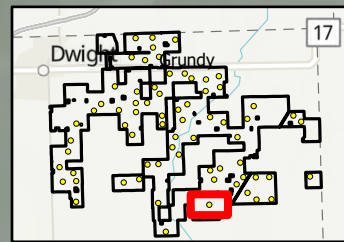
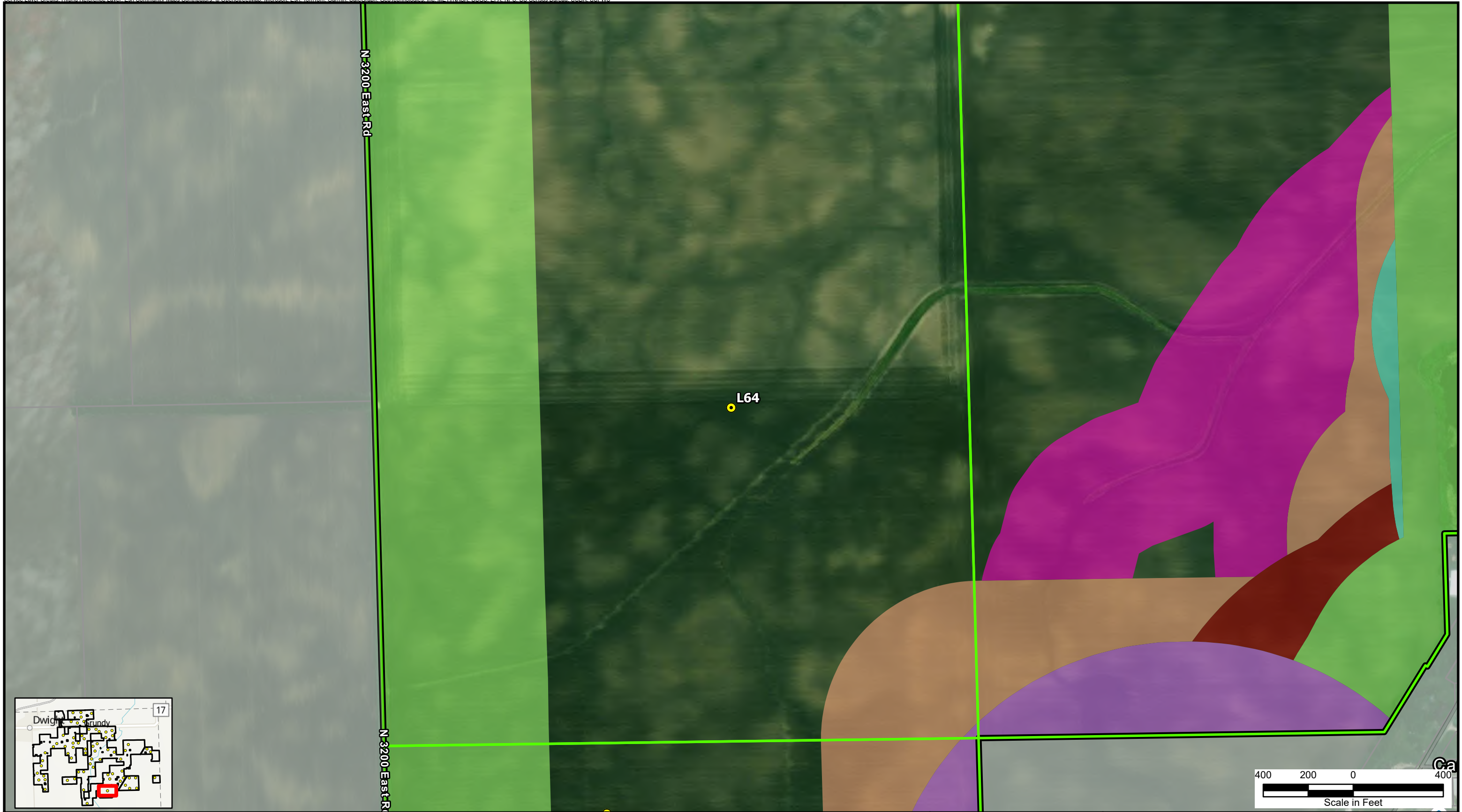
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-38
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
 L63



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- ⓘ Community Building

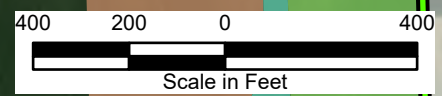
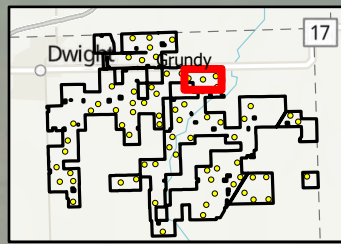
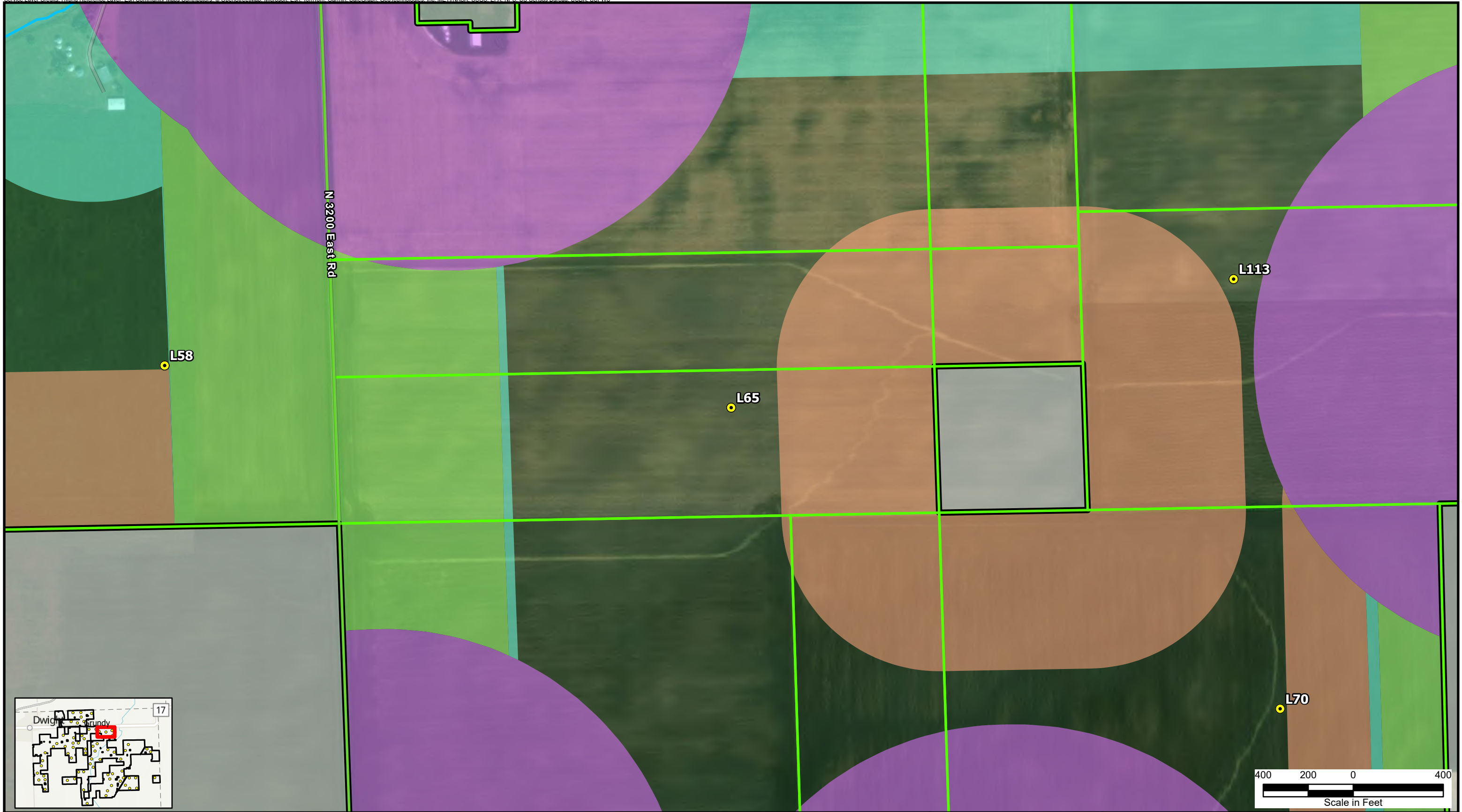
Setback Feature


- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Community Building Setback (1,340.1 ft)
- Illinois Department of Natural Resources Setbacks

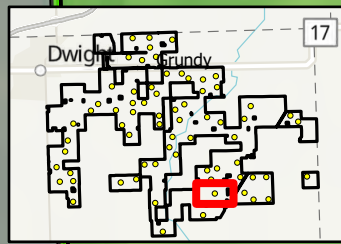
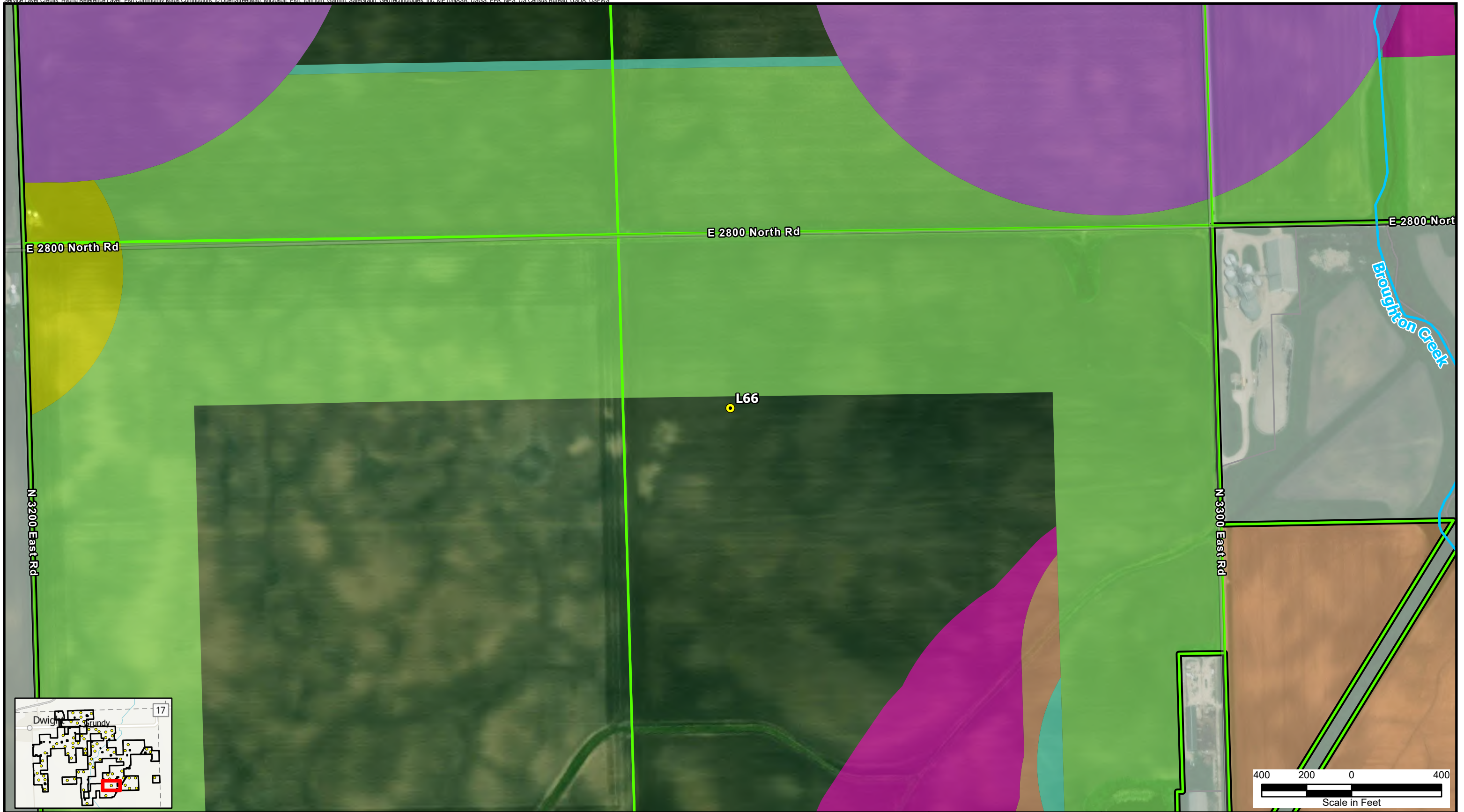
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-39
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



Legend <ul style="list-style-type: none"> ● Proposed Turbines Project Boundary Participating Property Boundary Non-Participating Property Boundary Outside Project Area Perennial Stream/River 		Setback Feature <ul style="list-style-type: none"> Local Road Setback (701.9 ft) Overhead Distribution Line (701.9 ft) Non-Participating Residence Setback (1,340.1 ft) Non-Participating Property Lines Setback (701.9 ft) 	<p>*Turbines are not drawn to scale. **Only setback features affecting the turbine siting are shown. ***All residences shown as participating are under wind lease or good neighbor agreements.</p>	 BURNS McDONNELL™	<p style="text-align: center;">Figure 4-40 Heritage Prairie Wind Project Ordinance Setback Map Livingston County, Illinois</p> <p style="text-align: center;">Page Name: L65</p>
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

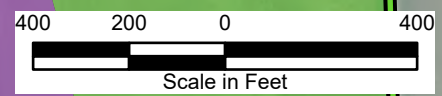
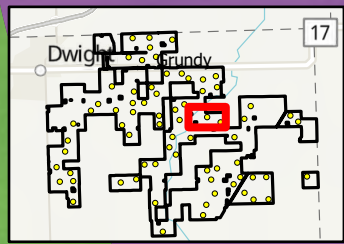
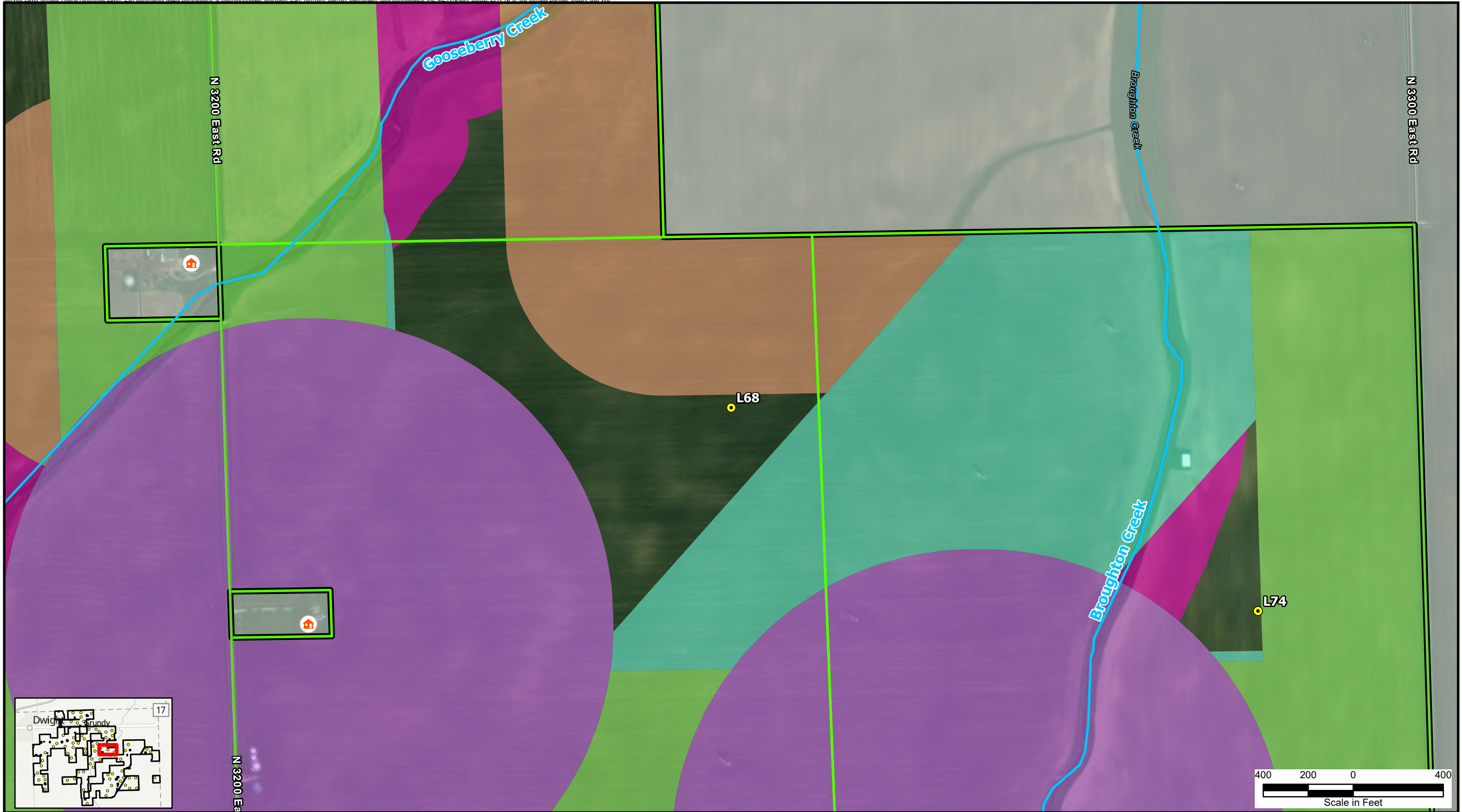
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-41
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois



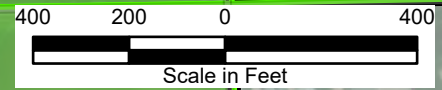
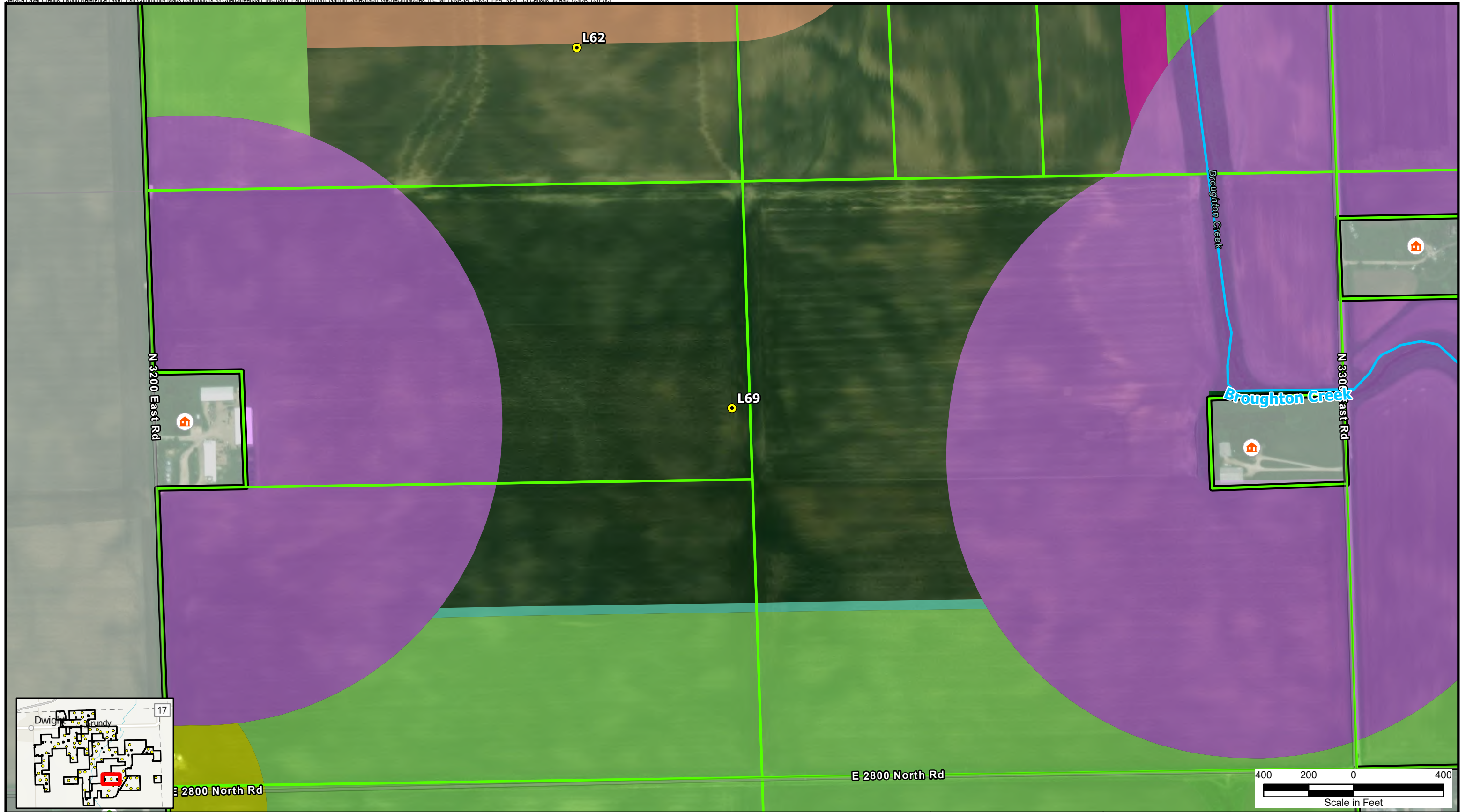
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-42
 Heritage Prairie Wind Project
 Ordinance Setback Map
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Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-43
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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 L69



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- 🏠 Non-Participating Residence
- Perennial Stream/River

Setback Feature

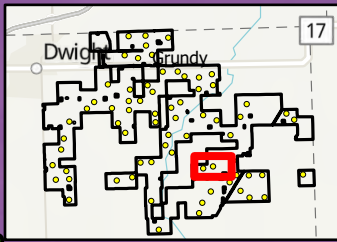
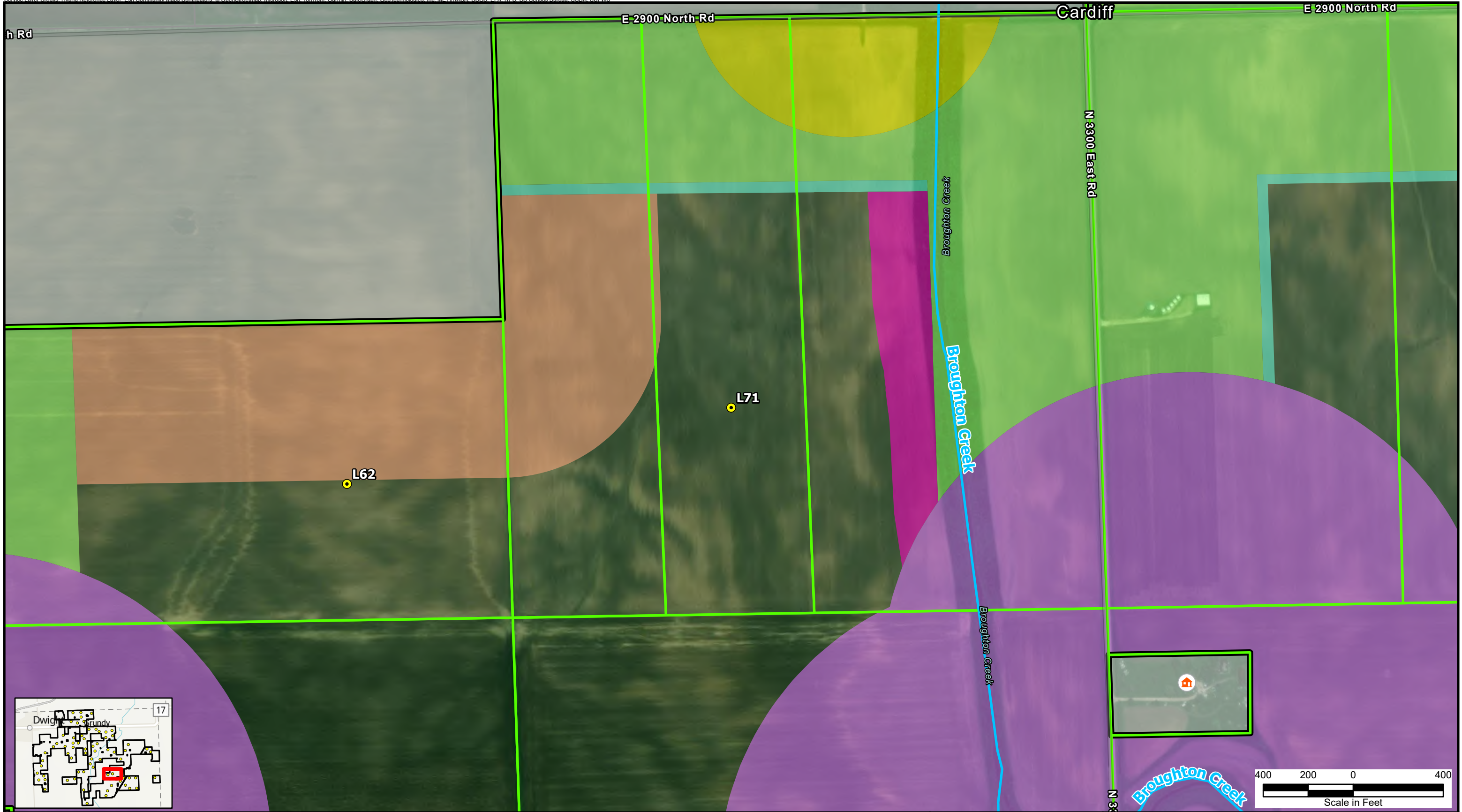
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

**BURNS
MCDONNELL™**

Figure 4-44
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

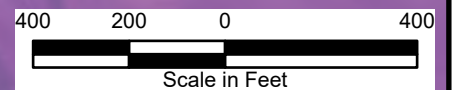
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

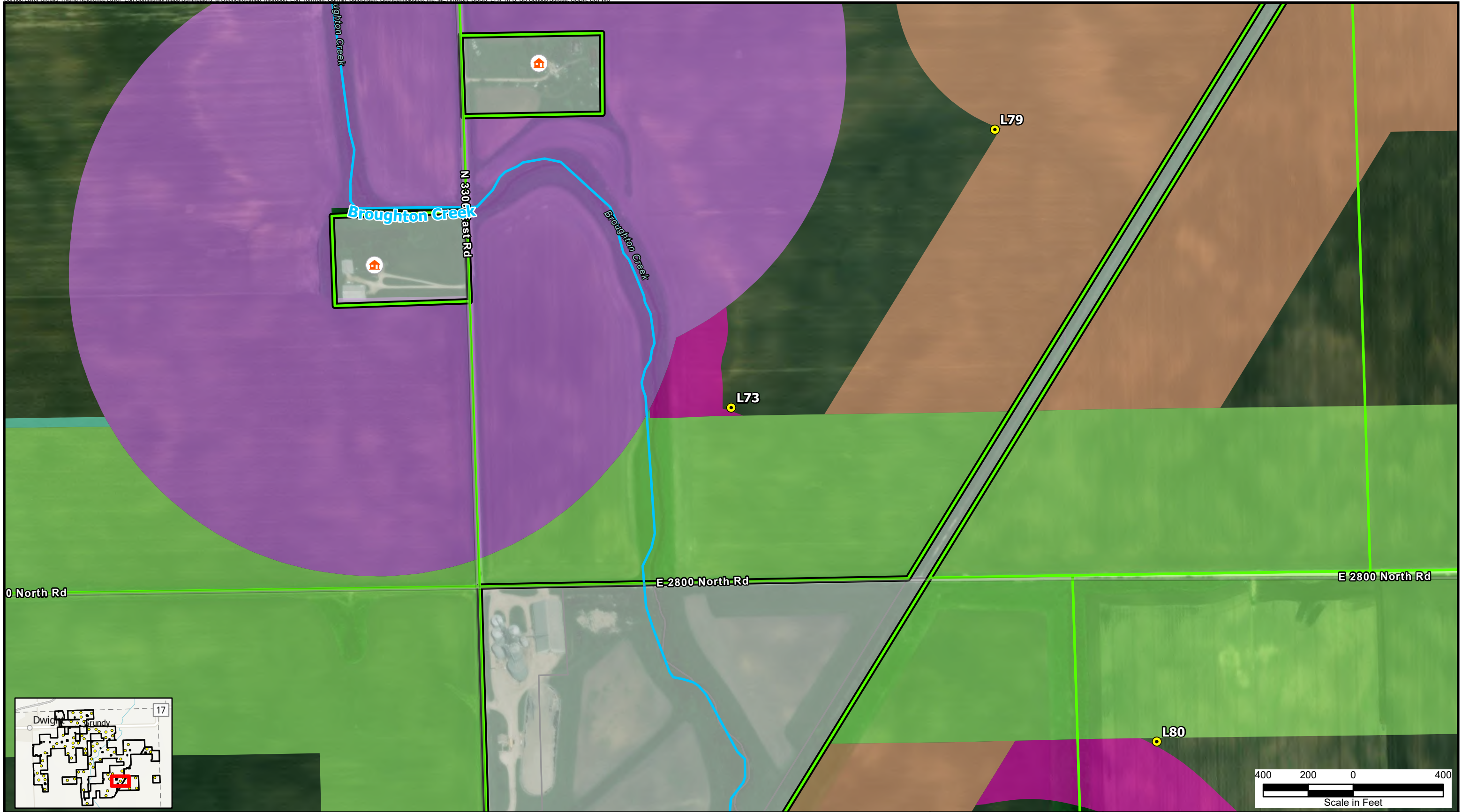
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-45
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

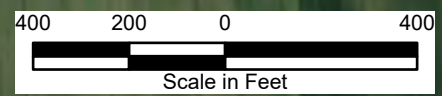
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

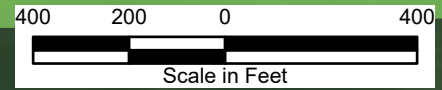
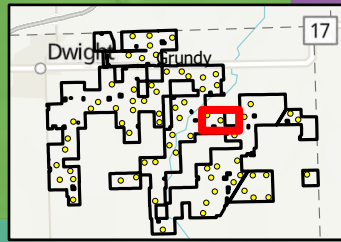
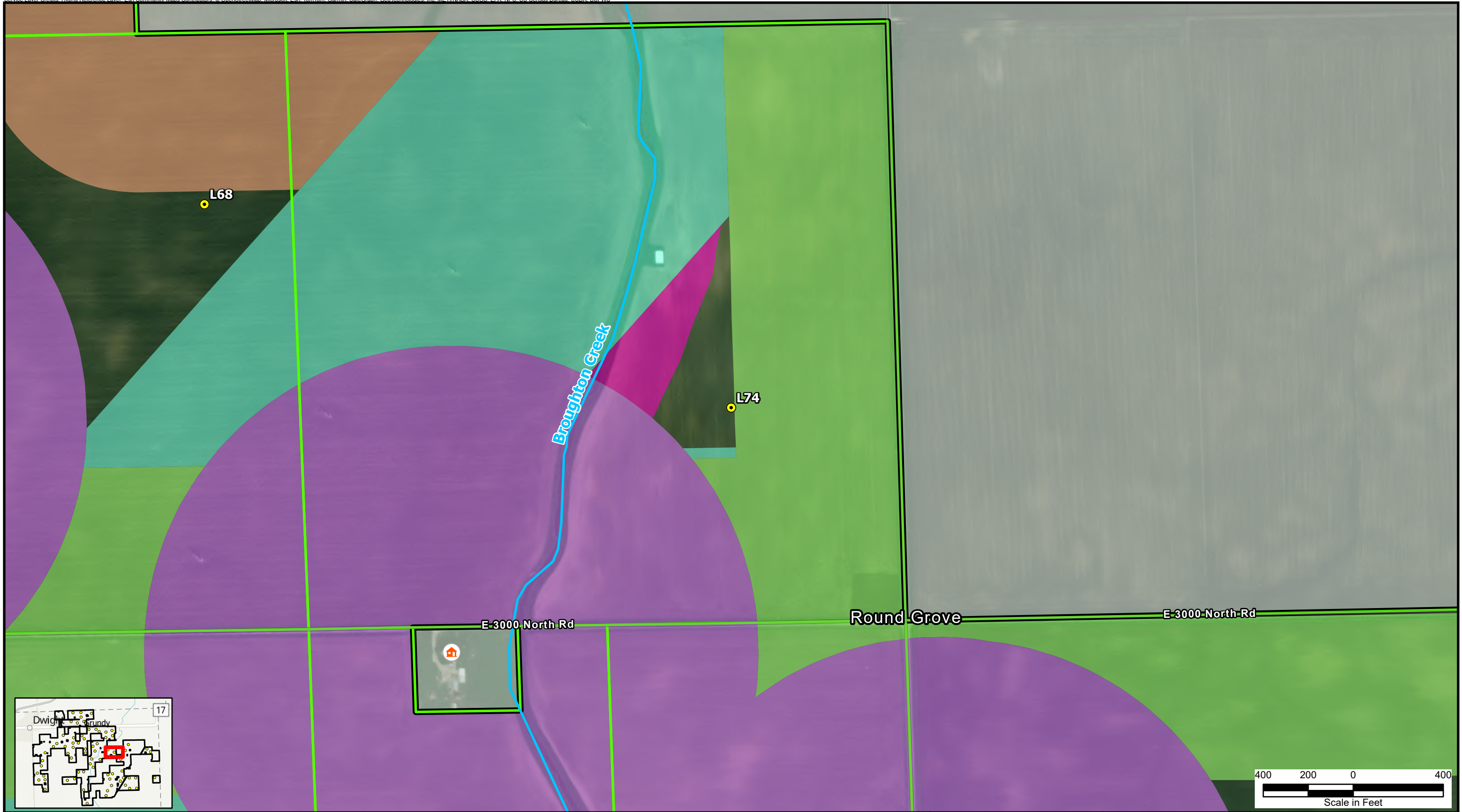
NORTH

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Figure 4-46
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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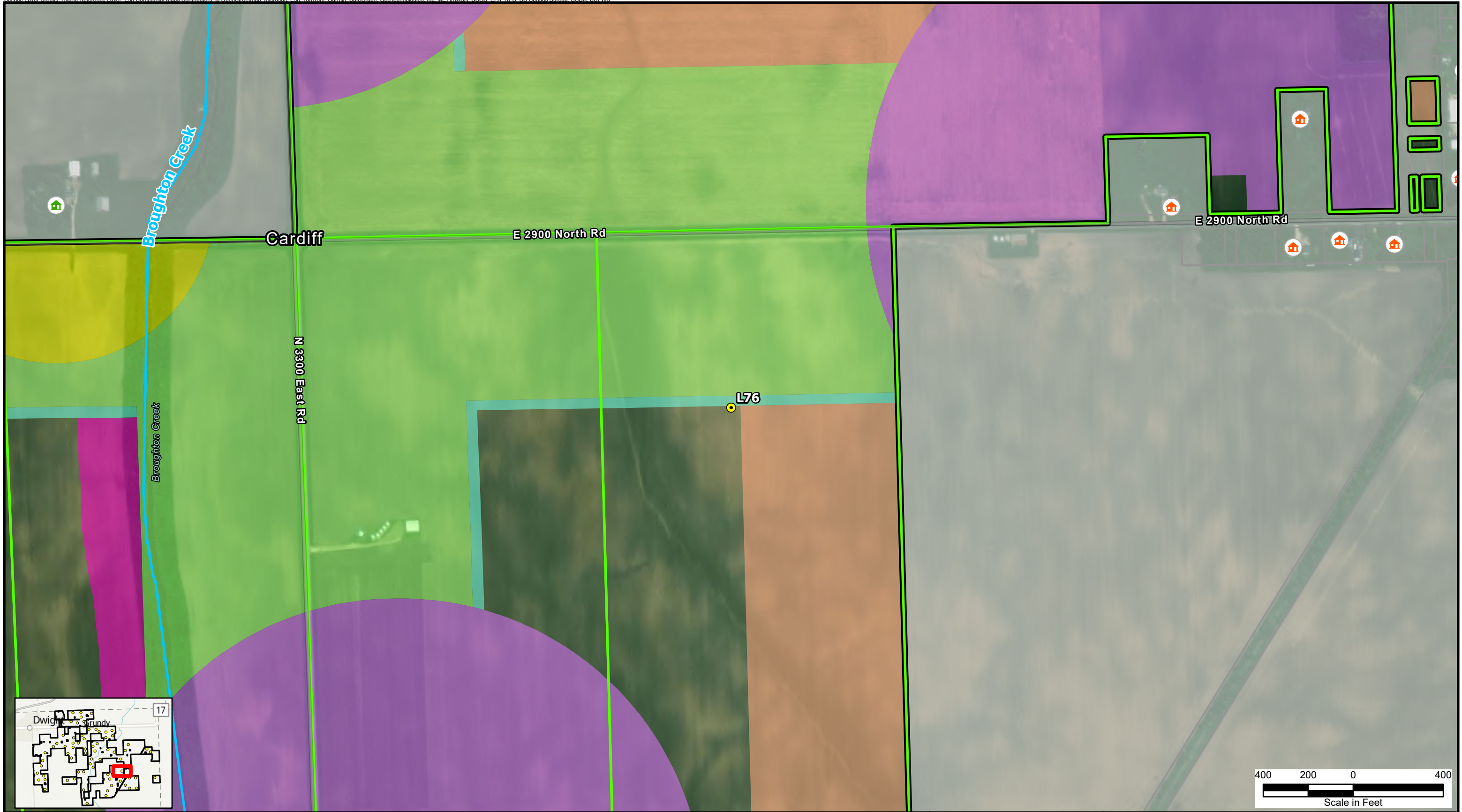
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

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Figure 4-47
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

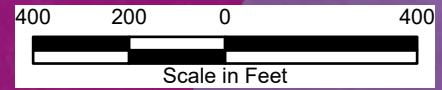
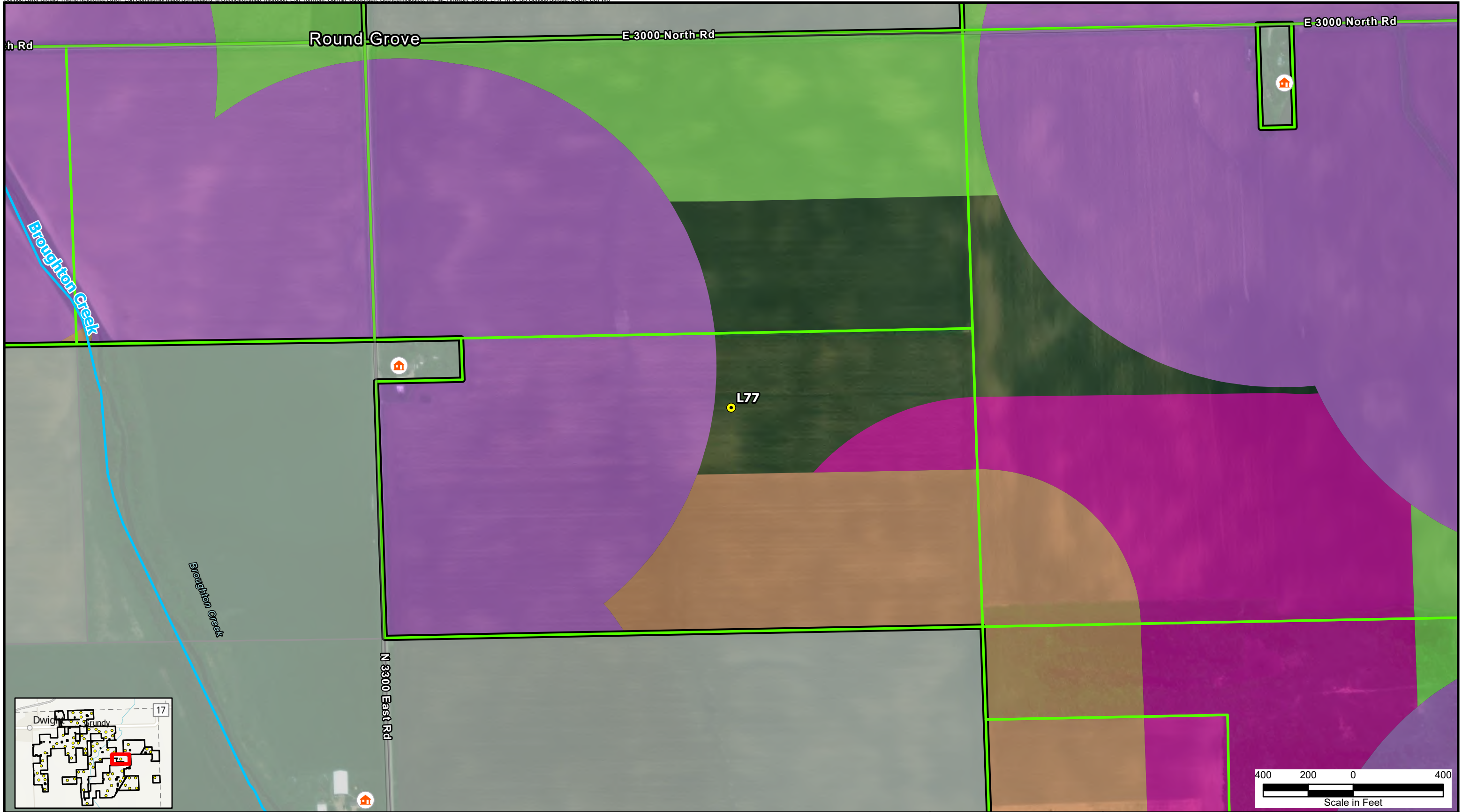
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

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Figure 4-48
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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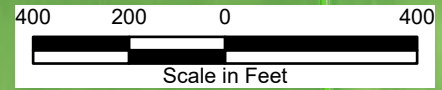
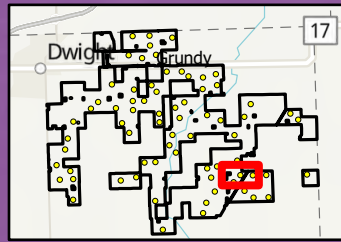
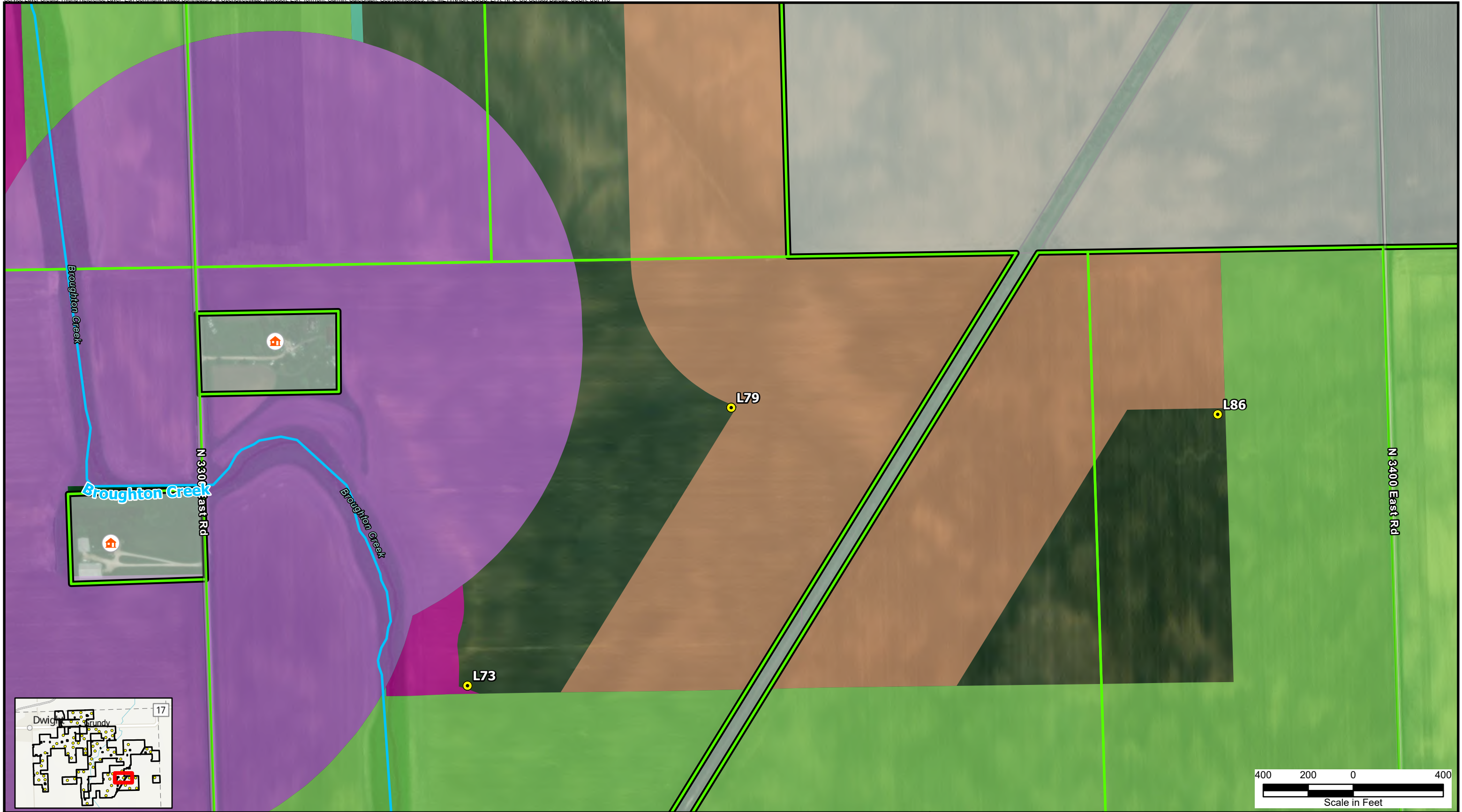
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
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Figure 4-49
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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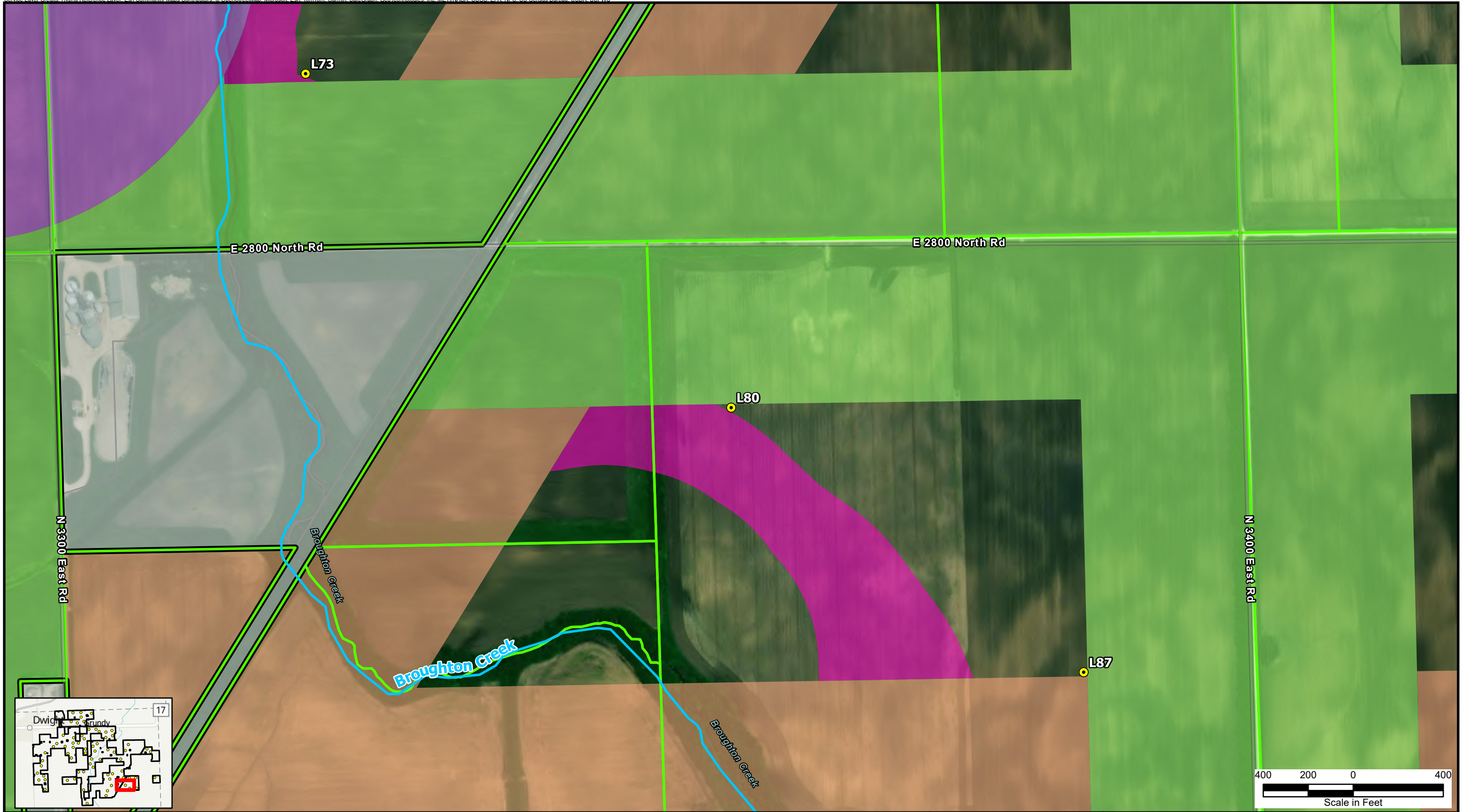
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-50
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

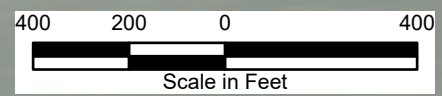
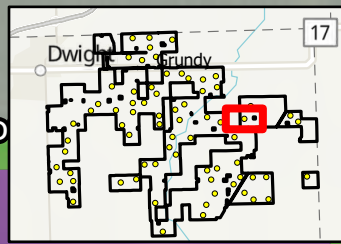
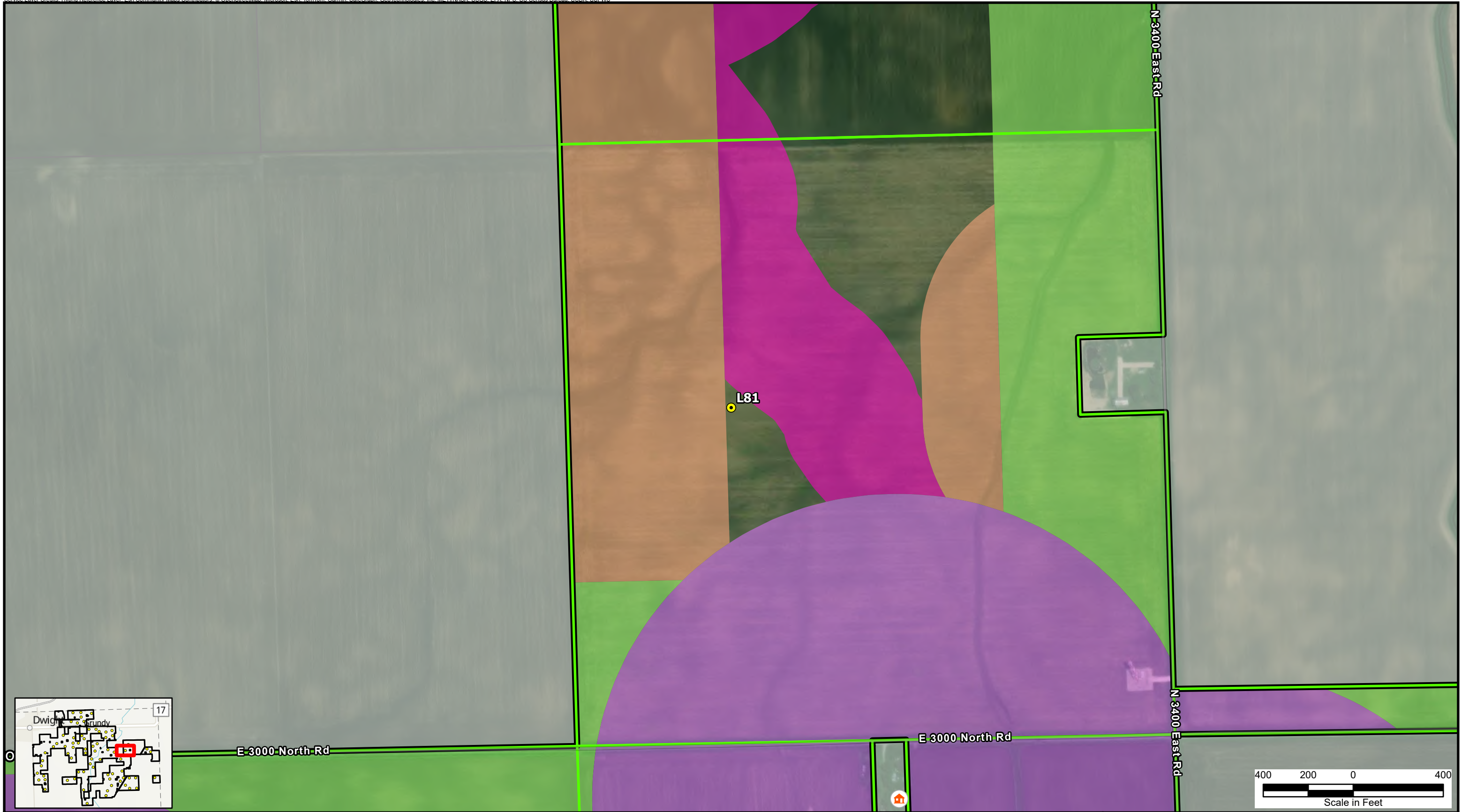
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

NORTH

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Figure 4-51
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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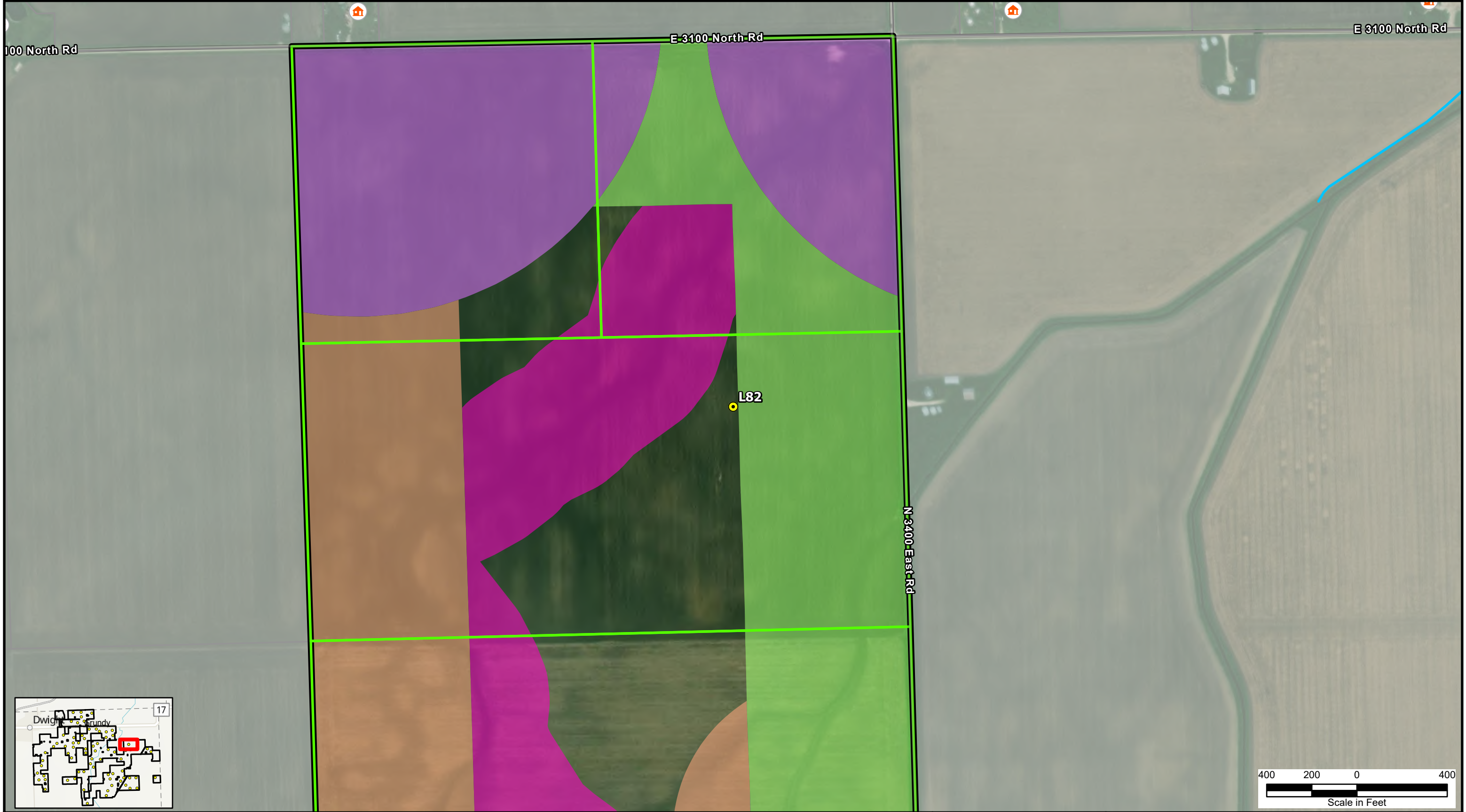
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

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 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-52
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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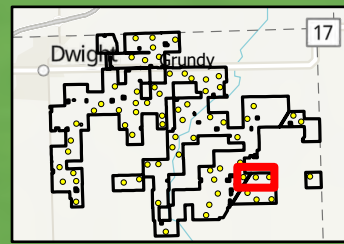
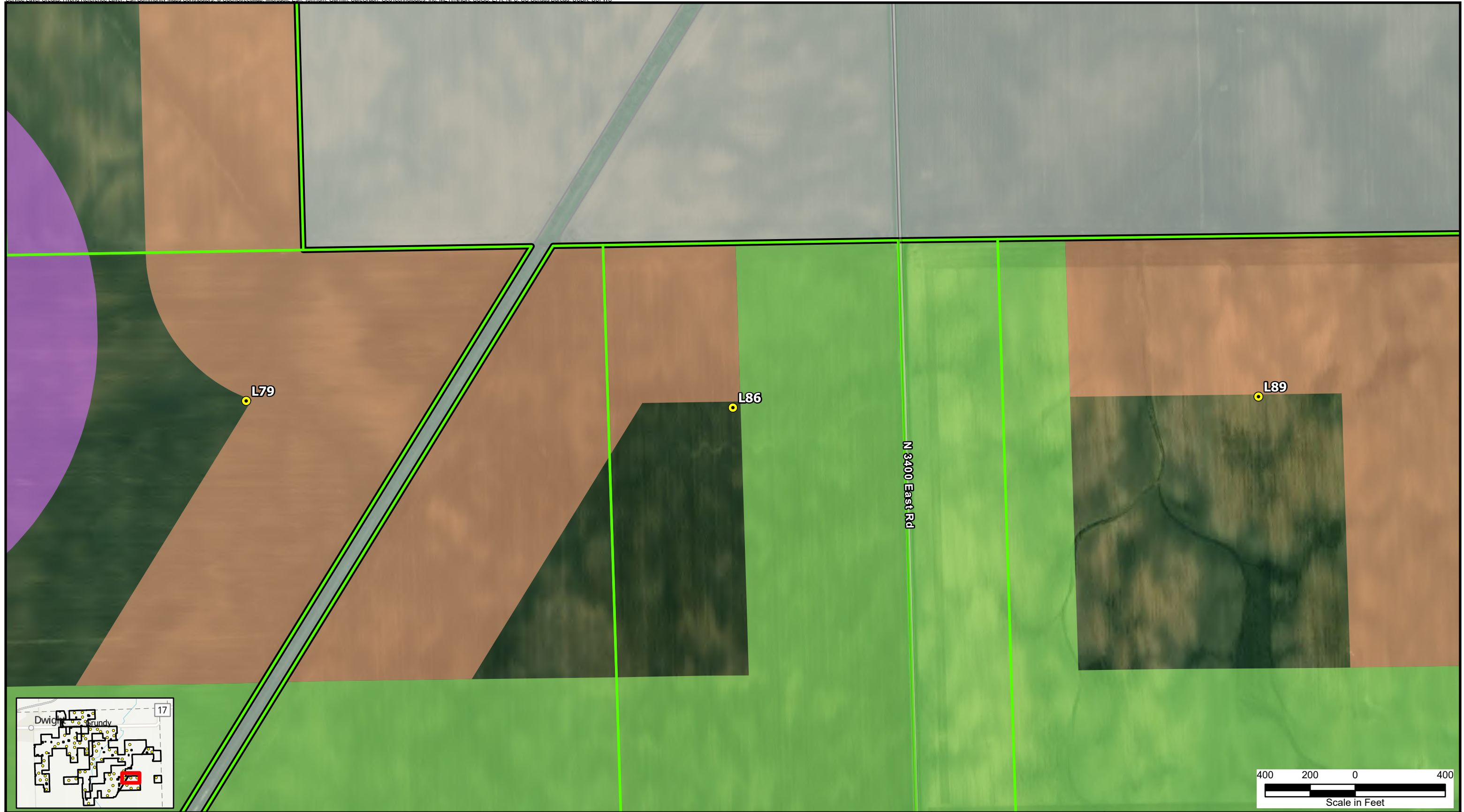
- ### Legend
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River

- ### Setback Feature
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

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Figure 4-53
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary

- Non-Participating Property Boundary
- Outside Project Area

Setback Feature

- Local Road Setback (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

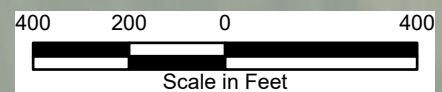
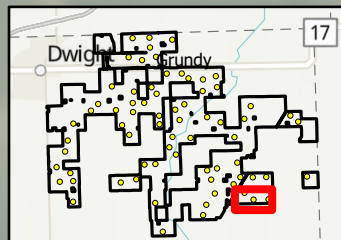
*Turbines are not drawn to scale.
**Only setback features affecting the turbine siting are shown.
***All residences shown as participating are under wind lease or good neighbor agreements.



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Figure 4-54
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois

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- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-55
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area

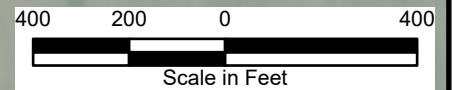
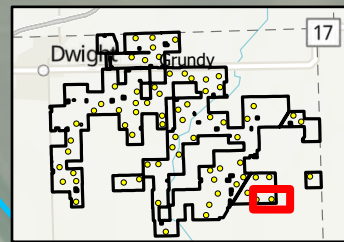
Setback Feature

- Local Road Setback (701.9 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-56
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Perennial Stream/River

Setback Feature

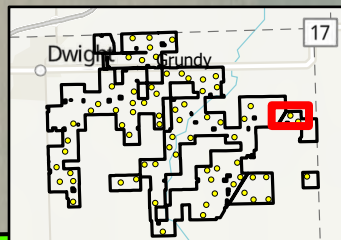
- Local Road Setback (701.9 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-57
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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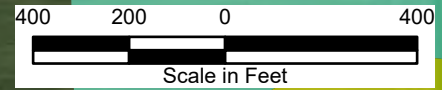
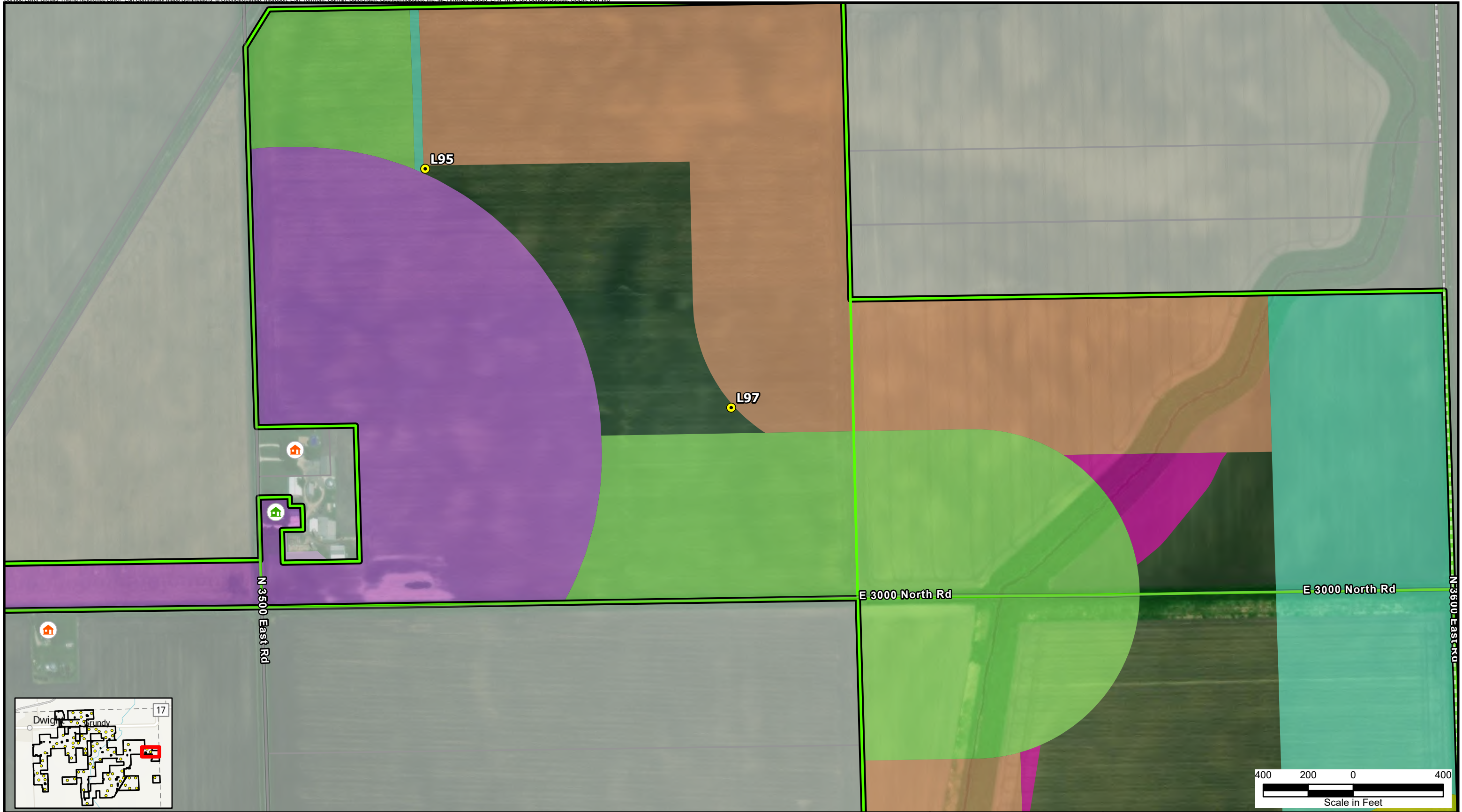
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Participating Residence
 - Non-Participating Residence

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-58
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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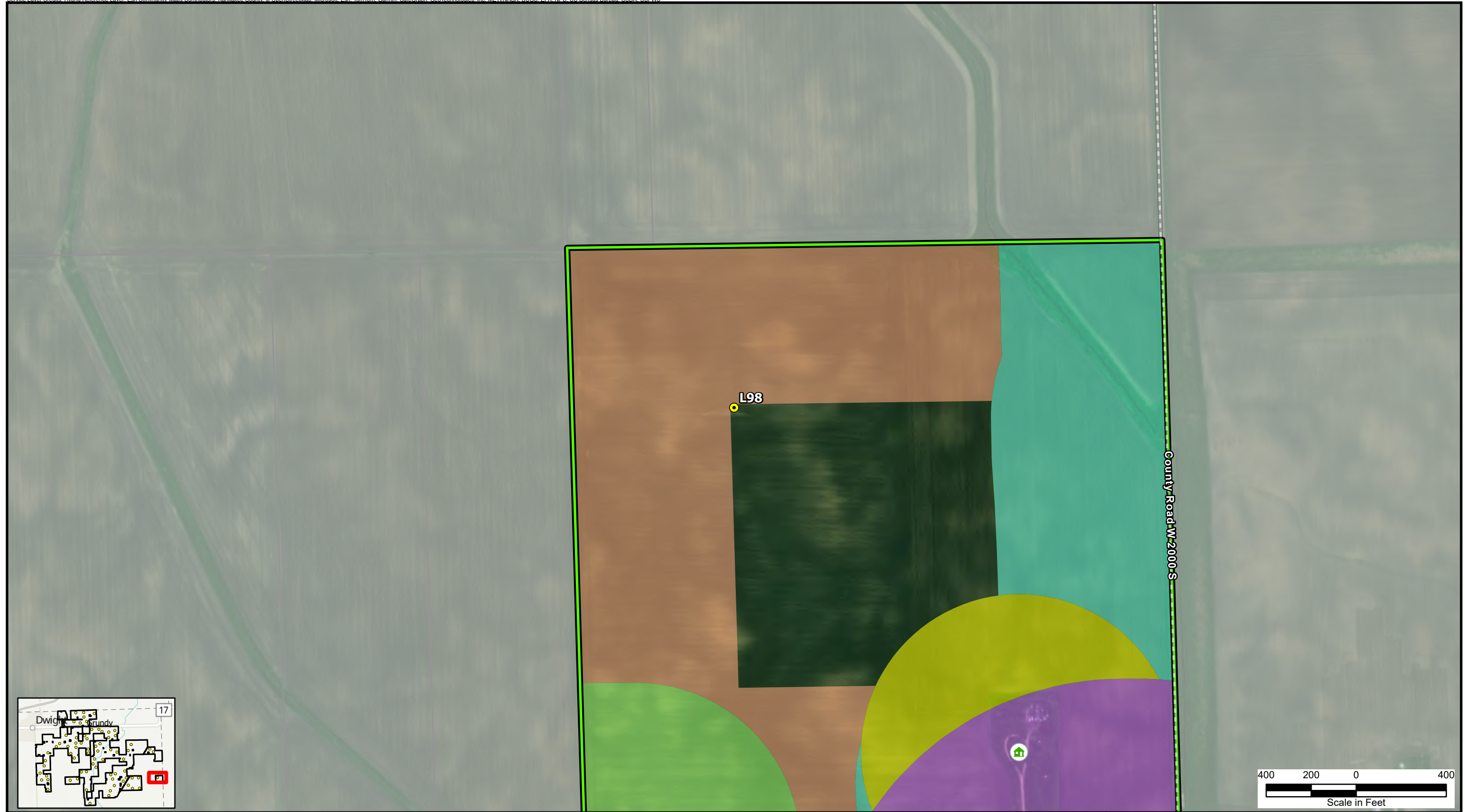
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Participating Residence
 - Non-Participating Residence

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Participating Residence Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-59
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence

Setback Feature

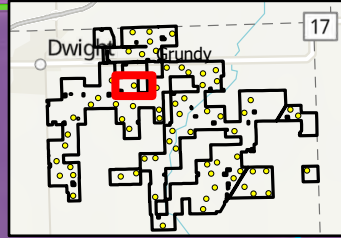
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
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 ***All residences shown as participating are under wind lease or good neighbor agreements.

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Figure 4-60
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
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 ***All residences shown as participating are under wind lease or good neighbor agreements.

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Figure 4-61
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River
	Outside Project Area

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1.340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

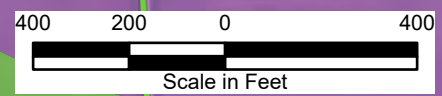
*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

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Figure 4-62
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

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Legend

Proposed Turbines	Outside Project Area
Project Boundary	Non-Participating Residence
Participating Property Boundary	Perennial Stream/River
Non-Participating Property Boundary	

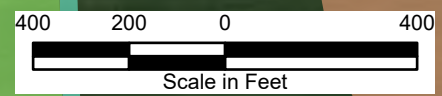
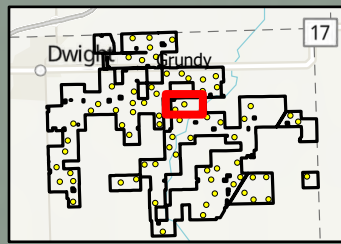
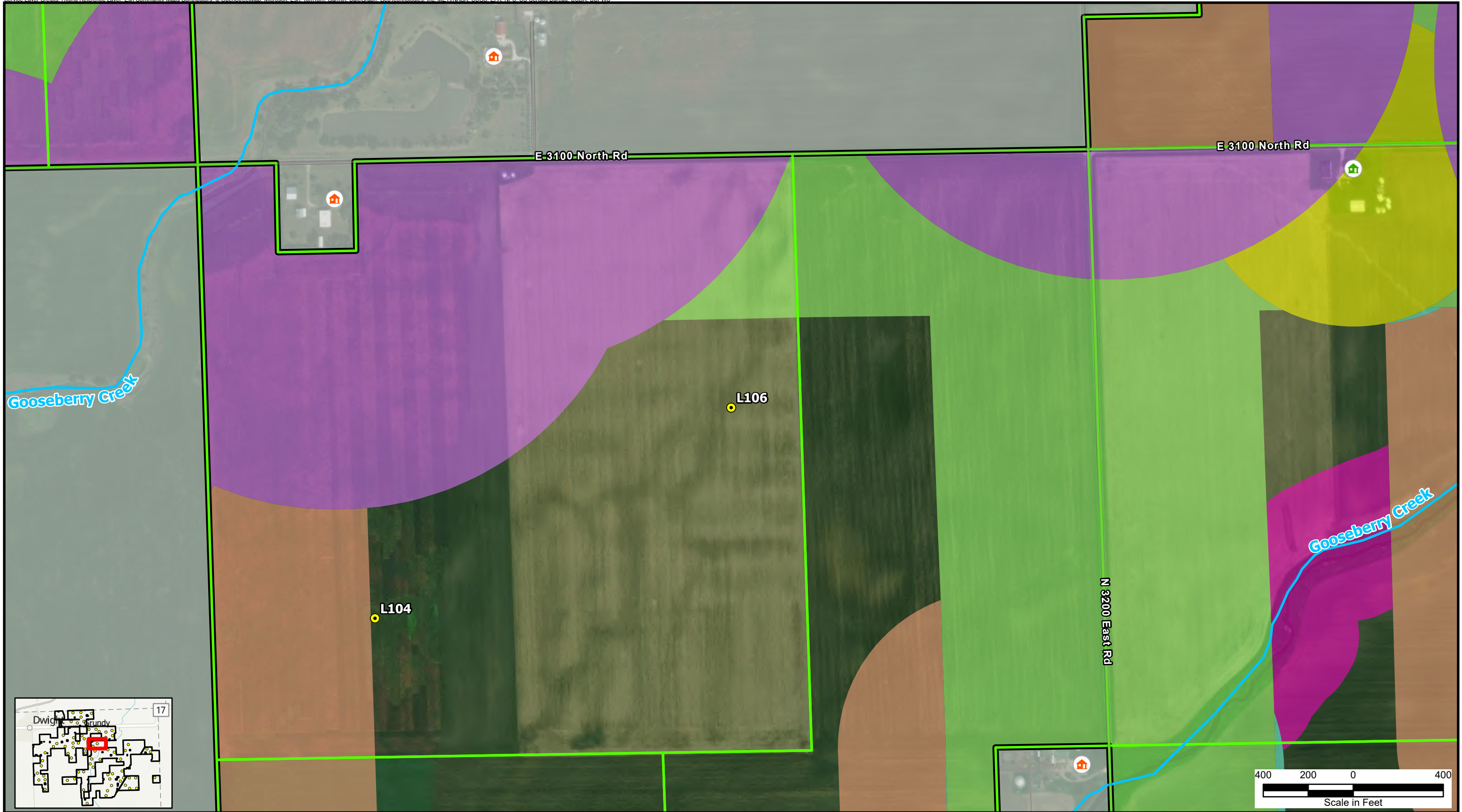
Setback Feature

Local Road Setback (701.9 ft)
Overhead Distribution Line (701.9 ft)
Non-Participating Residence Setback (1,340.1 ft)
Non-Participating Property Lines Setback (701.9 ft)
Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
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Figure 4-63
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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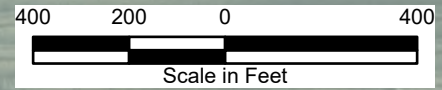
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
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Figure 4-64
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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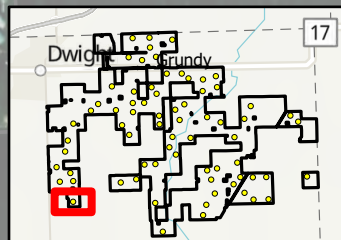
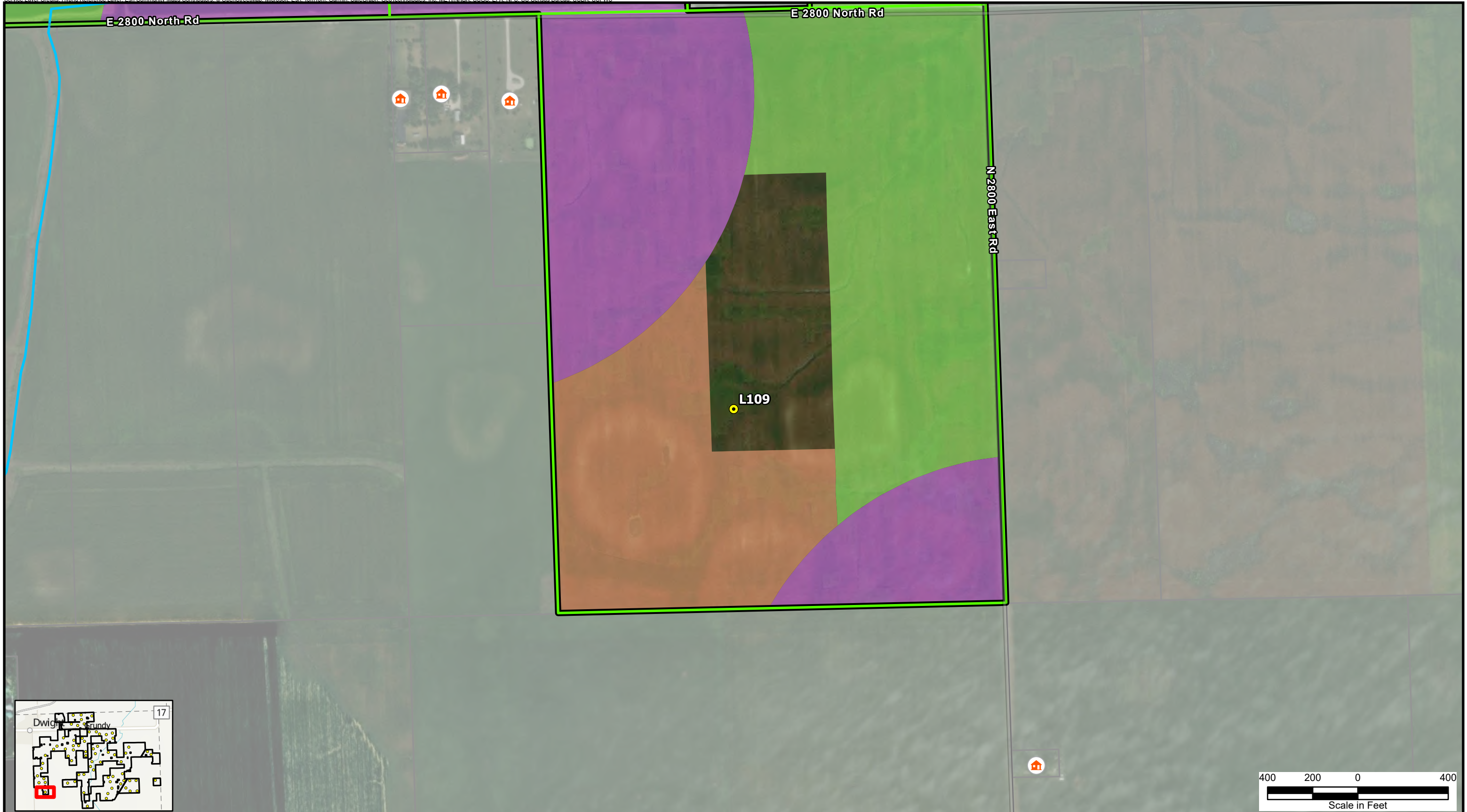
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - Non-Participating Residence
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-65
 Heritage Prairie Wind Project
 Ordinance Setback Map
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

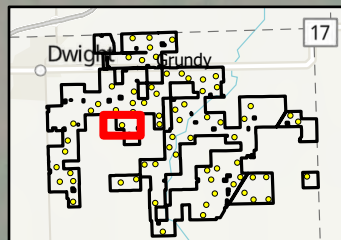
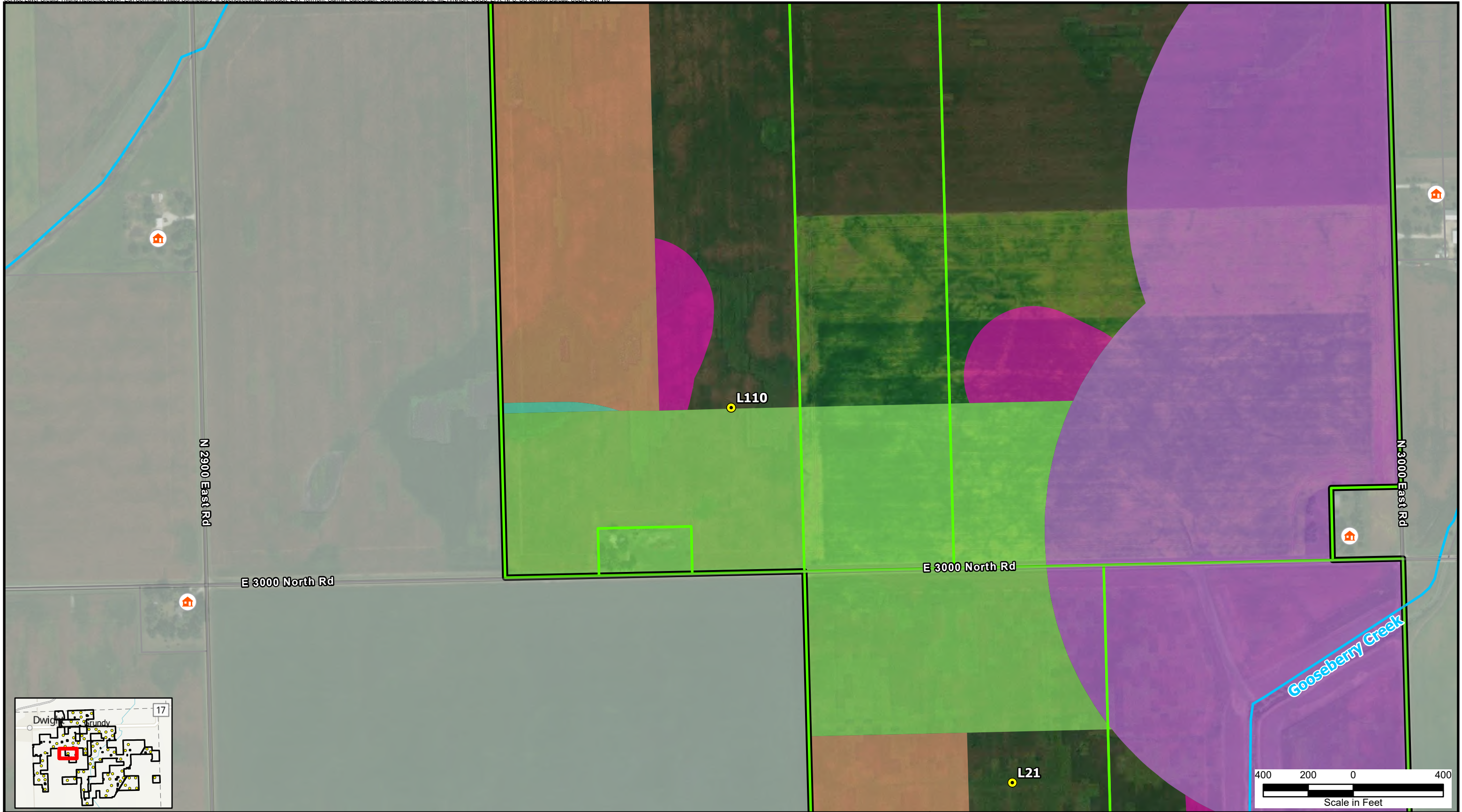
Setback Feature

- Local Road Setback (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-66
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
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Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

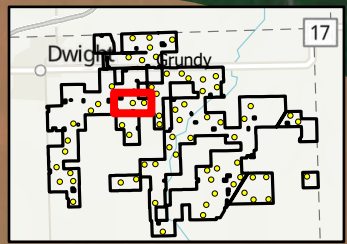
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

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 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-67
 Heritage Prairie Wind Project
 Ordinance Setback Map
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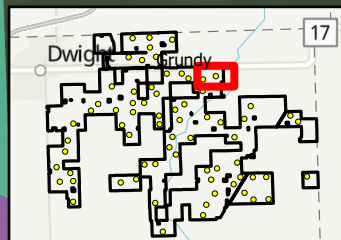
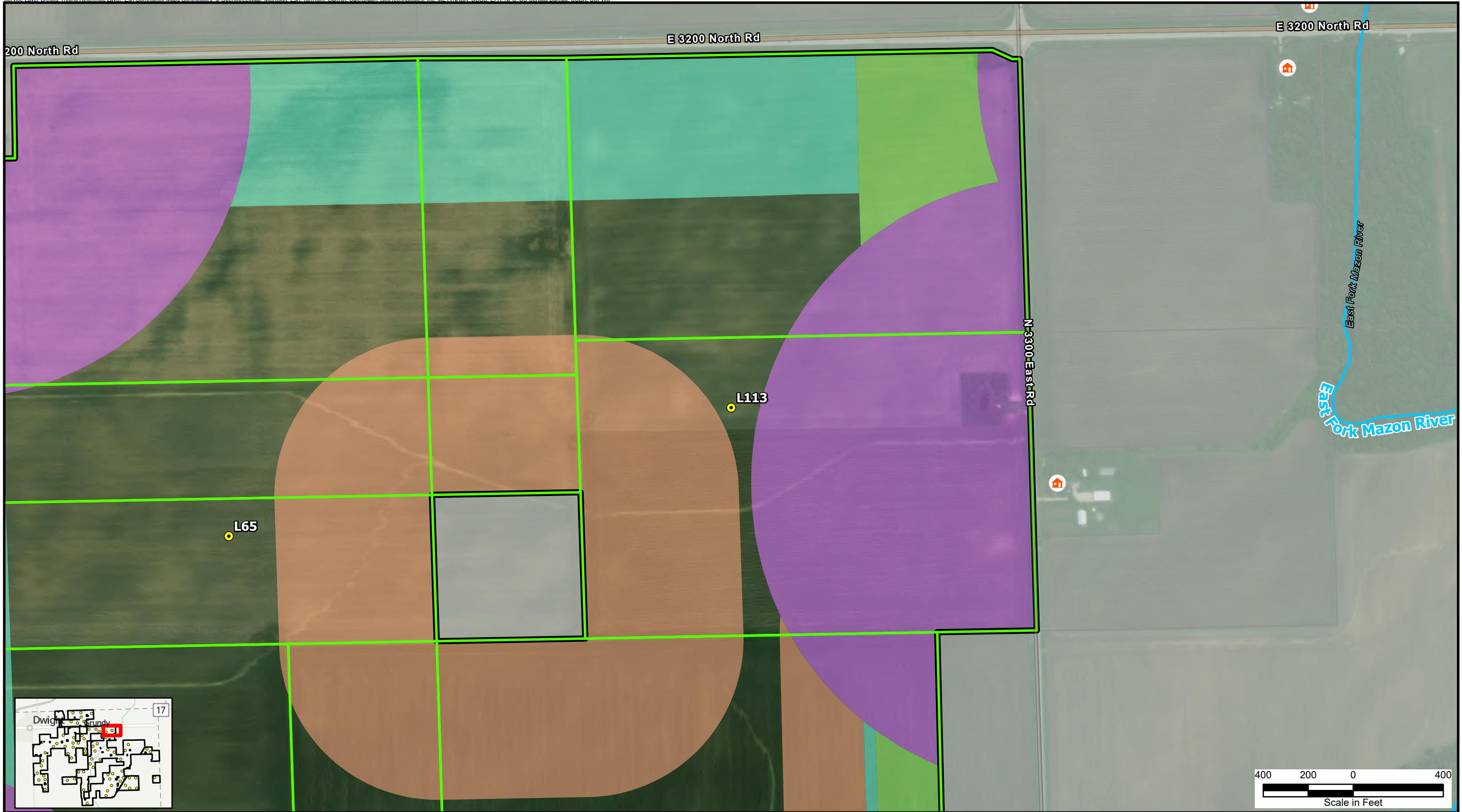
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-68
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L111



Legend

- Proposed Turbines
- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

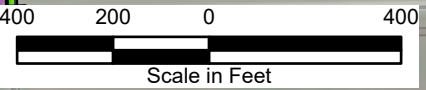
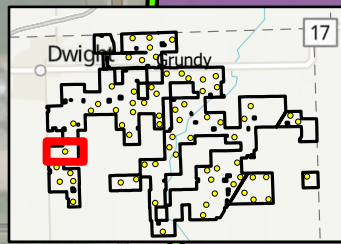
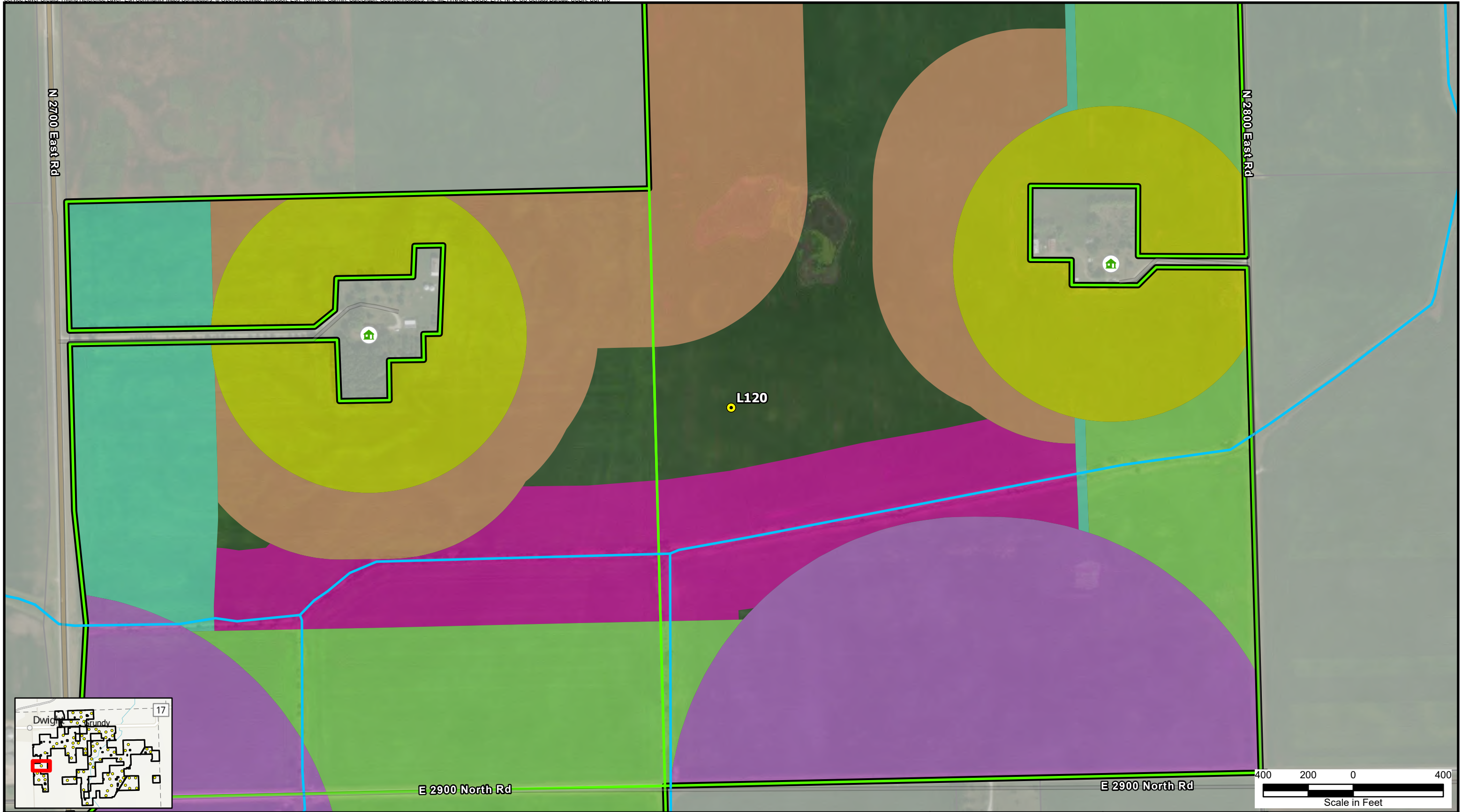
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
**Only setback features affecting the turbine siting are shown.
***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-69
Heritage Prairie Wind Project
Ordinance Setback Map
Livingston County, Illinois

Page Name:
L113



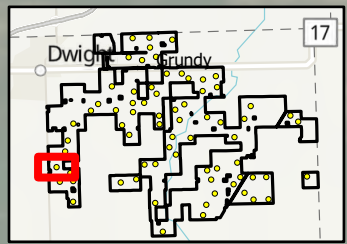
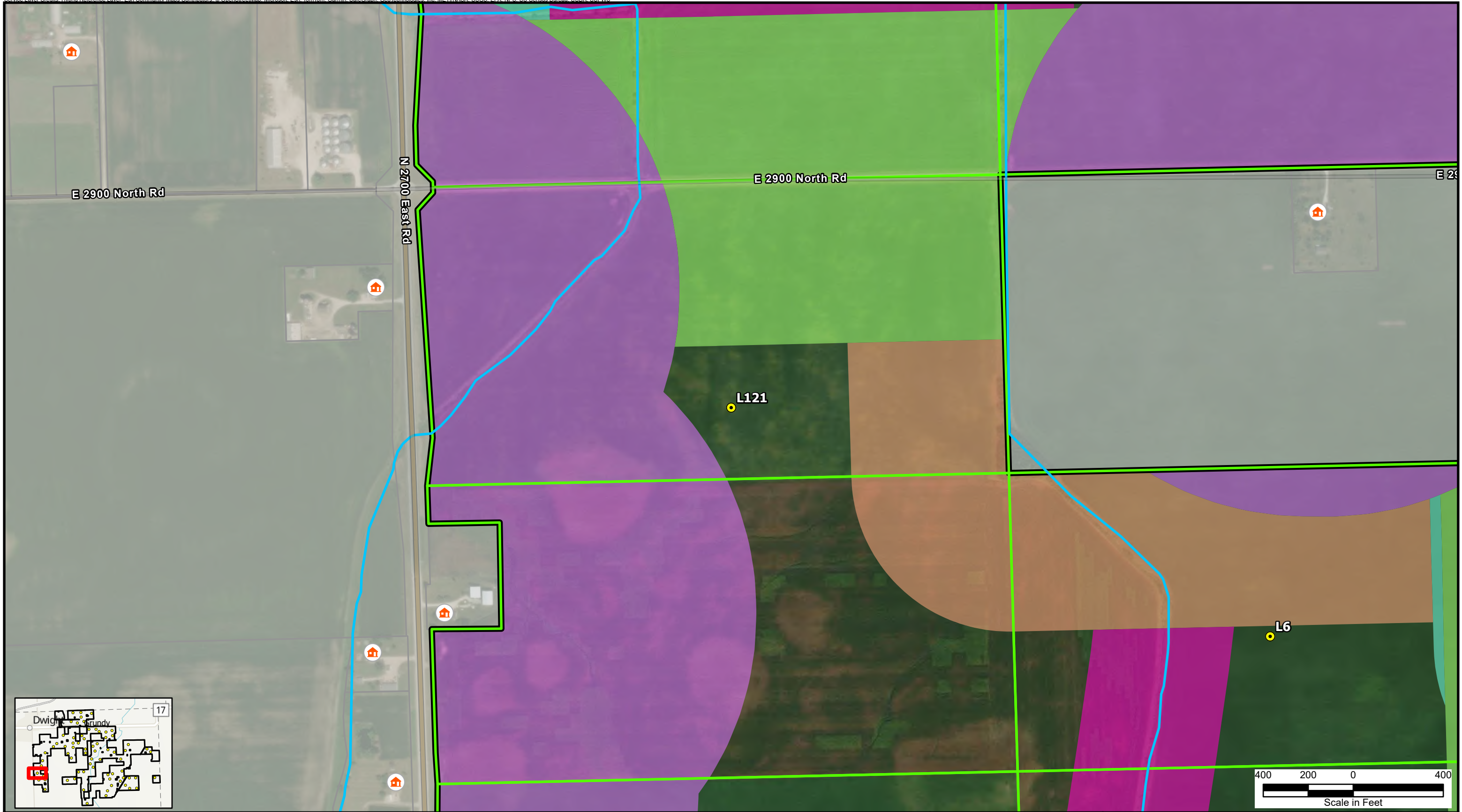
Legend	
	Proposed Turbines
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Participating Residence Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-70
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L120



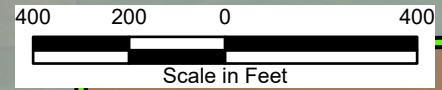
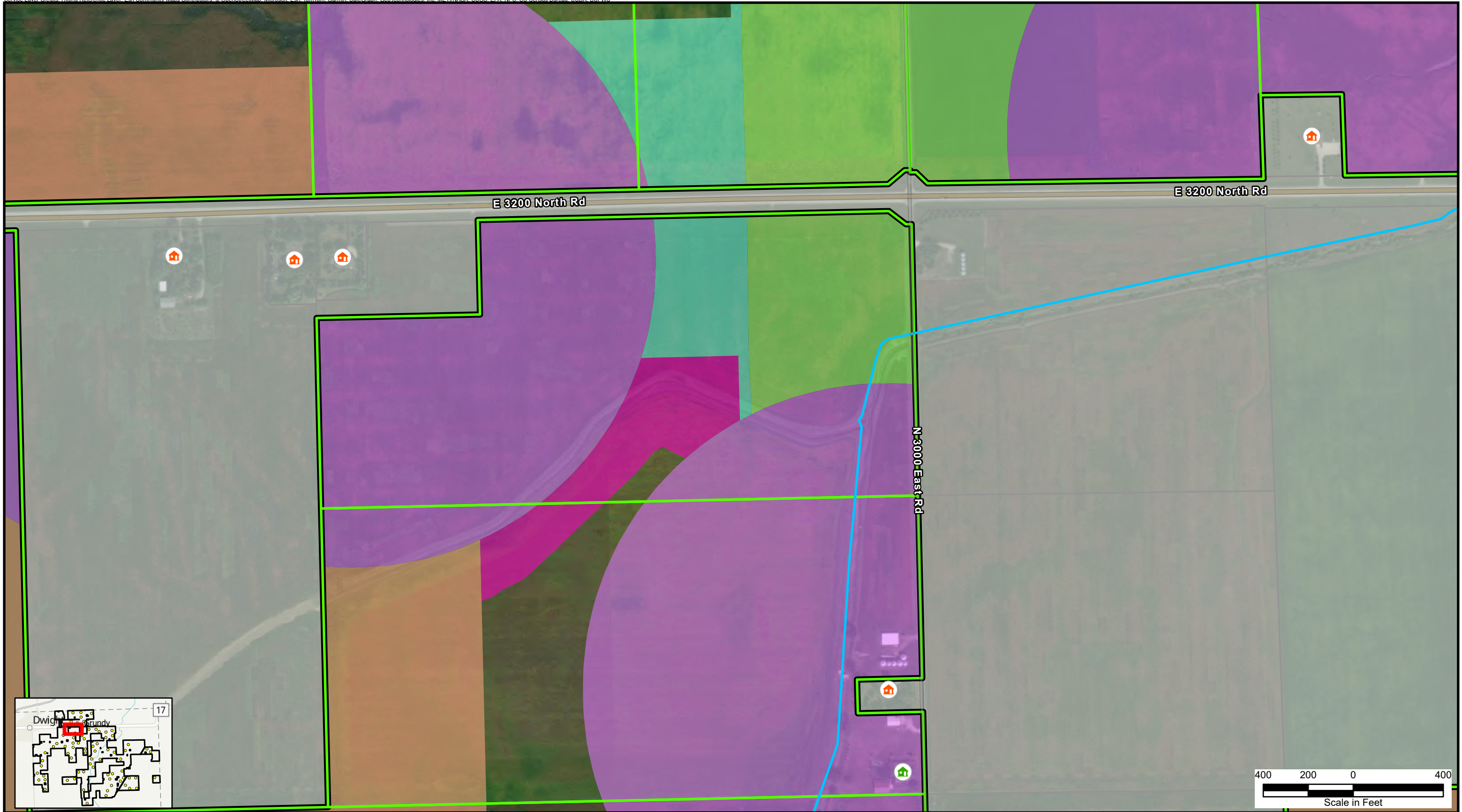
- Legend**
- Proposed Turbines
 - Project Boundary
 - Participating Property Boundary
 - Non-Participating Property Boundary
 - Outside Project Area
 - 🏠 Non-Participating Residence
 - Perennial Stream/River

- Setback Feature**
- Local Road Setback (701.9 ft)
 - Overhead Distribution Line (701.9 ft)
 - Non-Participating Residence Setback (1,340.1 ft)
 - Non-Participating Property Lines Setback (701.9 ft)
 - Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-71
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 L121



Legend	
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Participating Residence
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-72
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 1



Legend

- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

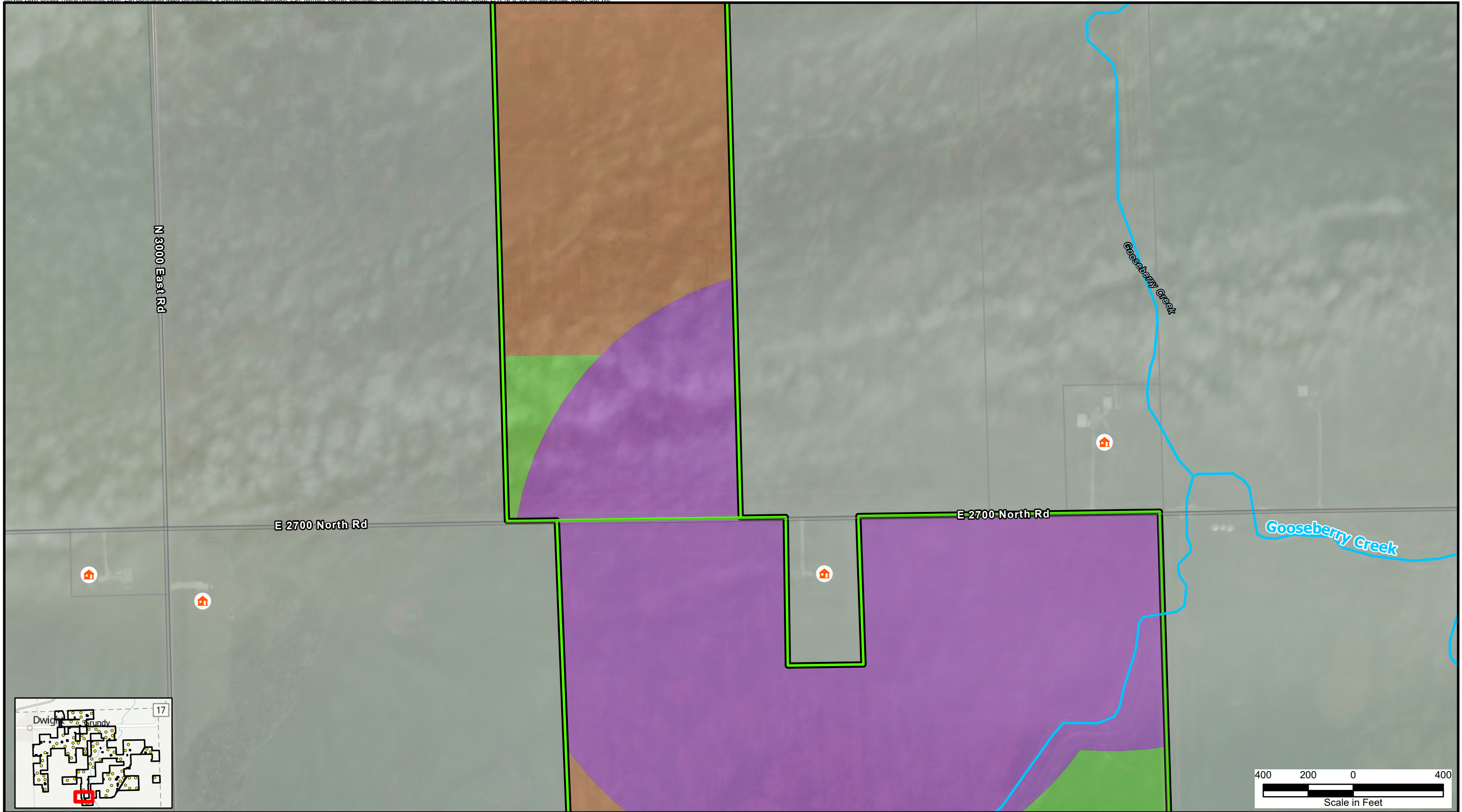
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-73
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 2



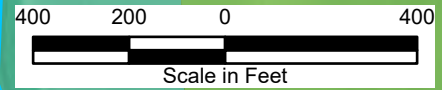
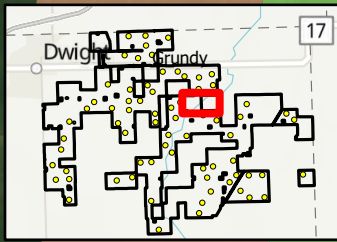
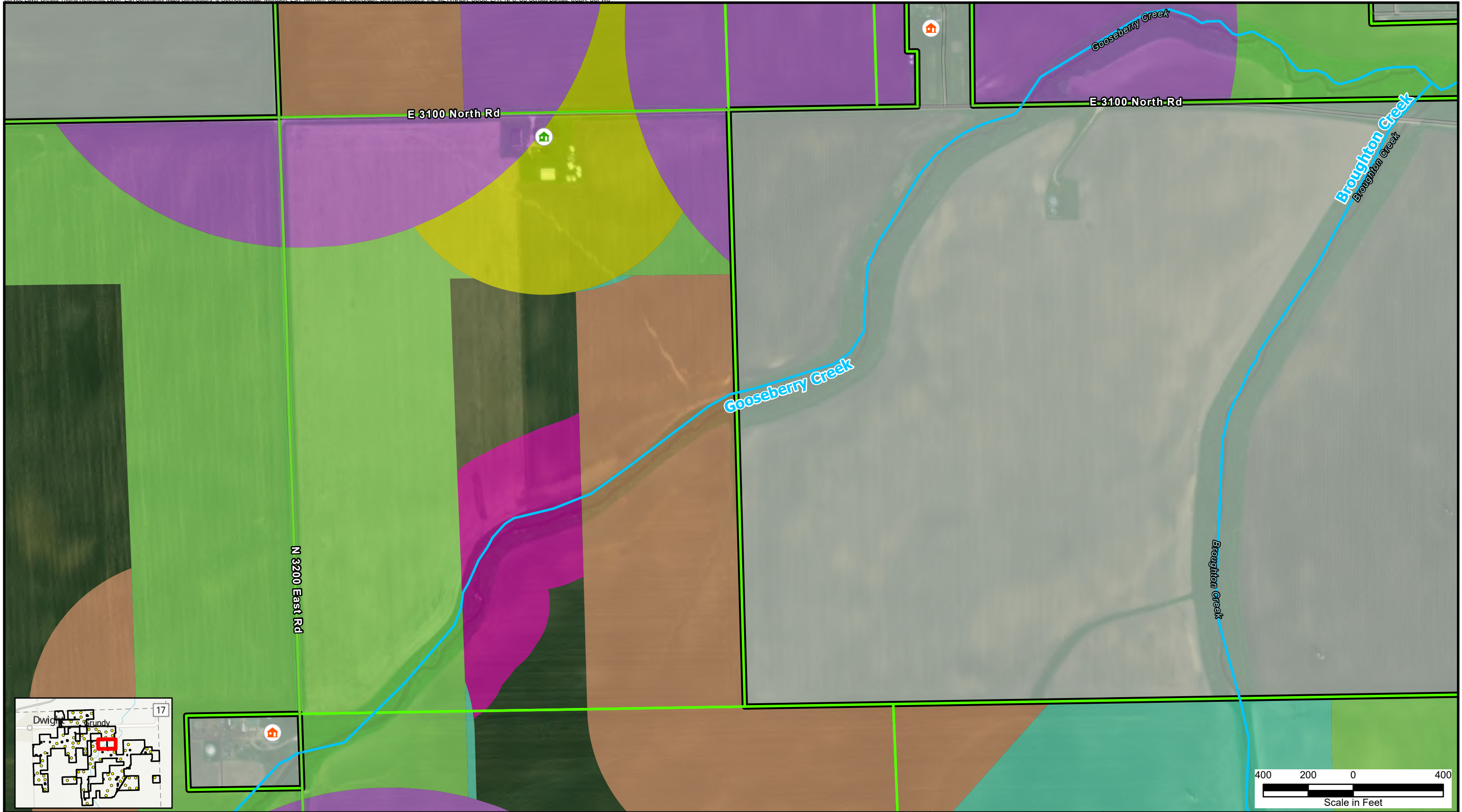
Legend	
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)
	Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-74
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 3



Legend

- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Participating Residence
- Non-Participating Residence
- Perennial Stream/River

Setback Feature

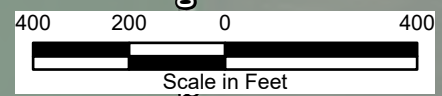
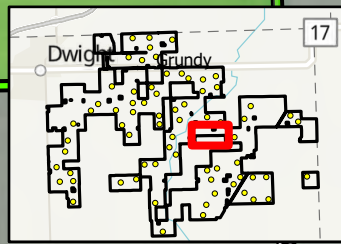
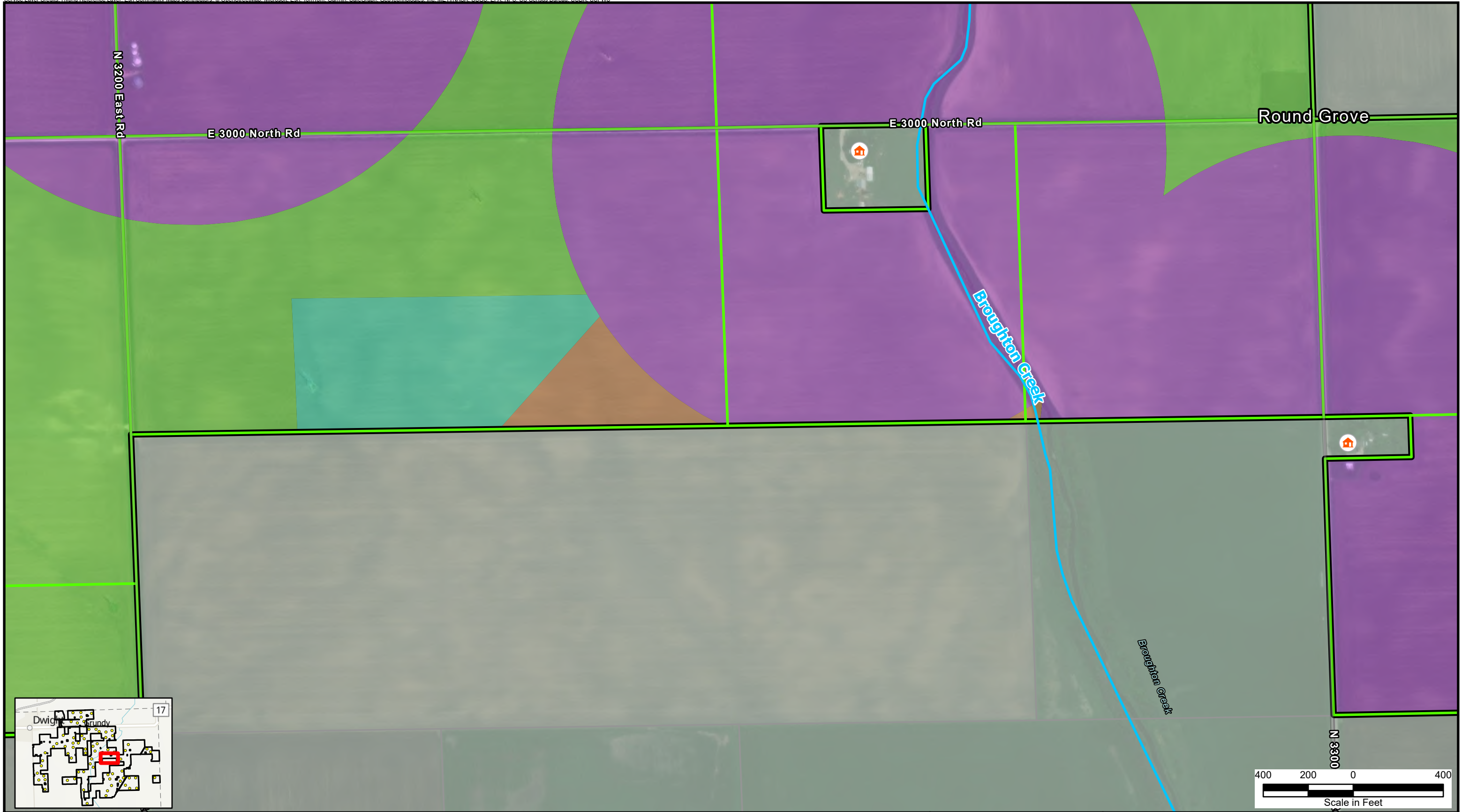
- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-75
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois

Page Name:
 Site Features 4



Legend	
	Project Boundary
	Participating Property Boundary
	Non-Participating Property Boundary
	Outside Project Area
	Non-Participating Residence
	Perennial Stream/River

Setback Feature	
	Local Road Setback (701.9 ft)
	Overhead Distribution Line (701.9 ft)
	Non-Participating Residence Setback (1,340.1 ft)
	Non-Participating Property Lines Setback (701.9 ft)

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.

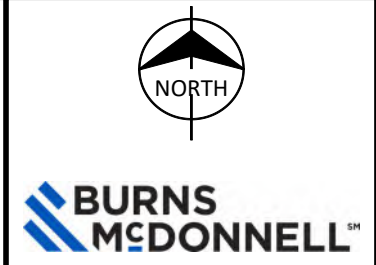
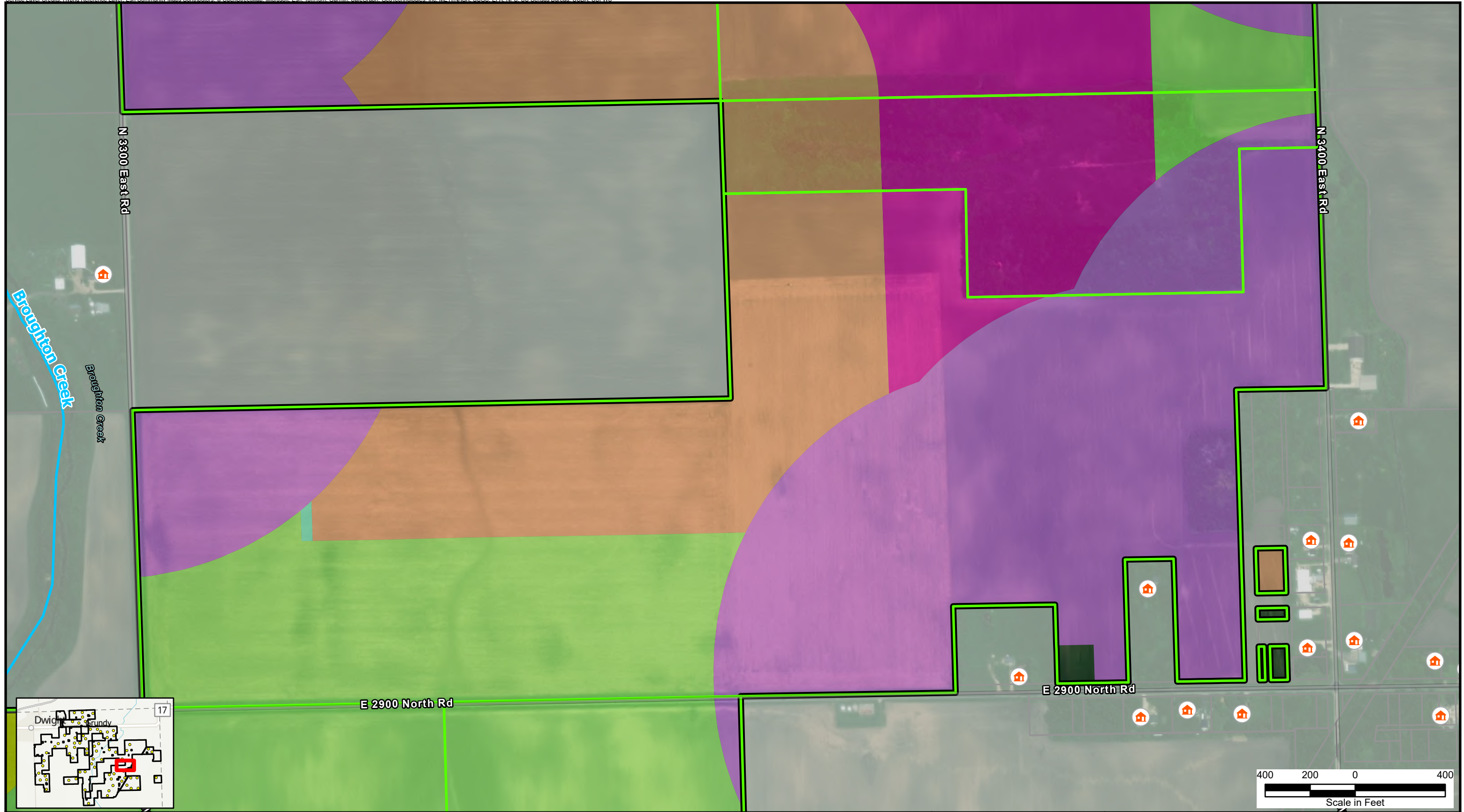


Figure 4-76
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 5



Legend

- Project Boundary
- Participating Property Boundary
- Non-Participating Property Boundary
- Outside Project Area
- Non-Participating Residence
- Perennial Stream/River

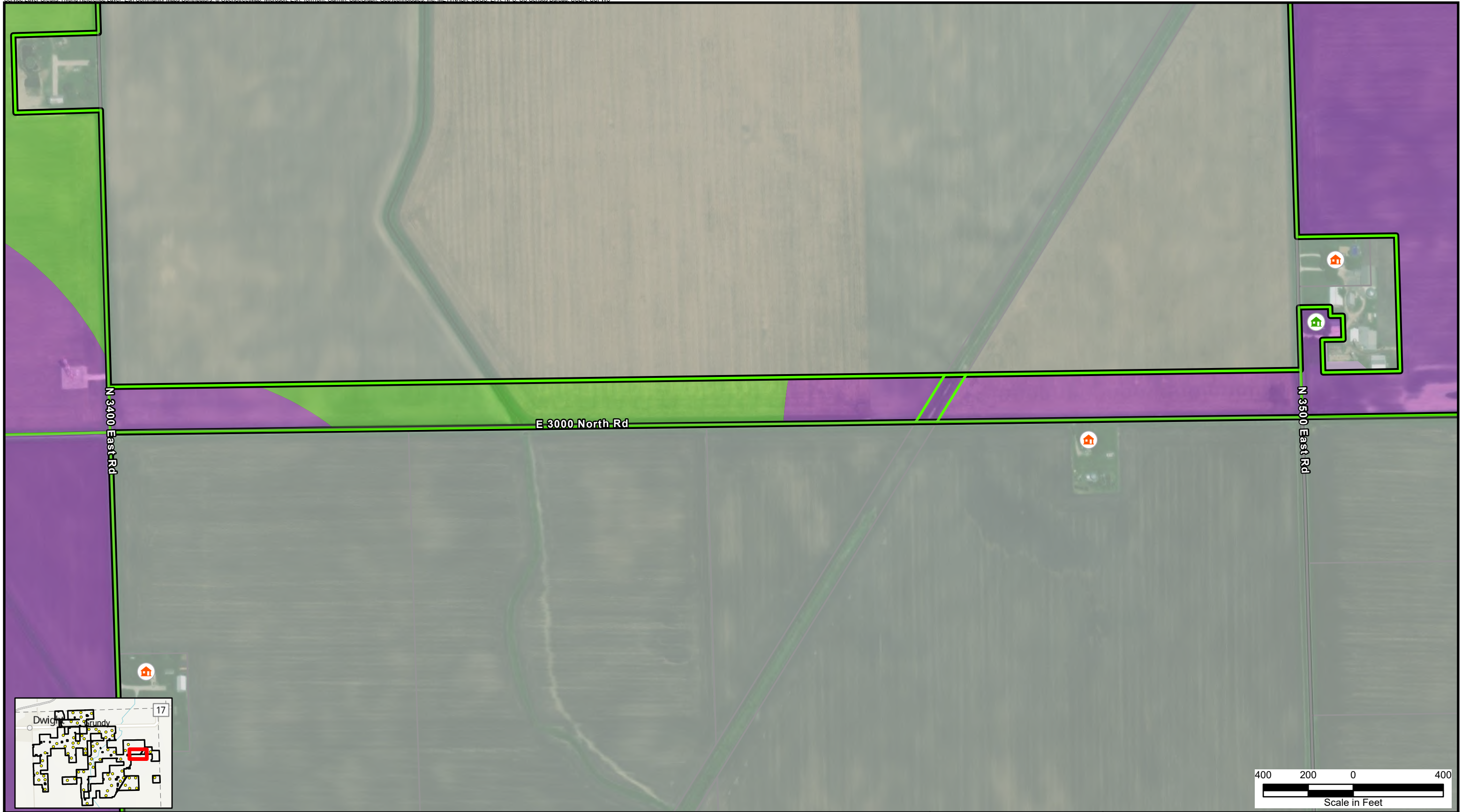
Setback Feature

- Local Road Setback (701.9 ft)
- Overhead Distribution Line (701.9 ft)
- Non-Participating Residence Setback (1,340.1 ft)
- Non-Participating Property Lines Setback (701.9 ft)
- Participating Residence Setback (701.9 ft)
- Illinois Department of Natural Resources Setbacks

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-77
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 6



Legend	
Project Boundary	Outside Project Area
Participating Property Boundary	Participating Residence
Non-Participating Property Boundary	Non-Participating Residence

Setback Feature	
Local Road Setback (701.9 ft)	
Non-Participating Residence Setback (1,340.1 ft)	
Non-Participating Property Lines Setback (701.9 ft)	

*Turbines are not drawn to scale.
 **Only setback features affecting the turbine siting are shown.
 ***All residences shown as participating are under wind lease or good neighbor agreements.



Figure 4-78
 Heritage Prairie Wind Project
 Ordinance Setback Map
 Livingston County, Illinois
 Page Name:
 Site Features 7

APPENDIX D – PROJECT PROPERTY OWNERS

Heritage Prairie Wind Project Participating Parcel List

Parcel ID	Owner	Phone	Address
050501200001	First Financial Bank, as Successor to the Pontiac National Bank, as Trustee of the Jens H. and Beatrice Short Spandet Memorial Trust created under the Last Will and Testament of Beatrice Short Spandet, deceased, by Brent Crane, Vice President	815-674-8314	First Financial Bank, 223 N Mill St P. O. Box 680 Pontiac, IL 61765
050501200005	Kathryn A. Patten, also known as, Kathy Patten	815-326-1484	28273 North 2500 East Road Dwight, Illinois 60420
050501300005	James R. Leskanich and Nancy J. Leskanich	815-343-1851	29009 E 3200 N Road Dwight, IL 60420
050501400003	David J. Leskanich, Life Estate and James R. Leskanich and Nancy Jo Leskanich, husband and wife, Remaindermen	815-343-1851	29009 E 3200 N Road Dwight, IL 60420
050501400004	David J. Leskanich, Life Estate and James R. Leskanich and Nancy Jo Leskanich, husband and wife, Remaindermen	815-343-1851	29009 E 3200 N Road Dwight, IL 60420
050511200004	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
050511400001	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
050511400002	Boxer Farm Properties, LLC	815-584-1212	First National Bank of Dwight, 122 W Main St P. O. Box 10 Dwight, IL 60420
050512100003	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
050512200004	Bruce A. Bossert and Gloria J. Bossert	815-343-1702	31565 N 3000 E Rd Dwight, IL 60420
050512200008	Bruce A. Bossert and Gloria J. Bossert	815-343-1702	31565 N 3000 E Rd Dwight, IL 60420
050512300003	MKM Oil, Inc	815-343-2840 815-693-8983	603 North East Street P. O. Box 317 Gardner, Illinois 60424
050513100007	Glenn A. Ferrari and Rebecca L. Ferrari	815-343-3340	59 South Baima Street Coal City, Illinois 60416
050513200002	Jacob E and Jennifer M Tjelle	815-931-0597	31654 E 2600 N Rd Cabery, IL 60919
050513200004	Dennis M and Margene E Tjelle	815-735-8344	30274 North 3000 East Road Dwight, Illinois 60420
050513200005	Jacob E and Jennifer M Tjelle	815-931-0597	31655 E 2600 N Rd Cabery, IL 60919
050513200006	Dennis M and Margene E Tjelle	815-735-8344	30274 North 3000 East Road Dwight, Illinois 60420
050513300002	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
050513300003	Dennis M and Margene E Tjelle	815-735-8344	30274 North 3000 East Road Dwight, Illinois 60420
050513400002	Edward W. O'Neill Trust dated September 16, 2020	815-848-1271	29205 N 3000 E Rd Dwight, IL 60420
050513400003	Edward W. O'Neill Trust dated September 16, 2020	815-848-1271	29205 N 3000 E Rd Dwight, IL 60420
050514100010	Owen R. Pershnick	815-674-9062	8380 West Livingston Rd Ransom, IL 60470
050514100011	Brian L. Pershnick and Amy M. Pershnick	815-848-5061	28640 North 2800 East Road Dwight, Illinois 60420
050514200001	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
050514200002	Boxer Farm Properties, LLC	815-584-1212	First National Bank of Dwight, 122 W Main St P. O. Box 10 Dwight, IL 60420
050515200006	Maurice J. Miller and M. June Miller, husband and wife; Jane L. Donnelly and Dennis M. Donnelly, wife and husband; Howard J. Miller; and Paul E. Miller	815-210-1995	821 S Cheryl Ln Kankakee, IL 60901
050515400003	T & J Wilson LLC	432-349-3820 520-444-1162	PO Box 170, 300 Washington Street Pontiac, IL 61767-0710
050522200002	Jason Blum	815-274-3830	7146 Whitewillow Road Minooka, Illinois 60447
050522300003	Bruce Lundin, as Trustee under the provisions of a Trust Agreement dated the 10th day of January, 2008 and known as the Bruce Lundin Declaration of Trust	231-357-8100	15495 Pettengill Rd Empire, MI 49630
050524200001	Howard J. Miller, as Trustee under the provisions of a trust agreement known as the Howard J. Miller Trust dated June 20, 2006, and Paul Miller, also known as, Paul E. Miller	815-210-1955	821 South Cheryl Lane Kankakee, Illinois 60901
050524200002	Howard J. Miller, as Trustee under the provisions of a trust agreement known as the Howard J. Miller Trust dated June 20, 2006, and Paul Miller, also known as, Paul E. Miller	815-210-1955	821 South Cheryl Lane Kankakee, Illinois 60901
050525300004	Glenn E. Seabert and Mary D. Seabert	815-474-2669	9235 Palm Island Circle Fort Myers, Florida 33930
050525300005	Glenn E. Seabert and Mary D. Seabert	815-474-2669	9237 Palm Island Circle Fort Myers, Florida 33930
050525300022	Adam Seabert, also known as, Adam L. Seabert	813-760-2160	2212 SW 18th St Ankeny, IA 50023
050525400002	Glenn E. Seabert and Mary D. Seabert	815-474-2669	9236 Palm Island Circle Fort Myers, Florida 33930
050525400003	Glenn E. Seabert and Mary D. Seabert	815-474-2669	9238 Palm Island Circle Fort Myers, Florida 33930
050525400004	Glenn E. Seabert and Mary D. Seabert	815-474-2669	9239 Palm Island Circle Fort Myers, Florida 33930
050527100002	Gary L and Julie L Marx	815-584-9051	29400 N 2700 E Rd Dwight, IL 60420
050527100005	Gary L and Julie L Marx	815-584-9051	29400 N 2700 E Rd Dwight, IL 60420
050527200003	Norma L Koltveit	815-674-7433	18487 North 1200 East Road Pontiac, Illinois 61764
050527300001	Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998	954-254-9986	716 Bryan Place North Fort Lauderdale, Florida 33312
050527400003	Norma L Koltveit	815-674-7433	18487 North 1200 East Road Pontiac, Illinois 61764
050527400008	Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998	954-254-9986	716 Bryan Place North Fort Lauderdale, Florida 33312
050534200008	Rebecca L Pobloske	815-343-1197	15 Clover Ridge Lane Itasca, IL 60961
060605100023	Nolan Hoffman	815-343-1745	3412 N. 14000 W Rd. Essex, IL 60395
060605100024	Shirley M Lucas Lucas, Shirley aka Shirley M. Lucas, represented herein by Sheryl Landstrom, attorney-in-fact	815-584-7340	502 Boulder St Heyworth IL 61745
060606100002	Mark T Christenson	815-685-4422	32810 N 3100 E Rd Dwight, IL 60420
060606100003	John J Rieke	815-674-1272	29387 East 2900 North Road Dwight, Illinois 60420
060606200002	Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001	815-674-8519	111 Karen Drive Dwight, Illinois 60420
060606200004	Vanderhyden Farms, LLC	815-715-3906	30886 East 3300 North Road Dwight, IL 60420
060606300002	First Financial Bank, as Successor to the Pontiac National Bank, as Trustee of the Jens H. and Beatrice Short Spandet Memorial Trust created under the Last Will and Testament of Beatrice Short Spandet, deceased, by Brent Crane, Vice President	815-674-8314	First Financial Bank, 223 N Mill St P. O. Box 680 Pontiac, IL 61765

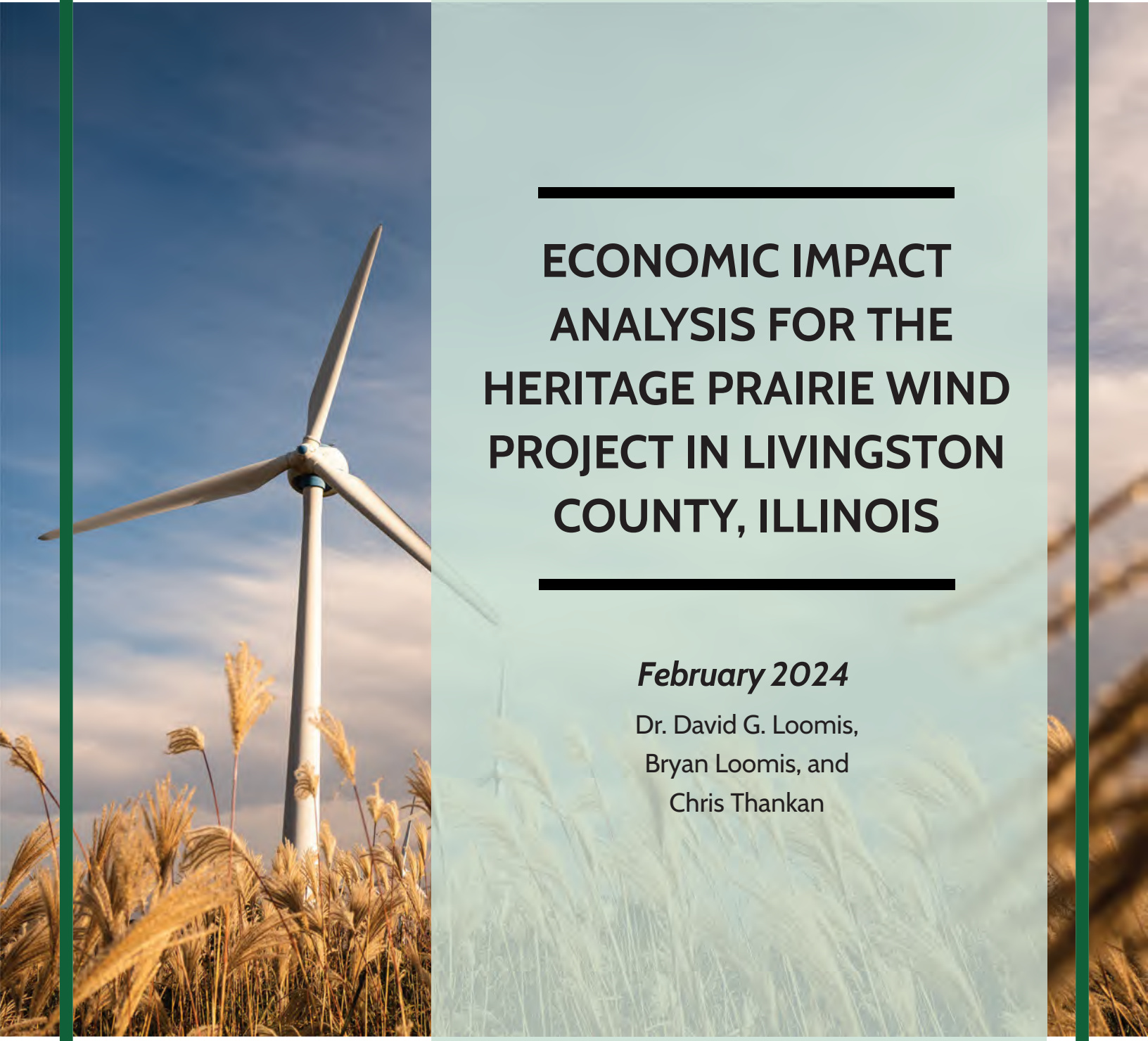
Heritage Prairie Wind Project Participating Parcel List

Parcel ID	Owner	Phone	Address
060606400005	Lester F. Lydigsen, Jr. and Evelyn M. Lydigsen	815-584-2682	30733 East 3200 North Road Dwight, Illinois 60420
060606400007	J. Marshall Sancken, and Charles S. Sancken, as trustee of the Marilyn M. Sancken Family Trust	815-674-5405	805 Carol Ct Pontiac, IL 61764
060607400001	Dawn M. Rousoncelos, as Trustee of the Dawn M. Rousoncelos Trust dated August 26, 2009	815-342-0401	13705 South Quail Run Drive Plainfield, Illinois 60544
060608100003	John J. Rieke and Molly A. Turner, husband and wife	815-674-1272	29387 East 2900 North Road Dwight, Illinois 60420
060608100005	John J. Rieke and Molly Turner, as Co-Trustees of The Nellie Rieke Trust	815-674-1272	29387 E 2900 N Road Dwight, IL 60420
060608100006	John J. Rieke and Molly Turner, as Co-Trustees of The Abe Rieke Trust	815-674-1272	29387 E 2900 N Road Dwight, IL 60420
060608200002	Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001, and Darlene Drechsel as Trustee of the Darlene Drechsel Trust dated September 17, 2001	815-674-8519	111 Karen Dr Dwight, IL 60420
060608300002	John J. Rieke and Molly A. Turner, husband and wife	815-674-1272	29387 East 2900 North Road Dwight, Illinois 60420
060608300003	John J. Rieke and Molly Turner, as Co-Trustees of The Lucy Rieke Trust	815-674-1272	29387 E 2900 N Rd Dwight, IL 60420
060609100014	Alice A Ahlerich	703-684-5040	725 S Union St Alexandria, VA 22314
060609100015	George W and Pauline Jo Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060609100016	George W and Pauline Jo Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060609200005	Alice A Ahlerich	703-684-5040	725 S Union St Alexandria, VA 22314
060609200010	George W and Pauline Jo Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060609200012	Justin D and Anya B Seabert	815-343-1197	28279 North 3100 East Road Dwight, Illinois 60420
060609200013	Justin and Anya Seabert	815-343-1197	28279 North 3100 East Road Dwight, Illinois 60420
060609300003	Rink Agricultural & Investment Partnership Lp	815-476-2394	24332 Stripmine Road Wilmington, IL 60481
060609300019	George W. Hoffman and Pauline Jo Hoffman	815-343-1745	1102 Greenfield St Dwight, IL 60420
060609400009	Rink Agricultural & Investment Partnership Lp	815-476-2394	24332 Stripmine Road Wilmington, IL 60481
060613300009	Leila Farms LLC	815-441-4030 815-210-7578	30128 N 3500 E Rd Reddick, IL 60961
060613400003	Elaine N and Richard R White	815-955-8191	34505 E 3100 N Rd Reddick, IL 60961
060614100001	1954 Trust Under Will Peter D. Scully	309-275-6741	6 Heartland Dr Ste A P. O. Box 1607 Bloomington, IL 61702
060615200004	Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007 and Maureen M. Carlson, as Trustee of the Maureen M. Carlson Trust created November 9, 2007	815-567-3307	31664 E 2700 N Rd P. O. Box 177 Campus, IL 60920
060615200007	Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007 and Maureen M. Carlson, as Trustee of the Maureen M. Carlson Trust created November 9, 2007	815-567-3307	31664 E 2700 N Rd P. O. Box 177 Campus, IL 60920
060615200008	Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007 and Maureen M. Carlson, as Trustee of the Maureen M. Carlson Trust created November 9, 2007	815-567-3307	31664 E 2700 N Rd P. O. Box 177 Campus, IL 60920
060615400002	Doreen T. Frerichs, as Life Estate and Remainderman and Craig J. Frerichs and Elizabeth M. Frerichs, husband wife, as Remaindermen	815-791-5265	7109 S 8000 W Rd Herscher, IL 60941
060616100001	Keith F. Kelly, Robert W. Kelly and Rick L. Kelly	815-674-2466 815-252-2029	32198 East 3100 North Road Dwight, Illinois 60420
060616300031	Everett and Dorothy Severson Family LLC Series #3, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	205 West South Street Dwight, Illinois 60420
060616400001	Everett and Dorothy Severson Family LLC Series #2, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060617200003	Dennis J. Wilhelm, as Trustee of The Dennis J. Wilhelm 2016 Declaration of Trust Dated September 22, 2016 and Loralyn Wilhelm, as Trustee of The Loralyn Wilhelm 2016 Declaration of Trust Dated September 22, 2016	815-735-8344	30274 North 3000 East Road Dwight, Illinois 60420
060617300001	John T Hanlon	815-674-1914	29356 E 2400 N Rd Emington, IL 60934
060617400007	Juanita F. Francis, as Trustee of the Juanita F. Francis Irrevocable Trust of 2012, Carolyn E. Kinsella, and Susan L. Heisner	815-357-6023	2975 N 28th Rd Seneca, IL 61360
060618100001	Kevin R. Hansen, also known as, Kevin Richard Hansen	815-343-5951	28967 East 3100 North Road Dwight, Illinois 60420
060618200007	George W Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060618200008	George W Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060618400003	George W Hoffman	815-343-1745	11220 S Gorman Rd Gardner, IL 60424
060620100007	L & L Monferdini Farms LLC	815-922-0217	30847 N 3100 E Rd Dwight, IL 60420
060620200002	Paul G. Riber, Mark S. Riber, David A. Riber, Devon Riber Scott, Jeffrey Kent Riber, Jr. and Blakely Larsen Riber	815-674-2725	226 W Chippewa St Dwight, IL 60420
060620200003	Jane and Mark S Riber	815-674-2789	309 W Chippewa St Dwight, IL 60420
060620300002	L & L Monferdini Farms LLC	815-922-0217	30847 N 3100 E Rd Dwight, IL 60420
060620300003	L & L Monferdini Farms LLC	815-922-0217	30847 N 3100 E Rd Dwight, IL 60420
060621100006	Everett and Dorothy Severson Family LLC Series #2, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060621200006	Everett and Dorothy Severson Family LLC Series #2, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060621200007	Evan P Severson	217-935-2658	1413 Railside Dr Gibson City, IL 60936
060622100001	Christine Ann Gravesen	815-567-3307	31664 E 2700 N Rd P. O. Box 171 Campus, IL 60920
060622100010	Leila Farms LLC	815-441-4030 815-210-7578	30128 N 3500 E Rd Reddick, IL 60961
060622200003	Walsh Family Farms LLC	815-567-3322	33162 E 2700 N Rd Campus, IL 60920
060622401005	Norval J and Kathleen A Wiemken	815-715-6729	123 E South St Dwight, IL 60420
060622401007	Norval J. Wiemken and Kathleen A Wiemken	815-715-6729	123 E South St Dwight, IL 60420
060624200001	David M and Jane K Arends	815-685-4471	P. O. Box 53 19601 W 1000S Road Reddick, IL 60961
060625400001	Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011	817-991-7474	P. O. Box 334 Crowell, TX 79227

Heritage Prairie Wind Project Participating Parcel List

Parcel ID	Owner	Phone	Address
060626300007	John Jeff McGinnis as Trustee of the Vince McGinnis Trust dated May 15, 2015	630-530-2422	112 A S York Rd Elmhurst, IL 60126
060626300008	John Jeff McGinnis as Trustee of the Vince McGinnis Trust dated May 15, 2015	630-530-2422	112 A S York Rd Elmhurst, IL 60126
060627100002	Severson Family LLC	815-343-0778	28370 E 2600 North Rd Emington, IL 60934
060627100003	Everett and Dorothy Severson Family LLC Series #3, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060627300004	Illinois Valley Investment Company, an Illinois corporation, and COBIONDI, an Illinois corporation	815-584-1212	First National Bank of Dwight, 122 W Main St P. O. Box 10 Dwight, IL 60420
060627400003	Scott C. Severson, also known as, Scott Severson and Alexandria H. Severson, husband and wife	815-343-8517	28464 E 3300 N Rd Dwight, IL 60420
060627400004	Everett and Dorothy Severson Family LLC Series #3, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060628100002	J. Marshall Sancken, and Charles S. Sancken, as trustee of the Marilyn M. Sancken Family Trust (Sancken Family Trust)	815-674-5405	805 Carol Ct Pontiac, IL 61764
060628200002	Clifford C. Steichen and Dorene H. Steichen	815-848-0158	108 Scott Dr Dwight, IL 60420
060628200003	Ryan E Hansen	847-954-98242	326 W Delaware St. Dwight IL 60420
060628200004	Dean E. Hansen and Amy E. Hansen	815-274-1917	400 E Chippewa St Dwight, IL 60420
060628300002	Everett and Dorothy Severson Family LLC Series #1, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers	815-343-8853	107 Julie Dr Dwight, IL 60420
060628300004	Donna Jean Earing	815-822-0199	28318 N 3200 E Rd Dwight, IL 60420
060628400002	Beneitone Farm	815-715-6729	Richie, John 15039 W 8000 S Rd. Buckingham, IL 60917
060629100001	L & L Monferdini Farms LLC	815-922-0217	30847 N 3100 E Rd Dwight, IL 60420
060630100001	Keith F. Kelly, Robert W. Kelly and Rick L. Kelly	815-674-2466 815-252-2029	32198 East 3100 North Road Dwight, Illinois 60420
060630100002	Dale L & Diane L Seabert	815-674-3438	205 West South Street Dwight, Illinois 60420
060630200001	Justin D and Anya B Seabert	815-343-1197	28323 North 3100 East Road Dwight, Illinois 60420
060630200005	Dale L & Diane L Seabert	815-674-3438	28279 North 3100 East Road Dwight, Illinois 60420
060630300003	Glenn E. Seabert and Mary D. Seabert	815-474-2669	28323 North 3100 East Road Dwight, Illinois 60420
060630400050	Justin D and Anya B Seabert	815-343-1197	9235 Palm Island Circle Fort Myers, Florida 33930
060631100004	Paul M & Tamara M Morris	815-517-6694	28279 North 3100 East Road Dwight, Illinois 60420
060631200002	Dale L & Diane L Seabert	815-674-3438	15475 Church Rd Minooka, IL 60447
060631400025	Paul M & Tamara M Morris	815-517-6694	28323 North 3100 East Road Dwight, Illinois 60420
060633100004	Hamilton Elevator Company	815-567-3307	15475 Church Rd Minooka, IL 60447
060633200006	Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007 and Maureen M. Carlson, as Trustee of the Maureen M. Carlson Trust created November 9, 2007	815-567-3307	31664 E 2700 N Rd P. O. Box 177 Campus, IL 60920
060633300004	Hamilton Elevator Company	815-567-3307	31664 E 2700 N Rd P. O. Box 177 Campus, IL 60920
060634100007	Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011	817-991-7474	P. O. Box 334 Crowell, TX 79227
060634100008	Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011	817-991-7474	P. O. Box 334 Crowell, TX 79227
060634100010	Christine Ann Gravesen	815-567-3307	31664 E 2700 N Rd P. O. Box 171 Campus, IL 60920
060634200001	Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011	817-991-7474	P. O. Box 334 Crowell, TX 79227
060635100001	Renee McGinnis as Trustee of the McGinnis Family Trust dated May 15, 2015	630-530-2422	112 A S York Rd Elmhurst, IL 60126
121206200003	Severson Family LLC	815-343-0778	28370 E 2600 North Rd Emington, IL 60934

APPENDIX E — ECONOMIC IMPACT REPORT



ECONOMIC IMPACT ANALYSIS FOR THE HERITAGE PRAIRIE WIND PROJECT IN LIVINGSTON COUNTY, ILLINOIS

February 2024

Dr. David G. Loomis,
Bryan Loomis, and
Chris Thankan

About the Authors



Dr. David G. Loomis, PhD

Professor Emeritus of Economics, Illinois State University
Co-Founder of the Center for Renewable Energy
President of Strategic Economic Research, LLC

Dr. David G. Loomis is Professor Emeritus of Economics at Illinois State University and Co-Founder of the Center for Renewable Energy. He has over 20 years of experience in the renewable energy field. He has served as a consultant for 43 renewable energy development companies. He has testified on the economic impacts of energy projects before the Illinois Commerce Commission, Iowa Utilities Board, Missouri Public Service Commission, Illinois Senate Energy and Environment Committee, the Wisconsin Public Service Commission, Kentucky Public Service Commission, Ohio Public Siting Board, and numerous county boards. Dr. Loomis is a widely recognized expert and has been quoted in the Wall Street Journal, Forbes Magazine, Associated Press, and Chicago Tribune as well as appearing on CNN.

Dr. Loomis has published 40 peer-reviewed articles in leading energy policy and economics journals. He has raised and managed over \$7 million in grants and contracts from government, corporate, and foundation sources. He received the 2011 Department of Energy's Midwestern Regional Wind Advocacy Award and the 2006 Best Wind Working Group Award. Dr. Loomis received his Ph.D. in economics from Temple University in 1995.



Bryan Loomis, MBA

Vice President of Strategic Economic Research, LLC

Bryan Loomis has been conducting economic impact, property tax, and land use analyses at Strategic Economic Research since 2019. He has performed or overseen over 100 wind and solar analyses, and he has provided expert testimony for permitting hearings and open houses in many states, including Colorado, Kansas, Indiana, Illinois, and Iowa. He improved the property tax analysis methodology at SER by researching various state taxing laws and implementing depreciation, taxing jurisdiction millage rates, and other factors into the tax analysis tool. Before working with SER, Bryan ran a consulting agency working with over 30 technology startups on growth and marketing. Bryan received his MBA from Belmont University in 2016.



Chris Thankan

Economic Analyst

Christopher Thankan assists with the production of the economic impact studies including sourcing, analyzing, and graphing government data. He also performs economic and property tax analysis for wind, solar, and transmission projects. Chris has a Bachelor of Science degree in Sustainable & Renewable Energy and minored in Economics.

Strategic Economic Research, LLC (SER) provides economic consulting for renewable energy projects across the U.S. We have produced over 250 economic impact reports in 32 states. Research Associates who performed work on this project include Ethan Loomis, Madison Schneider, Zoë Calio, Patrick Chen, Kathryn Keithley, Morgan Stong, Mandi Mitchell, Tim Roberts, Russell Piontek, Drew Kagel, Cedric Volkmer, Paige Afram, Clara Lewis, Rachel Swanson, and Ashley Thompson.

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I. Executive Summary

Pattern Energy and ConnectGen are developing the Heritage Prairie Wind Project in Livingston County, Illinois. The purpose of this report is to evaluate the economic impact of this Project on Livingston County and the State of Illinois. The basis of this analysis is to study the direct, indirect, and induced impacts on job creation, wages, and total economic output.

The Heritage Prairie Wind Project consists of an estimated 319.5 megawatts (“MW”) of capacity of wind turbines in Livingston County and 297.0 MW in Kankakee County including the associated access roads, transmission and communication equipment, storage areas, and control facilities (the “Project”). For this report, only the portion of the Project that will be built in Livingston County was evaluated for economic impact purposes. The Project represents an investment of over \$620 million in Livingston County. The total investment in Livingston County is anticipated to result in the following:

Jobs

- 69 new direct, indirect, and induced jobs during construction for Livingston County
- 1,353 new direct, indirect, and induced jobs during construction for the State of Illinois
- 26.8 new long-term direct, indirect, and induced jobs for Livingston County
- 41.3 new long-term direct, indirect, and induced jobs for the State of Illinois

Earnings

- Over \$17.6 million in new earnings during construction for Livingston County
- Over \$136 million in new earnings during construction for the State of Illinois
- Over \$5.0 million in new long-term earnings for Livingston County annually
- Over \$5.5 million in new long-term earnings for the State of Illinois annually

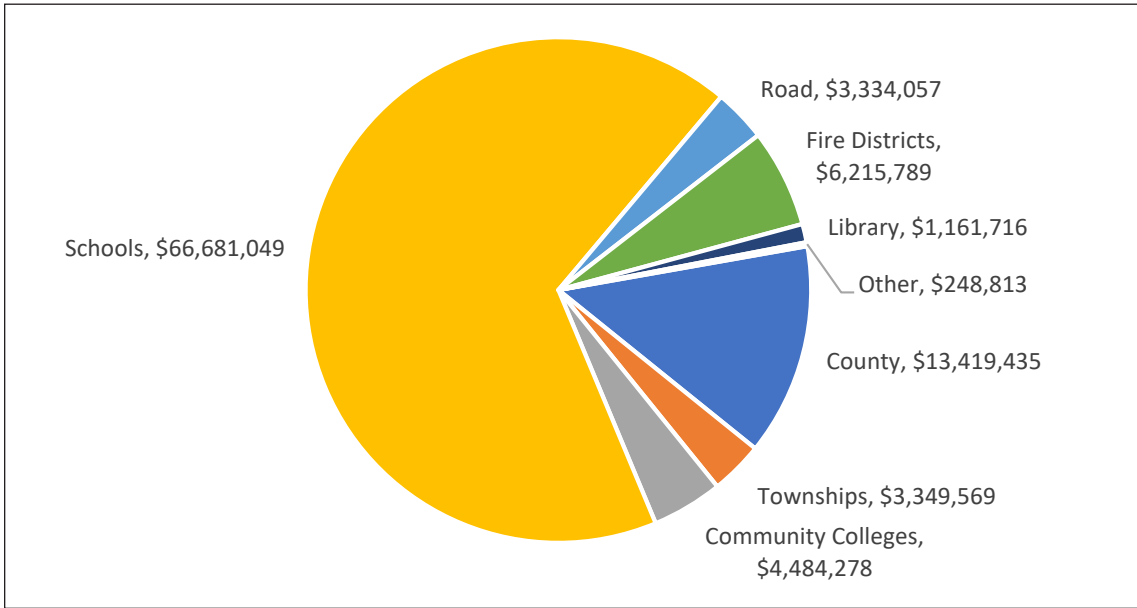
Output - the value of production in the state or local economy. It is an equivalent measure to the Gross Domestic Product.

- Over \$17.6 million in new output during construction for Livingston County
- Over \$365 million in new output during construction for the State of Illinois
- Over \$8.3 million in new long-term output for Livingston County annually
- Over \$12.6 million in new long-term output for the State of Illinois annually

Tax Benefits

- Over \$98.8 million in property taxes in total for all taxing districts over the life of the Project
- Over \$66.6 million in total school district property taxes over the life of the Project
- Over \$13.4 million in total county property taxes for Livingston County over the life of the Project
- Over \$6.2 million in total fire district property taxes over the life of the Project
- Over \$4.4 million in total community college property taxes over the life of the Project

Figure 1 – Total Property Taxes Paid by the Livingston-Heritage Prairie Wind Project



II. Wind Industry Growth and Economic Development

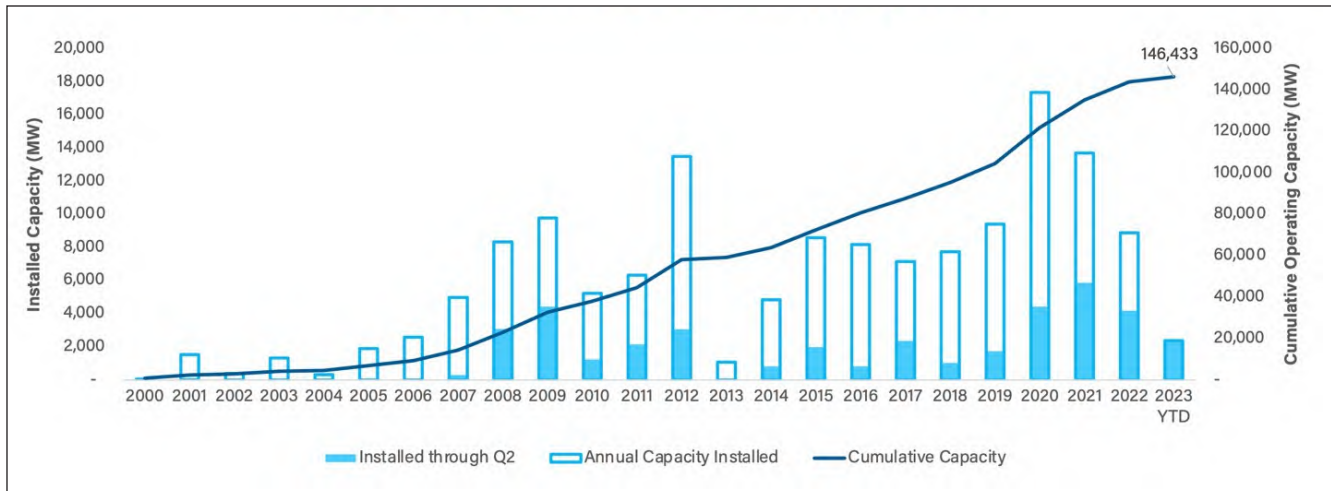
a. United States Wind Industry Growth

The United States wind industry grew at a rapid pace from 2006-2020, pausing only in 2013 due to federal policy uncertainty. In 2020, the U.S. set a record of 16,913 MW far surpassing the previous annual peak of 13,131 MW of wind power installed in 2012 (American Clean Power (ACP), 2021). The total wind capacity installed in 2021 was 13,400 MW (ACP, 2022). In 2022, there was a total capacity of 8,511 MW installed which is about equal to the 2015-2019 annual installation amounts (ACP, 2023).

The total amount of wind capacity in the U.S. by the end of 2022 was 144,184 MW (ACP, 2023). China is the global leader with 333,998 MW of installed capacity, with Germany in third place with 58,958 MW of installed capacity (2022 figures with the United States in second place) (GWEC, 2023). Figure 2 shows the growth in installed annual capacity and cumulative capacity in the U.S., and Figure 3 shows the state-by-state breakdown of installed capacity by the end of 2022.

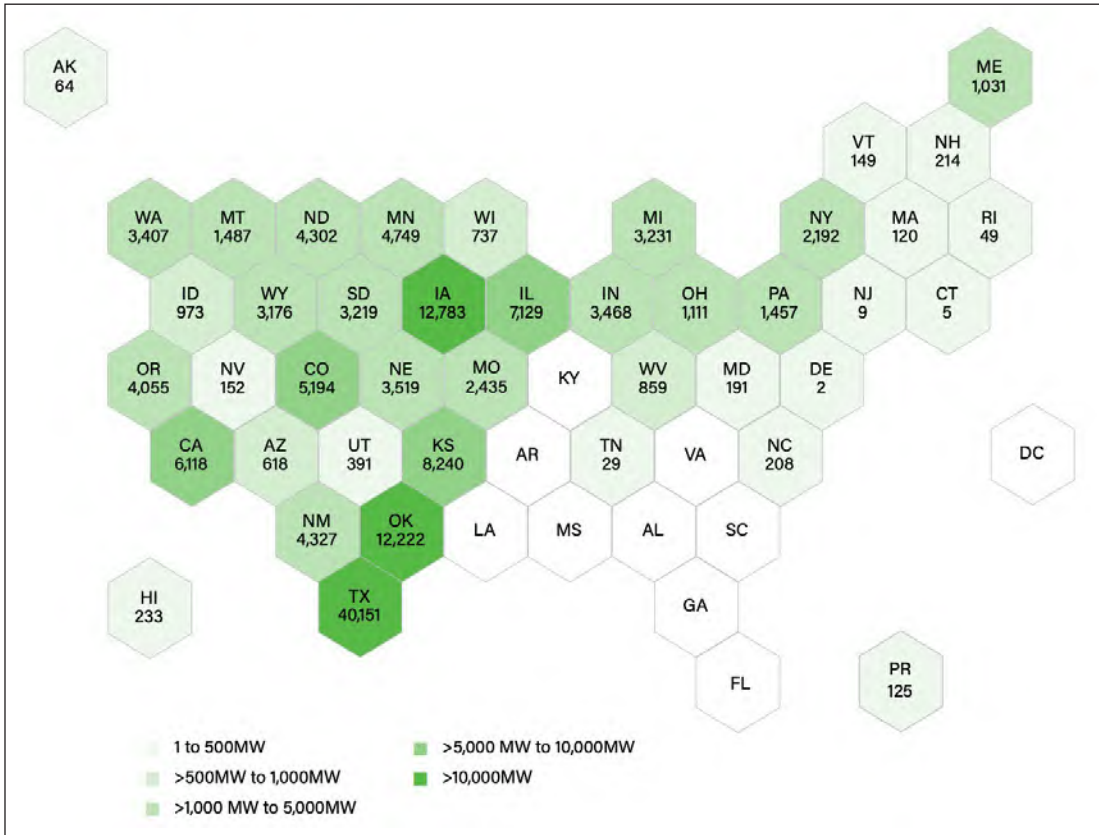
Several factors have spurred the continued growth of wind energy in recent years. First, new technology and rigorous competition among turbine manufacturers lowered the cost of wind turbines. Second, larger capacity wind turbines and higher hub heights produced more output and lowered the cost of wind energy production. Finally, several large corporate buyers increased the demand for wind energy beyond the traditional electric utility market.

Figure 2 – United States Annual and Cumulative Wind Power Capacity Growth



Source: ACP, Clean Power Market Report Q3 2023

Figure 3 – Total Wind Capacity by State



Source: ACP, Clean Power Annual Market Report 2022

b. Illinois Wind Industry Growth

Table 1 - Illinois Wind Projects

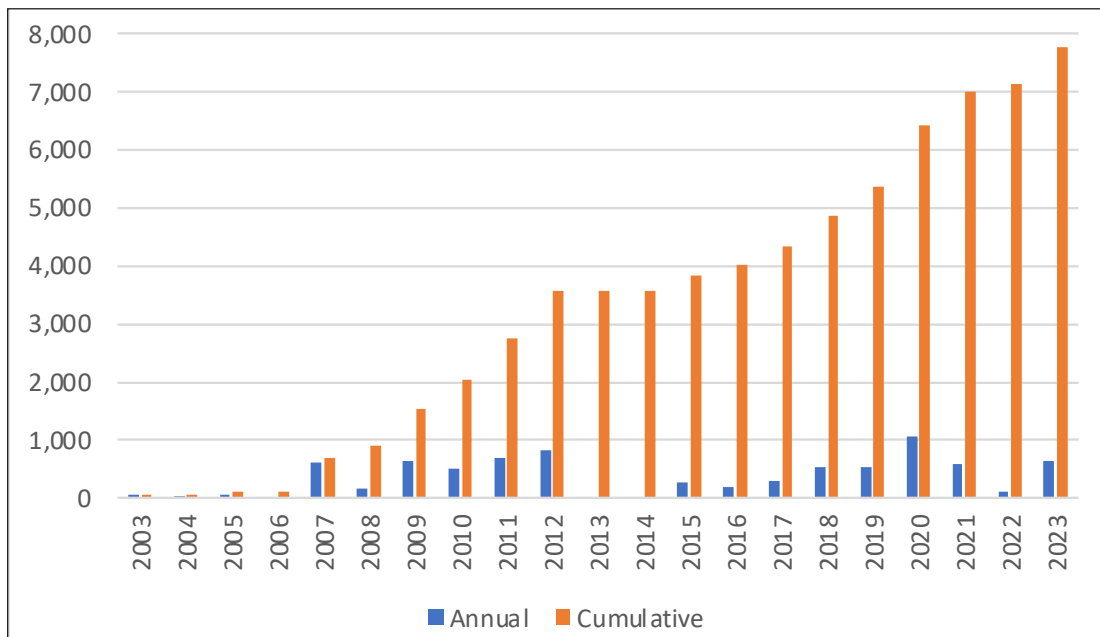
Wind Farm	Capacity (MW)	Year Online
Alta Farms	200.5	2023
Bennington	93.1	2021
Big Sky Wind Facility	250.3	2011
Bishop Hill	424.5	2012
Blooming Grove	260.9	2020
Bright Stalk Wind Farm	205.2	2019
California Ridge	217.1	2012
Camp Grove	150	2007
Cardinal Point	150	2020
Crescent Ridge	61	2005
EcoGrove	100.5	2009
Ford Ridge	120.4	2022
Glacier Sands	184.9	2021
Grand Ridge	210	2008
Green River	194.3	2019
Harvest Ridge Wind Farm	199.8	2020
HillTopper	185	2018
Hoopston Wind	98	2015
Kelly Creek	184	2016
Lee/DeKalb	217.5	2009
Lincoln Land	301.7	2021
Lone Tree	88.1	2020
Mendota Hills Wind Farm	76.1	2019
Minonk	200	2012
Otter Creek	158.2	2020
Pilot Hill	175.1	2015
Pioneer Trail Wind Farm	150.4	2011
Providence Heights Wind Farm	72	2008
Radford's Run	305.8	2017
Rail Splitter	100.5	2009
Sapphire Sky	253.8	2023
Settlers Trail Wind Farm	150.4	2011
Shady Oaks	109.5	2012
Streator Cayuga Ridge Wind	300	2010
Sugar Creek	202	2020
Top Crop Wind Farm	300	2009
Twin Groves	396	2007
Walnut Ridge	212	2018
White Oak Energy Center	150	2011
Whitney Hill	66.1	2019

Illinois is a national leader in the wind energy industry (American Clean Power, 2024). As of January 2024, Illinois is ranked 5th in the United States in existing wind, solar, and energy storage capacity with over 8,643 MW (ACP, 2024). Table 1 has a list of the operational wind farms in Illinois through 2023 (some small projects below 50 MW were omitted from the table). The year-by-year and cumulative growth in Illinois' wind energy capacity is shown in Figure 4. In 2009, Illinois had sixteen projects completed with an annual total installed capacity of 638.3 MW. Eight projects were completed in 2012 with an annual total installed capacity of 823.3 MW. Growth exploded in 2020 with six projects completed with the largest total annual installed capacity of 1,059 MW.

The Energy Information Administration (EIA) calculated the number of megawatt-hours generated from different energy sources in 2022. As shown in Figure 5, the greatest percentage of electricity generated in Illinois comes from nuclear energy with 52.1% followed by coal with 21.5% and natural gas with 12.8%. Approximately 12.2% of the total electricity power generated in Illinois came from wind in 2022.

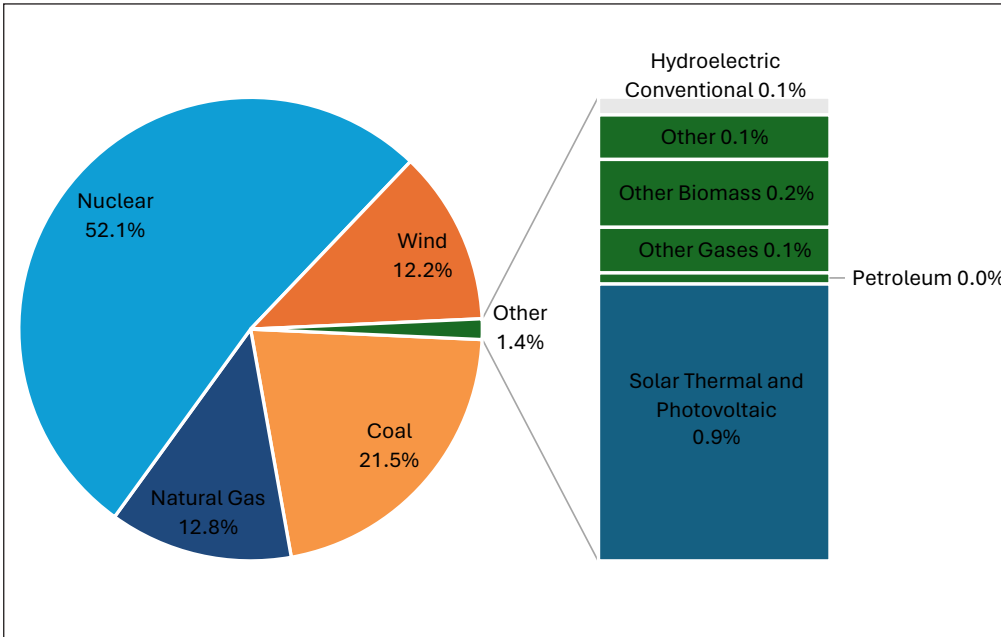
The U.S. Department of Energy sponsors the U.S. Energy and Employment Report each year. Electric Power Generation covers all utility and non-utility employment across electric generating technologies, including fossil fuels, nuclear, and renewable technologies. It also includes employees engaged in facility construction, turbine and other generation equipment manufacturing, operations and maintenance, and wholesale parts distribution for all electric generation technologies. According to Figure 6, employment in Illinois in the wind energy industry (9,285) is much larger than solar energy generation (6,579), natural gas generation (4,340), and nuclear generation (4,099).

Figure 4 – Installed Capacity of Illinois Wind Projects



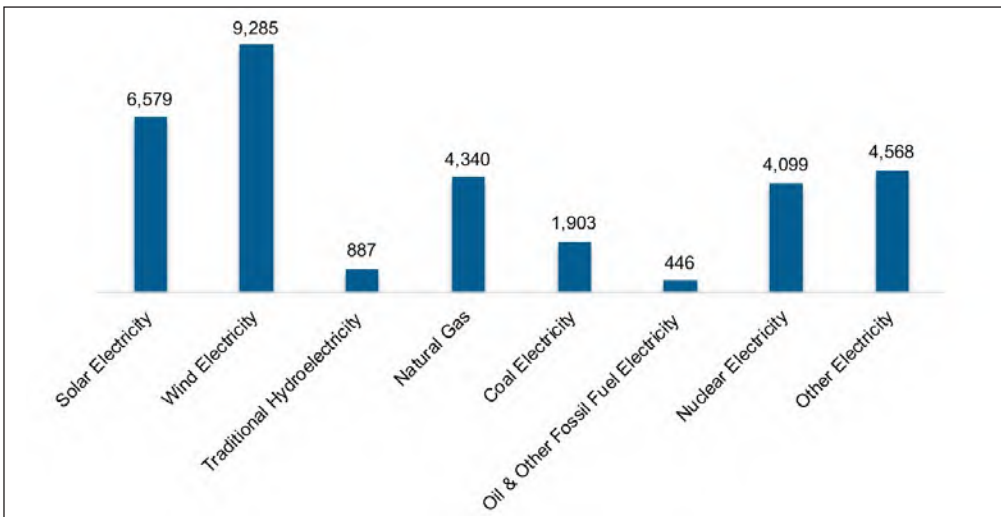
Source: American Clean Power, January 2024, Illinois

Figure 5 - Electric Generation by Fuel Type for Illinois in 2022



Source: U.S. Energy Information Association (EIA): Illinois, 2022

Figure 6 - Electric Generation Employment by Technology



Source: U.S. Energy and Employment Report 2023: Illinois

c. Economic Benefits of Wind Farms

Wind farms create numerous and significant economic benefits that continue to last for decades. Wind farms create job opportunities in the local area during both the short-term construction phase and the long-term operational phase. Short-term construction jobs include both workers at the wind farm site and jobs created along the supply chain. Long-term operational jobs include wind turbine technicians, supervisors, and supply chain jobs.

Wind developers typically lease the land for the turbines from local landowners without materially affecting ongoing agricultural uses. Only a small portion of the total project footprint is used for the turbines, access roads, feeder lines and substations. For most wind projects, it is anticipated that approximately 1-2% of the total leased land will contain facilities. Each turbine and the associated access road will use approximately half an acre to one acre of farmland. Lease payments made to landowners provide a reliable source of long-term income to offset the fluctuating prices received from crops or the impact of weather events on production. Landowners then have additional funds to make purchases in the local economy and elsewhere.

Wind projects enhance the equalized assessed value of property within the county. Typically, wind developers pay taxes based on that improved value unless preempted by law or mutual agreement. Wind farms strengthen the local tax base helping to improve county services, schools, police and fire departments and fund infrastructure improvements, such as public roads.

Numerous studies have quantified the economic benefits across the United States. The National Renewable Energy Laboratory has produced economic impact reports for the State of Arizona (NREL, 2008a), State of Idaho (NREL, 2008b), State of Indiana (NREL, 2014), State of Iowa (NREL, 2013), State of Maine (NREL, 2008c), State of Montana (NREL, 2008d), State of New Mexico (NREL, 2008e), State of Nevada (NREL, 2008f), State of North Carolina (NREL, 2009), State of Pennsylvania (NREL, 2008g), State of South Dakota (NREL, 2008h), State of Utah (NREL 2008i), State of West Virginia (NREL, 2008j), and the State of Wisconsin (NREL, 2008k).



The Center for Renewable Energy at Illinois State University released a report examining the economic impact of Illinois' wind farms and the economic impact of the related wind turbine supply chain in Illinois (see <https://renewableenergy.illinoisstate.edu/wind/pubs.php>). According to the Economic Impact: Wind Energy Development in Illinois (June 2016), “the 25 largest wind farms in Illinois:

- Created approximately 20,173 full-time equivalent jobs during construction periods
- Support approximately 869 permanent jobs in rural Illinois areas
- Support local economies by generating \$30.4 million in annual property taxes
- Generate \$13.8 million annually in extra income for Illinois landowners who lease their land to the wind farm developer
- Will generate a total economic benefit of \$6.4 billion over the life of the projects.”

Loomis (2020) estimates the economic impact of wind and solar energy in Illinois resulting from the proposed Path to 100 legislation. The legislation is expected to result in constructing over 15,000 MW of wind and solar over the next 15 years yielding over 53,000 jobs during construction and over 3,200 jobs during operations. The analysis also looks at the 39 largest existing wind farms in Illinois and finds that they supported 29,295 jobs during construction and 1,307 jobs during operations for a total economic benefit of \$10.2 billion over the life of the projects. In addition, a review of historical property tax records finds that existing utility-scale wind and solar projects paid over \$305 million in property taxes statewide since 2003 and over \$41.4 million in 2019 alone.

Jenniches (2018) performed a review of the literature assessing the regional economic impacts of renewable energy sources. After reviewing all of the different techniques for analyzing the economic impacts, he concludes “for assessment of current renewable energy developments, beyond employment in larger regions, IO [Input-Output] tables are the most suitable approach” (Jenniches, 2018, 48). Input-Output analysis is the basis for the methodology used in the economic impact analysis of this report.

Finally, Brunner and Schwegman (2022) examined the economic impacts of wind installations across the United States from 1995 to 2018. They found that wind energy projects resulted in “economically meaningful increases in county GDP per-capita, income per-capita, median household income, and median home values” (p. 165).

III. Project Description and Location

a. Heritage Prairie Wind Project in Livingston County

Pattern Energy and ConnectGen are developing the Heritage Prairie Wind Project in Livingston County, Illinois. The Heritage Prairie Wind Project consists of an estimated 319.5 megawatts (“MW”) of capacity of wind turbines in Livingston County and 297.0 MW in Kankakee County including the associated access roads, transmission and communication equipment, storage areas, and control facilities (the “Project”). For this report, only the portion of the project that will be built in Livingston County was evaluated for economic impact purposes. The Project represents an investment of over \$620 million in Livingston County.

b. Livingston County, Illinois

Livingston County is located in the northern part of Illinois (see Figure 7). It has a total area of 1,046 square miles, and the U.S. Census estimates that the 2022 population was 35,521 with 15,918 housing units. The county has a population density of 34 (persons per square mile) compared to 232 for the State of Illinois (2020). Median household income in the county was \$68,175 in 2022 (U.S. Census Bureau, 2024).

Figure 7 – Location of Livingston County, Illinois



i. Economic and Demographic Statistics

As shown in Table 2, the largest industries in the county are “Manufacturing” followed by “Administrative Government,” “Agriculture, Forestry, Fishing and Hunting,” and “Retail Trade.” These data for Table 1 come from IMPLAN covering the year 2022 (the latest year available).

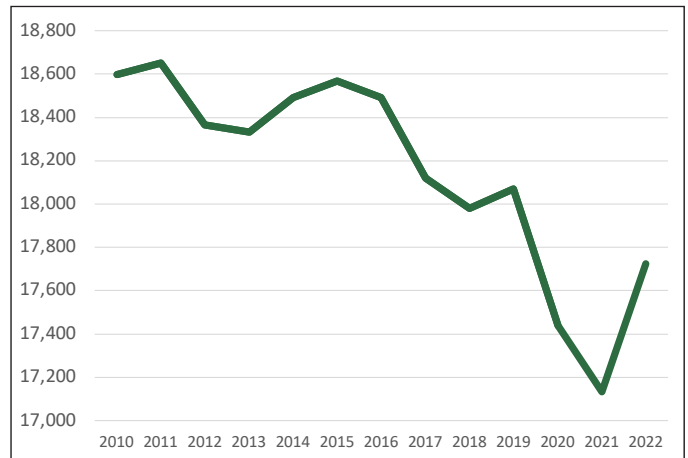
Table 2 - Employment by Industry in Livingston County

Industry	Number	Percent
Manufacturing	2,516	14.3%
Administrative Government	2,354	13.5%
Agriculture, Forestry, Fishing and Hunting	1,822	10.5%
Retail Trade	1,705	9.7%
Health Care and Social Assistance	1,559	8.9%
Transportation and Warehousing	1,250	7.1%
Construction	1,017	5.8%
Finance and Insurance	885	5.0%
Accommodation and Food Services	867	4.9%
Wholesale Trade	849	4.8%
Other Services (except Public Administration)	655	3.7%
Administrative and Support and Waste Management and Remediation Services	522	3.0%
Professional, Scientific, and Technical Services	508	2.9%
Real Estate and Rental and Leasing	428	2.4%
Utilities	159	0.9%
Arts, Entertainment, and Recreation	144	0.8%
Educational Services	97	0.6%
Government Enterprises	90	0.5%
Information	64	0.4%
Mining, Quarrying, and Oil and Gas Extraction	60	0.3%
Management of Companies and Enterprises	1	0.0%

Source: Impact Analysis for Planning (IMPLAN), County Employment by Industry, 2022

Table 2 provides the most recent snapshot of total employment but does not examine the historical trends within the county. Figure 8 shows employment from 2010 to 2022. Total employment in Livingston County was at its highest at 18,651 in 2011 and its lowest at 17,133 in 2021 (BEA, 2024).

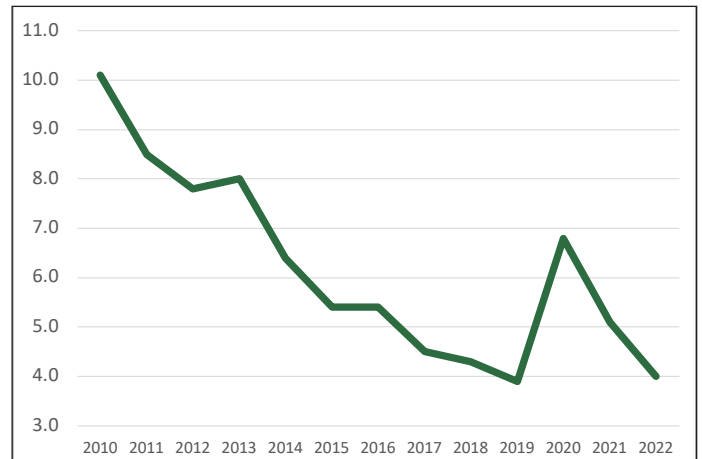
Figure 8 - Total Employment in Livingston County from 2010 to 2022



Source: Bureau of Economic Analysis, Regional Data, GDP and Personal Income, 2010-2022

The unemployment rate signifies the percentage of the labor force without employment in the county. Figure 9 shows the unemployment rates from 2010 to 2022. Unemployment in Livingston County was at its highest at 10.1% in 2010 and at its lowest at 3.9% in 2019 (FRED, 2024). The unemployment rate spiked to 6.8% in 2020 but normalized to 4.0% in 2022.

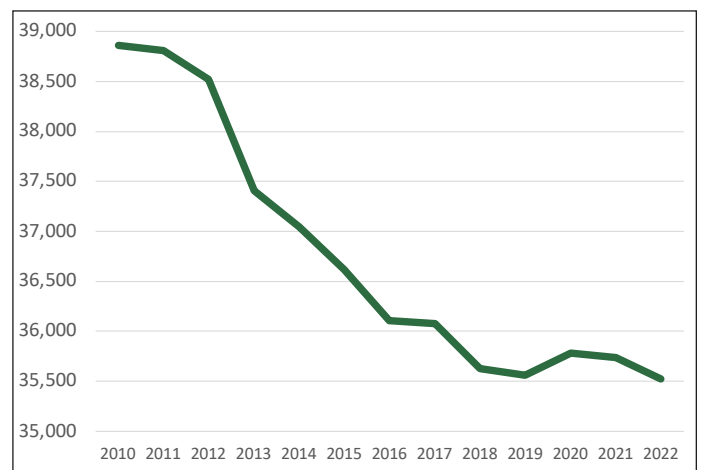
Figure 9 - Unemployment Rate in Livingston County from 2010 to 2022



Source: Federal Reserve Bank of St. Louis Economic Data, U.S. Census Bureau, Unemployment Rates, 2010-2022

The overall population in the county has decreased steadily, as shown in Figure 10. Livingston County’s population was 38,862 in 2010 and 35,521 in 2022, a loss of 3,341 people (FRED, 2024). The average annual population decrease over this time period was 278 people.

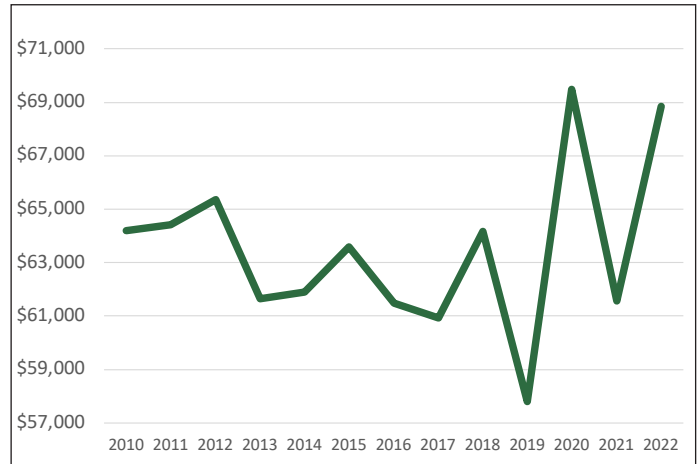
Figure 10 - Population in Livingston County from 2010 to 2022



Source: Federal Reserve Bank of St. Louis Economic Data, U.S. Census Bureau, Population Estimates, 2010-2022

Unlike the population trend, household income has fluctuated significantly in the county. Figure 11 shows the real median household income in Livingston County from 2010 to 2022. Using the national Consumer Price Index (CPI), the nominal median household income for each year was adjusted to 2022 dollars. Household income was at its lowest at \$57,811 in 2019 and its highest at \$69,476 in 2020 (FRED, 2024).

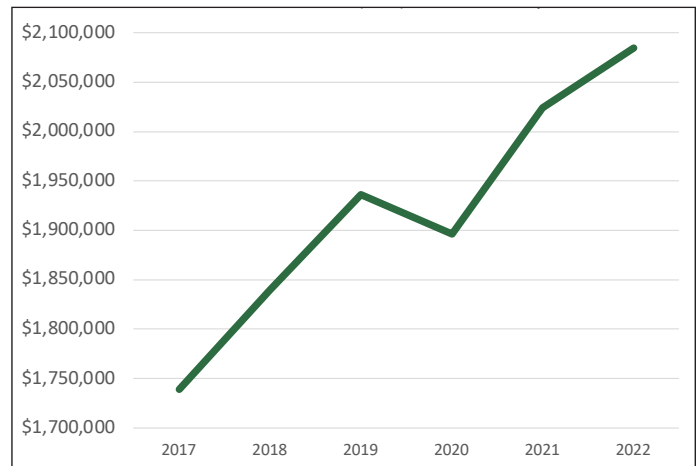
Figure 11 - Real Median Household Income in Livingston County from 2010 to 2022



Source: Federal Reserve Bank of St. Louis Economic Data, U.S. Census Bureau, Estimate of Median Household Income, 2010-2022

Real Gross Domestic Product (GDP) is a measure of the value of goods and services produced in an area and adjusted for inflation over time. The Real GDP for Livingston County has trended upward since hitting a low in 2017, as shown in Figure 12 (FRED, 2024).

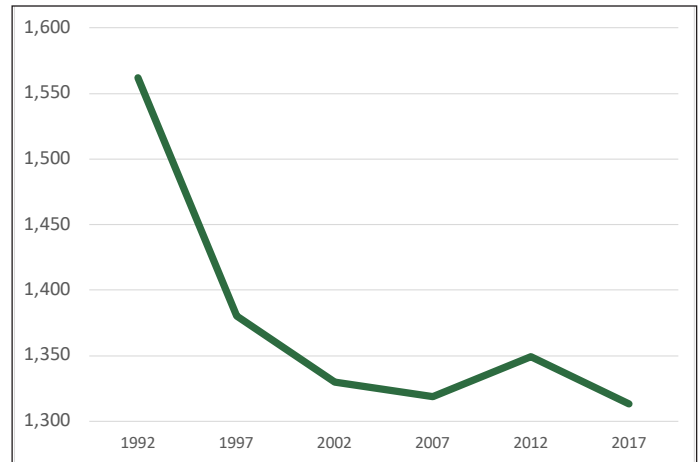
Figure 12 - Real Gross Domestic Product (GDP) in Livingston County from 2017 to 2022



Source: Federal Reserve Bank of St. Louis Economic Data, U.S. Census Bureau, Real Gross Domestic Product, 2017-2022

The farming industry has declined in Livingston County. As shown in Figure 13, the number of farms hit a high of 1,562 in 1992 and a low of 1,313 in 2017.

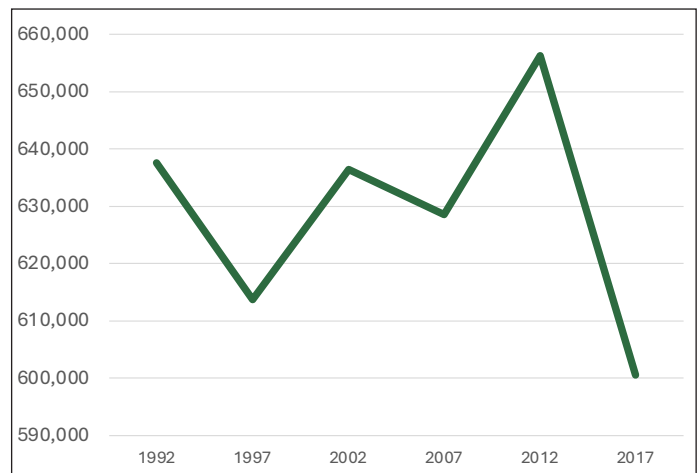
Figure 13 - Number of Farms in Livingston County from 1992 to 2017



Source: USDA National Agricultural Statistics Service, Census of Agriculture, 1992-2017

The amount of land in farms has fluctuated significantly. The county farmland hit a high of 656,275 acres in 2012 and a low of 600,533 acres in 2017, according to Figure 14.

Figure 14 - Land in Farms in Livingston County from 1992 to 2017



Source: USDA National Agricultural Statistics Service, Census of Agriculture, 1992-2017

IV. Methodology

The economic analysis of the wind power development presented here utilizes the National Renewable Energy Laboratory's (NREL's) latest Jobs and Economic Development Impacts (JEDI) Wind Energy Model (W6-28-19). NREL is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. The JEDI Wind Energy Model is an input-output model that measures the spending patterns and location-specific economic structures that reflect expenditures supporting varying levels of employment, income, and output. Essentially, JEDI is an input-output model which takes into account the fact that the output of one industry can be used as an input for another. For example, when a wind farm developer purchases turbines to build a wind farm, those wind turbines are made of components such as fiberglass, aluminum, steel, copper, etc. Therefore, purchases of wind turbines impact the demand for these components. In addition, when a wind farm developer purchases a wind turbine from a manufacturing facility, the manufacturer uses some of that money to pay employees, and then the employees spend that money on goods and services within their community. In essence, JEDI reveals how purchases of wind project materials not only benefit turbine manufacturers but also the local industries that supply the concrete, rebar, and other materials (Reategui et al., 2009). The JEDI model uses construction cost data, operating cost data, and data relating to the percentage of goods and services acquired in the state to calculate jobs, earnings, and economic activities that are associated with this information. The results are broken down into the construction period and the operation period of the wind project. Within each period, impacts are further divided into direct, turbine, and supply chain (indirect) and induced impacts.

The JEDI Model was developed in 2002 to demonstrate the economic benefits associated with developing wind farms in the United States. The model was developed by Marshall Goldberg of MRG & Associates, under contract with the National Renewable Energy Laboratory. The JEDI model utilizes state specific industry multipliers obtained from IMPLAN (Impact Analysis for PLANning). IMPLAN software and data are managed and updated by the Minnesota IMPLAN Group, Inc. using data collected at federal, state, and local levels. The JEDI model considers 14 aggregated industries that are impacted by the construction and operation of a wind farm: agriculture, construction, electrical equipment, fabricated metals, finance/insurance/real estate, government, machinery, mining, other manufacturing, other services, professional service, retail trade, transportation/communication/public utilities, and wholesale trade (Reategui, 2009). This study does not analyze net jobs. It analyzes the gross jobs that the new wind farm development supports.

Direct impacts during the construction period refer to the changes that occur in the onsite construction industries in which the direct final demand (i.e., spending on construction labor and services) change is made. Final demands are goods and services purchased for their ultimate use by the end user. Onsite construction-related services include engineering, design, and other professional services.

Direct impacts during operating years refer to the final demand changes that occur in the onsite spending for wind farm workers. Direct jobs consist primarily of onsite wind turbine technicians.

The initial spending on the construction and operation of the wind farm creates a second layer of impacts, referred to as "turbine and supply chain impacts" or "indirect impacts."

Indirect impacts during the construction period consist of the changes in inter-industry purchases resulting from the direct final demand changes and include construction spending on materials and wind farm equipment and other purchases of goods and offsite services. Essentially, these impacts result from “spending related to project development and on-site labor such as equipment costs (turbines, blades, towers, transportation), manufacturing of components and supply chain inputs, materials (transformer, electrical, HV line extension, HV substation and interconnection materials), and the supply chain of inputs required to produce these materials” (JEDI Support Team, 2023). Concrete that is used in turbine foundations increases the demand for gravel, sand, and cement. As a result of the expenditure for concrete, there is increased economic activity at quarries and cement factories, and these changes are indirect impacts. The accountant for the construction firm and the banker who finances the contractor are both considered indirect impacts. All supply chain component impacts/manufacturing-related activities are included under indirect impacts; therefore, the late-stage turbine assembly process, which includes gearbox assembly, blade production, and steel rolling, are all included under the construction period indirect impacts category.

Indirect impacts during operating years refer to the changes in inter-industry purchases resulting from the direct final demand changes. Essentially, these impacts result from “expenditures related to on-site labor, materials and services needed to operate the wind farms (e.g., vehicles, site maintenance, fees, permits, licenses, utilities, insurance, fuel, tools and supplies, replacement parts/equipment); the supply chain of inputs required to produce these goods and services; and project revenues that flow to the local economy in the form of land lease revenue, property tax revenue, and revenue to equity investors” (JEDI Support Team, 2023). All land lease payments and property taxes show up in the operating-years portion of the results because these payments do not support the day-to-day operations and maintenance of the wind farm but instead are more of a latent effect that results from the wind farm being present.

Induced impacts during construction refer to the changes that occur in household spending as household income increases or decreases due to the direct and indirect effects of final demand changes. Included in this is local spending by employees working directly or indirectly on the wind farm project who receive their paychecks and then spend money in the community. Additional local jobs and economic activity are supported by these purchases of goods and services. Thus, for example, the increased economic activity at quarries and cement factories results in increased revenues for the affected firms and raises individual incomes. Individuals employed by these companies then spend more money in the local economy, e.g., as workers receive income, they may decide to purchase more expensive clothes or higher quality food along with other goods and services from local businesses. This increased economic activity may result from “construction workers who spend a portion of their income on lodging, groceries, clothing, medicine, a local movie theater, restaurant, or bowling alley;” or a “steel mill worker who provides the inputs for turbine production and spends his money in a similar fashion, thus supporting jobs and economic activities in different sectors of the economy” (JEDI Support Team, 2023).

Induced impacts during operating years refer to the changes that occur in household spending as household income increases or decreases as a result of the direct and indirect effects from final demand changes. Some examples include a “wind farm technician who spends income from working at the wind farm on buying a car, a house, groceries, gasoline, or movie tickets,” or a “worker at a hardware store who provides spare parts and materials needed at the wind farm and who spends money in a similar fashion, thus supporting jobs and economic activities in different sectors of the economy” (JEDI Support Team, 2023).

This methodology has been validated by a paper in peer-reviewed economics literature. In the article, “Ex Post Analysis of Economics Impacts from Wind Power Development in U. S. Counties,” the authors conduct an ex post econometric analysis of the county-level economic development impacts of wind power installations from 2000 through 2008. They find an aggregate increase in county-level personal income and employment of approximately \$11,000 and 0.5 jobs per megawatt of wind power capacity during that time which is consistent with the JEDI results at the county level (Brown, 2012).

V. Results

The results were derived from project cost estimates supplied by Pattern Energy and ConnectGen. In addition, Pattern Energy and ConnectGen helped estimate the percentages of project materials and labor that will be coming from within Livingston County and the State of Illinois.

Two separate JEDI models were run to show the economic impact of the Project. The first JEDI model used the 2022 Livingston County multipliers from IMPLAN. The second JEDI model used the 2022 State of Illinois multipliers from IMPLAN and the same project costs. Because the multipliers and the local content percentage are different for the two models, the results are independent from one another. However, any local content coming from Livingston County obviously comes from the State of Illinois as well. Similarly, the State of Illinois multipliers will generally be larger than Livingston County multipliers, but some individual sectors of the economy could be stronger.

The output from these models is shown in Tables 3 to 5. Table 3 lists the total employment impact from the Project for Livingston County and the State of Illinois. Table 4 shows the impact on total earnings, and Table 5 contains the impact on total output. The results are divided into one-time construction impacts and ongoing annually recurring operations impacts that are expected to last for the full life of the Project which is estimated to be 25-40 years. Project Development and Onsite Labor Impacts correspond to direct impacts as defined in the methodology section. Turbine and Supply Chain Impacts are the indirect impacts during construction and Local Revenue and Supply Chain Impacts are indirect impacts during operations.

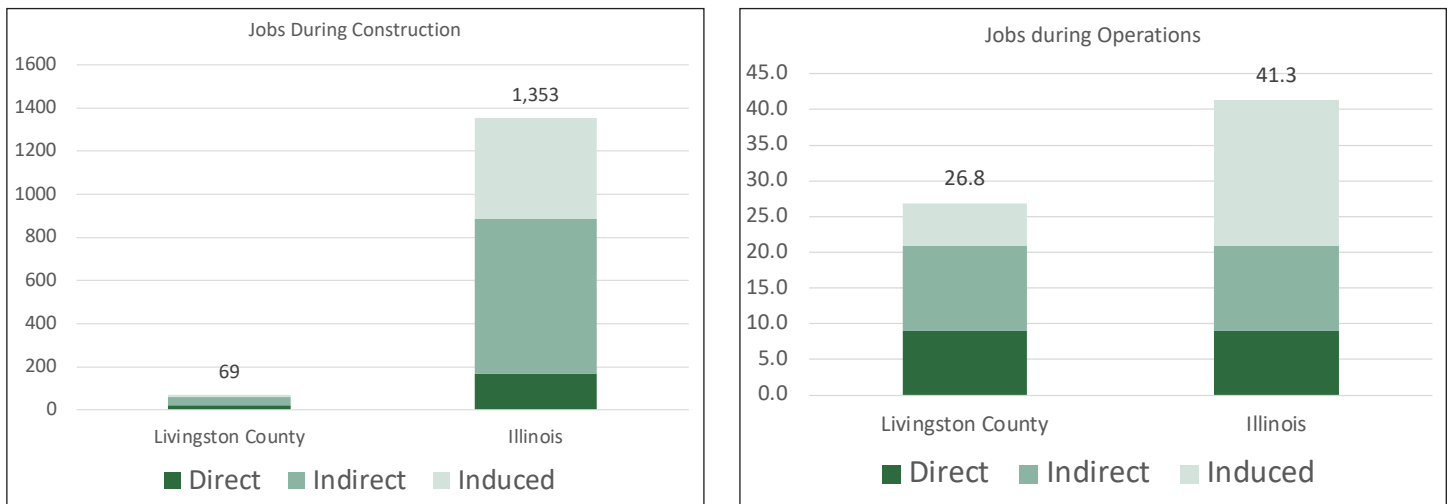
Table 3 – Total Employment Impact from the Livingston-Heritage Prairie Wind Project

	Livingston County Jobs	State of Illinois Jobs
Construction		
Project Development and Onsite Labor Impacts	22	168
Turbine and Supply Chain Impacts	36	719
Induced Impacts	11	466
<i>New Local Jobs during Construction</i>	69	1,353
Operations		
Onsite Labor Impacts	9.0	9.0
Local Revenue and Supply Chain Impacts	11.9	11.9
Induced Impacts	5.9	20.4
<i>New Local Long-Term Jobs</i>	26.8	41.3

The results from the JEDI model show significant employment impacts from the Livingston-Heritage Prairie Wind Project. Employment impacts can be broken down into several different components. Direct jobs created during the construction phase typically last anywhere from 6 months to over a year depending on the size of the project; however, the direct job numbers present in Table 3 from the JEDI model are based on a full-time equivalent (FTE) basis for a year. In other words, 1 job = 1 FTE = 2,080 hours worked in a year. A part time or temporary job would constitute only a fraction of a job according to the JEDI model. For example, the JEDI model results show 22 new onsite jobs during construction in Livingston County, though the construction of the Project could actually involve hiring closer to 44 workers for 6 months.

As shown in Table 3, new local jobs created or retained during construction total 69 for Livingston County and 1,353 for the State of Illinois. New local long-term jobs created from the Project total 26.8 for Livingston County and 41.3 for the State of Illinois.

Figure 15 – Total Employment Impact for the Livingston-Heritage Prairie Wind Project



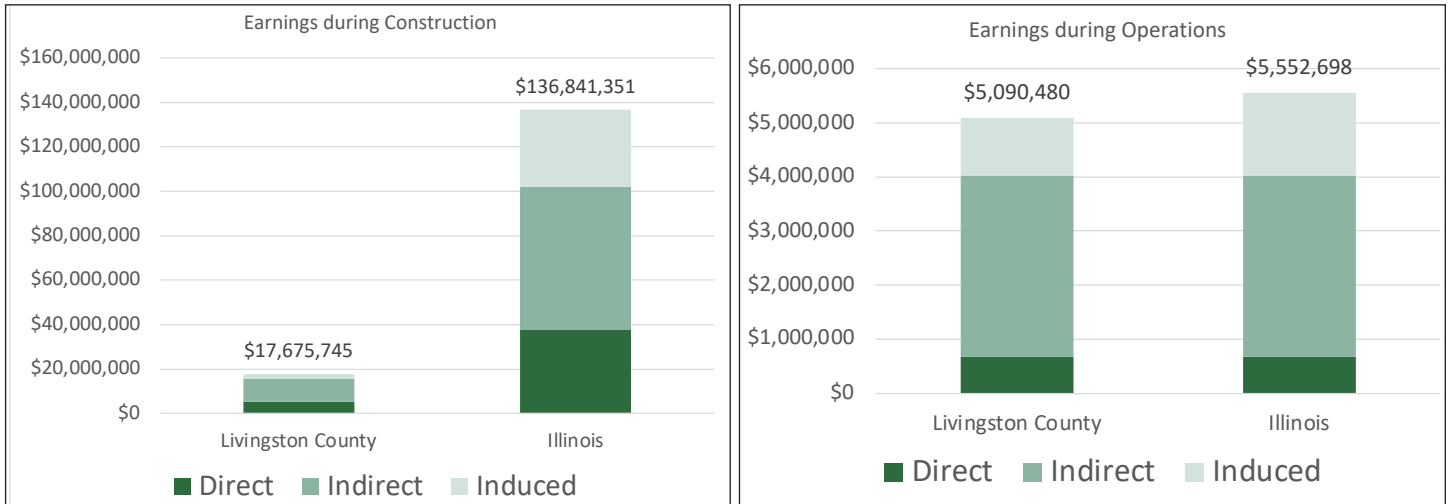
Direct jobs created during the operational phase last the life of the wind farm, typically 25-40 years. Direct construction jobs, and operations and maintenance jobs both require highly skilled workers in the fields of construction, management, and engineering. These well-paid professionals boost economic development in rural communities where new employment opportunities are welcome due to economic downturns.

Accordingly, it is important to not just look at the number of jobs but also the earnings that they produce. The earnings impacts from the Project are shown in Table 4 and are categorized by construction impacts and operations impacts. The new local earnings during construction total over \$17.6 million for Livingston County and over \$136 million for the State of Illinois. The new local long-term earnings total over \$5.0 million for Livingston County and over \$5.5 million for the State of Illinois.

Table 4 – Total Earnings Impact from the Livingston-Heritage Prairie Wind Project

	Livingston County	State of Illinois
Construction		
Project Development and Onsite Earnings Impacts	\$5,147,096	\$37,609,749
Turbine and Supply Chain Impacts	\$10,614,351	\$64,487,643
Induced Impacts	\$1,914,298	\$34,743,959
<i>New Local Earnings during Construction</i>	\$17,675,745	\$136,841,351
Operations (Annual)		
Onsite Labor Impacts	\$672,944	\$672,944
Local Revenue and Supply Chain Impacts	\$3,358,698	3,358,698
Induced Impacts	\$1,058,838	\$1,521,056
<i>New Local Long-Term Earnings</i>	\$5,090,480	\$5,552,698

Figure 16 – Total Earnings Impact from the Livingston-Heritage Prairie Wind Project



Output refers to economic activity or the value of production in the state or local economy. Economic output includes the earnings reported in Table 4 but also measures other factors such as landowner payments, property taxes, and other economic activity that is not earnings and benefits from employment. Local Revenue and Supply Chain Impacts include ongoing property taxes and are detailed in the next section.

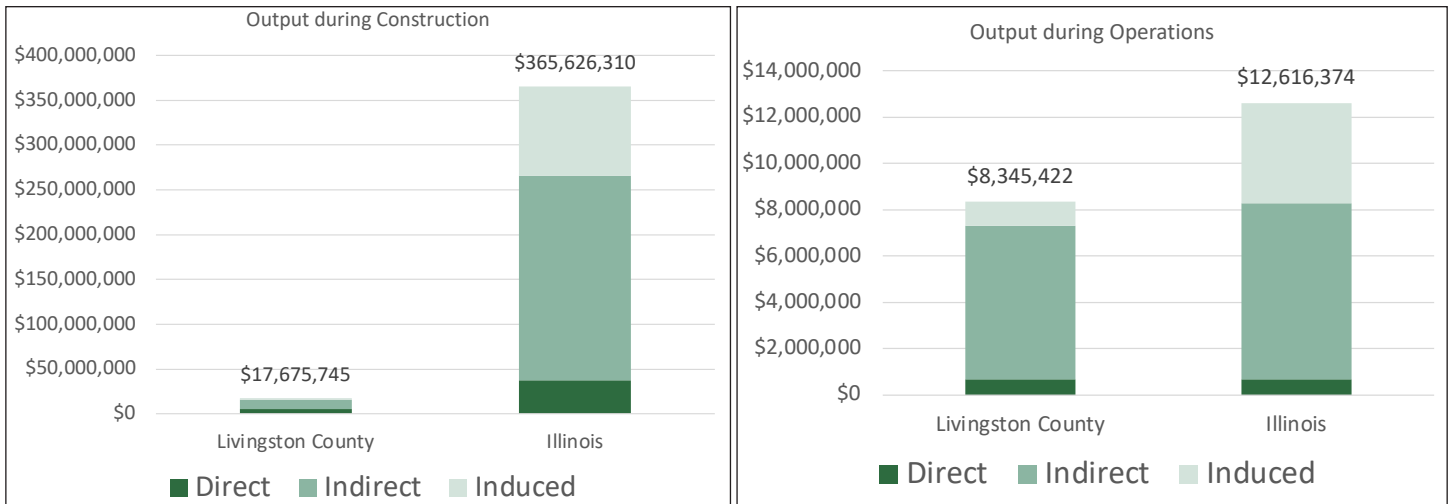


According to Table 5, the new local output during construction totals over \$17.6 million for Livingston County and over \$365 million for the State of Illinois. The new local long-term output totals over \$8.3 million for Livingston County and over \$12.6 million for the State of Illinois.

Table 5 – Total Output Impact from the Livingston-Heritage Prairie Wind Project

	Livingston County	State of Illinois
Construction		
Project Development and Onsite Jobs Impacts on Output	\$5,147,096	\$37,609,749
Turbine and Supply Chain Impacts	\$10,614,351	\$228,468,187
Induced Impacts	\$1,914,298	\$99,548,374
<i>New Local Output during Construction</i>	\$17,675,745	\$365,626,310
Operations (Annual)		
Onsite Labor Impacts	\$672,944	\$672,944
Local Revenue and Supply Chain Impacts	\$6,613,640	\$7,585,779
Induced Impacts	\$1,058,838	\$4,357,651
<i>New Local Long-Term Output</i>	\$8,345,422	\$12,616,374

Figure 17 – Total Output Impact from the Livingston-Heritage Prairie Wind Project



VI. Tax Benefits

Wind power projects increase the property tax base of a county creating a new revenue source for education and other local government services such as fire protection, park districts, and road maintenance. According to state law (Public Act 095-0644), the fair cash value for a utility-scale wind turbine in Illinois is \$360,000 per megawatt of capacity beginning in 2007 and is annually adjusted for inflation and depreciation. The inflation adjustment, as known as the Trending Factor, increases each year according to the Bureau of Labor Statistics' Consumer Price Index for all cities for all items. According to the Illinois Department of Revenue, "[t]he trending factor for assessment year 2023 is 1.47." (<https://www2.illinois.gov/rev/localgovernments/property/Documents/WindEnergyTrendingFactors.pdf>). Depreciation is allowed at 4% per year up to a maximum total depreciation of 70% of the trended real property cost basis (calculated by taking the fair cash value of the turbine and multiplying by the Trending Factor).

The property tax payments in this section may not reflect new spendable tax dollars to that taxing entity. In some cases, the total budget may be capped or have limits to yearly increases. If the budget cannot be increased to include all of the new tax revenue, the property tax rate for that entity will be lowered, resulting in lower taxes to all taxpayers. This lower tax rate benefits the whole community of taxpayers, and the total amount of lowered taxes is a measure of the community benefits that will result from the solar energy project. Thus, the calculated property tax revenue is a good measure of the community benefits even if all of the tax dollars are not spendable due to tax budget constraints.

Tables 6-10 detail the tax implications of the Livingston-Heritage Prairie Wind Project. There are several important assumptions built into the analysis in these tables.

- First, the analysis assumes that the valuation of the wind farm is the same as set forth in Public Act 095-0644.
- Second, the tables assume future inflation is constant at 2.4% annually and the depreciation is 4% annually until it reaches the maximum of 70%.
- Third, all tax rates are assumed to stay constant at their 2023 (2022 tax year) rates. For example, the Livingston County tax rate is assumed to stay constant at 1.04905% through 2054.
- Fourth, the analysis assumes that the Project is placed in service on January 1, 2027, at a fair cash value of \$188 million according to Public Act 095-0644.
- Fifth, it assumes that the Project is decommissioned in 30 years and pays no more taxes after that date.
- Sixth, if finalized turbine locations are different than the current map, the actual taxes paid could vary depending on the relative tax rates between districts.
- Seventh, no comprehensive tax payment was calculated, and these calculations are only to be used to illustrate the economic impact of the Project.

Figure 18 - Percentages of Property Taxes Paid to Taxing Jurisdictions

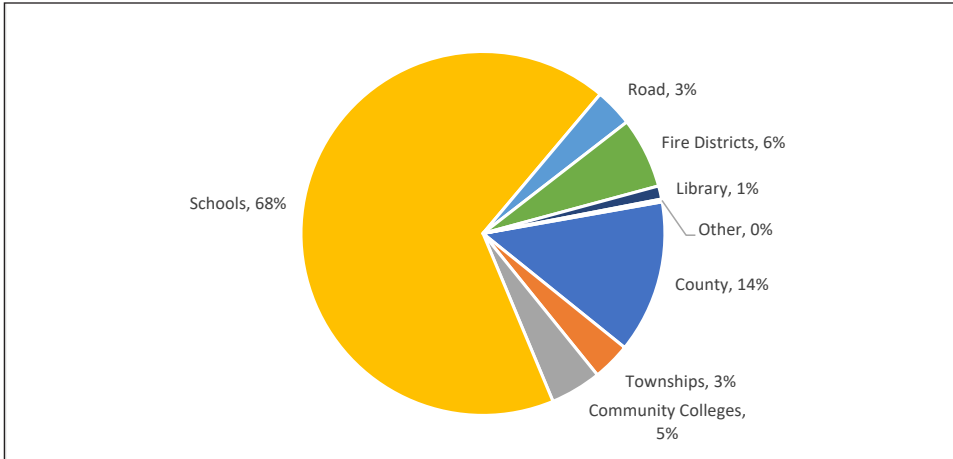


Table 6 – Total Property Taxes Paid by the Livingston-Heritage Prairie Wind Project

Year	Total Taxes Paid
2027	\$4,851,215
2028	\$4,768,939
2029	\$4,679,919
2030	\$4,583,878
2031	\$4,480,533
2032	\$4,369,586
2033	\$4,250,734
2034	\$4,123,659
2035	\$3,988,036
2036	\$3,843,529
2037	\$3,689,788
2038	\$3,526,453
2039	\$3,353,153
2040	\$3,169,503
2041	\$2,975,107
2042	\$2,769,554
2043	\$2,552,421
2044	\$2,323,271
2045	\$2,230,340
2046	\$2,283,868
2047	\$2,338,681
2048	\$2,394,809
2049	\$2,452,284
2050	\$2,511,139
2051	\$2,571,407
2052	\$2,633,120
2053	\$2,696,315
2054	\$2,761,027
2055	\$2,827,292
2056	\$2,895,147
TOTAL	\$98,894,707
AVG ANNUAL	\$3,296,490

As shown in Table 6, a conservative estimate of the total property taxes paid by the Project starts out at over \$4.8 million and declines due to depreciation (and offset by the trending factor) until it reaches the maximum depreciation in 2045. After that, the Project is fully depreciated, and the trending factor causes the taxable value and taxes to increase. The expected total property taxes paid over the 30-year lifetime of the Project are over \$98.8 million, and the average annual property taxes paid will be over \$3.2 million.

Table 7 shows an estimate of the likely taxes paid to the following taxing bodies: Livingston County, Broughton Township, Dwight Township, and Round Grove Township.

According to Table 7, the total amounts paid are over \$13.4 million for Livingston County, over \$80.9 thousand for Broughton Township, over \$1.1 million for Dwight Township, and over \$2.0 million for Round Grove Township over the life of the Project.

Table 8 shows an estimate of the likely taxes paid to the following taxing bodies: Broughton Road District, Dwight Road District, Round Grove Road District, Reddick Fire R20, Dwight Fire 16, Cabery Fire B06, and Emington-Campus Fire 21.

According to Table 8, the total amounts paid are over \$164 thousand for Broughton Road District, over \$928 thousand for Dwight Road District, over \$2.2 million for Round Grove Road District, over \$1.2 million for Reddick Fire R20, over \$4.3 million for Dwight Fire 16, over \$58.9 thousand for Cabery Fire B06, and over \$579 thousand for Emington-Campus Fire 21 over the life of the Project.

Table 9 shows an estimate of the likely taxes paid to the following taxing bodies: Kankakee Community College #520, Joliet Community College #525, Prairie Creek Public Library, and Round Grove-Broughton-Sullivan.

According to Table 9, the total amounts paid are over \$2.0 million for Kankakee Community College #520, over \$2.4 million for Joliet Community College #525, over \$1.1 million for the Prairie Creek Public Library, and over \$248 thousand for Round Grove-Broughton-Sullivan over the life of the Project.

Table 7 – Tax Benefits from the Livingston-Heritage Prairie Wind Project for the County and Townships¹

Year	Livingston County	Broughton Township	Dwight Township	Round Grove Township
2027	\$658,282	\$3,969	\$57,892	\$102,450
2028	\$647,117	\$3,901	\$56,910	\$100,713
2029	\$635,038	\$3,828	\$55,848	\$98,833
2030	\$622,006	\$3,750	\$54,702	\$96,804
2031	\$607,982	\$3,665	\$53,469	\$94,622
2032	\$592,927	\$3,575	\$52,145	\$92,279
2033	\$576,800	\$3,477	\$50,726	\$89,769
2034	\$559,556	\$3,373	\$49,210	\$87,085
2035	\$541,153	\$3,262	\$47,591	\$84,221
2036	\$521,544	\$3,144	\$45,867	\$81,169
2037	\$500,683	\$3,018	\$44,032	\$77,923
2038	\$478,519	\$2,885	\$42,083	\$74,473
2039	\$455,003	\$2,743	\$40,015	\$70,813
2040	\$430,083	\$2,593	\$37,823	\$66,935
2041	\$403,705	\$2,434	\$35,504	\$62,830
2042	\$375,812	\$2,266	\$33,051	\$58,489
2043	\$346,349	\$2,088	\$30,459	\$53,903
2044	\$315,254	\$1,901	\$27,725	\$49,064
2045	\$302,644	\$1,825	\$26,616	\$47,101
2046	\$309,908	\$1,868	\$27,255	\$48,232
2047	\$317,345	\$1,913	\$27,909	\$49,389
2048	\$324,962	\$1,959	\$28,579	\$50,575
2049	\$332,761	\$2,006	\$29,264	\$51,788
2050	\$340,747	\$2,054	\$29,967	\$53,031
2051	\$348,925	\$2,104	\$30,686	\$54,304
2052	\$357,299	\$2,154	\$31,422	\$55,607
2053	\$365,874	\$2,206	\$32,177	\$56,942
2054	\$374,655	\$2,259	\$32,949	\$58,309
2055	\$383,647	\$2,313	\$33,740	\$59,708
2056	\$392,855	\$2,368	\$34,549	\$61,141
TOTAL	\$13,419,435	\$80,901	\$1,180,164	\$2,088,505
AVG ANNUAL	\$447,315	\$2,697	\$39,339	\$69,617

Table 8 – Tax Benefits from the Livingston-Heritage Prairie Wind Project for Other Taxing Bodies²

Year	Road Districts			Fire Districts			
	Broughton	Dwight	Round Grove	Reddick R20	Dwight 16	Cabery B06	Emington-Campus 21
2027	\$8,047	\$45,535	\$109,968	\$59,754	\$213,842	\$2,890	\$28,425
2028	\$7,910	\$44,763	\$108,103	\$58,741	\$210,216	\$2,841	\$27,943
2029	\$7,763	\$43,927	\$106,085	\$57,644	\$206,292	\$2,788	\$27,421
2030	\$7,603	\$43,026	\$103,908	\$56,461	\$202,058	\$2,731	\$26,859
2031	\$7,432	\$42,056	\$101,566	\$55,188	\$197,503	\$2,669	\$26,253
2032	\$7,248	\$41,014	\$99,051	\$53,822	\$192,612	\$2,603	\$25,603
2033	\$7,051	\$39,899	\$96,356	\$52,358	\$187,373	\$2,532	\$24,907
2034	\$6,840	\$38,706	\$93,476	\$50,793	\$181,772	\$2,457	\$24,162
2035	\$6,615	\$37,433	\$90,402	\$49,122	\$175,793	\$2,376	\$23,367
2036	\$6,375	\$36,077	\$87,126	\$47,342	\$169,423	\$2,290	\$22,521
2037	\$6,120	\$34,633	\$83,641	\$45,448	\$162,646	\$2,198	\$21,620
2038	\$5,849	\$33,100	\$79,938	\$43,437	\$155,447	\$2,101	\$20,663
2039	\$5,562	\$31,474	\$76,010	\$41,302	\$147,807	\$1,998	\$19,647
2040	\$5,257	\$29,750	\$71,847	\$39,040	\$139,712	\$1,888	\$18,571
2041	\$4,935	\$27,925	\$67,440	\$36,645	\$131,143	\$1,772	\$17,432
2042	\$4,594	\$25,996	\$62,781	\$34,114	\$122,082	\$1,650	\$16,228
2043	\$4,234	\$23,958	\$57,859	\$31,439	\$112,511	\$1,521	\$14,956
2044	\$3,854	\$21,807	\$52,664	\$28,617	\$102,410	\$1,384	\$13,613
2045	\$3,700	\$20,935	\$50,558	\$27,472	\$98,314	\$1,329	\$13,068
2046	\$3,788	\$21,437	\$51,771	\$28,131	\$100,673	\$1,361	\$13,382
2047	\$3,879	\$21,952	\$53,014	\$28,806	\$103,089	\$1,393	\$13,703
2048	\$3,972	\$22,478	\$54,286	\$29,498	\$105,564	\$1,427	\$14,032
2049	\$4,068	\$23,018	\$55,589	\$30,206	\$108,097	\$1,461	\$14,369
2050	\$4,165	\$23,570	\$56,923	\$30,931	\$110,691	\$1,496	\$14,714
2051	\$4,265	\$24,136	\$58,289	\$31,673	\$113,348	\$1,532	\$15,067
2052	\$4,368	\$24,715	\$59,688	\$32,433	\$116,068	\$1,569	\$15,428
2053	\$4,472	\$25,308	\$61,121	\$33,211	\$118,854	\$1,606	\$15,799
2054	\$4,580	\$25,916	\$62,587	\$34,009	\$121,706	\$1,645	\$16,178
2055	\$4,690	\$26,538	\$64,090	\$34,825	\$124,627	\$1,684	\$16,566
2056	\$4,802	\$27,175	\$65,628	\$35,661	\$127,618	\$1,725	\$16,964
TOTAL	\$164,038	\$928,255	\$2,241,763	\$1,218,122	\$4,359,293	\$58,915	\$579,459
AVG ANNUAL	\$5,468	\$30,942	\$74,725	\$40,604	\$145,310	\$1,964	\$19,315

²The assumed tax rates are 0.91047% for Broughton Road District, 0.24534% for Dwight Road District, 0.25393% for Round Grove Road District, 0.67610% for Reddick Fire R20, 0.51480% for Dwight Fire 16, 0.32700% for Cabery Fire B06, and 0.24740% for Emington-Campus Fire 21.

Table 9 – Tax Benefits from the Livingston-Heritage Prairie Wind Project for Other Taxing Bodies (Cont.)³

Year	Kankakee CC #520	Joliet CC #525	Prairie Creek Public Library	Round Grove Broughton-Sullivan
2027	\$101,085	\$118,889	\$56,987	\$12,205
2028	\$99,370	\$116,872	\$56,021	\$11,998
2029	\$97,516	\$114,691	\$54,975	\$11,774
2030	\$95,514	\$112,337	\$53,847	\$11,533
2031	\$93,361	\$109,804	\$52,633	\$11,273
2032	\$91,049	\$107,085	\$51,330	\$10,994
2033	\$88,573	\$104,173	\$49,933	\$10,695
2034	\$85,925	\$101,058	\$48,441	\$10,375
2035	\$83,099	\$97,735	\$46,847	\$10,034
2036	\$80,088	\$94,193	\$45,150	\$9,670
2037	\$76,884	\$90,425	\$43,344	\$9,283
2038	\$73,481	\$86,423	\$41,425	\$8,872
2039	\$69,870	\$82,176	\$39,389	\$8,436
2040	\$66,043	\$77,675	\$37,232	\$7,974
2041	\$61,992	\$72,911	\$34,949	\$7,485
2042	\$57,709	\$67,873	\$32,534	\$6,968
2043	\$53,185	\$62,552	\$29,983	\$6,422
2044	\$48,410	\$56,936	\$27,291	\$5,845
2045	\$46,474	\$54,659	\$26,200	\$5,611
2046	\$47,589	\$55,971	\$26,829	\$5,746
2047	\$48,731	\$57,314	\$27,472	\$5,884
2048	\$49,901	\$58,689	\$28,132	\$6,025
2049	\$51,098	\$60,098	\$28,807	\$6,170
2050	\$52,325	\$61,540	\$29,498	\$6,318
2051	\$53,580	\$63,017	\$30,206	\$6,470
2052	\$54,866	\$64,530	\$30,931	\$6,625
2053	\$56,183	\$66,078	\$31,674	\$6,784
2054	\$57,532	\$67,664	\$32,434	\$6,947
2055	\$58,912	\$69,288	\$33,212	\$7,113
2056	\$60,326	\$70,951	\$34,009	\$7,284
TOTAL	\$2,060,670	\$2,423,608	\$1,161,716	\$248,813
AVG ANNUAL	\$68,689	\$80,787	\$38,724	\$8,294

³ The assumed tax rates are 0.47656% for Kankakee Community College #520, 0.28621% for Joliet Community College #525, 0.13719% for the Prairie Creek Public Library, and 0.02762% for Round Grove-Broughton-Sullivan.

The largest taxing jurisdictions for property taxes are local school districts. However, the tax implications for school districts are more complicated than for other taxing bodies. School districts receive state aid based on the assessed value of the taxable property within its district. As assessed value increases, the state aid to the school district is decreased. The Center for Renewable Energy at Illinois State University did a report titled Wind Farm Implications for School District Revenue which details how a wind farm affects the local school district's revenue. Although the school district collects increased local property tax revenue from the wind farm, it receives less in state aid because of the increases in Equalized Assessed Value (EAV) due to the wind farm. **However, the reduction in state aid is much smaller than the increased tax revenue.**

Although the exact amount of the reduction in state aid to the school districts is uncertain, local project tax revenue is superior to relying on state aid for the following reasons: (1) the wind turbines can't relocate – it is a permanent structure that will be within the school district's footprint for the life of the Project; (2) the school district can raise the tax rate and increase its revenues as needed; (3) the school district does not have to deal with the year-to-year uncertainty of state aid amounts; (4) the school district does not have to wait for months (or even into the next Fiscal Year!) for payment; (5) the Project does not increase the overall cost of education in the way that a new residential development would.

Table 10 shows the direct property tax revenue coming from the Project to Dwight Grade School #232, Dwight High School #230, Herscher Unit #2J, and Cullum Unit #6J. This tax revenue uses the assumptions outlined earlier to calculate the other tax revenue and assumes that 69% of the turbines are in Dwight Grade School #232 District, 69% in Dwight High School #230 District, 27% in the Herscher Unit 2J School District, and 4% in the Cullum Unit #6J School District. Over the 30-year life of the Project, the school districts are expected to receive over \$66.6 million in tax revenue.



Table 10 – Tax Benefits from the Livingston-Heritage Prairie Wind Project for the School Districts⁴

Year	Dwight Grade School #232	Dwight High School #230	Herscher Unit #2J	Cullum Unit #6J
2027	\$1,306,575	\$1,021,934	\$799,472	\$143,014
2028	\$1,284,416	\$1,004,602	\$785,913	\$140,588
2029	\$1,260,440	\$985,850	\$771,243	\$137,964
2030	\$1,234,573	\$965,618	\$755,416	\$135,133
2031	\$1,206,739	\$943,848	\$738,385	\$132,086
2032	\$1,176,858	\$920,477	\$720,101	\$128,815
2033	\$1,144,848	\$895,440	\$700,514	\$125,311
2034	\$1,110,623	\$868,671	\$679,572	\$121,565
2035	\$1,074,096	\$840,101	\$657,222	\$117,567
2036	\$1,035,175	\$809,660	\$633,407	\$113,307
2037	\$993,768	\$777,273	\$608,071	\$108,775
2038	\$949,778	\$742,866	\$581,154	\$103,960
2039	\$903,103	\$706,359	\$552,594	\$98,851
2040	\$853,641	\$667,673	\$522,329	\$93,437
2041	\$801,284	\$626,722	\$490,293	\$87,706
2042	\$745,922	\$583,421	\$456,418	\$81,646
2043	\$687,442	\$537,681	\$420,635	\$75,245
2044	\$625,725	\$489,409	\$382,871	\$68,490
2045	\$600,696	\$469,833	\$367,556	\$65,750
2046	\$615,113	\$481,109	\$376,378	\$67,328
2047	\$629,876	\$492,656	\$385,411	\$68,944
2048	\$644,993	\$504,479	\$394,661	\$70,599
2049	\$660,472	\$516,587	\$404,133	\$72,293
2050	\$676,324	\$528,985	\$413,832	\$74,028
2051	\$692,555	\$541,680	\$423,764	\$75,805
2052	\$709,177	\$554,681	\$433,934	\$77,624
2053	\$726,197	\$567,993	\$444,348	\$79,487
2054	\$743,626	\$581,625	\$455,013	\$81,395
2055	\$761,473	\$595,584	\$465,933	\$83,348
2056	\$779,748	\$609,878	\$477,115	\$85,349
TOTAL	\$26,635,254	\$20,832,695	\$16,297,688	\$2,915,411
AVG ANNUAL	\$887,842	\$694,423	\$543,256	\$97,180

Having considered all these benefits, it is still important to determine the net impact of the wind energy project after taking into account the reduction in school funding from the State of Illinois. Determining the reduction in state aid is complicated by the fact that there is a new law for distributing state funds to education.

On August 31, 2017, Governor Rauner signed into law PA 100-0465 that fundamentally changes the way that the state distributes state aid to school districts. The funding consists of two parts – a Base Funding Minimum and a Tier Funding. The Base Funding Minimum in FY18 is based on what the district received in FY 17 under the old funding formula. Some call this the “Hold Harmless” provision and ensures that there are no “losing” districts in the transition to the new funding formula. The Tier Funding is additional money and goes in higher portion to the districts that demonstrate a higher need under the new formula. Because of the “Hold Harmless” provision, no school district will see a reduction in their GSA from what they received in the year before the wind farm was installed. However, the higher EAV caused by the wind farm will reduce its eligibility for new money allocated in the state budget.

There are several sources of uncertainty with the new school funding formula concerning this new money. First, the total amount of new funding to be distributed over the next ten years is unknown at this point. It will be determined year-by-year in the state budget passed by the legislature and signed by the governor. For FY21, no new money was allocated for the school funding formula though the FY22 does have new money in the budget. Second, data for the formula funding changes each year based on the school’s student population and its “need” and it is difficult to forecast its school’s student population over time. Third, each school district is competing with all other school districts for this new funding and so the EAV and student population for all other school districts in the state will impact what a single school district receives. Fourth, the school district’s EAV could also change due to other property changes in the district.

In order to determine the net impact of the Project on a school district’s eligibility for new state aid money, we can make the following assumptions: (1) that the State of Illinois continues to provide \$350 million in NEW state aid to education ANNUALLY. For reference, the new law passed in 2017 provided \$350 million and the FY19 state budget has \$350 million. The state budget has failed to include this increase in FY20 and FY21; (2) that the school districts will forfeit ALL of the new Tier funding for schools. It seems more likely that the school districts will switch tiers rather than lose all funding; (3) that the school districts would be entitled to the same tiered funding annually for the 10 years covered by the new school funding law without the wind farm; (4) that other school districts in the State of Illinois have a constant EAV and Evidence Based Funding needs.

For FY23, Dwight Grade School #232 had 89% adequacy, was assigned Tier 2 status, and will receive \$9,918 in “new money,” Dwight High School #230 had 121% adequacy, was assigned Tier 4 status, and will receive \$193 in “new money,” Herscher Unit #2J had 108% adequacy, was assigned Tier 4 status, and will receive \$1,366 in “new money,” and Cullom (Tri Point) Unit #6J had 132% adequacy, was assigned Tier 4 status, and will receive \$304 in “new money.” As outlined in Table 10, there is no year in which any school district receives less than \$62,547. If new money is allocated in the future, it is unlikely that these districts will lose all of the “new money” and their EBF funding cannot go down from the previous year. Thus, the school districts will receive a net positive flow of funds because of the wind project if “new money” remains the same.

VII. Glossary

Bb

Battery Energy Storage Systems (BESS)

An array of hundreds or thousands of small batteries that enable energy from renewables, like solar and wind, to be stored and released at a later time.

Cc

Consumer Price Index (CPI)

An index of the changes in the cost of goods and services to a typical consumer, based on the costs of the same goods and services at a base period.

Dd

Direct impacts

During the construction period: the changes that occur in the onsite construction industries in which the direct final demand change is made.

During operating years: the final demand changes that occur in the onsite spending for the solar operations and maintenance workers.

Ee

Equalized Assessed Value (EAV)

The product of the assessed value of property and the state equalization factor. This is typically used as the basis for the value of property in a property tax calculation.

Ff

Farming profit

The difference between total revenue (price multiplied by yield) and total cost regarding farmland.

Full-time equivalent (FTE)

A unit that indicates the workload of an employed person. One FTE is equivalent to one worker working 2,080 hours in a year. One half FTE is equivalent to a half-time worker or someone working 1,040 hours in a year.

Hh

HV line extension

High-voltage electric power transmission links used to connect generators to the electric transmission grid.

Ii

IMPLAN (IMpact analysis for PLANning)

A business who is the leading provider of economic impact data and analytic applications. IMPLAN data is collected at the federal, state, and local levels and used to create state-specific and county-specific industry multipliers.

Indirect impacts

Impacts that occur in industries that make up the supply chain for that industry.

During the construction period: the changes in inter- industry purchases resulting from the direct final demand changes, including construction spending on materials and wind farm equipment and other purchases of good and offsite services.

During operating years: the changes in inter- industry purchases resulting from the direct final demand changes.

Induced impacts

The changes that occur in household spending as household income increases or decreases as a result of the direct and indirect effects of final demand changes.

Inflation

A persistent rise in the general level of prices related to an increase in the volume of money and resulting in the loss of value of currency. Inflation is typically measured by the CPI.

Mm

Median Household Income (MHI)

The income amount that divides a population into two equal groups, half having an income above that amount, and half having an income below that amount.

Millage rate

The tax rate, as for property, assessed in mills per dollar.

Multiplier

A factor of proportionality that measures how much a variable changes in response to a change in another variable.

MW

A unit of power, equal to one million watts or one thousand kilowatts.

MWac (megawatt alternating current)

The power capacity of a utility-scale solar PV system after its direct current output has been fed through an inverter to create an alternating current (AC). A solar system's rated MWac will always be lower than its rated MWdc due to inverter losses. AC is the form in which electric energy is delivered to businesses and residences and that consumers typically use when plugging electric appliances into a wall socket.

MWdc (megawatt direct current)

The power capacity of a utility-scale solar PV system before its direct current output has been fed through an inverter to create an alternating current. A solar system's rated MWdc will always be higher than its rated MWac.

Nn

Net economic impact

Total change in economic activity in a specific region, caused by a specific economic event.

Net Present Value (NPV)

Cash flow determined by calculating the costs and benefits for each period of investment.

NREL's Jobs and Economic Development Impacts (JEDI) Model

An input-output model that measures the spending patterns and location-specific economic structures that reflect expenditures supporting varying levels of employment, income, and output.

Oo

Output

Economic output measures the value of goods and services produced in a given area. Gross Domestic Product is the economic output of the United States as a whole.

Rr

Real Gross Domestic Product (GDP)

A measure of the value of goods and services produced in an area and adjusted for inflation over time.

Real-options analysis

A model used to look at the critical factors affecting the decision to lease agricultural land to a company installing a solar powered electric generating facility.

Ss

Stochastic

To have some randomness.

Tt

Tax rate

The percentage (or millage) of the value of a property to be paid as a tax.

Total economic output

The quantity of goods or services produced in a given time period by a firm, industry, county, or country.

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IX. Curriculum Vitae (Abbreviated)

David G. Loomis
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Education

Doctor of Philosophy, Economics, Temple University, Philadelphia, Pennsylvania, May 1995.

Bachelor of Arts, Mathematics and Honors Economics, Temple University, Magna Cum Laude, May 1985.

Experience

2011-present Strategic Economic Research, LLC
 President

- Performed economic impact analyses on policy initiatives and energy projects such as wind energy, solar energy, natural gas plants and transmission lines at the county and state level
- Provided expert testimony before state legislative bodies, state public utility commissions, and county boards
- Wrote telecommunications policy impact report comparing Illinois to other Midwestern states

1996-2023 Illinois State University, Normal, IL
 Professor Emeritus – Department of Economics (2023 - present)

Full Professor – Department of Economics (2010-2023)

Associate Professor - Department of Economics (2002-2009)

Assistant Professor - Department of Economics (1996-2002)

- Taught Regulatory Economics, Telecommunications Economics and Public Policy, Industrial Organization and Pricing, Individual and Social Choice, Economics of Energy and Public Policy and a Graduate Seminar Course in Electricity, Natural Gas and Telecommunications Issues
- Supervised as many as 5 graduate students in research projects each semester
- Served on numerous departmental committees

1997-2023 Institute for Regulatory Policy Studies, Normal, IL

Executive Director (2005-2023)

Co-Director (1997-2005)

- Grew contributing membership from 5 companies to 16 organizations
- Doubled the number of workshop/training events annually
- Supervised 2 Directors, Administrative Staff and internship program
- Developed and implemented state-level workshops concerning regulatory issues related to the electric, natural gas, and telecommunications industries

2006-2018 Illinois Wind Working Group,
Normal, IL
Director

- Founded the organization and grew the organizing committee to over 200 key wind stakeholders
 - Organized annual wind energy conference with over 400 attendees
 - Organized strategic conferences to address critical wind energy issues
 - Initiated monthly conference calls to stakeholders
 - Devised organizational structure and bylaws
- Published 40 articles in leading journals such as AIMS Energy, Renewable Energy, National Renewable Energy Laboratory Technical Report, Electricity Journal, Energy Economics, Energy Policy, and many others
 - Testified over 80 times in formal proceedings regarding wind, solar and transmission projects
 - Raised over \$7.7 million in grants
 - Raised over \$2.7 million in external funding

2007-2018 Center for Renewable Energy, Normal, IL
Director

- Created founding document approved by the Illinois State University Board of Trustees and Illinois Board of Higher Education
- Secured over \$150,000 in funding from private companies
- Hired and supervised 4 professional staff members and supervised 3 faculty members as Associate Directors
- Reviewed renewable energy manufacturing grant applications for Illinois Department of Commerce and Economic Opportunity for a \$30 million program
- Created technical “Due Diligence” documents for the Illinois Finance Authority loan program for wind farm projects in Illinois

Bryan A. Loomis
Strategic Economic Research, LLC
Vice President

Education

Master of Business Administration (M.B.A.),
Marketing and Healthcare, Belmont University,
Nashville, Tennessee, 2017.

Experience

2019-present Strategic Economic Research, LLC,
Bloomington, IL
Vice President
(2021-present)
Property Tax Analysis and Land Use Director
(2019-2021)

- Directed the property tax analysis by training other associates on the methodology and overseeing the process for over twenty states
- Improved the property tax analysis methodology by researching various state taxing laws and implementing depreciation, taxing jurisdiction millage rates, and other factors into the tax analysis tool
- Executed land use analyses by running Monte Carlo simulations of expected future profits from farming and comparing that to the solar lease
- Performed economic impact modeling using JEDI and IMPLAN tools
- Improved workflow processes by capturing all tasks associated with economic modeling and report-writing, and created automated templates in Asana workplace management software

2019-2021 Viral Healthcare Founders LLC, Nashville, TN
CEO and Founder

- Founded and directed marketing agency for healthcare startups
- Managed three employees
- Mentored and worked with over 30 startups to help them grow their businesses
- Grew an email list to more than 2,000 and LinkedIn following to 3,500
- Created a Slack community and grew to 450 members
- Created weekly video content for distribution on Slack, LinkedIn and Email

Christopher Thankan
Strategic Economic Research, LLC
Economic Analyst

Education

Bachelor of Science in Sustainable & Renewable Energy (B.S.), Minor in Economics, Illinois State University, Normal, IL, 2021

Experience

2021-present Strategic Economic Research, LLC,
Bloomington, IL
Economic Analyst

- Create economic impact results on numerous renewable energy projects Feb 2021-Present
- Utilize IMPLAN multipliers along with NREL's JEDI model for analyses
- Review project cost Excel sheets
- Conduct property tax analysis for different US states
- Research taxation in states outside research portfolio
- Complete ad hoc research requests given by the president
- Hosted a webinar on how to run successful permitting hearings
- Research school funding and the impact of renewable energy on state aid to school districts
- Quality check coworkers JEDI models
- Started more accurate methodology for determining property taxes that became the main process used



by Dr. David G. Loomis,
Bryan Loomis, and Chris Thankan
Strategic Economic Research, LLC
strategieconomic.com
815-905-2750

APPENDIX F — LEASE AGREEMENTS

Changes to note in Lease Documents:

- When George and Pauline Hoffman signed the lease option, the parcel was number 060609300016. This parcel has been retired and replaced with parcel number 060609300019.
- Shirley M. Lucas was the owner of 060605100018 and 060605100001 when the Option Agreement for Easement and Grant of Easement was signed. She sold one tract to Nolan Hoffman and the PINS were changed to 060605100023 (Nolan Hoffman) and 060605100024 (Shirley Lucas). The option runs with the land and covers both new parcels.
- Bank of Pontiac as Trustee of Trust Number 2101 dated July 31, 1990 parcel 060622100001 taxes are being paid by Christine Ann Gravesen.
- Alice Ann Ahlerich is the new owner for parcels 060609100014 and 060609200005 covered under the Option Agreement for Easement and Grant of Easement for Roger J. Tambling, as Successor Trustee under a Declaration of Trust dated the 1st day of September, 1979, known as the Russell J. Tambling Living Trust.
- Bank of Pontiac, as Trustee of Trust Number 2101 dated July 31, 1990, by John Marshall, Trust Christine Ann Gravesen is who is shown paying the taxes. She appears to be the new beneficiary of this Trust.

2021R-06029

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY**

**RECORDED ON:
12/08/2021 01:40:58 PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

RECORDER'S AUTOMATION FEE	12.00
GIS MAINTENANCE FEE	20.00
RHSPS FEE	9.00
RECORDING FEE	17.00
DOC STORAGE FEE	5.00

PAGES: 25

**PREPARED BY AND AFTER
RECORDING RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

**EASEMENT OPTION AND EASEMENT AGREEMENT
(Electrical Transmission and Distribution System)**

This EASEMENT OPTION AND EASEMENT AGREEMENT (Electrical Transmission and Distribution System) (this "**Agreement**") is entered into and made effective as of the 7 day of December, 2021 (the "**Effective Date**"), by and between David M. Arends and Jane K. Arends, husband and wife ("**Grantor**"), whose mailing address is 19601 West 1000 South Road, Reddick, Illinois 60961, and Illinois Generation LLC, a Delaware limited liability company ("**Grantee**"), whose mailing address is 1088 Sansome Street, San Francisco, CA 94111. Grantor and Grantee are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**". *Robert S. (aka) JKT*

WHEREAS, Grantor is the owner of that certain real property situated in Livingston County (the "**County**"), Illinois, being parcel identification number(s) 06-06-24-200-001 and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Property**"); and

WHEREAS, Grantee, as a "Commercial Wind Energy Facility Owner", is interested in installing, constructing, maintaining and operating one or more solar and/or wind and electrical energy generation project(s) and/or power storage project(s) on real property situated adjacent to and/or in the vicinity of the Property (whether one or more, the "**Project**"); and

WHEREAS, Grantee has identified the Property as suitable land within which to install, construct, maintain and operate an electrical energy transmission and distribution system (all as said system is more particularly described and defined in Section 6 below) in connection with any such Project; and

WHEREAS, Grantee desires to acquire the irrevocable, exclusive right and option (but not the obligation) to obtain from Grantor an easement for the purposes of installing, constructing, maintaining and operating such electrical energy transmission and distribution system, including roads and related improvements, upon, over, above, under, across, through and within the Property, and Grantor desires to grant such irrevocable, exclusive right and option to Grantee on the terms set forth herein.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and such compensation and terms as separately negotiated in that certain unrecorded Letter Agreement (the "**Letter Agreement**") by and between Grantor and Grantee of even date hereof, Grantor and Grantee do hereby agree as follows:

1. **Grant of Easement Option; Right-of-Entry.** Grantor hereby grants to Grantee the irrevocable, exclusive right and option (the "**Option**") to have an exclusive easement for electrical energy transmission and distribution purposes upon, over, above, under, across, through and within the Property (the "**Easement**") in connection with any such Project. In addition, Grantor hereby grants to Grantee a license and right-of-entry upon, over, above, under, across, through and within the Property during the Option Term (as defined in Section 2 below) for Grantee and its affiliates and its and their employees, consultants, agents and representatives to access and enter the Property for the purposes of conducting inspections, tests, studies and other activities reasonably related to Grantee's inspection, investigation and assessment of the Property's suitability for Grantee's business purposes.

2. **Option Term.** This Agreement and the Option granted herein shall have an initial term of three (3) years from the Effective Date (the "**Initial Term**"). Grantee shall have the right, in its sole and absolute discretion, to extend the Initial Term for one (1) additional period of two (2) years (the "**Extended Term**"). The Initial Term and, if it occurs, the Extended Term are referred to herein collectively as the "**Option Term**". If and when Grantee extends the Option for the Extended Term, which may occur at any time during the Initial Term, Grantee shall do so by providing Grantor with written notice of such extension (an "**Extension Notice**"). The deadline for providing any Extension Notice shall be 5:00 p.m. Pacific Time on the last day of the Initial Term, and electronic delivery of the Extension Notice shall be sufficient and of full force and effect.

3. **Termination Right.** Notwithstanding any other provision(s) to the contrary that may be contained elsewhere in this Agreement, Grantee shall have the right to terminate, for any reason or for no reason, (i) the Option and this Agreement at any time during the Option Term and/or (ii) the Easement and this Agreement at any time during the Easement Term (as defined in Section 5 below), by giving at least five (5) days' prior written notice to Grantor of such termination.

4. **Exercise of Easement Option; Easement Effective Date.** Grantor hereby grants the Easement to Grantee, but with such Easement becoming effective only if and when Grantee elects to exercise the Option by executing and recording, at Grantee's expense, in the real property and/or official public records of Livingston County, Illinois (the "**Official Records**"), a "Notice of Exercise of Option for Easement" in the form set forth in Exhibit B attached hereto and made a part hereof (the "**Notice of Exercise**"). Grantor and Grantee expressly agree that (i) upon such recording of the Notice of Exercise, the Easement shall automatically be in full force and effect and shall be deemed effective as of the recording date of the Notice of Exercise (the "**Easement Effective Date**"), except that the Option and Option Term shall be deemed to have expired on the Easement Effective Date; and (ii) other than the Notice of Exercise being executed and recorded by Grantee, no documentation or other instrument is required to be entered into or recorded by the Parties in order to give full force and effect to the Easement and all the provisions,

terms and conditions contained in this Agreement (except as to the Option and Option Term). Grantee shall provide a recorded copy of the Notice of Exercise to Grantor.

5. **Easement Term.** The term of the Easement shall be for a period of fifty-three (53) years from and after the Easement Effective Date (the “**Easement Term**”) unless sooner terminated in accordance with Section 3 above or otherwise.

6. **Transmission and Distribution System.**

- a. Grantee shall have the right to, at any time and from time to time during the Easement Term, erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove an electrical energy transmission and distribution system within the Easement Area which will be substantially within the Preliminary projected corridor as depicted on the map attached as **Exhibit D** hereto, consisting of one or more transmission and distribution systems and a variable number of conductors, junction boxes, splice boxes, insulators, wires and cables, guy lines (as necessary, and with consideration to keeping guy lines away from cropland as much as possible), but which shall consist of no more than two(2) monopoles as part of an overhead system to be located within the Easement Area, and only those structures, poles, towers, footings, foundations, pads, anchors, cross arms, above and below ground cable (within the right of way), fiber optic cable, wires and appurtenant equipment and fixtures for communication uses, including for third party use and colocations, roads and related access improvements as necessary for the purposes of adequate and competent construction and operation of such two 2 monopoles, and all fixtures, equipment, appurtenances and devices related to any or all of the foregoing or otherwise necessary or convenient in connection with such electrical energy transmission and distribution system (collectively, the “**Transmission System**”). Notwithstanding the foregoing, Grantor affirms and agrees that, in the event that 3000 N Road, adjacent to the Property, is vacated by the applicable governmental jurisdictions, Grantee may adjust the Easement Area as depicted on **Exhibit D** so as to enable Grantee to place structures within twenty (20) feet of the edge of the thirty-three (33) foot township right of way in existence as of the Effective Date of this Agreement (and which may be vacated in the future), and in all events Grantee shall construct the Transmission System as far north on the Property as commercially reasonable. The construction and removal of the Transmission System shall be in accordance with the requirements of that certain Agricultural Impact Mitigation Agreement dated June 26, 2019, by and between Grantee, the Commercial Wind Energy Facility owner and the State of Illinois Department of Agricultural, (the “**AIMA**”) which is incorporated herein fully by reference and as though fully set forth as part of this Agreement. The AIMA refers to a “Commercial Wind Energy Facility” in its definitions but it is agreed to by the Parties hereto to include this Agreement’s specific Transmission System on the Easement Area described herein.
- b. Prior to the construction of the Transmission System, Grantee will use its commercially reasonable efforts to meet with Grantor to define the precise location of the Transmission System within the Preliminary projected corridor as noted in **Exhibit D** (“**Proposed Locations**”). Grantee agrees to listen and give due consideration to Grantee’s comments and/or concerns with regard to the Proposed Locations and its interaction with Grantor’s current use of the Property, and Grantee shall use commercially reasonable efforts to address such comments and/or concerns; provided that doing so will not increase the costs

to Grantee of designing, constructing or operating the Transmission System. The location of the Transmission System within the Property shall be determined by Grantee in its sole and absolute discretion, and, once the location of the Easement Area (as defined in Section 7 below) is established in accordance with Section 7 below, any later installed or constructed components of the Transmission System shall be located within the Easement Area (except as permitted otherwise in Section 8 below). Grantee shall have rights to lateral and subjacent support for the Transmission System, and Grantor's excavation activities are expressly made subject to the provisions of Section 13 below. Grantor shall be allowed to continue using Grantor's Property, and the Easement Area (as hereinafter defined) for the purposes of general farming, so long as such farming does not interfere with the Transmission System.

7. **Easement Area.** Within sixty (60) days following Grantee's determination that the construction of the Project and Transmission System has been completed, Grantee shall adjust the Easement area to (i) unless otherwise agreed to, a one hundred fifty foot (150') wide corridor within the Property for any and all aboveground components of the Transmission System, which width shall be measured from the centerline of the as-built transmission line of the Transmission System (and may include underground components within such area) (the "**Easement Area** Grantee agrees to record documentation in the Official Records in order to give constructive notice to third parties of such established location of the Easement Area and to release the remainder of the Property from the Easement and this Agreement (except as permitted otherwise in Section 8 and 9 below) effective upon the recording of such documentation. Grantor and Grantee expressly agree that no documentation or instrument other than the foregoing documentation shall be required in order to establish the location of the Easement Area. Notwithstanding the foregoing, if Grantee wishes to establish the location of the Easement Area if and when it records the Notice of Exercise, Grantee may (but is not obligated to) do so by recording a legal description of the Easement Area together with the Notice of Exercise.

8. **Additional Rights of Grantee.** In addition to the Easement, Grantor hereby grants to Grantee the following rights, each of which shall become effective on the Easement Effective Date:

- a. a temporary construction easement upon, over, above, across, through and within Grantor's property located adjacent to and/or adjoining the Easement Area for a distance of up to twenty-five feet (25') from the boundaries of the Easement Area for Grantee' use during construction of the Transmission System, which shall terminate upon the completion of construction of the Transmission System; and
- b. the right to aerial encroachment over Grantor's property parallel and immediately adjacent to the boundaries of the Easement Area by cross-arms, davit arms, conductors (including blowout or sway and associated clearances), insulators and other associated facilities of the Transmission System, provided same are twenty-five feet (25') above ground level, which shall terminate at the same time as the Easement.

9. **Removal of Obstructions.** Grantee shall have the rights to (i) remove all crops and have Grantor remove all livestock from the Easement Area prior to Grantee's construction; (ii) remove, trim, prune, top or otherwise control the growth of any tree, shrub, plant or other vegetation within the Easement Area during the Easement Term; (iii) excavate, grade, level and otherwise modify the Easement Area in connection with the initial installation of the Transmission System; and (iv) subject to Grantee's repair and reimbursement obligations contained in Section 10 below, remove, modify or otherwise alter anything (including, but not limited to, any improvements, utility lines or other facilities installed or constructed

(whether above or below the surface) that were previously consented to by Grantee under this Agreement, the giving of which consent shall not in any way waive the provisions of this Section 9) that could reasonably be anticipated to obstruct, interfere with or impair the Transmission System or Easement Area or Grantee's access to or use of same to the full extent of its rights granted under this Agreement.

10. **Repair of the Property, and Compensation to Grantor.**

- a. **Drainage Systems and Personal Property.** Grantee shall repair damage to Grantor's roads, drainage tile, irrigation pumps and center pivot irrigation systems, land surface, driveways and fences if and to the extent any such damage is caused by Grantee's activities within the Property (except if, pursuant to this Agreement, Grantee's consent was required for any such items installed or constructed after the Effective Date but Grantor did not obtain Grantee's prior written consent therefor).
- b. **Damages to Grass or Growing Crops.** In the event that Grantee suffers any destruction of, or damage to, its grass or growing crops on the Property due to Grantee's or its contractors' or subcontractors' construction, access, maintenance or decommissioning activities on the Property (each such event in which grass or growing crops are damaged a "**Crop Damaging Event**"), Grantee shall pay Grantor for all damage to, or loss of, such grass or growing crops in an amount equal to the reasonable value of such grass as pasture, or equal to the revenue that the Grantor would have received on the open market for said crops during the growing season during which crops were damaged or destroyed (the "**Crop Damage Payment**"). The Crop Damage Payment shall be made by Grantee within forty-five (45) days after the amount of such payment is determined in accordance with Section 10.b.i and provided to Grantee pursuant to Section 10.b.ii below.
 - i. The amount of such loss for grass shall be based upon (a) the amount of acreage affected and (b) the average rental rate for comparable grass pasture for the period of time that grazing is impaired. The amount of such loss for growing crops shall be determined based upon (a) the amount of acreage affected, (b) the average yield per acre of the crop actually planted or growing on the acreage affected (or for which there are documented plans for such crops to be planted on the acreage affected but which planting could not occur due to construction, access, maintenance or decommissioning activity) at the time the damage occurred, and (c) the market price received for that particular type of crop during the then current growing season.
 - ii. Grantor shall deliver its calculation and supporting evidence of the Crop Damage Payment to Grantee within forty-five (45) days after Grantor notifies Grantee of the Crop Damaging Event or Grantor is made aware of the Crop Damaging Event. Grantee shall also have the right, at its sole cost, to use a third-party surveyor to confirm the amount of acreage affected. Should Grantor fail to timely present such evidence to Grantee, or if Grantee disagrees with the calculation of the amount requested, Grantor and Grantee shall determine the amount of any payment in consultation with the local Farm Service Agency to obtain the average yield per acre and market value of any particular crop during such growing season.

- c. **Compaction.** During the construction, maintenance or decommissioning phases of the Project, in the event that any land within the Property or Easement Area is from time to time compacted as a result of the Grantee's activities with the Property or Easement Area to the extent that the growing of grass for grazing and/or the growing of crops will be negatively affected and diminished beyond the then current season (each, a "**Compaction Determination Date**"), Grantee shall pay to Grantor for such damage caused by compaction. Within forty five (45) days of the overall activities causing the compaction being deemed completed, Grantee shall rip all compacted areas at least eighteen (18) inches deep and then disk the areas at Grantee's cost and make payment to Grantor in accordance with the formula and the times set forth below:
- i. Within thirty (30) business days of the first (1st) anniversary of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to seventy-five percent (75%) of the Crop Damage Payment as defined herein above for the relevant compacted land areas; and
 - ii. Within thirty (30) business days of the second (2nd) anniversary date of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to fifty percent (50%) of the Crop Damage Payment for the relevant compacted land areas; and
 - iii. Within thirty (30) business days of the third (3rd) anniversary date of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to twenty-five percent (25%) of the Crop Damage Payment for the relevant compacted land areas.
- d. Notwithstanding the foregoing, Grantee shall be obligated to pay or reimburse Grantor for any damage to or removal of trees, shrubs, plants or other vegetation resulting from Grantee's activities within the Property excluding the Easement Area.

11. **Participating Landowner.** Grantor affirms that, pursuant to entering into this Agreement, Grantor is participating in the Project and Grantor waives all setbacks that are able to be waived by participating and affected landowners in the Livingston County Ordinances, including without limitation in Sections 56-618(h) and 56-646(f) of the Livingston County Ordinances, which Livingston County Ordinances Grantor has reviewed to the extent such ordinances relate to wind and projects in the County. Further, Grantor affirms that on behalf of itself and its officers, partners, members, directors, managers, employees, agents, successors and assigns, agrees that it will not in any way, directly or indirectly, oppose, or seek to hinder or delay, and will not in any way, directly or indirectly, assist or provide cooperation to others who oppose or seek to hinder or delay: (i) the processing and issuance of entitlements, permits, approvals or other determinations for the development, use, and operation of the Project; (ii) ordinances, permits, approvals or determinations in any way related to the construction of public works, and/or offsite improvements related to the Project; (iii) financial or any other agreements with governing agencies; or (iv) any modification, renewal, extension, or amendment of any of the foregoing. Grantor also agrees to assist Grantee by providing any and all information within their possession on the location of drainage tile on the Property, at the request of Grantor.

12. **Grantee Responsibilities.** During the Easement Term, Grantee shall: (i) comply, in all material respects, with all municipal, state and federal ordinances, rules and statutes applicable to Grantee's operations on and use of the Property or Easement Area; (ii) remove any mechanics' liens

filed against the Property or Easement Area due to labor, services, supplies, equipment or materials purchased by Grantee; and (iii) pay any property taxes attributable to the Transmission System (which tax obligation of Grantee shall include any increase in real property taxes attributable to the presence of improvements on the Easement Area which are owned by, or under the control of, Grantee in the event that the presence of such Transmission System increases the real property tax burden of the Property in any way).

13. **Third Party Property Interests.** Grantor shall not grant to any other party or person (including any affiliate of Grantor) an easement, lease, license, right-of-entry or similar property interest, possessory or otherwise, including any option to acquire any of the foregoing interests (individually and collectively, the “**Property Interests**”), in all or any part of (i) the Property during the Option Term and/or (ii) the Easement Area during the Easement Term, in each instance, without the prior written consent of Grantee. Grantee agrees that the Option, Easement and this Agreement are subject to any Property Interests filed in the Official Records prior to the Effective Date. Grantor shall not sell, convey or otherwise transfer ownership of all or any part of the Property, or any interest in Grantor, to any party (including an affiliate of Grantor) that generates, collects, transmits, distributes or otherwise provides electrical energy, in each instance, without the prior written consent of Grantee.

14. **Non-Interference.** Grantor shall not endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail and/or or delay Grantee’s access to and use of the Property during the Option Term or the Easement Area or Transmission System during the Easement Term. Grantor agrees that, during the Easement Term, it will not (and will not permit others to), without the prior written consent of Grantee, grade, excavate, fill or flood the Property within one hundred feet (100’) of any part of the Transmission System, excluding ordinary and reasonable crop production activities or animal grazing activities, which consent may be withheld in Grantee’s sole and absolute discretion if, in Grantee’s opinion, any such activity within such area may endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail or delay any of Grantee’s rights, privileges or benefits under this Agreement, the Transmission System, Grantee’s access to and use of the Easement Area or Transmission System or Grantee’s rights to lateral and subjacent support for the Transmission System. Grantor shall give written notice to Grantee at least forty-five (45) days prior to the date Grantor intends to commence such work, which notice shall describe in detail Grantor’s plans for such work. If Grantee gives its consent to any such work, then such work shall be conducted and completed in accordance with the terms hereof and good engineering practice and shall meet all requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electric facilities.

15. **Grantor’s Reserved Rights.** Subject to the other provisions of this Agreement (including, but not limited to, the provisions in Section 13 above), Grantor reserves all other rights to the Property that are not inconsistent with Grantee’s rights and interests under this Agreement, except that Grantor shall not locate crops or livestock within the Easement Area after the removal of same during Grantee’s construction activities for the Transmission System. Such reserved rights of Grantor shall include, but shall not necessarily be limited to, the following (all of which in Subsections (b) and (c) below shall be subject to Grantee’s prior written consent and to the provisions of Section 13), all to be maintained by Grantor, at its sole expense:

- (a) the right to retain existing roads, driveways, fences, pipelines and sewer, water, drainage, electrical, telecommunications and fiber optic lines and related improvements and facilities within the Easement Area at their existing locations

as of the Effective Date; provided, however, Grantee shall have the right to remove and relocate any such existing fences, at its expense;

- (b) the right to install and construct new electrical, telecommunications and fiber optic lines and related improvements and facilities (but not new fences (except as provided in Subsection (c) below), roads, driveways, pipelines or sewer, water or drainage lines or related improvements or facilities) within the Easement Area, provided that (i) Grantor repairs and restores (or reimburses Grantee for such repairs and restoration, at Grantee's election) the surface of the Easement Area to the condition in which it existed prior to the installation of such new electrical, telecommunications or fiber optic lines and related improvements and facilities; (ii) all new electrical, telecommunications and fiber optic lines that will cross the Easement Area shall do so at an angle of not less than forty-five degrees (45°), such angle to be measured between the centerline of the Easement Area and the centerline of such new line at the point of crossing; and (iii) all such new lines are installed and constructed in strict compliance with all clearance requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electrical facilities; and
- (c) the right to install and construct new fences within the Easement Area, provided that all such new fences are located parallel to and at least twenty feet (20') from each side of the Transmission System.
- (d) the right to conduct prescribed burns as needed in the Easement Area.

Before exercising any of the foregoing rights reserved in this Section 14, Grantor shall give Grantee at least forty-five (45) days' prior written notice describing in detail Grantor's plans for such work, and Grantee shall have the right to object to such plans. If Grantee objects, then the Parties shall work together, in a reasonable manner, to adjust or modify Grantor's plans, but Grantee's discretionary consent rights under Section 13 shall not be diminished.

16. **Grantor's Mineral, Groundwater and Other Rights.** Grantor holds, possesses, and retains all rights, title and interests in and to the oil, gas, coal and other minerals, sand, gravel, caliche and dirt and groundwater in, on or under the Property. Grantor and/or Grantor's lessees or other third parties shall not be permitted to drill for or remove oil, gas, coal or other minerals, sand, gravel, caliche, dirt or groundwater from or under the Easement Area by direct drilling or by mining or quarrying, but Grantor may extract oil, gas, coal, other minerals and groundwater by directional or horizontal drilling or other means conducted outside the Easement Area, so long as such activities do not interfere with, disturb, hinder, impair, endanger or obstruct (i) the Transmission System or access to and use, construction, installation and operation of same, (ii) the access to and use of the Easement Area or (iii) Grantee's exercise of all of its rights and interests under this Agreement.

17. **Ownership of Improvements.** Grantor agrees that all of the Transmission System installed or placed upon, over, above, under, across and within the Easement Area by Grantee shall be and shall remain the property of Grantee and shall not be deemed part of Grantor's interests in the Easement Area nor be deemed, except for any road within the Easement Area, fixtures to the land. Grantor hereby waives and releases any and all lien rights and other encumbrances, whether afforded to Grantor by statute, common law or otherwise, Grantor may have in and to the Transmission System. Notwithstanding the foregoing, if Grantor requests in writing that Grantee not remove any road constructed by Grantee within

the Easement Area at the end of the Easement Term or earlier termination of this Agreement, then Grantee shall have no obligation to remove such road and it shall thereafter be deemed to be Grantor's property; provided, that, Grantee shall have no liabilities or obligations associated with such road.

18. **Assignment.** Grantee may at any time and from time to time, without the consent of Grantor, sell, assign, transfer, convey, grant a sub-easement, encumber, hypothecate, mortgage, pledge, grant a lien upon and/or security interest in, or otherwise alienate all or any part of its rights, titles and interests in, to, under or relating to this Agreement, the Option, the Easement, the Easement Area and/or the Transmission System. Any assignment, transfer or conveyance (in whole or in part) by Grantee to any other party, whether one or more, that assumes, in writing, the obligations of Grantee hereunder shall operate as an automatic release of Grantee from all liability and such obligations hereunder (and, if a partial assignment, transfer or conveyance, then to the extent of same) from and after the effective date of such assignment, transfer or conveyance. Without limiting the foregoing, Grantor agrees that, upon such automatic release of the assigning Grantee as aforesaid, Grantor shall provide, upon Grantee's request, a written release to evidence same. For avoidance of doubt, a direct or indirect change of control of Grantee is not and shall not be deemed an assignment or transfer and shall not require consent of or notification to Grantor.

19. **Indemnity.** EACH PARTY SHALL INDEMNIFY AND HOLD HARMLESS THE OTHER PARTY, ITS AFFILIATES, AND ITS AND THEIR OFFICERS, DIRECTORS, MANAGERS, MEMBERS, EQUITY HOLDERS, EMPLOYEES, AND AGENTS (ITS "INDEMNITEES") FROM AND AGAINST ANY AND ALL LIABILITIES, LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS AND EXPENSES, INCLUDING COURT COSTS AND REASONABLE ATTORNEYS' FEES (COLLECTIVELY, "CLAIMS") (INCLUDING THOSE THAT RESULT FROM INJURY TO OR DEATH OF PERSONS AND DAMAGE TO PROPERTY) CAUSED BY THE INDEMNIFYING PARTY'S USE OF THE PROPERTY DURING THE OPTION TERM AND THE EASEMENT AREA DURING THE EASEMENT TERM OR OTHERWISE RELATING TO THIS AGREEMENT, BUT ONLY TO THE EXTENT CAUSED BY SUCH INDEMNIFYING PARTY'S (OR ITS INDEMNITEES') BREACH OF THIS AGREEMENT, BREACH OF APPLICABLE LAW, NEGLIGENT ACTS OR OMISSIONS (INCLUDING GROSS NEGLIGENCE) OR WILLFUL OR INTENTIONAL MISCONDUCT. NOTWITHSTANDING THE FOREGOING, THIS SECTION DOES NOT REQUIRE GRANTEE TO INDEMNIFY OR HOLD HARMLESS GRANTOR OR ITS INDEMNITEES AGAINST CLAIMS ARISING OR RESULTING FROM, OR CAUSED BY, ANY ACTS, ACTIVITIES OR OMISSIONS (WHETHER NEGLIGENT OR NON-NEGLIGENT) OF ANY PERSON OR PARTY (OTHER THAN GRANTEE) HAVING A LEASE, EASEMENT, LICENSE, OR OTHER OCCUPANCY OR ENTRY RIGHTS WITHIN THE PROPERTY OR THE EASEMENT AREA OR TRESPASSERS UPON THE PROPERTY OR THE EASEMENT AREA. If either Grantor or Grantee brings any action or proceeding for the enforcement, protection, or establishment of any right or remedy under this Agreement or Letter Agreement or for the interpretation of either this Agreement or the Letter Agreement, the prevailing party in a final judgment shall be entitled to recover its reasonable attorneys' fees and costs in connection with such action or proceeding.

20. **Waiver of Certain Damages.** NEITHER PARTY NOR ITS INDEMNITEES SHALL BE ENTITLED TO, AND EACH PARTY HEREBY WAIVES AND RELEASES ANY AND ALL OF ITS RIGHTS TO, ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, EXEMPLARY AND/OR SIMILAR TYPES OF DAMAGES, WHETHER THE CLAIM MADE UNDER THIS AGREEMENT IS ASSERTED IN CONTRACT, TORT, OR OTHERWISE.

21. **Insurance.** Grantee shall obtain and maintain in force policies of insurance covering Grantee's activities within the Property during the Option Term and Easement Area during the Easement

Term. The policies shall include commercial general liability insurance and, if applicable, workers' compensation and commercial auto liability insurance. Such insurance coverage may be provided as part of a blanket policy that also covers other facilities or properties of Grantee. Grantee agrees to maintain liability insurance covering its activities on the Property and to name Grantor as an additional insured. Such coverage shall have a minimum combined occurrence and annual limitation of five million dollars (\$5,000,000), provided that such amount may be provided as part of a blanket policy covering other properties. Grantee agrees to supply Grantor with such certificates and other evidence of this insurance as Grantor may reasonably request.

22. **Representations and Warranties of Grantor.** Grantor hereby makes the following representations and warranties to Grantee as of the Effective Date and as of the Easement Effective Date:

- (a) Grantor is the sole owner of the fee simple title and interests in and to the Property;
- (b) Grantor is not the subject of any bankruptcy, insolvency or probate proceeding;
- (c) there are no lawsuits, legal actions, legal proceedings, claims, condemnations, eminent domain proceedings or other proceedings pending, proposed, threatened or anticipated with respect to any matter affecting any part of the Property or any of Grantor's rights, title or interests therein;
- (d) all taxes due and payable for the Property have been fully paid;
- (e) there are no tax liens, contractors' liens, mortgage liens, mechanics' liens or other monetary liens against any part of the Property;
- (f) there are no underground tanks, oil or gas wells, or mining operations located within any part of the Property, nor, to the best of Grantor's knowledge, has there been any of the foregoing located within any part of the Property;
- (g) there are no cemeteries or other burial grounds within any part of the Property;
- (h) there is no grazing, farming, hunting or recreational lease, license or right-of-entry (whether written or oral) affecting any part of the Property, except as disclosed on **Exhibit C**, attached hereto, which shall be removed prior to the recording of this Agreement which removal shall not affect the validity of this Agreement;
- (i) Grantor has not and, to the best of Grantor's knowledge, no other party has generated, treated, stored, disposed of or otherwise deposited any hazardous materials in, on, at or under any part of the Property; and
- (j) there are no unrecorded oil, gas, coal, mineral or similar leases affecting any part of the Property, and no drilling or extraction activities is occurring or has occurred in, on, at or under any part of the Property.

23. **Grantor Default.**

- (a) Grantor shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantor receives written notice of such breach from Grantee, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantor receives written notice of such breach from Grantee or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantor's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantor Default**").
- (b) Upon the occurrence of a Grantor Default, Grantee shall have the right to pursue or commence, after Grantee provides Grantor with thirty (30) days prior written notice of Grantee's intent to do same, any actions and remedies that may be available to Grantee at law or in equity, including, but not limited to, curing such Grantor Default, and Grantee shall have the option to either demand reimbursement from Grantor (which shall be paid by Grantor within thirty (30) days after Grantor's receipt of a written demand therefore) for such costs expended or incurred by Grantee to cure the same or to offset the costs expended or incurred by Grantee to cure same against any and all future payments due and payable by Grantee under this Agreement; provided, however, in the event of any breach by Grantor of Sections 13, 14 and/or 15 above, then, notwithstanding the provisions of Subsection (a) above, no cure period shall apply to such breach and no prior notice of any type whatsoever shall be required, and Grantee shall have the right to immediately pursue any and all of its remedies at law or in equity for such breach, as further described in Subsection (c) below.
- (c) Notwithstanding the foregoing or any other provision of this Agreement to the contrary, the Parties agree that (i) Grantee would be irreparably harmed by a breach by Grantor of the provisions of this Agreement, (ii) an award of damages would be inadequate to remedy such a breach and (iii) Grantee shall be entitled to seek immediate equitable relief, including, but not limited to, specific performance and/or injunctive relief, to compel Grantor's compliance with the provisions of this Agreement.

24. **Grantee Default.**

- (a) Grantee shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantee receives written notice of such breach from Grantor, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantee receives written notice of such breach from Grantor or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantee's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantee Default**").
- (b) The occurrence of any Grantee Default shall entitle Grantor to such rights and remedies as may be available to Grantor under applicable law or equity, except

that in the case of a non-monetary Grantee Default, Grantor hereby waives any and all rights it may have, at law or in equity, to terminate (whether in full or in part) this Agreement or to terminate, rescind, cancel or revoke Grantee's right to exercise the Option as set forth in this Agreement.

- (c) In the event of any Grantee Default, Grantor shall, at least thirty (30) days prior to commencing any cause of action or other legal proceeding for same, give written notice to Grantee of Grantor's intent to commence such action or proceeding. Grantor may elect to cure any Grantee Default after Grantee's cure period has expired, and Grantee shall reimburse Grantor, within thirty (30) days after Grantee's receipt of a written demand therefor, the costs expended or incurred by Grantor to cure same.

25. **Non-Waiver.** Except as either Party may waive in writing, the failure of either Party at any time to exercise any of its rights under this Agreement shall not be construed as a waiver or abandonment of such rights or any other right hereunder, and such Party may thereafter at any time and from time to time exercise any or all of its rights.

26. **Notices.** Except for any Extension Notice delivered by electronic means, all written notices and demands of any kind which either Party may be required or may desire to serve upon the other Party in connection with this Agreement may be served by (i) personal service, (ii) registered or certified U.S. mail or (iii) next day overnight delivery service via a federally recognized overnight courier service such as UPS or Federal Express. Any such notice or demand shall be addressed to the other Party at the mailing address(es) for such Party listed below. Service of any such written notice or demand shall be deemed complete (i) upon receipt in the event of personal service, (ii) on the second (2nd) business day after it is sent via registered or certified U.S. mail, and (iii) on the next business day if sent via an overnight delivery service. All such written notices and demands sent via registered or certified U.S. mail or overnight delivery service shall be sent postage, pre-paid by the sender in order for it to be considered in compliance with this Section 25.

To Grantor:

David M. Arends and Jane K. Arends

19601 West 1000 South Road

Reddick, Illinois 60961

Attention: David M. Arends

Telephone: _____

Email: _____

Box 53 (DMA) JKT

To Grantee:

Illinois Generation LLC

1088 Sansome Street

San Francisco, California 94111

Attention: General Counsel

With a copy, which shall not constitute notice, to:
generalcounsel@patternenergy.com

Any Party, by written notice to the other Party, may change its mailing address(es), provided that the other Party shall not be bound by any such different address(es) unless and until it receives same.

27. **Cooperation with and Acceptance of Project.**

- a. Grantor will cooperate with, and shall not in any way, directly or indirectly, oppose Grantee's efforts to obtain any permit, approval or consent necessary or useful in connection with the Easement, the Transmission System or any other aspect of the Project. Grantor and Grantee intend to and shall cooperate with each other and take such other actions as may be reasonably necessary, prudent or desirable to carry out the intents and purposes of this Agreement and to fulfill the obligations of the respective Parties hereunder (at no out-of-pocket costs to Grantor), including, but not limited to, obtaining and/or executing additional documents or taking further actions that may be reasonably requested by any of Grantee's lenders, investors or title company and/or that may be necessary, prudent or desirable to give full effect to the Option, the Easement and/or this Agreement.
- b. Grantor hereby grants to Grantee a non-exclusive easement over and across the Grantor's Property and any adjacent property owned by Grantor but not subject to this instrument for any audio, visual, view, light, shadow, noise, flicker, vibration, air turbulence, wake, electromagnetic or other effect of any kind or nature whatsoever resulting, directly or indirectly, from the (a) construction, operations or activities of the Project, or (b) the Transmission Facilities of the Project now or hereafter located on the Property, and waives any and all claims and actions related to the same. Grantor agrees to consult with and obtain Grantee's prior written approval, in Grantee's sole discretion, as to the location of all new structures greater than forty-five (45) feet in height proposed for Grantor's Property.
- c. Grantor hereby grants to Grantee the right to test television signal strength and reception at any residence existing as of the Effective Date hereof, on Grantor's Property before and at reasonable intervals after Grantee builds the Project. In the unlikely event that the existence or operation of the Project significantly interferes with or degrades television signal reception at any existing residence on Grantor's Property, Grantee shall, at its expense and with the full cooperation of Grantor, promptly investigate and within a reasonable time correct any degradation of television signal reception actually caused by such Project. Correction measures may include, in Grantee's sole discretion, installation of television signal boosters serving the general area of the Project, installation of antenna or signal booster equipment on Grantor's Property, installation of and payment for cable, dish TV or similar devices serving Grantor's Property, or repair or replacement of television receivers.
- d. Grantee recognizes that Grantor, due to the Property's proximity to gravel roads or construction areas, may be inconvenienced by construction noise and dust. Additionally, construction traffic in some areas may inconvenience Grantor or require Grantor to travel by unaccustomed routes to avoid construction traffic. Grantor acknowledges Grantee has informed Grantor of the potential impacts of construction and agrees the compensation provided in this instrument is adequate for the impacts described.

28. **Counterparts; Governing Law.** This instrument may be executed in separate and multiple counterparts, each of which shall be an original, but all of which, when taken together, shall constitute one and the same instrument. This instrument shall be governed by internal laws of the State of Illinois, without regard to any conflicts of law principles.

29. **Binding Agreement.** The terms and provisions in this instrument shall inure to the benefit of and be binding upon Grantor and Grantee and their respective successors and assigns, except to the extent any Grantee may be released from this Agreement pursuant to the assignment and release provisions in Section 16.

30. **Runs with the Land.** Each of the Option, Easement and this Agreement touches and concerns the land and shall be real rights and covenants running with the land.

31. **Recording.** Grantee, at its expense, shall have a right to record this instrument or a similar memorandum thereof in the Official Records and, if recorded, will provide Grantor with a recorded copy.

32. **Municipal Officer.** Grantor represents and warrants that Grantor is not a Municipal Officer (defined herein) of the county or any municipality in which the Property is located. “**Municipal Officer**” means any officer or employee of any such county or municipality, whether paid or unpaid, and includes, without limitation, members of any office, board, body, advisory board, council, commission, agency, department, district, administration, division, bureau or committee of any such county or municipality whose official duties involve discretionary decision-making with respect to the Grantee’s Energy Development (defined herein). “**Energy Development**” means any stage of present or future development or siting of energy developments, wind turbines, solar panels and other solar and/or wind equipment, power and related facilities or energy projects, whether considered, planned, attempted or completed, including but not limited to permitting, licensing construction and energy production. Municipal Officer also includes any entity that is directly or indirectly controlled by, or is under common control with, such officer or employee. However, Municipal Officer shall not include: (a) a judge, justice, officer or employee of the local court system; (b) a volunteer firefighter or civil defense volunteer, except a fire chief or assistant fire chief; or (c) a member of an advisory board of the county or municipality if, but only if, the advisory board has no authority to implement its recommendations or to act on behalf of the county or municipality or to restrict authority of the municipality to act. Grantor further represents and warrants that Grantor is not a Relative (defined herein) of a Municipal Officer. “**Relative**” shall mean a spouse or domestic partner of the Municipal Officer, or a person claimed as a dependent on the Municipal Officer’s latest individual state income tax return. If Grantor is a Municipal Officer, Grantor agrees to recuse itself from participating in any vote or other discretionary decision-making action with respect to Grantee’s Energy Development. Grantor agrees to promptly notify Grantee in writing if at any time it becomes or any Relative becomes a Municipal Officer. Grantor agrees to indemnify Grantee against any loss, liability or damages, including attorneys’ fees, directly or indirectly resulting from any misrepresentation by Grantor or failure by Grantor to notify Grantee as set forth above under this Section.

33. **Certain Costs and Expenses.** Each Party shall be responsible and liable for its own costs and expenses (including, but not limited to, any legal, accounting, brokerage and consultant fees) in connection with the negotiation of this Agreement and all other matters related to this Agreement, except as expressly and specifically provided in Section 18 of this Agreement and as that set forth in the Letter Agreement entered into between the Parties.

34. **Severability.** If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

35. **No Waiver.** The failure of any Party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights, or elections, or in any way affect the validity of this Agreement. The failure of any Party to enforce any of such provisions, rights, or elections will not prejudice such Party from later enforcing or exercising the same or any other provisions, rights, or elections which it may have under this Agreement.

36. **Legal Review.** Each Party acknowledges that it has been afforded sufficient time to review and to understand the terms and effects of this Agreement and to submit it to legal counsel of its choosing for review and advice. Each Party represents that the agreements and obligations in this Agreement are made voluntarily, knowingly and without duress.

37. **Time is of the Essence.** Time is of the essence in this Agreement.

38. **CRP Contracts.** As of the Effective Date, no portion of the Property is subject to any contract in connection with the Conservation Reserve Program (“CRP Contract”) created by Subtitle B - Conservation Reserve of the Farm Security and Rural Investment Act of 2002, as amending Subchapter B of chapter 1 of subtitle D of title XII of the Food Security Act of 1985 or, to the extent that any portion of the Property is subject to any CRP Contract, Grantor has noted such CRP Contract on **Exhibit C** to this Agreement and provided a copy of the same to Grantee. With respect to any CRP Contracts listed on **Exhibit C**, Grantee shall be responsible for any payments due to the United States Department of Agriculture due to a reduction of the amount of acreage in the CRP related directly to Grantee's activities on the Easement Area. Any payments due under the terms of this **Section 39** shall be paid by Grantee within thirty (30) days upon Grantee's receipt of any notification received by Grantor from the Farm Service Agency or successor governmental agency.

39. **Arbitration.**

- a. If a dispute arises between Grantor and Grantee arising out of or relating to this Agreement, the aggrieved Party shall provide written notification of the dispute to the other Party. A meeting shall be held promptly between the Parties, attended by a representative of the Parties with decision-making authority regarding the dispute, to attempt in good faith to negotiate a resolution of the dispute. If, within twenty-one (21) days after such meeting, the Parties have not succeeded in negotiating a resolution of the dispute, either Party may refer the dispute to final and binding arbitration pursuant to **Section 39(b)**, which shall be the sole legally binding forum available to the Parties for resolution of disputes hereunder.
- b. If either Party submits a dispute to binding arbitration pursuant to **Section 39(a)**, the arbitration shall be conducted before a single neutral arbitrator or, if the Parties are unable to agree upon the choice of a single arbitrator then three arbitrators, one chosen by the Grantee and one chosen by Grantor and the third selected by the two arbitrators so chosen. The arbitration shall be conducted in accordance with the Commercial Arbitration Rules

of the American Arbitration Association pursuant to its applicable rules and procedures, subject further to the qualification that the arbitrator(s) named shall be competent by virtue of education and experience in the particular subject matter. The arbitrator shall have no authority to add to, detract from, or alter in any way the provisions of this Agreement, but shall have jurisdiction and authority only to interpret or determine compliance with the provisions of this Agreement insofar as shall be necessary for the determination of issues appealed to the arbitrator.

- c. Notwithstanding anything to the contrary, either Party may apply to a court for interim measures or other equitable relief (including specific performance) (a) prior to the selection of the arbitrator (and thereafter as necessary to enforce the arbitrator's rulings); or (b) in the absence of the jurisdiction or power of the arbitrator in a given jurisdiction to rule on or grant interim measures or other equitable relief (including specific performance) that may be sought. The Parties agree that seeking and obtaining such interim measures or other equitable relief shall not waive the right to arbitration. In addition, to the maximum extent permitted by applicable law, the Parties hereby authorize and empower the arbitrator to grant interim measures, including injunctions, attachments, and conservation orders, and all other remedies permitted by this Agreement, including specific performance and other equitable relief (which, without limitation, may be part of the final arbitral decision or award), in appropriate circumstances; these interim measures and other remedies may be immediately enforced by court order.

40. **Attorney Fees.** In the event of any litigation or other legal proceeding or arbitration for the interpretation or enforcement of this Agreement, or for damages for a default hereunder, or which in any manner relates to this Agreement, or the Easements granted hereunder, including the Easement on the Property, the prevailing party shall be entitled to recover from the other party an amount equal to its actual, reasonable and verifiable out-of-pocket expenses, costs and attorneys' fees incurred in connection therewith.

[Signature page follows this page]

EXECUTED AND MADE EFFECTIVE as of the Effective Date.

GRANTOR:

David M. Arends
David M. Arends

STATE OF ILLINOIS

COUNTY OF WINNEBAGO

This instrument was acknowledged before me on the 15TH day of NOVEMBER, 2021, by David M. Arends,

[NOTARY SEAL]

Sandra J. Stevens
Notary Public
My commission expires: 5/17/2025



Jane K. Arends
Jane K. Arends

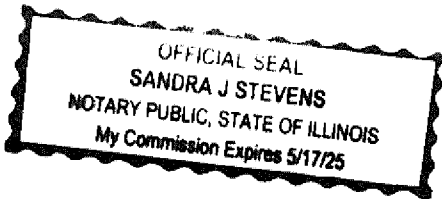
STATE OF ILLINOIS

COUNTY OF WINNEBAGO

This instrument was acknowledged before me on the 15TH day of NOVEMBER, 2021, by Jane K. Arends,

[NOTARY SEAL]

Sandra J. Stevens
Notary Public
My commission expires: 5/17/2025



GRANTEE:

Illinois Generation LLC

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

STATE OF Texas
COUNTY OF Harris

This instrument was acknowledged before me on the 7 day of December, 2021, by Blake Rasmussen, as Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Emily McClary Davis
Notary Public
My commission expires: 3-15-2025

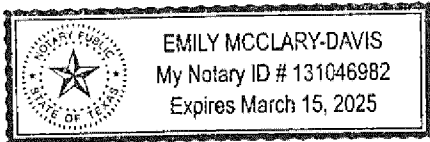


EXHIBIT A
to Easement Option and Easement Agreement
(Electrical Energy Transmission and Distribution System)

Legal Description

The Northeast Quarter of Section 24, and that part of the Northwest Quarter of Section 24 located Southeast of the Dredge Ditch in the Southeast corner of said Quarter Section, all in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois.

PIN: 06-06-24-200-001: Farm Land: 165.5 acres, more or less.

Common Address: Round Grove Township: 29753 North 3600 East Road, Reddick, Illinois 60961.

EXHIBIT B
to Easement Option and Easement Agreement
(Electrical Energy Transmission and Distribution System)

Form of Notice of Exercise of Option for Easement

**PREPARED BY AND AFTER
RECORDING, RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

NOTICE OF EXERCISE OF OPTION FOR EASEMENT
(Electrical Energy Transmission and Distribution System)

This NOTICE OF EXERCISE OF OPTION FOR EASEMENT (Electrical Energy Transmission and Distribution System) (this "Notice of Exercise") is given this ____ day of _____, 20__ (the "Easement Effective Date"), by **Illinois Generation LLC**, a Delaware limited liability company ("Grantee"), whose mailing address is 1088 Sansome Street, San Francisco, California 94111, Attention: General Counsel.

WHEREAS, Grantee and _____, a _____ ("Grantor"), entered into that certain Easement Option and Easement Agreement (Electrical Energy Transmission and Distribution System) dated effective _____, 20__ (the "Agreement") and recorded on _____, 20__, in the real property and/or official records of _____ County, Illinois (the "Official Records"), as Document No. _____.

WHEREAS, the Agreement pertains to that certain real property described in the Agreement and in **Exhibit A** attached hereto, being parcel identification number(s) _____, and provides, among other things, that upon Grantee or its successors or assigns executing and recording this Notice of Exercise in the Official Records, the Easement and all terms, conditions, obligations, rights and provisions in the Agreement pertaining to the Easement and all other matters therein shall be in full force and effect for all purposes as of the Easement Effective Date (except that the Option and Option Term shall be deemed expired as of the Easement Effective Date), including, but not limited to, Grantee's rights to erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove, at any time and from time to time, the Transmission System within the Property until the Easement Area has been established therein and, once established, within said Easement Area for the remainder of the Easement Term.

NOW, THEREFORE, pursuant to and in accordance with the Agreement and Grantee's rights thereunder, Grantee hereby exercises the Option granted in the Agreement by filing this Notice of Exercise in the Official Records and, by such action and in accordance the provisions contained in the Agreement,

the Easement and all terms, conditions, obligations, rights and provisions contained in the Agreement, are in full force and effect for all purposes as of the Easement Effective Date, except that the Option and Option Term are deemed to be expired as of the Easement Effective Date.

This Notice of Exercise touches and concerns the land and shall be a real right and covenant running with the land.

Each capitalized terms used but not defined herein shall have the same meaning given to such term in the Agreement.

[Signature and acknowledgment page follows this page]

IN WITNESS WHEREOF, Grantee has executed this Notice of Exercise to be effective as of the Easement Effective Date.

GRANTEE:

ILLINOIS GENERATION LLC, a Delaware limited liability company

By: _____
Name: _____
Title: _____

STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 20____, by _____, as _____ of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Notary Public
My commission expires: _____

EXHIBIT A
to Notice of Exercise of Option for Easement
(Electrical Energy Transmission and Distribution System)

Legal Description

[To be inserted at the time the Notice of Exercise is filed if the easement area has been established; if not yet established, then it will be the legal description for the Property]

PIN:

Commonly Known As:

EXHIBIT D

Easement Area Map

[See attached]

Exhibit "D"

Livingston County, Illinois



PRELIMINARY

Projection:

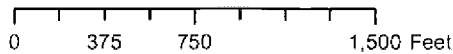
Coordinate System: NAD 1983 StatePlane Illinois East FIPS 1201 Feet
 Projection: Transverse Mercator
 Datum: North American 1983
 False Easting: 984,250.0000
 False Northing: 0.0000
 Central Meridian: -89.33333
 Scale Factor: 1.0000
 Latitude Of Origin: 36.66667
 Units: Foot US

1:9,000



Date: 11/15/2021

1 inch = 750 feet



Disclaimer Language:

For information and discussion purposes only. All measurements and distances on this Preliminary sketch are approximations, subject to final survey and engineering. Prior to recording of the Grant of Easement, this sketch will be replaced with a final survey plat labeled as "Exhibit B" to the Grant of Easement.

This map may not be a certified survey and has not been reviewed by a local government agency for compliance with any applicable land development regulations and has not been reviewed for compliance with recording requirements for plats.

Legend

- Property Boundary
- 200' Corridor
- 150' Transmission Line ROW



Landowner: David M. & Jane K. Arends

Tract No(s): 0624200001

2022R-02622

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY**

**RECORDED ON:
06/08/2022 11:54:55 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

RECORDER'S AUTOMATION FEE	12.00
GIS MAINTENANCE FEE	20.00
RHSPS FEE	9.00
RECORDING FEE	17.00
DOC STORAGE FEE	5.00

PAGES: 22

**PREPARED BY AND AFTER
RECORDING RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

**EASEMENT OPTION AND EASEMENT AGREEMENT
(Underground Electrical Transmission and Distribution System)**

This EASEMENT OPTION AND EASEMENT AGREEMENT (Underground Electrical Transmission and Distribution System) (this "Agreement") is entered into and made effective as of the 7 day of June, 2022 (the "Effective Date"), by and between **Edward W. O'Neill Trust dated September 16, 2020 ("Grantor")**, whose mailing address is 29205 North 3000 East Road, Dwight, Illinois 60420, and Illinois Generation LLC, a Delaware limited liability company ("**Grantee**"), whose mailing address is 1088 Sansome Street, San Francisco, CA 94111. Grantor and Grantee are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

WHEREAS, Grantor is the owner of that certain real property situated in Livingston County (the "**County**"), Illinois, being parcel identification number(s) 05-05-13-400-002 and 05-05-13-400-003 and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Property**"); and

WHEREAS, Grantee is interested in installing, constructing, maintaining and operating one or more solar and/or wind and electrical energy generation project(s) and/or power storage project(s) on real property situated adjacent to and/or in the vicinity of the Property (whether one or more, the "**Project**"); and

WHEREAS, Grantee has identified the Property as suitable land within which to install, construct, maintain and operate an underground electrical energy transmission and distribution system (all as said

system is more particularly described and defined in Section 6 below) in connection with any such Project; and

WHEREAS, Grantee desires to acquire the irrevocable, exclusive right and option (but not the obligation) to obtain from Grantor an easement for the purposes of installing, constructing, maintaining and operating such underground electrical energy transmission and distribution system under, across, through and within the Property, and Grantor desires to grant such irrevocable, exclusive right and option to Grantee on the terms set forth herein.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee do hereby agree as follows:

1. **Grant of Easement Option; Right-of-Entry.** Grantor hereby grants to Grantee the irrevocable, exclusive right and option (the “**Option**”) to have an exclusive easement for underground electrical energy transmission and distribution purposes under, across, through and within the Property (the “**Easement**”) in connection with any such Project. In addition, Grantor hereby grants to Grantee a license and right-of-entry upon, over, above, under, across, through and within the Property during the Option Term (as defined in Section 2 below) for Grantee and its affiliates and its and their employees, consultants, agents and representatives to access and enter the Property for the purposes of conducting inspections, tests, studies and other activities reasonably related to Grantee’s inspection, investigation and assessment of the Property’s suitability for Grantee’s business purposes.

2. **Option Term.** This Agreement and the Option granted herein shall have an initial term of three (3) years from the Effective Date (the “**Initial Term**”). Grantee shall have the right, in its sole and absolute discretion, to extend the Initial Term for one (1) additional period of two (2) years (the “**Extended Term**”). The Initial Term and, if it occurs, the Extended Term are referred to herein collectively as the “**Option Term**”. If and when Grantee extends the Option for the Extended Term, which may occur at any time during the Initial Term, Grantee shall do so by providing Grantor with written notice of such extension (an “**Extension Notice**”). The deadline for providing any Extension Notice shall be 5:00 p.m. Pacific Time on the last day of the Initial Term, and electronic delivery of the Extension Notice shall be sufficient and of full force and effect.

3. **Termination Right.** Notwithstanding any other provision(s) to the contrary that may be contained elsewhere in this Agreement, Grantee shall have the right to terminate, for any reason or for no reason, (i) the Option and this Agreement at any time during the Option Term and/or (ii) the Easement and this Agreement at any time during the Easement Term (as defined in Section 5 below), by giving at least five (5) days’ prior written notice to Grantor of such termination.

4. **Exercise of Easement Option; Easement Effective Date.** Grantor hereby grants the Easement to Grantee, but with such Easement becoming effective only if and when Grantee elects to exercise the Option by executing and recording, at Grantee’s expense, in the real property and/or official public records of Livingston County, Illinois (the “**Official Records**”), a “Notice of Exercise of Option for Easement” in the form set forth in Exhibit B attached hereto and made a part hereof (the “**Notice of Exercise**”). Grantor and Grantee expressly agree that (i) upon such recording of the Notice of Exercise, the Easement shall automatically be in full force and effect and shall be deemed effective as of the recording date of the Notice of Exercise (the “**Easement Effective Date**”), except that the Option and Option Term shall be deemed to have expired on the Easement Effective Date; and (ii) other than the Notice of Exercise being executed and recorded by Grantee, no documentation or other instrument is required to be entered

into or recorded by the Parties in order to give full force and effect to the Easement and all the provisions, terms and conditions contained in this Agreement (except as to the Option and Option Term). Grantee shall provide a recorded copy of the Notice of Exercise to Grantor.

5. **Easement Term.** The term of the Easement shall be for a period of fifty-three (53) years from and after the Easement Effective Date (the “**Easement Term**”) unless sooner terminated in accordance with Section 3 above or otherwise.

6. **Transmission and Distribution System.**

- a. Grantee shall have the right to, at any time and from time to time during the Easement Term, erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove an underground electrical energy transmission and distribution system within the Property consisting of one or more transmission and distribution systems and a variable number of conductors, junction boxes, splice boxes, insulators, wires and cables, and all fixtures, equipment, appurtenances and devices related to any or all of the foregoing or otherwise necessary or convenient in connection with such underground electrical energy transmission and distribution system, including below ground cable, fiber optic cable, and wires and appurtenant equipment and fixtures for communication uses, including for third-party use and colocation, and roads and related improvements and appurtenances to access any or all of the foregoing (collectively, the “**Transmission System**”). Notwithstanding anything to the contrary herein, express or implied, in no event shall Grantee drive a crane on or across the Property.
- b. Prior to the construction of the Transmission System, Grantee will use its commercially reasonable efforts to meet with Grantor to discuss the proposed locations of any portions of the Transmission System on the Property (“**Proposed Locations**”). Grantee agrees to listen and give due consideration to Grantor’s comments and/or concerns with regard to the Proposed Locations and its interaction with Grantor’s current use of the Property, and Grantee shall use commercially reasonable efforts to address such comments and/or concerns; provided that doing so will not increase the costs to Grantee of designing, constructing or operating the Transmission System. The location of the Transmission System within the Property shall be determined by Grantee in its sole and absolute discretion, and, once the location of the Easement Area (as defined in Section 7 below) is established in accordance with Section 7 below, any later installed or constructed components of the Transmission System shall be located within the Easement Area (except as permitted otherwise in Section 8 below). Grantee shall have rights to lateral and subjacent support for the Transmission System, and Grantor’s excavation activities are expressly made subject to the provisions of Section 13 below. Grantor shall be allowed to continue using Grantor’s Property, and the Easement Area (as hereinafter defined) for the purposes of general farming, so long as such farming does not interfere with the Transmission System.

7. **Easement Area.** Within sixty (60) days following Grantee’s determination that the construction of the Project and Transmission System has been completed, Grantee shall adjust the Easement area to a seventy-five foot (75’) wide corridor within the Property, which width shall be measured from the centerline of the as-built transmission line of the Transmission System (the “**Easement Area**”). Grantee agrees to record documentation in the Official Records in order to give constructive notice to third parties

of such established location of the Easement Area and to release the remainder of the Property from the Easement and this Agreement (except as permitted otherwise in Section 8 and 9 below) effective upon the recording of such documentation. Grantor and Grantee expressly agree that no documentation or instrument other than the foregoing documentation shall be required in order to establish the location of the Easement Area. Notwithstanding the foregoing, if Grantee wishes to establish the location of the Easement Area if and when it records the Notice of Exercise, Grantee may (but is not obligated to) do so by recording a legal description of the Easement Area together with the Notice of Exercise.

8. **Additional Rights of Grantee.** In addition to the Easement, Grantor hereby grants to Grantee the following rights, each of which shall become effective on the Easement Effective Date a temporary construction easement upon, over, above, across, through and within Grantor's property located adjacent to and/or adjoining the Easement Area for a distance of up to twenty-five feet (25') from the boundaries of the Easement Area for Grantee's use during construction of the Transmission System, which shall terminate upon the completion of construction of the Transmission System.

9. **Removal of Obstructions.** Grantee shall have the rights to (i) remove all crops and have Grantor remove all livestock from the Easement Area prior to Grantee's construction; (ii) remove any tree, shrub, plant or other vegetation within the Easement Area during the Easement Term; (iii) excavate, grade, level and otherwise modify the Property or, if established, the Easement Area in connection with the initial installation of the Transmission System; and (iv) subject to Grantee's repair and reimbursement obligations contained in Section 10 below, remove, modify or otherwise alter anything (including, but not limited to, any improvements, utility lines or other facilities installed or constructed (whether above or below the surface) that were previously consented to by Grantee under this Agreement, the giving of which consent shall not in any way waive the provisions of this Section 9) that could reasonably be anticipated to obstruct, interfere with or impair the Transmission System or Easement Area or Grantee's access to or use of same to the full extent of its rights granted under this Agreement.

10. **Repair of the Property, and Compensation to Grantor.**

- a. **Drainage Systems and Personal Property.** Grantee shall repair damage to Grantor's roads, drainage tile, irrigation pumps and center pivot irrigation systems, land surface, driveways and fences if and to the extent any such damage is caused by Grantee's activities within the Property (except if, pursuant to this Agreement, Grantee's consent was required for any such items installed or constructed after the Effective Date but Grantor did not obtain Grantee's prior written consent therefor).
- b. **Damages to Grass or Growing Crops.** In the event that Grantee suffers any destruction of, or damage to, its grass or growing crops on the Property due to Grantee's or its contractors' or subcontractors' construction, access, maintenance or decommissioning activities on the Property (each such event in which grass or growing crops are damaged a "**Crop Damaging Event**"), Grantee shall pay Grantor for all damage to, or loss of, such grass or growing crops in an amount equal to the reasonable value of such grass as pasture, or equal to the revenue that the Grantor would have received on the open market for said crops during the growing season during which crops were damaged or destroyed (the "**Crop Damage Payment**"). The Crop Damage Payment shall be made by Grantee within ninety (90) days after the amount of such payment is determined in accordance with Section 10.b.i and provided to Grantee pursuant to Section 10.b.ii below.

- i. The amount of such loss for grass shall be based upon (a) the amount of acreage affected and (b) the average rental rate for comparable grass pasture for the period of time that grazing is impaired. The amount of such loss for growing crops shall be determined based upon (a) the amount of acreage affected, (b) the average yield per acre of the crop on the real estate impacted based on actual soil quality and the crop actually planted or growing on the acreage affected (or for which there are documented plans for such crops to be planted on the acreage affected but which planting could not occur due to construction, access, maintenance or decommissioning activity) at the time the damage occurred, and (c) the market price received for that particular type of crop during the then current growing season.
 - ii. Grantor shall deliver its calculation and supporting evidence of the Crop Damage Payment to Grantee within forty-five (45) days after Grantor notifies Grantee of the Crop Damaging Event or Grantor is made aware of the Crop Damaging Event. Grantee shall also have the right, at its sole cost, to use a third-party surveyor to confirm the amount of acreage affected. Should Grantor fail to timely present such evidence to Grantee, or if Grantee disagrees with the calculation of the amount requested, Grantor and Grantee shall determine the amount of any payment in consultation with the local Farm Service Agency to obtain the average yield per acre and market value of any particular crop during such growing season.
 - iii. **“Market Price”** for purposes of calculating the crop damage shall be based on the crop’s future price for December delivery during the year that crop damages occur, and will be the closing price of that year’s December futures quoted on the 15th of the month in which damages occur as posted by Chicago Board of Trade, or if unavailable another publicly available information source.
 - iv. **“Average yield”** shall be based on the average yield for the latest 3 years of that crop planted in the tract on which the damage occurred, or of that crop planted in the County on comparable productive farm ground located in the County, as published by the University of Illinois through Farmdoc (www.farmdoc.uiuc.edu), or if unavailable, another publicly available information source of average yields in the County
- c. Compaction of Land. During the construction, maintenance or decommissioning phases of the Project, in the event that any land located within the Property is from time to time compacted as a result of Grantee’s activities within the Property to the extent that the growing of grass for grazing and/or the growing of crops will be negatively affected and diminished beyond the then current season (each, a **“Compaction Determination Date”**), Grantee shall pay Grantor for such damage caused by compaction. Grantee acknowledges that compaction can cause permanent, long-term damage, and will commercially reasonable efforts to avoid and limit the amount of real estate impacted by activities that could cause compaction. As and for example, if it is necessary to operate vehicles on the property, the vehicles will stay as nearly as possible on the same identifiable path of travel to avoid compaction over multiple paths and will limit the number of trips to that which is reasonably necessary. Additionally, Grantee will take steps to avoid trafficking wet soil

and will decrease contact pressure by using flotation tires, doubles, and tracks. Within ninety (90) days of the overall activities causing the compaction being deemed completed, Grantee shall consult with Grantor to determine the scope and type of tillage required, and allow Grantee the opportunity to inspect the compacted areas to determine if a compacted pan is present and at what depth. Grantee agrees that at a minimum, at Grantor's request, it shall rip all compacted areas at least eighteen (18) inches deep and then disk the areas at Grantee's cost and make payment to Grantor in accordance with the formula and at the times set forth below:

- i. Within thirty (30) business days of the first (1st) anniversary of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to seventy-five percent (75%) of the Crop Damage Payment for the relevant compacted land areas; and
- ii. Within thirty (30) business days of the second (2nd) anniversary date of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to fifty percent (50%) of the Crop Damage Payment for the relevant compacted land areas.
- iii. Within thirty (30) business days of the third (3rd), fourth (4th), and (5th) anniversary date of the Compaction Determination Date, Grantee shall pay Grantor a compaction damages payment equal to twenty-five percent (25%) of the Crop Damage Payment for the relevant compacted land areas.

d. Other than the foregoing, Grantee shall not be obligated to pay or reimburse Grantor for any damage to or removal of trees, shrubs, plants or other vegetation resulting from Grantee's activities within the Property.

e. In Grantee's construction on the Property, Grantee shall use the double ditching method of topsoil removal in order to protect the black dirt on the Property.

11. **Participating Landowner.** Owner affirms that, pursuant to entering into this Easement Agreement, Owner is participating in the Project and Owner waives all setbacks that are able to be waived by participating and affected landowners in the Livingston County Ordinances, including without limitation in Sections 56-618(h) and 56-646(f) of the Livingston County Ordinances, which Livingston County Ordinances Owner has reviewed to the extent such ordinances relate to wind and projects in the County. Further, Grantor affirms that on behalf of itself and its officers, partners, members, directors, managers, employees, agents, successors and assigns, agrees that it will not in any way, directly or indirectly, oppose, or seek to hinder or delay, and will not in any way, directly or indirectly, assist or provide cooperation to others who oppose or seek to hinder or delay: (i) the processing and issuance of entitlements, permits, approvals or other determinations for the development, use, and operation of the Project; (ii) ordinances, permits, approvals or determinations in any way related to the construction of public works, and/or offsite improvements related to the Project; (iii) financial or any other agreements with governing agencies; or (iv) any modification, renewal, extension, or amendment of any of the foregoing. Grantor also agrees to assist

Grantee by providing any and all information within their possession on the location of drainage tile on the Property, at the request of Grantor.

12. **Grantee Responsibilities.** During the Easement Term, Grantee shall: (i) comply, in all material respects, with all municipal, state and federal ordinances, rules and statutes applicable to Grantee's operations on and use of the Property or Easement Area; (ii) remove any mechanics' liens filed against the Property or Easement Area due to labor, services, supplies, equipment or materials purchased by Grantee; and (iii) pay any property taxes attributable to the Transmission System.

13. **Third Party Property Interests.** Grantor shall not grant to any other party or person (including any affiliate of Grantor) an easement, lease, license, right-of-entry or similar property interest, possessory or otherwise, including any option to acquire any of the foregoing interests (individually and collectively, the "**Property Interests**"), in all or any part of (i) the Property during the Option Term and/or (ii) the Easement Area during the Easement Term, in each instance, without the prior written consent of Grantee. Grantee agrees that the Option, Easement and this Agreement are subject to any Property Interests filed in the Official Records prior to the Effective Date. Grantee shall not sell, convey or otherwise transfer ownership of all or any part of the Property, or any interest in Grantor, to any party (including an affiliate of Grantor) that generates, collects, transmits, distributes or otherwise provides electrical energy, in each instance, without the prior written consent of Grantee.

14. **Non-Interference.** Grantor shall not endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail and/or or delay Grantee's access to and use of the Property during the Option Term or the Easement Area or Transmission System during the Easement Term. Grantor agrees that, during the Easement Term, it will not (and will not permit others to), without the prior written consent of Grantee, grade, excavate, fill or flood the Property within one hundred feet (100') of any part of the Transmission System, which consent may be withheld in Grantee's sole and absolute discretion if, in Grantee's opinion, any such activity within such area may endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail or delay any of Grantee's rights, privileges or benefits under this Agreement, the Transmission System, Grantee's access to and use of the Easement Area or Transmission System or Grantee's rights to lateral and subjacent support for the Transmission System. Grantor shall give written notice to Grantee at least forty-five (45) days prior to the date Grantor intends to commence such work, which notice shall describe in detail Grantor's plans for such work. If Grantee gives its consent to any such work, then such work shall be conducted and completed in accordance with the terms hereof and good engineering practice and shall meet all requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electric facilities.

15. **Grantor's Reserved Rights.** Subject to the other provisions of this Agreement (including, but not limited to, the provisions in Section 13 above), Grantor reserves all other rights to the Property that are not inconsistent with Grantee's rights and interests under this Agreement, except that Grantor shall not locate crops or livestock within the Easement Area after the removal of same during Grantee's construction activities for the Transmission System. Such reserved rights of Grantor shall include, but shall not necessarily be limited to, the following (all of which in Subsections (b) and (c) below shall be subject to Grantee's prior written consent and to the provisions of Section 13), all to be maintained by Grantor, at its sole expense:

- (a) the right to retain existing roads, driveways, fences, pipelines and sewer, water, drainage, electrical, telecommunications and fiber optic lines and related improvements and facilities within the Easement Area at their existing locations as of the Effective Date; provided,

however, Grantee shall have the right to remove and relocate any such existing fences, at its expense;

(b) the right to install and construct new electrical, telecommunications and fiber optic lines and related improvements and facilities (but not new fences (except as provided in Subsection (c) below), roads, driveways, pipelines or sewer, water or drainage lines or related improvements or facilities) within the Easement Area, provided that (i) Grantor repairs and restores (or reimburses Grantee for such repairs and restoration, at Grantee's election) the surface of the Easement Area to the condition in which it existed prior to the installation of such new electrical, telecommunications or fiber optic lines and related improvements and facilities; (ii) all new electrical, telecommunications and fiber optic lines that will cross the Easement Area shall do so at an angle of not less than forty-five degrees (45°), such angle to be measured between the centerline of the Easement Area and the centerline of such new line at the point of crossing; and (iii) all such new lines are installed and constructed in strict compliance with all clearance requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electrical facilities; and

(c) the right to install and construct new fences within the Easement Area, provided that all such new fences are located parallel to and at least twenty feet (20') from each side of the Transmission System.

Before exercising any of the foregoing rights reserved in this Section 14, Grantor shall give Grantee at least forty-five (45) days' prior written notice describing in detail Grantor's plans for such work, and Grantee shall have the right to object to such plans. If Grantee objects, then the Parties shall work together, in a reasonable manner, to adjust or modify Grantor's plans, but Grantee's discretionary consent rights under Section 13 shall not be diminished.

16. **Grantor's Mineral, Groundwater and Other Rights.** Grantor holds, possesses, and retains all rights, title and interests in and to the oil, gas, coal and other minerals, sand, gravel, caliche and dirt and groundwater in, on or under the Property, subject only to those matters of record. Grantor and/or Grantor's lessees or other third parties shall not be permitted to drill for or remove oil, gas, coal or other minerals, sand, gravel, caliche, dirt or groundwater from or under the Easement Area by direct drilling or by mining or quarrying, but Grantor may extract oil, gas, coal, other minerals and groundwater by directional or horizontal drilling or other means conducted outside the Easement Area, so long as such activities do not interfere with, disturb, hinder, impair, endanger or obstruct (i) the Transmission System or access to and use, construction, installation and operation of same, (ii) the access to and use of the Easement Area or (iii) Grantee's exercise of all of its rights and interests under this Agreement.

17. **Ownership of Improvements.** Grantor agrees that all of the Transmission System installed or placed under, across and within the Easement Area by Grantee shall be and shall remain the property of Grantee and shall not be deemed part of Grantor's interests in the Easement Area nor be deemed, except for any road within the Easement Area, fixtures to the land. Grantor hereby waives and releases any and all lien rights and other encumbrances, whether afforded to Grantor by statute, common law or otherwise, Grantor may have in and to the Transmission System. Notwithstanding the foregoing, if Grantor requests in writing that Grantee not remove any road constructed by Grantee within the Easement Area at the end of the Easement Term or earlier termination of this Agreement, then Grantee shall have no obligation to remove such road and it shall thereafter be deemed to be Grantor's property; provided, that, Grantee shall have no liabilities or obligations associated with such road.

18. **Assignment.** Grantee may at any time and from time to time, without the consent of Grantor, sell, assign, transfer, convey, grant a sub-easement, encumber, hypothecate, mortgage, pledge, grant a lien upon and/or security interest in, or otherwise alienate all or any part of its rights, titles and interests in, to, under or relating to this Agreement, the Option, the Easement, the Easement Area and/or the Transmission System. Any assignment, transfer or conveyance (in whole or in part) by Grantee to any other party, whether one or more, that assumes, in writing, the obligations of Grantee hereunder shall operate as an automatic release of Grantee from all liability and such obligations hereunder (and, if a partial assignment, transfer or conveyance, then to the extent of same) from and after the effective date of such assignment, transfer or conveyance. Without limiting the foregoing, Grantor agrees that, upon such automatic release of the assigning Grantee as aforesaid, Grantor shall provide, upon Grantee's request, a written release to evidence same. For avoidance of doubt, a direct or indirect change of control of Grantee is not and shall not be deemed an assignment or transfer and shall not require consent of or notification to Grantor.

19. **Indemnity.** EACH PARTY SHALL INDEMNIFY AND HOLD HARMLESS THE OTHER PARTY, ITS AFFILIATES, AND ITS AND THEIR OFFICERS, DIRECTORS, MANAGERS, MEMBERS, EQUITY HOLDERS, EMPLOYEES, AND AGENTS (ITS "INDEMNITEES") FROM AND AGAINST ANY AND ALL LIABILITIES, LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS AND EXPENSES, INCLUDING COURT COSTS AND REASONABLE ATTORNEYS' FEES (COLLECTIVELY, "CLAIMS") (INCLUDING THOSE THAT RESULT FROM INJURY TO OR DEATH OF PERSONS AND DAMAGE TO PROPERTY) CAUSED BY THE INDEMNIFYING PARTY'S USE OF THE PROPERTY DURING THE OPTION TERM AND THE EASEMENT AREA DURING THE EASEMENT TERM OR OTHERWISE RELATING TO THIS AGREEMENT, BUT ONLY TO THE EXTENT CAUSED BY SUCH INDEMNIFYING PARTY'S (OR ITS INDEMNITEES') BREACH OF THIS AGREEMENT, BREACH OF APPLICABLE LAW, NEGLIGENT ACTS OR OMISSIONS (INCLUDING GROSS NEGLIGENCE) OR WILLFUL OR INTENTIONAL MISCONDUCT. NOTWITHSTANDING THE FOREGOING, THIS SECTION DOES NOT REQUIRE EITHER PARTY TO INDEMNIFY OR HOLD HARMLESS THE OTHER PARTY OR ITS INDEMNITEES AGAINST CLAIMS ARISING OR RESULTING FROM, OR CAUSED BY, ANY ACTS, ACTIVITIES OR OMISSIONS (WHETHER NEGLIGENT OR NON-NEGLIGENT) OF ANY PERSON OR PARTY (OTHER THAN GRANTEE) HAVING A LEASE, EASEMENT, LICENSE, OR OTHER OCCUPANCY OR ENTRY RIGHTS WITHIN THE PROPERTY OR THE EASEMENT AREA OR TRESPASSERS UPON THE PROPERTY OR THE EASEMENT AREA, UNLESS SUCH PERSON OR PARTY IS UNDER THE SUPERVISION OF OR DOING THE BIDDING OF SUCH INDEMNIFYING PARTY.

20. **Waiver of Certain Damages.** NEITHER PARTY NOR ITS INDEMNITEES SHALL BE ENTITLED TO, AND EACH PARTY HEREBY WAIVES AND RELEASES ANY AND ALL OF ITS RIGHTS TO, ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, EXEMPLARY AND/OR SIMILAR TYPES OF DAMAGES, WHETHER THE CLAIM MADE UNDER THIS AGREEMENT IS ASSERTED IN CONTRACT, TORT, OR OTHERWISE.

21. **Waiver of Jury Trial.** EACH PARTY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY WITH RESPECT TO ANY LITIGATION BASED ON, ARISING OUT OF, UNDER, RELATING TO OR IN CONNECTION WITH THIS AGREEMENT.

22. **Insurance.** Grantee shall obtain and maintain in force policies of insurance covering Grantee's activities within the Property during the Option Term and Easement Area during the Easement Term. The policies shall include commercial general liability insurance and, if applicable, workers' compensation and commercial auto liability insurance. Such insurance coverage may be provided as part of a blanket policy that also covers other facilities or properties of Grantee.

23. **Representations and Warranties of Grantor.** Grantor hereby makes the following representations and warranties to Grantee as of the Effective Date and as of the Easement Effective Date:

(a) Grantor is the sole owner of the fee simple title and interests in and to the Property, subject only to those matters of record;

(b) Grantor is not the subject of any bankruptcy, insolvency or probate proceeding;

(c) there are no lawsuits, legal actions, legal proceedings, claims, condemnations, eminent domain proceedings or other proceedings pending, proposed, threatened or anticipated with respect to any matter affecting any part of the Property or any of Grantor's rights, title or interests therein;

(d) all taxes due and payable for the Property have been fully paid;

(e) there are no tax liens, contractors' liens, mortgage liens, mechanics' liens or other monetary liens against any part of the Property;

(f) there are no underground tanks, oil or gas wells, or mining operations located within any part of the Property, nor, to the best of Grantor's knowledge, has there been any of the foregoing located within any part of the Property;

(g) there are no cemeteries or other burial grounds within any part of the Property;

(h) there is no grazing, farming, hunting or recreational lease, license or right-of-entry (whether written or oral) affecting any part of the Property, except as disclosed on **Exhibit C**, attached hereto, which shall be removed prior to the recording of this Agreement which removal shall not affect the validity of this Agreement;

(i) Grantor has not and, to the best of Grantor's knowledge, no other party has generated, treated, stored, disposed of or otherwise deposited any hazardous materials in, on, at or under any part of the Property; and

(j) there are no unrecorded oil, gas, coal, mineral or similar leases affecting any part of the Property, and no drilling or extraction activities is occurring or has occurred in, on, at or under any part of the Property.

24. **Grantor Default.**

(a) Grantor shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantor receives written

notice of such breach from Grantee, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantor receives written notice of such breach from Grantee or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantor's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "Grantor Default").

(b) Upon the occurrence of a Grantor Default, Grantee shall have the right to pursue or commence, after Grantee provides Grantor with thirty (30) days prior written notice of Grantee's intent to do same, any actions and remedies that may be available to Grantee at law or in equity, including, but not limited to, curing such Grantor Default, and Grantee shall have the option to either demand reimbursement from Grantor (which shall be paid by Grantor within thirty (30) days after Grantor's receipt of a written demand therefore) for such costs expended or incurred by Grantee to cure the same or to offset the costs expended or incurred by Grantee to cure same against any and all future payments due and payable by Grantee under this Agreement; provided, however, in the event of any breach by Grantor of Sections 13, 14 and/or 15 above, then, notwithstanding the provisions of Subsection (a) above, no cure period shall apply to such breach and no prior notice of any type whatsoever shall be required, and Grantee shall have the right to immediately pursue any and all of its remedies at law or in equity for such breach, as further described in Subsection (c) below.

(c) Notwithstanding the foregoing or any other provision of this Agreement to the contrary, the Parties agree that (i) Grantee would be irreparably harmed by a breach by Grantor of the provisions of this Agreement, (ii) an award of damages would be inadequate to remedy such a breach and (iii) Grantee shall be entitled to seek immediate equitable relief, including, but not limited to, specific performance and/or injunctive relief, to compel Grantor's compliance with the provisions of this Agreement.

25. **Grantee Default.**

(a) Grantee shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantee receives written notice of such breach from Grantor, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantee receives written notice of such breach from Grantor or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantee's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "Grantee Default").

(b) The occurrence of any Grantee Default shall entitle Grantor to such rights and remedies as may be available to Grantor under applicable law or equity, except that in the case of a non-monetary Grantee Default, Grantor hereby waives any and all rights it may have, at law or in equity, to terminate (whether in full or in part) this Agreement or to terminate, rescind, cancel or revoke Grantee's right to exercise the Option as set forth in this Agreement.

(c) In the event of any Grantee Default, Grantor shall, at least thirty (30) days prior to commencing any cause of action or other legal proceeding for same, give written notice to Grantee of Grantor's intent to commence such action or proceeding. Grantor may elect to cure any Grantee Default after Grantee's cure period has expired, and Grantee shall reimburse Grantor, within thirty

(30) days after Grantee's receipt of a written demand therefor, the costs expended or incurred by Grantor to cure same, including reasonable attorney fees and costs.

26. **Non-Waiver.** Except as either Party may waive in writing, the failure of either Party at any time to exercise any of its rights under this Agreement shall not be construed as a waiver or abandonment of such rights or any other right hereunder, and such Party may thereafter at any time and from time to time exercise any or all of its rights.

27. **Notices.** Except for any Extension Notice delivered by electronic means, all written notices and demands of any kind which either Party may be required or may desire to serve upon the other Party in connection with this Agreement may be served by (i) personal service, (ii) registered or certified U.S. mail or (iii) next day overnight delivery service via a federally recognized overnight courier service such as UPS or Federal Express. Any such notice or demand shall be addressed to the other Party at the mailing address(es) for such Party listed below. Service of any such written notice or demand shall be deemed complete (i) upon receipt in the event of personal service, (ii) on the second (2nd) business day after it is sent via registered or certified U.S. mail, and (iii) on the next business day if sent via an overnight delivery service. All such written notices and demands sent via registered or certified U.S. mail or overnight delivery service shall be sent postage, pre-paid by the sender in order for it to be considered in compliance with this **Section 25.**

To Grantor: Edward W. O'Neill Trust dated September 16, 2020
29205 North 3000 East Road
Dwight, Illinois 60420
Attention: Edward W. O'Neill
Telephone: 815-848-1271
Email: _____
cc: aaron@fellheimerlawfirm.com

To Grantee: Illinois Generation LLC
1088 Sansome Street
San Francisco, California 94111
Attention: General Counsel

With a copy, which shall not constitute notice, to:
generalcounsel@patternenergy.com

Any Party, by written notice to the other Party, may change its mailing address(es), provided that the other Party shall not be bound by any such different address(es) unless and until it receives same.

28. **Cooperation with and Acceptance of Project.**

a.

Grantor will cooperate with, and shall not in any way, directly or indirectly, oppose Grantee's efforts to obtain any permit, approval or consent necessary or useful in connection with the Easement, the Transmission System or any other aspect of the Project. Grantor and Grantee intend to and shall cooperate with each other and take such other actions as may be reasonably necessary, prudent or desirable to carry out the intents and purposes of this Agreement and to fulfill the obligations of the respective Parties hereunder (at no out-of-pocket costs to Grantor), including, but not limited to, obtaining and/or

executing additional documents or taking further actions that may be reasonably requested by any of Grantee's lenders, investors or title company and/or that may be necessary, prudent or desirable to give full effect to the Option, the Easement and/or this Agreement.

- b. Grantor hereby grants to Grantee a non-exclusive easement over and across the Grantor's Property and any adjacent property owned by Grantor but not subject to this instrument for any audio, visual, view, light, shadow, noise, flicker, vibration, air turbulence, wake, electromagnetic or other effect of any kind or nature whatsoever resulting, directly or indirectly, from the (a) construction, operations or activities of the Project, or (b) the Transmission Facilities of the Project now or hereafter located on the Property, and waives any and all claims and actions related to the same. Grantor agrees to consult with and obtain Grantee's prior written approval, in Grantee's sole discretion, as to the location of all new structures greater than forty-five (45) feet in height proposed for Grantor's Property.
- c. Grantor hereby grants to Grantee the right to test television signal strength and reception at any residence existing as of the Effective Date hereof, on Grantor's Property before and at reasonable intervals after Grantee builds the Project. In the unlikely event that the existence or operation of the Project significantly interferes with or degrades television signal reception at any existing residence on Grantor's Property, Grantee shall, at its expense and with the full cooperation of Grantor, promptly investigate and within a reasonable time correct any degradation of television signal reception actually caused by such Project. Correction measures may include, in Grantee's sole discretion, installation of television signal boosters serving the general area of the Project, installation of antenna or signal booster equipment on Grantor's Property, installation of and payment for cable, dish TV or similar devices serving Grantor's Property, or repair or replacement of television receivers.
- d. Grantee recognizes that Grantor, due to the Property's proximity to gravel roads or construction areas, may be inconvenienced by construction noise and dust. Additionally, construction traffic in some areas may inconvenience Grantor or require Grantor to travel by unaccustomed routes to avoid construction traffic. Grantor acknowledges Grantee has informed Grantor of the potential impacts of construction and agrees the compensation provided in this instrument is adequate for the impacts described.

29. **Counterparts; Governing Law.** This instrument may be executed in separate and multiple counterparts, each of which shall be an original, but all of which, when taken together, shall constitute one and the same instrument. This instrument shall be governed by internal laws of the State of Illinois, without regard to any conflicts of law principles.

30. **Binding Agreement.** The terms and provisions in this instrument shall inure to the benefit of and be binding upon Grantor and Grantee and their respective successors and assigns, except to the extent any Grantee may be released from this Agreement pursuant to the assignment and release provisions in Section 16.

31. **Runs with the Land.** Each of the Option, Easement and this Agreement touches and concerns the land and shall be real rights and covenants running with the land.

32. **Recording.** Grantee, at its expense, shall have a right to record this instrument or a similar memorandum thereof in the Official Records and, if recorded, will provide Grantor with a recorded copy.

33. **Municipal Officer.** Grantor represents and warrants that Grantor is not a Municipal Officer (defined herein) of the county or any municipality in which the Property is located. “**Municipal Officer**” means any officer or employee of any such county or municipality, whether paid or unpaid, and includes, without limitation, members of any office, board, body, advisory board, council, commission, agency, department, district, administration, division, bureau or committee of any such county or municipality whose official duties involve discretionary decision-making with respect to the Grantee’s Energy Development (defined herein). “**Energy Development**” means any stage of present or future development or siting of energy developments, wind turbines, solar panels and other solar and/or wind equipment, power and related facilities or energy projects, whether considered, planned, attempted or completed, including but not limited to permitting, licensing construction and energy production. Municipal Officer also includes any entity that is directly or indirectly controlled by, or is under common control with, such officer or employee. However, Municipal Officer shall not include: (a) a judge, justice, officer or employee of the local court system; (b) a volunteer firefighter or civil defense volunteer, except a fire chief or assistant fire chief; or (c) a member of an advisory board of the county or municipality if, but only if, the advisory board has no authority to implement its recommendations or to act on behalf of the county or municipality or to restrict authority of the municipality to act. Grantor further represents and warrants that Grantor is not a Relative (defined herein) of a Municipal Officer. “**Relative**” shall mean a spouse or domestic partner of the Municipal Officer, or a person claimed as a dependent on the Municipal Officer’s latest individual state income tax return. If Grantor is a Municipal Officer, Grantor agrees to recuse itself from participating in any vote or other discretionary decision-making action with respect to Grantee’s Energy Development. Grantor agrees to promptly notify Grantee in writing if at any time it becomes or any Relative becomes a Municipal Officer. Grantor agrees to indemnify Grantee against any loss, liability or damages, including attorneys’ fees, directly or indirectly resulting from any misrepresentation by Grantor or failure by Grantor to notify Grantee as set forth above under this Section.

34. **Certain Costs and Expenses.** Each Party shall be responsible and liable for its own costs and expenses (including, but not limited to, any legal, accounting, brokerage and consultant fees) in connection with the negotiation of this Agreement and all other matters related to this Agreement, except as expressly and specifically provided in Section 18 of this Agreement.

35. **Severability.** If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

36. **No Waiver.** The failure of any Party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights, or elections, or in any way affect the validity of this Agreement. The failure of any Party to enforce any of such provisions, rights, or elections will not prejudice such Party from later enforcing or exercising the same or any other provisions, rights, or elections which it may have under this Agreement.

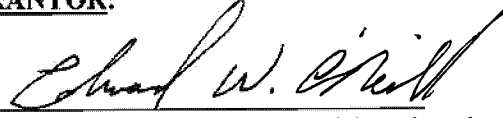
37. **Legal Review.** Each Party acknowledges that it has been afforded sufficient time to review and to understand the terms and effects of this Agreement and to submit it to legal counsel of its choosing for review and advice. Each Party represents that the agreements and obligations in this Agreement are made voluntarily, knowingly and without duress.

38. **Time is of the Essence.** Time is of the essence in this Agreement.

[Signature page follows this page]

EXECUTED AND MADE EFFECTIVE as of the Effective Date.

GRANTOR:



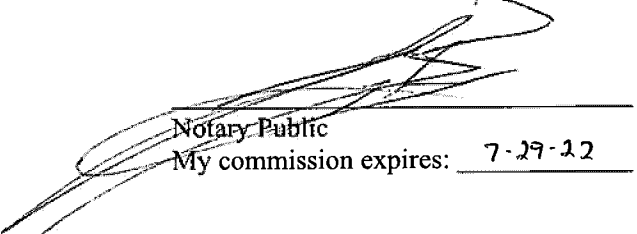
Edward W. O'Neill as Trustee of the Edward W. O'Neill Trust dated September 16, 2020

STATE OF Illinois

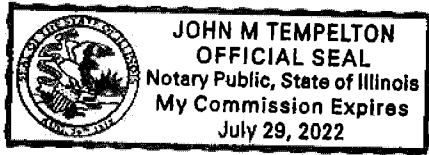
COUNTY OF Livingston

This instrument was acknowledged before me on the 14 day of May, 2022, by Edward W. O'Neill as Trustee of the Edward W. O'Neill Trust dated September 16, 2020.

[NOTARY SEAL]



Notary Public
My commission expires: 7-29-22



GRANTEE:

Illinois Generation LLC

By: _____

Name: Blake Rasmussen

Title: Authorized Signatory

STATE OF Texas

COUNTY OF Harris

This instrument was acknowledged before me on the 7 day of June, 2022 by Blake Rasmussen, as Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Emily McClary-Davis
Notary Public
My commission expires: 3-15-2025

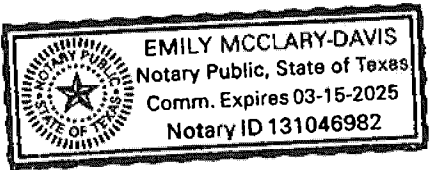


EXHIBIT A
to Easement Option and Easement Agreement
(Underground Electrical Energy Transmission and Distribution System)

Legal Description

Tract 1:

The West 40.44 acres in the Southeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois.

PIN: 05-05-13-400-002: Farm Land: 40.44 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The East 119 acres in the Southeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois.

PIN: 05-05-13-400-003: Farm Land: 119 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 159.44 acres, more or less.

EXHIBIT B
to Easement Option and Easement Agreement
(Underground Electrical Energy Transmission and Distribution System)

Form of Notice of Exercise of Option for Easement

**PREPARED BY AND AFTER
RECORDING, RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

NOTICE OF EXERCISE OF OPTION FOR EASEMENT
(Underground Electrical Energy Transmission and Distribution System)

This NOTICE OF EXERCISE OF OPTION FOR EASEMENT (Underground Electrical Energy Transmission and Distribution System) (this “**Notice of Exercise**”) is given this ____ day of _____, 20__ (the “**Easement Effective Date**”), by **Illinois Generation LLC**, a Delaware limited liability company (“**Grantee**”), whose mailing address is 1088 Sansome Street, San Francisco, California 94111, Attention: General Counsel.

WHEREAS, Grantee and _____, a _____ (“**Grantor**”), entered into that certain Easement Option and Easement Agreement (Electrical Energy Transmission and Distribution System) dated effective _____, 20__ (the “**Agreement**”) and recorded on _____, 20__, in the real property and/or official records of _____ County, Illinois (the “**Official Records**”), as Document No. _____.

WHEREAS, the Agreement pertains to that certain real property described in the Agreement and in **Exhibit A** attached hereto, being parcel identification number(s) _____, and provides, among other things, that upon Grantee or its successors or assigns executing and recording this Notice of Exercise in the Official Records, the Easement and all terms, conditions, obligations, rights and provisions in the Agreement pertaining to the Easement and all other matters therein shall be in full force and effect for all purposes as of the Easement Effective Date (except that the Option and Option Term shall be deemed expired as of the Easement Effective Date), including, but not limited to, Grantee’s rights to erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove, at any time and from time to time, the Transmission System within the Property until the Easement Area has been established therein and, once established, within said Easement Area for the remainder of the Easement Term.

NOW, THEREFORE, pursuant to and in accordance with the Agreement and Grantee’s rights thereunder, Grantee hereby exercises the Option granted in the Agreement by filing this Notice of Exercise in the Official Records and, by such action and in accordance the provisions contained in the Agreement,

the Easement and all terms, conditions, obligations, rights and provisions contained in the Agreement, are in full force and effect for all purposes as of the Easement Effective Date, except that the Option and Option Term are deemed to be expired as of the Easement Effective Date.

This Notice of Exercise touches and concerns the land and shall be a real right and covenant running with the land.

Each capitalized terms used but not defined herein shall have the same meaning given to such term in the Agreement.

[Signature and acknowledgment page follows this page]

IN WITNESS WHEREOF, Grantee has executed this Notice of Exercise to be effective as of the Easement Effective Date.

GRANTEE:

ILLINOIS GENERATION LLC, a Delaware limited liability company

By: _____
Name: _____
Title: _____

STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 20____, by _____, as _____ of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Notary Public
My commission expires: _____

EXHIBIT A
to Notice of Exercise of Option for Easement
(Underground Electrical Energy Transmission and Distribution System)

Legal Description

[To be inserted at the time the Notice of Exercise is filed if the easement area has been established; if not yet established, then it will be the legal description for the Property]

2021R-03528

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
07/15/2021 11:07:12AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PAGES: 22

**PREPARED BY AND AFTER
RECORDING RETURN TO:**
Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

**EASEMENT OPTION AND EASEMENT AGREEMENT
(Underground Electrical Transmission and Distribution System)**

This EASEMENT OPTION AND EASEMENT AGREEMENT (Underground Electrical Transmission and Distribution System) (this "Agreement") is entered into and made effective as of the 13 day of July, 2021 (the "Effective Date"), by and between Keith F. Kelly, Robert W. Kelly and Rick L. Kelly ("Grantor"), whose mailing address is 32198 East 3100 North Road, Dwight, Illinois 60420, and Illinois Generation LLC, a Delaware limited liability company ("Grantee"), whose mailing address is 1088 Sansome Street, San Francisco, CA 94111. Grantor and Grantee are sometimes referred to herein individually as a "Party" and collectively as the "Parties".

WHEREAS, Grantor is the owner of that certain real property situated in Livingston County (the "County"), Illinois, being parcel identification number(s) 06-06-16-100-001 and being more particularly described in Exhibit A attached hereto and made a part hereof (the "Property"); and

WHEREAS, Grantee is interested in installing, constructing, maintaining and operating one or more solar and/or wind and electrical energy generation project(s) and/or power storage project(s) on real property situated adjacent to and/or in the vicinity of the Property (whether one or more, the "Project"); and

WHEREAS, Grantee has identified the Property as suitable land within which to install, construct, maintain and operate an underground electrical energy transmission and distribution system (all as said system is more particularly described and defined in Section 6 below) in connection with any such Project; and

WHEREAS, Grantee desires to acquire the irrevocable, exclusive right and option (but not the obligation) to obtain from Grantor an easement for the purposes of installing, constructing, maintaining and operating such underground electrical energy transmission and distribution system, including roads and related improvements, upon, over, above, under, across, through and within the Property, and Grantor desires to grant such irrevocable, exclusive right and option to Grantee on the terms set forth herein.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee do hereby agree as follows:

1. **Grant of Easement Option; Right-of-Entry.** Grantor hereby grants to Grantee the irrevocable, exclusive right and option (the “**Option**”) to have an exclusive easement for underground electrical energy transmission and distribution purposes upon, over, above, under, across, through and within the Property (the “**Easement**”) in connection with any such Project. In addition, Grantor hereby grants to Grantee a license and right-of-entry upon, over, above, under, across, through and within the Property during the Option Term (as defined in Section 2 below) for Grantee and its affiliates and its and their employees, consultants, agents and representatives to access and enter the Property for the purposes of conducting inspections, tests, studies and other activities reasonably related to Grantee’s inspection, investigation and assessment of the Property’s suitability for Grantee’s business purposes.

2. **Option Term.** This Agreement and the Option granted herein shall have an initial term of three (3) years from the Effective Date (the “**Initial Term**”). Grantee shall have the right, in its sole and absolute discretion, to extend the Initial Term for one (1) additional period of two (2) years (the “**Extended Term**”). The Initial Term and, if it occurs, the Extended Term are referred to herein collectively as the “**Option Term**”. If and when Grantee extends the Option for the Extended Term, which may occur at any time during the Initial Term, Grantee shall do so by providing Grantor with written notice of such extension (an “**Extension Notice**”). The deadline for providing any Extension Notice shall be 5:00 p.m. Pacific Time on the last day of the Initial Term, and electronic delivery of the Extension Notice shall be sufficient and of full force and effect.

3. **Termination Right.** Notwithstanding any other provision(s) to the contrary that may be contained elsewhere in this Agreement, Grantee shall have the right to terminate, for any reason or for no reason, (i) the Option and this Agreement at any time during the Option Term and/or (ii) the Easement and this Agreement at any time during the Easement Term (as defined in Section 5 below), by giving at least five (5) days’ prior written notice to Grantor of such termination.

4. **Exercise of Easement Option; Easement Effective Date.** Grantor hereby grants the Easement to Grantee, but with such Easement becoming effective only if and when Grantee elects to exercise the Option by executing and recording, at Grantee’s expense, in the real property and/or official public records of Livingston County, Illinois (the “**Official Records**”), a “Notice of Exercise of Option for Easement” in the form set forth in Exhibit B attached hereto and made a part hereof (the “**Notice of Exercise**”). Grantor and Grantee expressly agree that (i) upon such recording of the Notice of Exercise, the Easement shall automatically be in full force and effect and shall be deemed effective as of the recording date of the Notice of Exercise (the “**Easement Effective Date**”), except that the Option and Option Term shall be deemed to have expired on the Easement Effective Date; and (ii) other than the Notice of Exercise being executed and recorded by Grantee, no documentation or other instrument is required to be entered into or recorded by the Parties in order to give full force and effect to the Easement and all the provisions,

terms and conditions contained in this Agreement (except as to the Option and Option Term). Grantee shall provide a recorded copy of the Notice of Exercise to Grantor.

5. **Easement Term.** The term of the Easement shall be for a period of fifty-three (53) years from and after the Easement Effective Date (the “**Easement Term**”) unless sooner terminated in accordance with Section 3 above or otherwise.

6. **Transmission and Distribution System.**

- a. Grantee shall have the right to, at any time and from time to time during the Easement Term, erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove an underground electrical energy transmission and distribution system within the Property consisting of one or more transmission and distribution systems and a variable number of conductors, junction boxes, splice boxes, insulators, wires and cables, and all fixtures, equipment, appurtenances and devices related to any or all of the foregoing or otherwise necessary or convenient in connection with such underground electrical energy transmission and distribution system, including below ground cable, fiber optic cable, and wires and appurtenant equipment and fixtures for communication uses, including for third-party use and colocation, and roads and related improvements and appurtenances to access any or all of the foregoing (collectively, the “**Transmission System**”).
- b. Prior to the construction of the Transmission System, Grantee will use its commercially reasonable efforts to meet with Grantor to discuss the proposed locations of any portions of the Transmission System on the Property (“**Proposed Locations**”). Grantee agrees to listen and give due consideration to Grantor’s comments and/or concerns with regard to the Proposed Locations and its interaction with Grantor’s current use of the Property, and Grantee shall use commercially reasonable efforts to address such comments and/or concerns; provided that doing so will not increase the costs to Grantee of designing, constructing or operating the Transmission System. The location of the Transmission System within the Property shall be determined by Grantee in its sole and absolute discretion, and, once the location of the Easement Area (as defined in Section 7 below) is established in accordance with Section 7 below, any later installed or constructed components of the Transmission System shall be located within the Easement Area (except as permitted otherwise in Section 8 below). Grantee shall have rights to lateral and subjacent support for the Transmission System, and Grantor’s excavation activities are expressly made subject to the provisions of Section 13 below. Grantor shall be allowed to continue using Grantor’s Property, and the Easement Area (as hereinafter defined) for the purposes of general farming, so long as such farming does not interfere with the Transmission System.

7. **Easement Area.** Within sixty (60) days following Grantee’s determination that the construction of the Project and Transmission System has been completed, Grantee shall adjust the Easement area to a seventy-five foot (75’) wide corridor within the Property, which width shall be measured from the centerline of the as-built transmission line of the Transmission System (the “**Easement Area**”). Grantee agrees to record documentation in the Official Records in order to give constructive notice to third parties of such established location of the Easement Area and to release the remainder of the Property from the Easement and this Agreement (except as permitted otherwise in Section 8 and 9 below) effective upon the recording of such documentation. Grantor and Grantee expressly agree that no documentation or instrument

other than the foregoing documentation shall be required in order to establish the location of the Easement Area. Notwithstanding the foregoing, if Grantee wishes to establish the location of the Easement Area if and when it records the Notice of Exercise, Grantee may (but is not obligated to) do so by recording a legal description of the Easement Area together with the Notice of Exercise.

8. **Additional Rights of Grantee.** In addition to the Easement, Grantor hereby grants to Grantee the following rights, each of which shall become effective on the Easement Effective Date a temporary construction easement upon, over, above, across, through and within Grantor's property located adjacent to and/or adjoining the Easement Area for a distance of up to twenty-five feet (25') from the boundaries of the Easement Area for Grantee' use during construction of the Transmission System, which shall terminate upon the completion of construction of the Transmission System.

9. **Removal of Obstructions.** Grantee shall have the rights to (i) remove all crops and have Grantor remove all livestock from the Easement Area prior to Grantee's construction; (ii) remove any tree, shrub, plant or other vegetation within the Easement Area during the Easement Term; (iii) excavate, grade, level and otherwise modify the Property or, if established, the Easement Area in connection with the initial installation of the Transmission System; and (iv) subject to Grantee's repair and reimbursement obligations contained in Section 10 below, remove, modify or otherwise alter anything (including, but not limited to, any improvements, utility lines or other facilities installed or constructed (whether above or below the surface) that were previously consented to by Grantee under this Agreement, the giving of which consent shall not in any way waive the provisions of this Section 9) that could reasonably be anticipated to obstruct, interfere with or impair the Transmission System or Easement Area or Grantee's access to or use of same to the full extent of its rights granted under this Agreement.

10. **Repair of the Property, and Compensation to Grantor.**

- a. **Drainage Systems and Personal Property.** Grantee shall repair damage to Grantor's roads, drainage tile, irrigation pumps and center pivot irrigation systems, land surface, driveways and fences if and to the extent any such damage is caused by Grantee's activities within the Property (except if, pursuant to this Agreement, Grantee's consent was required for any such items installed or constructed after the Effective Date but Grantor did not obtain Grantee's prior written consent therefor).
- b. **Damages to Grass or Growing Crops.** In the event that Grantee suffers any destruction of, or damage to, its grass or growing crops on the Property due to Grantee's or its contractors' or subcontractors' construction, access, maintenance or decommissioning activities on the Property (each such event in which grass or growing crops are damaged a "**Crop Damaging Event**"), Grantee shall pay Grantor for all damage to, or loss of, such grass or growing crops in an amount equal to the reasonable value of such grass as pasture, or equal to the revenue that the Grantor would have received on the open market for said crops during the growing season during which crops were damaged or destroyed (the "**Crop Damage Payment**"). The Crop Damage Payment shall be made by Grantee within ninety (90) days after the amount of such payment is determined in accordance with Section 10.b.i and provided to Grantee pursuant to Section 10.b.ii below.
 - i. The amount of such loss for grass shall be based upon (a) the amount of acreage affected and (b) the average rental rate for comparable grass pasture for the period of time that grazing is impaired. The amount of such loss for growing crops shall be determined based upon (a) the amount of acreage affected, (b) the average yield

per acre of the crop actually planted or growing on the acreage affected (or for which there are documented plans for such crops to be planted on the acreage affected but which planting could not occur due to construction, access, maintenance or decommissioning activity) at the time the damage occurred, and (c) the market price received for that particular type of crop during the then current growing season.

- ii. Grantor shall deliver its calculation and supporting evidence of the Crop Damage Payment to Grantee within forty-five (45) days after Grantor notifies Grantee of the Crop Damaging Event or Grantor is made aware of the Crop Damaging Event. Grantee shall also have the right, at its sole cost, to use a third-party surveyor to confirm the amount of acreage affected. Should Grantor fail to timely present such evidence to Grantee, or if Grantee disagrees with the calculation of the amount requested, Grantor and Grantee shall determine the amount of any payment in consultation with the local Farm Service Agency to obtain the average yield per acre and market value of any particular crop during such growing season.

c. Notwithstanding the foregoing, Grantee shall not be obligated to pay or reimburse Grantor for any damage to or removal of trees, shrubs, plants or other vegetation resulting from Grantee's activities within the Property.

11. **Participating Landowner.** Owner affirms that, pursuant to entering into this Easement Agreement, Owner is participating in the Project and Owner waives all setbacks that are able to be waived by participating and affected landowners in the Livingston County Ordinances, including without limitation in Sections 56-618(h) and 56-646(f) of the Livingston County Ordinances, which Livingston County Ordinances Owner has reviewed to the extent such ordinances relate to wind and projects in the County. Further, Grantor affirms that on behalf of itself and its officers, partners, members, directors, managers, employees, agents, successors and assigns, agrees that it will not in any way, directly or indirectly, oppose, or seek to hinder or delay, and will not in any way, directly or indirectly, assist or provide cooperation to others who oppose or seek to hinder or delay: (i) the processing and issuance of entitlements, permits, approvals or other determinations for the development, use, and operation of the Project; (ii) ordinances, permits, approvals or determinations in any way related to the construction of public works, and/or offsite improvements related to the Project; (iii) financial or any other agreements with governing agencies; or (iv) any modification, renewal, extension, or amendment of any of the foregoing. Grantor also agrees to assist Grantee by providing any and all information within their possession on the location of drainage tile on the Property, at the request of Grantor.

12. **Grantee Responsibilities.** During the Easement Term, Grantee shall: (i) comply, in all material respects, with all municipal, state and federal ordinances, rules and statutes applicable to Grantee's operations on and use of the Property or Easement Area; (ii) remove any mechanics' liens filed against the Property or Easement Area due to labor, services, supplies, equipment or materials purchased by Grantee; and (iii) pay any property taxes attributable to the Transmission System.

13. **Third Party Property Interests.** Grantor shall not grant to any other party or person (including any affiliate of Grantor) an easement, lease, license, right-of-entry or similar property interest, possessory or otherwise, including any option to acquire any of the foregoing interests (individually and collectively, the "Property Interests"), in all or any part of (i) the Property during the Option Term and/or (ii) the Easement Area during the Easement Term, in each instance, without the prior written consent of Grantee. Grantee agrees that the Option, Easement and this Agreement are subject to any Property

Interests filed in the Official Records prior to the Effective Date. Grantee shall not sell, convey or otherwise transfer ownership of all or any part of the Property, or any interest in Grantor, to any party (including an affiliate of Grantor) that generates, collects, transmits, distributes or otherwise provides electrical energy, in each instance, without the prior written consent of Grantee.

14. **Non-Interference.** Grantor shall not endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail and/or or delay Grantee's access to and use of the Property during the Option Term or the Easement Area or Transmission System during the Easement Term. Grantor agrees that, during the Easement Term, it will not (and will not permit others to), without the prior written consent of Grantee, grade, excavate, fill or flood the Property within one hundred feet (100') of any part of the Transmission System, which consent may be withheld in Grantee's sole and absolute discretion if, in Grantee's opinion, any such activity within such area may endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail or delay any of Grantee's rights, privileges or benefits under this Agreement, the Transmission System, Grantee's access to and use of the Easement Area or Transmission System or Grantee's rights to lateral and subjacent support for the Transmission System. Grantor shall give written notice to Grantee at least forty-five (45) days prior to the date Grantor intends to commence such work, which notice shall describe in detail Grantor's plans for such work. If Grantee gives its consent to any such work, then such work shall be conducted and completed in accordance with the terms hereof and good engineering practice and shall meet all requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electric facilities.

15. **Grantor's Reserved Rights.** Subject to the other provisions of this Agreement (including, but not limited to, the provisions in Section 13 above), Grantor reserves all other rights to the Property that are not inconsistent with Grantee's rights and interests under this Agreement, except that Grantor shall not locate crops or livestock within the Easement Area after the removal of same during Grantee's construction activities for the Transmission System. Such reserved rights of Grantor shall include, but shall not necessarily be limited to, the following (all of which in Subsections (b) and (c) below shall be subject to Grantee's prior written consent and to the provisions of Section 13), all to be maintained by Grantor, at its sole expense:

(a) the right to retain existing roads, driveways, fences, pipelines and sewer, water, drainage, electrical, telecommunications and fiber optic lines and related improvements and facilities within the Easement Area at their existing locations as of the Effective Date; provided, however, Grantee shall have the right to remove and relocate any such existing fences, at its expense;

(b) the right to install and construct new electrical, telecommunications and fiber optic lines and related improvements and facilities (but not new fences (except as provided in Subsection (c) below), roads, driveways, pipelines or sewer, water or drainage lines or related improvements or facilities) within the Easement Area, provided that (i) Grantor repairs and restores (or reimburses Grantee for such repairs and restoration, at Grantee's election) the surface of the Easement Area to the condition in which it existed prior to the installation of such new electrical, telecommunications or fiber optic lines and related improvements and facilities; (ii) all new electrical, telecommunications and fiber optic lines that will cross the Easement Area shall do so at an angle of not less than forty-five degrees (45°), such angle to be measured between the centerline of the Easement Area and the centerline of such new line at the point of crossing; and (iii) all such new lines are installed and constructed in strict compliance with all clearance requirements of the

National Electrical Safety Code and/or other laws and regulations then-applicable to electrical facilities; and

(c) the right to install and construct new fences within the Easement Area, provided that all such new fences are located parallel to and at least twenty feet (20') from each side of the Transmission System.

Before exercising any of the foregoing rights reserved in this Section 14, Grantor shall give Grantee at least forty-five (45) days' prior written notice describing in detail Grantor's plans for such work, and Grantee shall have the right to object to such plans. If Grantee objects, then the Parties shall work together, in a reasonable manner, to adjust or modify Grantor's plans, but Grantee's discretionary consent rights under Section 13 shall not be diminished.

16. **Grantor's Mineral, Groundwater and Other Rights.** Grantor holds, possesses, and retains all rights, title and interests in and to the oil, gas, coal and other minerals, sand, gravel, caliche and dirt and groundwater in, on or under the Property. Grantor and/or Grantor's lessees or other third parties shall not be permitted to drill for or remove oil, gas, coal or other minerals, sand, gravel, caliche, dirt or groundwater from or under the Easement Area by direct drilling or by mining or quarrying, but Grantor may extract oil, gas, coal, other minerals and groundwater by directional or horizontal drilling or other means conducted outside the Easement Area, so long as such activities do not interfere with, disturb, hinder, impair, endanger or obstruct (i) the Transmission System or access to and use, construction, installation and operation of same, (ii) the access to and use of the Easement Area or (iii) Grantee's exercise of all of its rights and interests under this Agreement.

17. **Ownership of Improvements.** Grantor agrees that all of the Transmission System installed or placed upon, over, above, under, across and within the Easement Area by Grantee shall be and shall remain the property of Grantee and shall not be deemed part of Grantor's interests in the Easement Area nor be deemed, except for any road within the Easement Area, fixtures to the land. Grantor hereby waives and releases any and all lien rights and other encumbrances, whether afforded to Grantor by statute, common law or otherwise, Grantor may have in and to the Transmission System. Notwithstanding the foregoing, if Grantor requests in writing that Grantee not remove any road constructed by Grantee within the Easement Area at the end of the Easement Term or earlier termination of this Agreement, then Grantee shall have no obligation to remove such road and it shall thereafter be deemed to be Grantor's property; provided, that, Grantee shall have no liabilities or obligations associated with such road.

18. **Assignment.** Grantee may at any time and from time to time, without the consent of Grantor, sell, assign, transfer, convey, grant a sub-easement, encumber, hypothecate, mortgage, pledge, grant a lien upon and/or security interest in, or otherwise alienate all or any part of its rights, titles and interests in, to, under or relating to this Agreement, the Option, the Easement, the Easement Area and/or the Transmission System. Any assignment, transfer or conveyance (in whole or in part) by Grantee to any other party, whether one or more, that assumes, in writing, the obligations of Grantee hereunder shall operate as an automatic release of Grantee from all liability and such obligations hereunder (and, if a partial assignment, transfer or conveyance, then to the extent of same) from and after the effective date of such assignment, transfer or conveyance. Without limiting the foregoing, Grantor agrees that, upon such automatic release of the assigning Grantee as aforesaid, Grantor shall provide, upon Grantee's request, a written release to evidence same. For avoidance of doubt, a direct or indirect change of control of Grantee is not and shall not be deemed an assignment or transfer and shall not require consent of or notification to Grantor.

19. **Indemnity.** EACH PARTY SHALL INDEMNIFY AND HOLD HARMLESS THE OTHER PARTY, ITS AFFILIATES, AND ITS AND THEIR OFFICERS, DIRECTORS, MANAGERS, MEMBERS, EQUITY HOLDERS, EMPLOYEES, AND AGENTS (ITS "INDEMNITEES") FROM AND AGAINST ANY AND ALL LIABILITIES, LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS AND EXPENSES, INCLUDING COURT COSTS AND REASONABLE ATTORNEYS' FEES (COLLECTIVELY, "CLAIMS") (INCLUDING THOSE THAT RESULT FROM INJURY TO OR DEATH OF PERSONS AND DAMAGE TO PROPERTY) CAUSED BY THE INDEMNIFYING PARTY'S USE OF THE PROPERTY DURING THE OPTION TERM AND THE EASEMENT AREA DURING THE EASEMENT TERM OR OTHERWISE RELATING TO THIS AGREEMENT, BUT ONLY TO THE EXTENT CAUSED BY SUCH INDEMNIFYING PARTY'S (OR ITS INDEMNITEES') BREACH OF THIS AGREEMENT, BREACH OF APPLICABLE LAW, NEGLIGENT ACTS OR OMISSIONS (INCLUDING GROSS NEGLIGENCE) OR WILLFUL OR INTENTIONAL MISCONDUCT. NOTWITHSTANDING THE FOREGOING, THIS SECTION DOES NOT REQUIRE GRANTEE TO INDEMNIFY OR HOLD HARMLESS GRANTOR OR ITS INDEMNITEES AGAINST CLAIMS ARISING OR RESULTING FROM, OR CAUSED BY, ANY ACTS, ACTIVITIES OR OMISSIONS (WHETHER NEGLIGENT OR NON-NEGLIGENT) OF ANY PERSON OR PARTY (OTHER THAN GRANTEE) HAVING A LEASE, EASEMENT, LICENSE, OR OTHER OCCUPANCY OR ENTRY RIGHTS WITHIN THE PROPERTY OR THE EASEMENT AREA OR TRESPASSERS UPON THE PROPERTY OR THE EASEMENT AREA.

20. **Waiver of Certain Damages.** NEITHER PARTY NOR ITS INDEMNITEES SHALL BE ENTITLED TO, AND EACH PARTY HEREBY WAIVES AND RELEASES ANY AND ALL OF ITS RIGHTS TO, ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, EXEMPLARY AND/OR SIMILAR TYPES OF DAMAGES, WHETHER THE CLAIM MADE UNDER THIS AGREEMENT IS ASSERTED IN CONTRACT, TORT, OR OTHERWISE.

21. **Waiver of Jury Trial.** EACH PARTY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY WITH RESPECT TO ANY LITIGATION BASED ON, ARISING OUT OF, UNDER, RELATING TO OR IN CONNECTION WITH THIS AGREEMENT.

22. **Insurance.** Grantee shall obtain and maintain in force policies of insurance covering Grantee's activities within the Property during the Option Term and Easement Area during the Easement Term. The policies shall include commercial general liability insurance and, if applicable, workers' compensation and commercial auto liability insurance. Such insurance coverage may be provided as part of a blanket policy that also covers other facilities or properties of Grantee.

23. **Representations and Warranties of Grantor.** Grantor hereby makes the following representations and warranties to Grantee as of the Effective Date and as of the Easement Effective Date:

- (a) Grantor is the sole owner of the fee simple title and interests in and to the Property;
- (b) Grantor is not the subject of any bankruptcy, insolvency or probate proceeding;
- (c) there are no lawsuits, legal actions, legal proceedings, claims, condemnations, eminent domain proceedings or other proceedings pending, proposed, threatened or anticipated with respect to any matter affecting any part of the Property or any of Grantor's rights, title or interests therein;

- (d) all taxes due and payable for the Property have been fully paid;
- (e) there are no tax liens, contractors' liens, mortgage liens, mechanics' liens or other monetary liens against any part of the Property;
- (f) there are no underground tanks, oil or gas wells, or mining operations located within any part of the Property, nor, to the best of Grantor's knowledge, has there been any of the foregoing located within any part of the Property;
- (g) there are no cemeteries or other burial grounds within any part of the Property;
- (h) there is no grazing, farming, hunting or recreational lease, license or right-of-entry (whether written or oral) affecting any part of the Property, except as disclosed on Exhibit C, attached hereto, which shall be removed prior to the recording of this Agreement which removal shall not affect the validity of this Agreement;
- (i) Grantor has not and, to the best of Grantor's knowledge, no other party has generated, treated, stored, disposed of or otherwise deposited any hazardous materials in, on, at or under any part of the Property; and
- (j) there are no unrecorded oil, gas, coal, mineral or similar leases affecting any part of the Property, and no drilling or extraction activities is occurring or has occurred in, on, at or under any part of the Property.

24. **Grantor Default.**

(a) Grantor shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantor receives written notice of such breach from Grantee, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantor receives written notice of such breach from Grantee or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantor's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantor Default**").

(b) Upon the occurrence of a Grantor Default, Grantee shall have the right to pursue or commence, after Grantee provides Grantor with thirty (30) days prior written notice of Grantee's intent to do same, any actions and remedies that may be available to Grantee at law or in equity, including, but not limited to, curing such Grantor Default, and Grantee shall have the option to either demand reimbursement from Grantor (which shall be paid by Grantor within thirty (30) days after Grantor's receipt of a written demand therefore) for such costs expended or incurred by Grantee to cure the same or to offset the costs expended or incurred by Grantee to cure same against any and all future payments due and payable by Grantor under this Agreement; provided, however, in the event of any breach by Grantor of Sections 13, 14 and/or 15 above, then, notwithstanding the provisions of Subsection (a) above, no cure period shall apply to such breach and no prior notice of any type whatsoever shall be required, and Grantee shall have the right to immediately pursue

any and all of its remedies at law or in equity for such breach, as further described in Subsection (c) below.

(c) Notwithstanding the foregoing or any other provision of this Agreement to the contrary, the Parties agree that (i) Grantee would be irreparably harmed by a breach by Grantor of the provisions of this Agreement, (ii) an award of damages would be inadequate to remedy such a breach and (iii) Grantee shall be entitled to seek immediate equitable relief, including, but not limited to, specific performance and/or injunctive relief, to compel Grantor's compliance with the provisions of this Agreement.

25. **Grantee Default.**

(a) Grantee shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantee receives written notice of such breach from Grantor, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantee receives written notice of such breach from Grantor or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantee's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantee Default**").

(b) The occurrence of any Grantee Default shall entitle Grantor to such rights and remedies as may be available to Grantor under applicable law or equity, except that in the case of a non-monetary Grantee Default, Grantor hereby waives any and all rights it may have, at law or in equity, to terminate (whether in full or in part) this Agreement or to terminate, rescind, cancel or revoke Grantee's right to exercise the Option as set forth in this Agreement.

(c) In the event of any Grantee Default, Grantor shall, at least thirty (30) days prior to commencing any cause of action or other legal proceeding for same, give written notice to Grantee of Grantor's intent to commence such action or proceeding. Grantor may elect to cure any Grantee Default after Grantee's cure period has expired, and Grantee shall reimburse Grantor, within thirty (30) days after Grantee's receipt of a written demand therefor, the costs expended or incurred by Grantor to cure same.

26. **Non-Waiver.** Except as either Party may waive in writing, the failure of either Party at any time to exercise any of its rights under this Agreement shall not be construed as a waiver or abandonment of such rights or any other right hereunder, and such Party may thereafter at any time and from time to time exercise any or all of its rights.

27. **Notices.** Except for any Extension Notice delivered by electronic means, all written notices and demands of any kind which either Party may be required or may desire to serve upon the other Party in connection with this Agreement may be served by (i) personal service, (ii) registered or certified U.S. mail or (iii) next day overnight delivery service via a federally recognized overnight courier service such as UPS or Federal Express. Any such notice or demand shall be addressed to the other Party at the mailing address(es) for such Party listed below. Service of any such written notice or demand shall be deemed complete (i) upon receipt in the event of personal service, (ii) on the second (2nd) business day after it is sent via registered or certified U.S. mail, and (iii) on the next business day if sent via an overnight delivery service. All such written notices and demands sent via registered or certified U.S. mail or overnight delivery

service shall be sent postage, pre-paid by the sender in order for it to be considered in compliance with this Section 25.

To Grantor: Keith F. Kelly
Robert W. Kelly
Rick L. Kelly
32198 East 3100 North Road
Dwight, Illinois 60420
Attention: Keith F. Kelly
Robert W. Kelly
Rick L. Kelly
Telephone: _____
Email: kellyz5@sbcglobal.net

To Grantee: Illinois Generation LLC
1088 Sansome Street
San Francisco, California 94111
Attention: General Counsel

With a copy, which shall not constitute notice, to:
generalcounsel@patternenergy.com

Any Party, by written notice to the other Party, may change its mailing address(es), provided that the other Party shall not be bound by any such different address(es) unless and until it receives same.

28. **Cooperation with and Acceptance of Project.**

- a. Grantor will cooperate with, and shall not in any way, directly or indirectly, oppose Grantee's efforts to obtain any permit, approval or consent necessary or useful in connection with the Easement, the Transmission System or any other aspect of the Project. Grantor and Grantee intend to and shall cooperate with each other and take such other actions as may be reasonably necessary, prudent or desirable to carry out the intents and purposes of this Agreement and to fulfill the obligations of the respective Parties hereunder (at no out-of-pocket costs to Grantor), including, but not limited to, obtaining and/or executing additional documents or taking further actions that may be reasonably requested by any of Grantee's lenders, investors or title company and/or that may be necessary, prudent or desirable to give full effect to the Option, the Easement and/or this Agreement.
- b. Grantor hereby grants to Grantee a non-exclusive easement over and across the Grantor's Property and any adjacent property owned by Grantor but not subject to this instrument for any audio, visual, view, light, shadow, noise, flicker, vibration, air turbulence, wake, electromagnetic or other effect of any kind or nature whatsoever resulting, directly or indirectly, from the (a) construction, operations or activities of the Project, or (b) the Transmission Facilities of the Project now or hereafter located on the Property, and waives any and all claims and actions related to the same. Grantor agrees to consult with and obtain Grantee's prior written approval, in Grantee's sole discretion, as to the location of all new structures greater than forty-five (45) feet in height proposed for Grantor's Property.

- c. Grantor hereby grants to Grantee the right to test television signal strength and reception at any residence existing as of the Effective Date hereof, on Grantor's Property before and at reasonable intervals after Grantee builds the Project. In the unlikely event that the existence or operation of the Project significantly interferes with or degrades television signal reception at any existing residence on Grantor's Property, Grantee shall, at its expense and with the full cooperation of Grantor, promptly investigate and within a reasonable time correct any degradation of television signal reception actually caused by such Project. Correction measures may include, in Grantee's sole discretion, installation of television signal boosters serving the general area of the Project, installation of antenna or signal booster equipment on Grantor's Property, installation of and payment for cable, dish TV or similar devices serving Grantor's Property, or repair or replacement of television receivers.
- d. Grantee recognizes that Grantor, due to the Property's proximity to gravel roads or construction areas, may be inconvenienced by construction noise and dust. Additionally, construction traffic in some areas may inconvenience Grantor or require Grantor to travel by unaccustomed routes to avoid construction traffic. Grantor acknowledges Grantee has informed Grantor of the potential impacts of construction and agrees the compensation provided in this instrument is adequate for the impacts described.

29. **Counterparts; Governing Law.** This instrument may be executed in separate and multiple counterparts, each of which shall be an original, but all of which, when taken together, shall constitute one and the same instrument. This instrument shall be governed by internal laws of the State of Illinois, without regard to any conflicts of law principles.

30. **Binding Agreement.** The terms and provisions in this instrument shall inure to the benefit of and be binding upon Grantor and Grantee and their respective successors and assigns, except to the extent any Grantee may be released from this Agreement pursuant to the assignment and release provisions in Section 16.

31. **Runs with the Land.** Each of the Option, Easement and this Agreement touches and concerns the land and shall be real rights and covenants running with the land.

32. **Recording.** Grantee, at its expense, shall have a right to record this instrument or a similar memorandum thereof in the Official Records and, if recorded, will provide Grantor with a recorded copy.

33. **Municipal Officer.** Grantor represents and warrants that Grantor is not a Municipal Officer (defined herein) of the county or any municipality in which the Property is located. "Municipal Officer" means any officer or employee of any such county or municipality, whether paid or unpaid, and includes, without limitation, members of any office, board, body, advisory board, council, commission, agency, department, district, administration, division, bureau or committee of any such county or municipality whose official duties involve discretionary decision-making with respect to the Grantee's Energy Development (defined herein). "Energy Development" means any stage of present or future development or siting of energy developments, wind turbines, solar panels and other solar and/or wind equipment, power and related facilities or energy projects, whether considered, planned, attempted or completed, including but not limited to permitting, licensing construction and energy production. Municipal Officer also includes any entity that is directly or indirectly controlled by, or is

under common control with, such officer or employee. However, Municipal Officer shall not include: (a) a judge, justice, officer or employee of the local court system; (b) a volunteer firefighter or civil defense volunteer, except a fire chief or assistant fire chief; or (c) a member of an advisory board of the county or municipality if, but only if, the advisory board has no authority to implement its recommendations or to act on behalf of the county or municipality or to restrict authority of the municipality to act. Grantor further represents and warrants that Grantor is not a Relative (defined herein) of a Municipal Officer. "Relative" shall mean a spouse or domestic partner of the Municipal Officer, or a person claimed as a dependent on the Municipal Officer's latest individual state income tax return. If Grantor is a Municipal Officer, Grantor agrees to recuse itself from participating in any vote or other discretionary decision-making action with respect to Grantee's Energy Development. Grantor agrees to promptly notify Grantee in writing if at any time it becomes or any Relative becomes a Municipal Officer. Grantor agrees to indemnify Grantee against any loss, liability or damages, including attorneys' fees, directly or indirectly resulting from any misrepresentation by Grantor or failure by Grantor to notify Grantee as set forth above under this Section.

34. **Certain Costs and Expenses.** Each Party shall be responsible and liable for its own costs and expenses (including, but not limited to, any legal, accounting, brokerage and consultant fees) in connection with the negotiation of this Agreement and all other matters related to this Agreement, except as expressly and specifically provided in Section 18 of this Agreement.

35. **Severability.** If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

36. **No Waiver.** The failure of any Party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights, or elections, or in any way affect the validity of this Agreement. The failure of any Party to enforce any of such provisions, rights, or elections will not prejudice such Party from later enforcing or exercising the same or any other provisions, rights, or elections which it may have under this Agreement.

37. **Legal Review.** Each Party acknowledges that it has been afforded sufficient time to review and to understand the terms and effects of this Agreement and to submit it to legal counsel of its choosing for review and advice. Each Party represents that the agreements and obligations in this Agreement are made voluntarily, knowingly and without duress.

38. **Time is of the Essence.** Time is of the essence in this Agreement.

[Signature page follows this page]

EXECUTED AND MADE EFFECTIVE as of the Effective Date.

GRANTOR:

Keith F. Kelly
Keith F. Kelly

STATE OF Illinois

COUNTY OF Livingston

This instrument was acknowledged before me on the 23 day of June, 2021, by
Keith F. Kelly.

[NOTARY SEAL]



[Signature]
Notary Public
My commission expires: 7-29-21

GRANTOR:

Robert W. Kelly
Robert W. Kelly

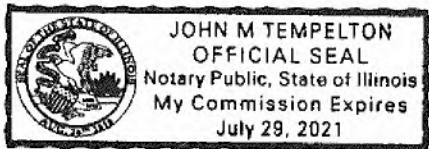
STATE OF Illinois

COUNTY OF LIVINGSTON

This instrument was acknowledged before me on the 23 day of June, 2021, by Robert W. Kelly.

[NOTARY SEAL]

[Signature]
Notary Public
My commission expires: 7-29-21



GRANTOR:

Rick L Kelly
Rick L. Kelly

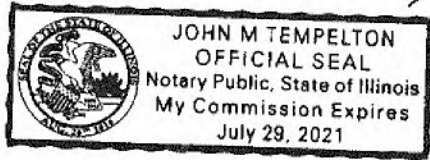
STATE OF Illinois

COUNTY OF Livingston

This instrument was acknowledged before me on the 23 day of June, 2021, by Rick L. Kelly.

[NOTARY SEAL]

[Signature]
Notary Public
My commission expires: 7-29-21



GRANTEE:

Illinois Generation LLC

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

STATE OF Texas
COUNTY OF Harris

This instrument was acknowledged before me on the 13 day of July, 2021, by Blake Rasmussen as Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Emily McClary Davis
Notary Public
My commission expires: 3-15-2025

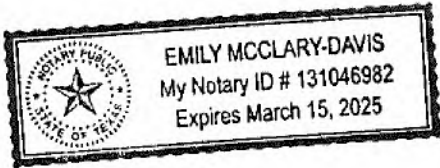


EXHIBIT A
to Easement Option and Easement Agreement
(Underground Electrical Energy Transmission and Distribution System)

Legal Description

The West Half (W ½) of the Northwest Quarter (NW¼) and the West Half (W½) of the East Half (E½) of the Northwest Quarter (NW¼), Section 16, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, containing 120 acres, more or less.

PIN: 06-06-16-100-001: Farm Land: 120 acres, more or less.

Common Address: Round Grove Township: 32198 East 3100 North Road, Dwight, Illinois 60420.

EXHIBIT B
to Easement Option and Easement Agreement
(Underground Electrical Energy Transmission and Distribution System)

Form of Notice of Exercise of Option for Easement

**PREPARED BY AND AFTER
RECORDING, RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

NOTICE OF EXERCISE OF OPTION FOR EASEMENT
(Underground Electrical Energy Transmission and Distribution System)

This NOTICE OF EXERCISE OF OPTION FOR EASEMENT (Underground Electrical Energy Transmission and Distribution System) (this "Notice of Exercise") is given this ____ day of _____, 20__ (the "Easement Effective Date"), by **Illinois Generation LLC**, a Delaware limited liability company ("Grantee"), whose mailing address is 1088 Sansome Street, San Francisco, California 94111, Attention: General Counsel.

WHEREAS, Grantee and _____, a _____ ("Grantor"), entered into that certain Easement Option and Easement Agreement (Electrical Energy Transmission and Distribution System) dated effective _____, 20__ (the "Agreement") and recorded on _____, 20__, in the real property and/or official records of _____ County, Illinois (the "Official Records"), as Document No. _____.

WHEREAS, the Agreement pertains to that certain real property described in the Agreement and in **Exhibit A** attached hereto, being parcel identification number(s) _____, and provides, among other things, that upon Grantee or its successors or assigns executing and recording this Notice of Exercise in the Official Records, the Easement and all terms, conditions, obligations, rights and provisions in the Agreement pertaining to the Easement and all other matters therein shall be in full force and effect for all purposes as of the Easement Effective Date (except that the Option and Option Term shall be deemed expired as of the Easement Effective Date), including, but not limited to, Grantee's rights to erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove, at any time and from time to time, the Transmission System within the Property until the Easement Area has been established therein and, once established, within said Easement Area for the remainder of the Easement Term.

NOW, THEREFORE, pursuant to and in accordance with the Agreement and Grantee's rights thereunder, Grantee hereby exercises the Option granted in the Agreement by filing this Notice of Exercise in the Official Records and, by such action and in accordance the provisions contained in the Agreement,

the Easement and all terms, conditions, obligations, rights and provisions contained in the Agreement, are in full force and effect for all purposes as of the Easement Effective Date, except that the Option and Option Term are deemed to be expired as of the Easement Effective Date.

This Notice of Exercise touches and concerns the land and shall be a real right and covenant running with the land.

Each capitalized terms used but not defined herein shall have the same meaning given to such term in the Agreement.

[Signature and acknowledgment page follows this page]

IN WITNESS WHEREOF, Grantee has executed this Notice of Exercise to be effective as of the Easement Effective Date.

GRANTEE:

ILLINOIS GENERATION LLC, a Delaware limited liability company

By: _____

Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 20__, by _____, as _____ of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Notary Public
My commission expires: _____

EXHIBIT A
to Notice of Exercise of Option for Easement
(Underground Electrical Energy Transmission and Distribution System)

Legal Description

[To be inserted at the time the Notice of Exercise is filed if the easement area has been established; if not yet established, then it will be the legal description for the Property]

PIN:

Commonly Known As:

2021R-05410

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
10/29/2021 08:37:57AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PAGES: 20

**PREPARED BY AND AFTER
RECORDING RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

**EASEMENT OPTION AND EASEMENT AGREEMENT
(Electrical Transmission and Distribution System)**

This EASEMENT OPTION AND EASEMENT AGREEMENT (Electrical Transmission and Distribution System) (this “**Agreement**”) is entered into and made effective as of the 26th day of October, 2021 (the “**Effective Date**”), by and between Richard R. White and Elaine N. White, husband and wife (“**Grantor**”), whose mailing address is 34505 East 3100 North Road, Reddick, Illinois 60961, and Illinois Generation LLC, a Delaware limited liability company (“**Grantee**”), whose mailing address is 1088 Sansome Street, San Francisco, CA 94111. Grantor and Grantee are sometimes referred to herein individually as a “**Party**” and collectively as the “**Parties**”.

WHEREAS, Grantor is the owner of that certain real property situated in Livingston County (the “**County**”), Illinois, being parcel identification number(s) 06-06-13-400-003 and being more particularly described in Exhibit A attached hereto and made a part hereof (the “**Property**”); and

WHEREAS, Grantee is interested in installing, constructing, maintaining and operating one or more solar and/or wind and electrical energy generation project(s) and/or power storage project(s) on real property situated adjacent to and/or in the vicinity of the Property (whether one or more, the “**Project**”); and

WHEREAS, Grantee has identified the Property as suitable land within which general area to install, construct, maintain and operate an electrical energy transmission and distribution system (all as said system is more particularly described and defined in Section 6 below) in connection with any such Project; and

WHEREAS, Grantee desires to acquire the irrevocable, exclusive right and option (but not the obligation) to obtain from Grantor an easement for the purposes of installing, constructing, maintaining and operating such electrical energy transmission and distribution system over, above, across, through and within the Property, and Grantor desires to grant such irrevocable, exclusive right and option to Grantee on the terms set forth herein.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee do hereby agree as follows:

1. **Grant of Easement Option; Right-of-Entry.** Grantor hereby grants to Grantee the irrevocable, exclusive right and option (the “**Option**”) to have an exclusive easement for electrical energy transmission and distribution purposes over, above, across, and through and the Property (the “**Easement**”) in connection with any such Project.

2. **Option Term.** This Agreement and the Option granted herein shall have an initial term of three (3) years from the Effective Date (the “**Initial Term**”). Grantee shall have the right, in its sole and absolute discretion, to extend the Initial Term for one (1) additional period of two (2) years (the “**Extended Term**”). The Initial Term and, if it occurs, the Extended Term are referred to herein collectively as the “**Option Term**”. If and when Grantee extends the Option for the Extended Term, which may occur at any time during the Initial Term, Grantee shall do so by providing Grantor with written notice of such extension (an “**Extension Notice**”). The deadline for providing any Extension Notice shall be 5:00 p.m. Pacific Time on the last day of the Initial Term, and electronic delivery of the Extension Notice shall be sufficient and of full force and effect.

3. **Termination Right.** Notwithstanding any other provision(s) to the contrary that may be contained elsewhere in this Agreement, Grantee shall have the right to terminate, for any reason or for no reason, (i) the Option and this Agreement at any time during the Option Term and/or (ii) the Easement and this Agreement at any time during the Easement Term (as defined in Section 5 below), by giving at least five (5) days’ prior written notice to Grantor of such termination.

4. **Exercise of Easement Option; Easement Effective Date.** Grantor hereby grants the Easement to Grantee, but with such Easement becoming effective only if and when Grantee elects to exercise the Option by executing and recording, at Grantee’s expense, in the real property and/or official public records of Livingston County, Illinois (the “**Official Records**”), a “Notice of Exercise of Option for Easement” in the form set forth in Exhibit B attached hereto and made a part hereof (the “**Notice of Exercise**”). Grantor and Grantee expressly agree that (i) upon such recording of the Notice of Exercise, the Easement shall automatically be in full force and effect and shall be deemed effective as of the recording date of the Notice of Exercise (the “**Easement Effective Date**”), except that the Option and Option Term shall be deemed to have expired on the Easement Effective Date; and (ii) other than the Notice of Exercise being executed and recorded by Grantee, no documentation or other instrument is required to be entered into or recorded by the Parties in order to give full force and effect to the Easement and all the provisions, terms and conditions contained in this Agreement (except as to the Option and Option Term). Grantee shall provide a recorded copy of the Notice of Exercise to Grantor.

5. **Easement Term.** The term of the Easement shall be for a period of fifty-three (53) years from and after the Easement Effective Date (the “**Easement Term**”) unless sooner terminated in accordance with Section 3 above or otherwise.

6. **Transmission and Distribution System.**

- a. Grantee shall have the right to, at any time and from time to time during the Easement Term, erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove an electrical energy transmission and distribution system above the Property consisting of wires and cables running above the Property, and connected to the transmission and distribution facilities located on adjoining properties (collectively, the “**Transmission System**”).
- b. Grantee’s access to the Property shall be limited to emergency use only, and except in cases of emergency, no trucks, cranes or other vehicles shall traverse the Property.
- c. Prior to the construction of the Transmission System, Grantee will use its commercially reasonable efforts to meet with Grantor to discuss the proposed locations of any portions of the Transmission System above the Property (“**Proposed Locations**”), which shall be materially in the locations depicted on the attached **Exhibit D**. Grantee agrees to listen and give due consideration to Grantor’s comments and/or concerns with regard to the Proposed Locations and its interaction with Grantor’s current use of the Property, and Grantee shall use commercially reasonable efforts to address such comments and/or concerns; provided that doing so will not increase the costs to Grantee of designing, constructing or operating the Transmission System. The location of the Transmission System above the Property shall be determined by Grantee in its sole and absolute discretion, and, once the location of the Easement Area (as defined in Section 7 below) is established in accordance with Section 7 below, any later installed or constructed components of the Transmission System shall be located within the Easement Area (except as permitted otherwise in Section 8 below). Grantee shall have rights to lateral and subjacent support for the Transmission System and such components of the Transmission System located on adjacent properties. Grantor shall be allowed to continue using Grantor’s Property, and the Easement Area (as hereinafter defined) for the purposes of general farming, so long as such farming does not interfere with the Transmission System.

7. **Easement Area.** Within sixty (60) days following Grantee’s determination that the construction of the Project and Transmission System has been completed, Grantee shall adjust the Easement area to, unless otherwise agreed to, a one hundred fifty foot (150’) wide corridor within the Property for any and all aboveground components of the Transmission System, which width shall be measured from the centerline of the as-built transmission line of the Transmission System (the “**Easement Area**”). Grantee agrees to record documentation in the Official Records in order to give constructive notice to third parties of such established location of the Easement Area and to release the remainder of the Property from the Easement and this Agreement (except as permitted otherwise in Section 8 and 9 below) effective upon the recording of such documentation. Grantor and Grantee expressly agree that no documentation or instrument other than the foregoing documentation shall be required in order to establish the location of the Easement Area. Notwithstanding the foregoing, if Grantee wishes to establish the location of the Easement Area if and when it records the Notice of Exercise, Grantee may (but is not obligated to) do so by recording a legal description of the Easement Area together with the Notice of Exercise.

8. **Additional Rights of Grantee.** In addition to the Easement, effective on the Easement Effective Date, Grantor hereby grants to Grantee the right to aerial encroachment over Grantor’s property

parallel and immediately adjacent to the boundaries of the Easement Area by cross-arms, davit arms, conductors (including blowout or sway and associated clearances), insulators and other associated facilities of the Transmission System, provided same are twenty-five feet (25') above ground level, which shall terminate at the same time as the Easement.

9. **Removal of Obstructions.** Grantee shall have the rights to (i) trim, prune, top or otherwise control the growth of any tree within the Easement Area during the Easement Term that may cause dangerous interference with the Transmission System; and (ii) subject to Grantee's repair and reimbursement obligations, remove, modify or otherwise alter anything (including, but not limited to, any improvements, utility lines or other facilities installed or constructed above the surface) that could reasonably be anticipated to obstruct, interfere with, or impair the Transmission System or Easement Area or Grantee's use of same to the full extent of its rights granted under this Agreement.

10. **Participating Landowner.** Owner affirms that, pursuant to entering into this Easement Agreement, Owner is participating in the Project and Owner waives all setbacks that are able to be waived by participating and affected landowners in the Livingston County Ordinances, including without limitation in Sections 56-618(h) and 56-646(f) of the Livingston County Ordinances, which Livingston County Ordinances Owner has reviewed to the extent such ordinances relate to wind and projects in the County. Further, Grantor affirms that on behalf of itself and its officers, partners, members, directors, managers, employees, agents, successors and assigns, agrees that it will not in any way, directly or indirectly, oppose, or seek to hinder or delay, and will not in any way, directly or indirectly, assist or provide cooperation to others who oppose or seek to hinder or delay: (i) the processing and issuance of entitlements, permits, approvals or other determinations for the development, use, and operation of the Project; (ii) ordinances, permits, approvals or determinations in any way related to the construction of public works, and/or offsite improvements related to the Project; (iii) financial or any other agreements with governing agencies; or (iv) any modification, renewal, extension, or amendment of any of the foregoing. Grantor also agrees to assist Grantee by providing any and all information within their possession on the location of drainage tile on the Property, at the request of Grantor.

11. **Grantee Responsibilities.** During the Easement Term, Grantee shall: (i) comply, in all material respects, with all municipal, state and federal ordinances, rules and statutes applicable to Grantee's operations on and use of the Property or Easement Area; (ii) remove any mechanics' liens filed against the Property or Easement Area due to labor, services, supplies, equipment or materials purchased by Grantee; and (iii) pay any property taxes attributable to the Transmission System.

12. **Third Party Property Interests.** Grantor shall not grant to any other party or person (including any affiliate of Grantor) an easement, lease, license, right-of-entry or similar property interest, possessory or otherwise, including any option to acquire any of the foregoing interests (individually and collectively, the "**Property Interests**") which would interfere with Grantee's rights hereunder, in Grantee's reasonable discretion, in all or any part of (i) the Property during the Option Term and/or (ii) the Easement Area during the Easement Term. Notwithstanding the foregoing, it is understood and agreed by Grantor and Grantee that the Easement Area may continue to be used by Grantor, their successors and assigns, and farming lessees, for traditional farming and agricultural purposes, so long as such farming activity does not interfere with the rights of Grantee hereunder. Grantee agrees that the Option, Easement and this Agreement are subject to any Property Interests filed in the Official Records prior to the Effective Date.

13. **Non-Interference.** Grantor shall not endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail and/or or delay Grantee's

use of the Property pursuant to the terms of this Agreement during the Option Term or the Easement Area or Transmission System (or components of the Transmission System located on adjacent properties) during the Easement Term. Grantor agrees that, during the Easement Term, it will not (and will not permit others to), without the prior written consent of Grantee, grade, excavate, fill or flood the Property within one hundred feet (100') of any part of the Transmission System (including components of the Transmission System located on adjacent properties), which consent may be withheld in Grantee's sole and absolute discretion if, in Grantee's opinion, any such activity within such area may endanger, disturb, interfere with, create a hazard in the exercise of, inhibit, impair, hinder, impede, obstruct, hamper, diminish, curtail or delay any of Grantee's rights, privileges or benefits under this Agreement, the Transmission System, Grantee's use of the Easement Area or Transmission System. Grantor shall give written notice to Grantee at least forty-five (45) days prior to the date Grantor intends to commence such work, which notice shall describe in detail Grantor's plans for such work. If Grantee gives its consent to any such work, then such work shall be conducted and completed in accordance with the terms hereof and good engineering practice and shall meet all requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electric facilities.

14. **Grantor's Reserved Rights.** Subject to the other provisions of this Agreement (including, but not limited to, the provisions in Section 13 above), Grantor reserves all other rights to the Property that are not inconsistent with Grantee's rights and interests under this Agreement. Such reserved rights of Grantor shall include, but shall not necessarily be limited to, the following (all of which in Subsections (b) and (c) below shall be subject to Grantee's prior written consent and to the provisions of Section 14), all to be maintained by Grantor, at its sole expense:

(a) the right to retain existing roads, driveways, fences, pipelines and sewer, water, drainage, electrical, telecommunications and fiber optic lines and related improvements and facilities within the Easement Area at their existing locations as of the Effective Date;

(b) the right to install and construct new electrical, telecommunications and fiber optic lines and related improvements and facilities (but not new fences (except as provided in Subsection (c) below), roads, driveways, pipelines or sewer, water or drainage lines or related improvements or facilities) within the Easement Area, provided that (i) all new electrical, telecommunications and fiber optic lines that will cross the Easement Area shall do so at an angle of not less than forty-five degrees (45°), such angle to be measured between the centerline of the Easement Area and the centerline of such new line at the point of crossing; and (ii) all such new lines are installed and constructed in strict compliance with all clearance requirements of the National Electrical Safety Code and/or other laws and regulations then-applicable to electrical facilities; and

(c) the right to install and construct new fences within the Easement Area, provided that all such new fences are located parallel to and at least twenty feet (20') from each side of the Transmission System.

Before exercising any of the foregoing rights reserved in this Section 14, Grantor shall give Grantee at least forty-five (45) days' prior written notice describing in detail Grantor's plans for such work, and Grantee shall have the right to object to such plans. If Grantee objects, then the Parties shall work together, in a reasonable manner, to adjust or modify Grantor's plans, but Grantee's discretionary consent rights under Section 13 shall not be diminished.

15. **Grantor's Mineral, Groundwater and Other Rights.** Grantor holds, possesses, and retains all rights, title and interests in and to the oil, gas, coal and other minerals, sand, gravel, caliche and

dirt and groundwater in, on or under the Property. Grantor and/or Grantor's lessees or other third parties shall not be permitted to drill for or remove oil, gas, coal or other minerals, sand, gravel, caliche, dirt or groundwater from or under the Easement Area by direct drilling or by mining or quarrying, but Grantor may extract oil, gas, coal, other minerals and groundwater by directional or horizontal drilling or other means conducted outside the Easement Area, so long as such activities do not interfere with, disturb, hinder, impair, endanger or obstruct (i) the Transmission System or use, construction, installation and operation of same, (ii) the use of the Easement Area or (iii) Grantee's exercise of all of its rights and interests under this Agreement.

16. **Ownership of Improvements.** Grantor agrees that all of the Transmission System installed or placed over, above, across and within the Easement Area by Grantee shall be and shall remain the property of Grantee and shall not be deemed part of Grantor's interests in the Easement Area nor be deemed fixtures to the land. Grantor hereby waives and releases any and all lien rights and other encumbrances, whether afforded to Grantor by statute, common law or otherwise, Grantor may have in and to the Transmission System.

17. **Assignment.** Grantee may at any time and from time to time, without the consent of Grantor, sell, assign, transfer, convey, grant a sub-easement, encumber, hypothecate, mortgage, pledge, grant a lien upon and/or security interest in, or otherwise alienate all or any part of its rights, titles and interests in, to, under or relating to this Agreement, the Option, the Easement, the Easement Area and/or the Transmission System. Any assignment, transfer or conveyance (in whole or in part) by Grantee to any other party, whether one or more, that assumes, in writing, the obligations of Grantee hereunder shall operate as an automatic release of Grantee from all liability and such obligations hereunder (and, if a partial assignment, transfer or conveyance, then to the extent of same) from and after the effective date of such assignment, transfer or conveyance. Without limiting the foregoing, Grantor agrees that, upon such automatic release of the assigning Grantee as aforesaid, Grantor shall provide, upon Grantee's request, a written release to evidence same. .

18. **Indemnity.** EACH PARTY SHALL INDEMNIFY AND HOLD HARMLESS THE OTHER PARTY, ITS AFFILIATES, AND ITS AND THEIR OFFICERS, DIRECTORS, MANAGERS, MEMBERS, EQUITY HOLDERS, EMPLOYEES, AND AGENTS (ITS "INDEMNITEES") FROM AND AGAINST ANY AND ALL LIABILITIES, LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS AND EXPENSES, INCLUDING COURT COSTS AND REASONABLE ATTORNEYS' FEES (COLLECTIVELY, "CLAIMS") (INCLUDING THOSE THAT RESULT FROM INJURY TO OR DEATH OF PERSONS AND DAMAGE TO PROPERTY) CAUSED BY THE INDEMNIFYING PARTY'S USE OF THE PROPERTY DURING THE OPTION TERM AND THE EASEMENT AREA DURING THE EASEMENT TERM OR OTHERWISE RELATING TO THIS AGREEMENT, BUT ONLY TO THE EXTENT CAUSED BY SUCH INDEMNIFYING PARTY'S (OR ITS INDEMNITEES') BREACH OF THIS AGREEMENT, BREACH OF APPLICABLE LAW, NEGLIGENT ACTS OR OMISSIONS (INCLUDING GROSS NEGLIGENCE) OR WILLFUL OR INTENTIONAL MISCONDUCT. NOTWITHSTANDING THE FOREGOING, THIS SECTION DOES NOT REQUIRE GRANTEE TO INDEMNIFY OR HOLD HARMLESS GRANTOR OR ITS INDEMNITEES AGAINST CLAIMS ARISING OR RESULTING FROM, OR CAUSED BY, ANY ACTS, ACTIVITIES OR OMISSIONS (WHETHER NEGLIGENT OR NON-NEGLIGENT) OF ANY PERSON OR PARTY (OTHER THAN GRANTEE) HAVING A LEASE, EASEMENT, LICENSE, OR OTHER OCCUPANCY OR ENTRY RIGHTS WITHIN THE PROPERTY OR THE EASEMENT AREA OR TRESPASSERS UPON THE PROPERTY OR THE EASEMENT AREA.

19. **Waiver of Certain Damages.** NEITHER PARTY NOR ITS INDEMNITEES SHALL BE ENTITLED TO, AND EACH PARTY HEREBY WAIVES AND RELEASES ANY AND ALL OF ITS RIGHTS TO, ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, EXEMPLARY AND/OR SIMILAR TYPES OF DAMAGES, WHETHER THE CLAIM MADE UNDER THIS AGREEMENT IS ASSERTED IN CONTRACT, TORT, OR OTHERWISE.

20. **Waiver of Jury Trial.** EACH PARTY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY WITH RESPECT TO ANY LITIGATION BASED ON, ARISING OUT OF, UNDER, RELATING TO OR IN CONNECTION WITH THIS AGREEMENT.

21. **Insurance.** Grantee shall obtain and maintain in force policies of insurance covering Grantee's activities within the Property during the Option Term and Easement Area during the Easement Term. The policies shall include commercial general liability insurance and, if applicable, workers' compensation and commercial auto liability insurance. Such insurance coverage may be provided as part of a blanket policy that also covers other facilities or properties of Grantee.

22. **Representations and Warranties of Grantor.** Grantor hereby makes the following representations and warranties to Grantee as of the Effective Date and as of the Easement Effective Date:

- (a) Grantor is the sole owner of the fee simple title and interests in and to the Property;
- (b) Grantor is not the subject of any bankruptcy, insolvency or probate proceeding;
- (c) there are no lawsuits, legal actions, legal proceedings, claims, condemnations, eminent domain proceedings or other proceedings pending, proposed, threatened or anticipated with respect to any matter affecting any part of the Property or any of Grantor's rights, title or interests therein;
- (d) all taxes due and payable for the Property have been fully paid;
- (e) there are no tax liens, contractors' liens, mortgage liens, mechanics' liens or other monetary liens against any part of the Property;
- (f) there are no underground tanks, oil or gas wells, or mining operations located within any part of the Property, nor, to the best of Grantor's knowledge, has there been any of the foregoing located within any part of the Property;
- (g) there are no known cemeteries or other burial grounds within any part of the Property, nor visible evidence of the same on the Property;
- (h) there is no grazing, farming, hunting or recreational lease, license or right-of-entry (whether written or oral) affecting any part of the Property, except as disclosed on **Exhibit C**, attached hereto, which shall be removed prior to the recording of this Agreement which removal shall not affect the validity of this Agreement;

(i) Grantor has not and, to the best of Grantor's knowledge, no other party has generated, treated, stored, disposed of or otherwise deposited any hazardous materials in, on, at or under any part of the Property; and

(j) there are no unrecorded oil, gas, coal, mineral or similar leases affecting any part of the Property, and no drilling or extraction activities is occurring or has occurred in, on, at or under any part of the Property.

23. **Grantor Default.**

(a) Grantor shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantor receives written notice of such breach from Grantee, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantor receives written notice of such breach from Grantee or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantor's best efforts within the initial 30-day period, except that if such breach is of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantor Default**").

(b) Upon the occurrence of a Grantor Default, Grantee shall have the right to pursue or commence, after Grantee provides Grantor with thirty (30) days prior written notice of Grantee's intent to do same, any actions and remedies that may be available to Grantee at law or in equity, including, but not limited to, curing such Grantor Default, and Grantee shall have the option to either demand reimbursement from Grantor (which shall be paid by Grantor within thirty (30) days after Grantor's receipt of a written demand therefore) for such costs expended or incurred by Grantee to cure the same or to offset the costs expended or incurred by Grantee to cure same against any and all future payments due and payable by Grantee under this Agreement; provided, however, in the event of any breach by Grantor of Sections 12, 13 and/or 14 above, then, notwithstanding the provisions of Subsection (a) above, no cure period shall apply to such breach and no prior notice of any type whatsoever shall be required, and Grantee shall have the right to immediately pursue any and all of its remedies at law or in equity for such breach, as further described in Subsection (c) below.

(c) Notwithstanding the foregoing or any other provision of this Agreement to the contrary, the Parties agree that (i) Grantee would be irreparably harmed by a breach by Grantor of the provisions of this Agreement, (ii) an award of damages would be inadequate to remedy such a breach and (iii) Grantee shall be entitled to seek immediate equitable relief, including, but not limited to, specific performance and/or injunctive relief, to compel Grantor's compliance with the provisions of this Agreement.

24. **Grantee Default.**

(a) Grantee shall be in default of this Agreement if it breaches (i) any of its monetary obligations and such breach has not been cured within thirty (30) days after Grantee receives written notice of such breach from Grantor, (ii) any of its non-monetary obligations and such breach has not been cured within (A) thirty (30) days after Grantee receives written notice of such breach from Grantor or (B) an additional 30-day period if such non-monetary default cannot be cured through the exercise of Grantee's best efforts within the initial 30-day period, except that if such breach is

of a non-material, non-monetary obligation, such additional cure period shall be sixty (60) days (each, a "**Grantee Default**").

(b) The occurrence of any monetary Grantee Default shall entitle Grantor to such rights and remedies as may be available to Grantor under applicable law or equity. In the case of a non-monetary Grantee Default, Grantor shall have all rights and remedies as may be available to Grantor under applicable law or equity (including any costs of enforcement as may be awarded by a court), provided, however, that Grantor hereby waives any and all rights it may have, at law or in equity, to terminate (whether in full or in part) this Agreement or to terminate, rescind, cancel or revoke Grantee's right to exercise the Option as set forth in this Agreement.

(c) In the event of any Grantee Default, Grantor shall, at least thirty (30) days prior to commencing any cause of action or other legal proceeding for same, give written notice to Grantee of Grantor's intent to commence such action or proceeding. Grantor may elect to cure any Grantee Default after Grantee's cure period has expired, and Grantee shall reimburse Grantor, within thirty (30) days after Grantee's receipt of a written demand therefor, the costs expended or incurred by Grantor to cure same.

25. **Non-Waiver.** Except as either Party may waive in writing, the failure of either Party at any time to exercise any of its rights under this Agreement shall not be construed as a waiver or abandonment of such rights or any other right hereunder, and such Party may thereafter at any time and from time to time exercise any or all of its rights.

26. **Notices.** Except for any Extension Notice delivered by electronic means, all written notices and demands of any kind which either Party may be required or may desire to serve upon the other Party in connection with this Agreement may be served by (i) personal service, (ii) registered or certified U.S. mail or (iii) next day overnight delivery service via a federally recognized overnight courier service such as UPS or Federal Express. Any such notice or demand shall be addressed to the other Party at the mailing address(es) for such Party listed below. Service of any such written notice or demand shall be deemed complete (i) upon receipt in the event of personal service, (ii) on the second (2nd) business day after it is sent via registered or certified U.S. mail, and (iii) on the next business day if sent via an overnight delivery service. All such written notices and demands sent via registered or certified U.S. mail or overnight delivery service shall be sent postage, pre-paid by the sender in order for it to be considered in compliance with this Section 26.

To Grantor: Richard R. White and Elaine N. White
34505 East 3100 North Road
Reddick, Illinois 60961
Attention: Richard R. White
Telephone: _____
Email: _____

To Grantee: Illinois Generation LLC
1088 Sansome Street
San Francisco, California 94111
Attention: General Counsel

With a copy, which shall not constitute notice, to:
generalcounsel@patternenergy.com

Any Party, by written notice to the other Party, may change its mailing address(es), provided that the other Party shall not be bound by any such different address(es) unless and until it receives same.

27. **Cooperation with and Acceptance of Project.**

a.

Grantor will cooperate with, and shall not in any way, directly or indirectly, oppose Grantee's efforts to obtain any permit, approval or consent necessary or useful in connection with the Easement, the Transmission System or any other aspect of the Project. Grantor and Grantee intend to and shall cooperate with each other and take such other actions as may be reasonably necessary, prudent or desirable to carry out the intents and purposes of this Agreement and to fulfill the obligations of the respective Parties hereunder (at no out-of-pocket costs to Grantor), including, but not limited to, obtaining and/or executing additional documents or taking further actions that may be reasonably requested by any of Grantee's lenders, investors or title company and/or that may be necessary, prudent or desirable to give full effect to the Option, the Easement and/or this Agreement.

b. Grantor hereby grants to Grantee a non-exclusive easement over and across the Grantor's Property and any adjacent property owned by Grantor but not subject to this instrument for any audio, visual, view, light, shadow, noise, flicker, vibration, air turbulence, wake, electromagnetic or other effect of any kind or nature whatsoever resulting, directly or indirectly, from the (a) construction, operations or activities of the Project, or (b) the Transmission Facilities of the Project now or hereafter located on the Property, and waives any and all claims and actions related to the same. Grantor agrees to consult with and obtain Grantee's prior written approval, in Grantee's sole discretion, as to the location of all new structures greater than forty-five (45) feet in height proposed for the Easement Area.

c. Grantor hereby grants to Grantee the right to test television signal strength and reception at any residence existing as of the Effective Date hereof, on Grantor's Property before and at reasonable intervals after Grantee builds the Project. In the unlikely event that the existence or operation of the Project significantly interferes with or degrades television signal reception at any existing residence on Grantor's Property, Grantee shall, at its expense and with the full cooperation of Grantor, promptly investigate and within a reasonable time correct any degradation of television signal reception actually caused by such Project. Correction measures may include, in Grantee's sole discretion, installation of television signal boosters serving the general area of the Project, installation of antenna or signal booster equipment on Grantor's Property, installation of and payment for cable, dish TV or similar devices serving Grantor's Property, or repair or replacement of television receivers.

d. Grantee recognizes that Grantor, due to the Property's proximity to gravel roads or construction areas, may be inconvenienced by construction noise and dust. Additionally, construction traffic in some areas may inconvenience Grantor or require Grantor to travel by unaccustomed routes to avoid construction traffic. Grantor acknowledges Grantee has informed Grantor of the potential impacts of construction and agrees the compensation provided in this instrument is adequate for the impacts described.

28. **Counterparts; Governing Law.** This instrument may be executed in separate and multiple counterparts, each of which shall be an original, but all of which, when taken together, shall constitute one and the same instrument. This instrument shall be governed by internal laws of the State of Illinois, without regard to any conflicts of law principles.

29. **Binding Agreement.** The terms and provisions in this instrument shall inure to the benefit of and be binding upon Grantor and Grantee and their respective successors and assigns, except to the extent any Grantee may be released from this Agreement pursuant to the assignment and release provisions in Section 17.

30. **Runs with the Land.** Each of the Option, Easement and this Agreement touches and concerns the land and shall be real rights and covenants running with the land.

31. **Recording.** Grantee, at its expense, shall have a right to record this instrument or a similar memorandum thereof in the Official Records and, if recorded, will provide Grantor with a recorded copy.

32. **Municipal Officer.** Grantor represents and warrants that Grantor is not a Municipal Officer (defined herein) of the county or any municipality in which the Property is located. “**Municipal Officer**” means any officer or employee of any such county or municipality, whether paid or unpaid, and includes, without limitation, members of any office, board, body, advisory board, council, commission, agency, department, district, administration, division, bureau or committee of any such county or municipality whose official duties involve discretionary decision-making with respect to the Grantee’s Energy Development (defined herein). “**Energy Development**” means any stage of present or future development or siting of energy developments, wind turbines, solar panels and other solar and/or wind equipment, power and related facilities or energy projects, whether considered, planned, attempted or completed, including but not limited to permitting, licensing construction and energy production. Municipal Officer also includes any entity that is directly or indirectly controlled by, or is under common control with, such officer or employee. However, Municipal Officer shall not include: (a) a judge, justice, officer or employee of the local court system; (b) a volunteer firefighter or civil defense volunteer, except a fire chief or assistant fire chief; or (c) a member of an advisory board of the county or municipality if, but only if, the advisory board has no authority to implement its recommendations or to act on behalf of the county or municipality or to restrict authority of the municipality to act. Grantor further represents and warrants that Grantor is not a Relative (defined herein) of a Municipal Officer. “**Relative**” shall mean a spouse or domestic partner of the Municipal Officer, or a person claimed as a dependent on the Municipal Officer’s latest individual state income tax return. If Grantor is a Municipal Officer, Grantor agrees to recuse itself from participating in any vote or other discretionary decision-making action with respect to Grantee’s Energy Development. Grantor agrees to promptly notify Grantee in writing if at any time it becomes or any Relative becomes a Municipal Officer. Grantor agrees to indemnify Grantee against any loss, liability or damages, including attorneys’ fees, directly or indirectly resulting from any misrepresentation by Grantor or failure by Grantor to notify Grantee as set forth above under this Section.

33. **Certain Costs and Expenses.** Each Party shall be responsible and liable for its own costs and expenses (including, but not limited to, any legal, accounting, brokerage and consultant fees) in connection with the negotiation of this Agreement and all other matters related to this Agreement, except as expressly and specifically provided in Section 18 of this Agreement.

34. **Severability.** If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

35. **No Waiver.** The failure of any Party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights, or elections, or in any way affect the validity of this Agreement. The failure of any Party to enforce any of such provisions, rights, or elections will not prejudice such Party from later enforcing or exercising the same or any other provisions, rights, or elections which it may have under this Agreement.

36. **Legal Review.** Each Party acknowledges that it has been afforded sufficient time to review and to understand the terms and effects of this Agreement and to submit it to legal counsel of its choosing for review and advice. Each Party represents that the agreements and obligations in this Agreement are made voluntarily, knowingly and without duress.

37. **Time is of the Essence.** Time is of the essence in this Agreement.

[Signature page follows this page]

EXECUTED AND MADE EFFECTIVE as of the Effective Date.

GRANTOR:

Richard R White

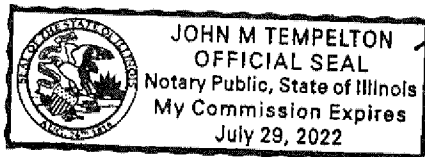
Richard R. White

STATE OF Illinois

COUNTY OF Livingston

This instrument was acknowledged before me on the 13 day of October, 2021, by Richard R. White.

[NOTARY SEAL]



[Signature]
Notary Public
My commission expires: 7-29-22

Spouse's Signature*

Elaine N. White

Elaine N. White

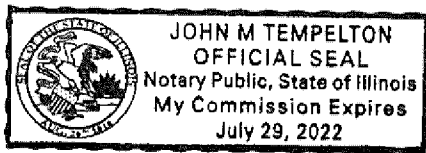
*Spouse is joining in the execution of the Agreement for the sole purpose of waiving any rights he or she may have under or by virtue of the Homestead Exemption Laws of the State of Illinois.

STATE OF Illinois

COUNTY OF Livingston

This instrument was acknowledged before me on the 13 day of October, 2021, by Elaine N. White.

[NOTARY SEAL]



[Signature]
Notary Public
My commission expires: 7-29-22

GRANTEE:

Illinois Generation LLC

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

STATE OF Texas

COUNTY OF Harris

This instrument was acknowledged before me on the 26 day of October, 2021, by Blake Rasmussen, as Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Emily McClary-Davis
Notary Public
My commission expires: 3-15-2025

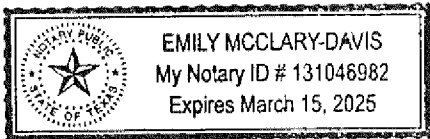


EXHIBIT A
to Easement Option and Easement Agreement
(Electrical Energy Transmission and Distribution System)

Legal Description

The South 1/2 of the Southeast 1/4 of Section 13, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-13-400-003: Farmland: 80 acres, more or less.

Common Address: Round Grove Township.

EXHIBIT B
to Easement Option and Easement Agreement
(Electrical Energy Transmission and Distribution System)

Form of Notice of Exercise of Option for Easement

**PREPARED BY AND AFTER
RECORDING, RETURN TO:**

Illinois Generation LLC
c/o General Counsel
1088 Sansome Street
San Francisco, CA 94111

NOTICE OF EXERCISE OF OPTION FOR EASEMENT
(Electrical Energy Transmission and Distribution System)

This NOTICE OF EXERCISE OF OPTION FOR EASEMENT (Electrical Energy Transmission and Distribution System) (this "Notice of Exercise") is given this ____ day of _____, 20__ (the "Easement Effective Date"), by **Illinois Generation LLC**, a Delaware limited liability company ("Grantee"), whose mailing address is 1088 Sansome Street, San Francisco, California 94111, Attention: General Counsel.

WHEREAS, Grantee and _____, a _____ ("Grantor"), entered into that certain Easement Option and Easement Agreement (Electrical Energy Transmission and Distribution System) dated effective _____, 20__ (the "Agreement") and recorded on _____, 20__, in the real property and/or official records of _____ County, Illinois (the "Official Records"), as Document No. _____.

WHEREAS, the Agreement pertains to that certain real property described in the Agreement and in **Exhibit A** attached hereto, being parcel identification number(s) _____, and provides, among other things, that upon Grantee or its successors or assigns executing and recording this Notice of Exercise in the Official Records, the Easement and all terms, conditions, obligations, rights and provisions in the Agreement pertaining to the Easement and all other matters therein shall be in full force and effect for all purposes as of the Easement Effective Date (except that the Option and Option Term shall be deemed expired as of the Easement Effective Date), including, but not limited to, Grantee's rights to erect, construct, install, reconstruct, relocate, move, maintain, operate, inspect, patrol, repair, replace, improve, alter, upgrade, dismantle, demolish and/or remove, at any time and from time to time, the Transmission System above the Property until the Easement Area has been established therein and, once established, within said Easement Area for the remainder of the Easement Term.

NOW, THEREFORE, pursuant to and in accordance with the Agreement and Grantee's rights thereunder, Grantee hereby exercises the Option granted in the Agreement by filing this Notice of Exercise in the Official Records and, by such action and in accordance the provisions contained in the Agreement,

the Easement and all terms, conditions, obligations, rights and provisions contained in the Agreement, are in full force and effect for all purposes as of the Easement Effective Date, except that the Option and Option Term are deemed to be expired as of the Easement Effective Date.

This Notice of Exercise touches and concerns the land and shall be a real right and covenant running with the land.

Each capitalized terms used but not defined herein shall have the same meaning given to such term in the Agreement.

[Signature and acknowledgment page follows this page]

IN WITNESS WHEREOF, Grantee has executed this Notice of Exercise to be effective as of the Easement Effective Date.

GRANTEE:

ILLINOIS GENERATION LLC, a Delaware limited liability company

By: _____

Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 20__, by _____, as _____ of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]

Notary Public

My commission expires: _____

EXHIBIT A
to Notice of Exercise of Option for Easement
(Electrical Energy Transmission and Distribution System)

Legal Description

[To be inserted at the time the Notice of Exercise is filed if the easement area has been established; if not yet established, then it will be the legal description for the Property]

PIN:

Commonly Known As:

EXHIBIT D

MAP OF PROPOSED LOCATIONS



- Wire Crossing
- 150' T-Line Easement
- Property Boundary

Prepared by and after
recording return to:
Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, Texas 77002
Attn: Land Department

2022R-04139
COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
09/16/2022 03:27:25 PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

RECORDER'S AUTOMATION FEE	12.00
GIS MAINTENANCE FEE	20.00
RHSPS FEE	9.00
RECORDING FEE	17.00
DOC STORAGE FEE	5.00

PAGES: 8

(Space Above for Recorder's Use Only)

THIS MEMORANDUM OF LEASE ("*Memorandum*") is made and entered into as of September 2, 2022, by and between 1954 Trust Under Will Peter D. Scully ("*Landlord*") and Illinois Generation LLC, a Delaware limited liability company ("*Tenant*").

1. **Lease.** For the term and upon the provisions set forth in that certain Ground Lease of even date herewith between Landlord and Tenant (the "*Lease*"), all of which provisions are specifically made a part hereof as though fully and completely set forth herein, Landlord has leased to Tenant, and Tenant has leased from Landlord, that certain real property (the "*Premises*") located in the County of Livingston, State of Illinois, as more particularly described in Exhibit "A" attached hereto, together with all rights of ingress and egress and all other rights appurtenant to the Premises, as more particularly described in the Lease.

2. **Easements.** The Lease also includes the grant of certain non-exclusive Easements over certain other portions of the Landlord's adjacent property as set forth in the Lease.

3. **Term.** The Development Term of the Lease is up to three (3) years, commencing on September 2, 2022. After the Development Term and subject to certain conditions, the Lease may be extended up to eighteen (18) months for a Construction Term, and then for an additional Operations Term of between forty (40) and fifty (50) years. Upon termination of the Lease for any reason, Tenant shall promptly, and in any event within ten (10) business days, execute any document reasonably requested by Landlord to evidence the termination of the Lease to be recorded by Landlord at its expense.

4. **Notice.** This Memorandum is prepared for the purpose of giving notice of the Lease and in no way modifies the express provisions of the Lease. In the event of any conflict between the terms of this Memorandum and the terms of the Lease, the terms of the Lease shall control.

This Memorandum will continue to constitute notice of the Lease, even if the Lease is subsequently amended. Landlord has no ownership or other interest in any Transmission Facilities installed on the Premises nor any right to, lien on or interest in same. Any right, lien, or interest in the Transmission Facilities purported to be held or granted by or through Landlord is void ab initio.

5. **Successors and Assigns.** Landlord and Tenant intend that the covenants, conditions and restrictions contained in the Lease will be both personal to Landlord and Tenant and binding on their successors and assigns. Each successive owner of the Premises or of any portion thereof, and each Person having any interest therein derived through any owner thereof, will be bound by such covenants, conditions and restrictions for the benefit of the Premises.

6. **Counterparts.** This Memorandum may be executed in one or more counterparts, each of which will be an original instrument, but all of which, when taken together, will constitute one and the same instrument.

[Signatures and Acknowledgements Follow]

IN WITNESS WHEREOF, this Memorandum of Lease has been executed as of the date first written above.

LANDLORD:

By: 
Name and Title: Merida Scully, Trustee

By: _____
Name and Title: Nadine Scully, Trustee

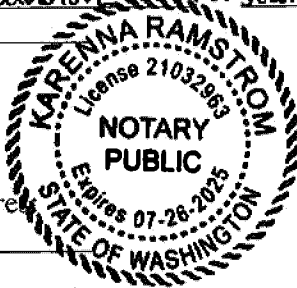
ACKNOWLEDGMENT OF LANDLORD

STATE OF Washington
COUNTY OF Whatcom

This instrument was acknowledged before me on the 7th day of September, 2022, by Merida Scully as Landlord of Scully Estates, a business, on behalf of such property.

[SEAL]

My Commission Expires 07/26/25





Notary Public, State of Washington
Printed Name of Notary: Kareenna Ramstrom

ACKNOWLEDGMENT OF LANDLORD

STATE OF _____
COUNTY OF _____

This instrument was acknowledged before me on the ___ day of _____, 20___, by _____, as _____, of _____, a _____, on behalf of such _____.

[SEAL]

My Commission Expires: _____

Notary Public, State
Printed Name of Notary: _____

IN WITNESS WHEREOF, this Memorandum of Lease has been executed as of the date first written above.

LANDLORD:

By: _____
Name and Title: Merida Scully, Trustee

By: Nadine Scully, Trustee
Name and Title: Nadine Scully, Trustee

ACKNOWLEDGMENT OF LANDLORD

STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the ___ day of _____, 20___, by _____ as _____, of _____, a _____, on behalf of such _____.

[SEAL]

My Commission Expires: _____

Notary Public, State
Printed Name of Notary:

ACKNOWLEDGMENT OF LANDLORD

STATE OF California

COUNTY OF Marin

This instrument was acknowledged before me on the 1 day of September, 2022, by Clinton Dean Jones, as _____, of _____, a _____, on behalf of such Nadine Scully.

[SEAL]

See Attached
Notarial Certificate

My Commission Expires: 03/16/2026

[Signature]

Notary Public, State California
Printed Name of Notary: Clinton Dean Jones

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

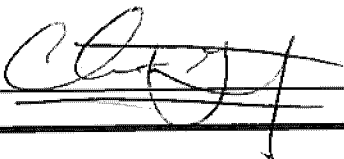
County of Marin)

On 09/01/2022 before me, Clinton Dean Jones
(insert name and title of the officer)

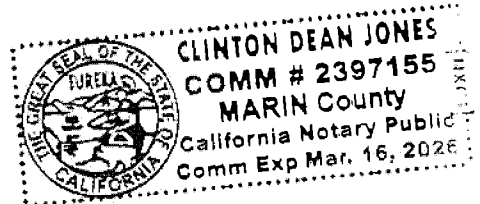
personally appeared Nadine Scully,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature 

(Seal)



TENANT

By: [Signature]
Name: Caton Fenz
Title: Authorized Signatory

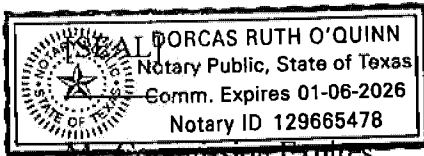
SZ

ACKNOWLEDGMENT OF TENANT

STATE OF Texas

COUNTY OF Harris

This instrument was acknowledged before me on the 29th day of August, 2022, by Caton Fenz, as Authorized Signatory, of Illinois Generation LLC, a Delaware limited liability company, on behalf of such limited liability company.



My Commission Expires: 1/6/26

[Signature]

Notary Public, State Texas
Printed Name of Notary: Dorcas O'Quinn

TENANT ILLINOIS GENERATION LLC

By: Deann Lanz
Name: Deann Lanz
Title: Authorized Signatory

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on the 31st day of August, 2022, by Deann Lanz, as Authorized Signatory, of Illinois Generation LLC, a Delaware limited liability company on behalf of such limited liability company
[SEAL]

Sarah Ann Henry
Notary Public, State TEXAS
Printed Name of Notary: SARAH ANN HENRY

My Commission Expires:
1-5-2026



[Signature Page and Acknowledgments to Memorandum of Lease]

EXHIBIT A TO
MEMORANDUM OF LEASE

The southern two hundred feet (which two-hundred-foot measurement shall begin at the centerline of E 3000 N Road) of Section 14, excluding the abandoned railroad right-of-way of the NYC RR, all in Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County Illinois.

PORTION OF PARCEL: 06-06-14-100-001; Approximately 24 acres, more or less

Common Address: Round Grove Township.



2020R-03547

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
08/18/2020 12:02:27PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of August 4, 2020 ("Effective Date"), by and between Bank of Pontiac, as Trustee of Trust Number 2101 dated July 31, 1990, by John Marshall, Trust Officer, whose address is Post Office Box 171, Campus, Illinois 60920 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

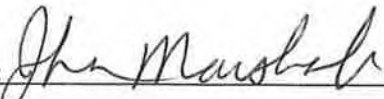
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Bank of Pontiac, as Trustee of Trust
Number 2101 dated July 31, 1990

By: 
John Marshall, Trust Officer

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 9th day of July, 2020 by John Marshall as Trust Officer of Bank of Pontiac, as Trustee of Trust Number 2101 dated July 31, 1990.

[SEAL]

Patricia A. Hetherington
Notary Public for the State of Illinois
My commission expires: 10/25/2021
Commission No.: _____



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The North One-Half (N ½) of the Northwest One-Quarter (NW ¼) of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, containing Seventy-Nine (79) acres, more or less. ✓

PIN: 06-06-22-100-001: Farm Land: 79 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

That part of the North One-Half (N ½) of the Northwest One-Quarter (NW ¼) of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, lying east of the Norfolk and Western Railroad Right-of-Way, containing Thirty-One (31) acres, more or less. ✓

PIN: 06-06-34-100-010: Farm Land: 31 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 110 acres, more or less.



2020R-04651

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/20/2020 02:48:04PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Michael K. Bennington, whose address is 30847 North 3100 East Road, Dwight, Illinois 60420 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

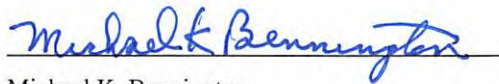
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Michael K. Bennington

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF GRUNDY §

This instrument was acknowledged before me this 23 day of SEPTEMBER, 2020 by
Michael K. Bennington

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



RECEIVED

UNITED STATES DEPARTMENT OF JUSTICE

[Handwritten signature]

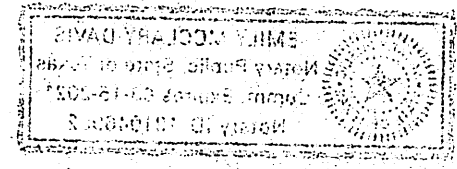
UNITED STATES DEPARTMENT OF JUSTICE

UNITED STATES DEPARTMENT OF JUSTICE

RECEIVED

UNITED STATES DEPARTMENT OF JUSTICE

[Handwritten signature]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

Parcel I: That part of the East 160 acres of the North Half of Section 18 together with that part of the East 100 acres of the South Half of said Section 18, all in Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Beginning at a point on the East line of said Section 18, which point is 1528.87 feet South from the Northeast Corner of said Section 18, and running thence South 88 degrees 49 minutes 19 seconds West 263.44 feet to the center of a creek; thence South 57 degrees 03 minutes 01 seconds West along said center 59.88 feet; thence South 61 degrees 46 minutes 05 seconds West along said center 635.72 feet; thence South 44 degrees 42 minutes 24 seconds West along said center 843.76 feet; thence South 38 degrees 50 minutes 44 seconds West along said center 238.79 feet to a point on the South line of said North Half of Section 18; thence North 89 degrees 57 minutes 54 seconds East along said South line 7.91 feet to the Northwest Corner of said East 100 acres of the South Half; thence South 00 degrees 19 minutes 35 seconds East along the West line of said East 100 acres 341.46 feet; thence South 89 degrees 59 minutes 57 seconds East parallel with the South line of said Section 18, 1637.37 feet to the East line of said Section 18; and thence North 1 degree 10 minutes 41 seconds West along said East line 1466.14 feet to the point of beginning, in Livingston County, Illinois.

Parcel II: That part of the East 100 acres of the South Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Beginning at a point on the West line of said East 100 acres, which point is 341.46 feet South from the Northwest Corner of said East 100 acres, and running thence South 89 degrees 59 minutes 57 seconds East parallel with the South line of said Section 18, 1637.37 feet to the East line of said Section 18; thence South 1 degree 10 minutes 41 seconds East along said East line 2309.93 feet to the Southeast Corner of said Section 18; thence North 89 degrees 59 minutes 57 seconds West along the South line of said Section 18, 1671.70 feet to the Southwest Corner of said East 100 acres, and thence North 00 degrees 19 minutes 35 seconds West along said West line of the East 100 acres, 2309.48 feet to the point of beginning, in Livingston County, Illinois.

PIN: 06-06-18-400-003: Farm Land: 127.86 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

Parcel 1:

That part of the East 160 acres of the North Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Beginning at the Northeast Corner of said Section 18 and running; thence South 01 Degrees 10 Minutes 41 Seconds East, along the East Line of said Section 18, 407.94 feet; thence South 89 Degrees 55 Minutes 47 Seconds West, parallel with the North Line of said Section 18, 2648.36 feet to the West Line of said East 160 acres; thence North 01 Degrees 08 Minutes 14 Seconds West, along said West Line, 407.94 feet to said North Line; and thence North 89 Degrees 55 Minutes 47 Seconds East, along said North Line, 2648.07 feet to the Point of Beginning, in Livingston County, Illinois.

Parcel 2:

That part of the East 160 acres of the North Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Beginning at a Point on the East Line of said Section 18, which Point is 407.94 feet south from the Northeast Corner of said Section 18, and running; thence South 01 Degrees 10 Minutes 41 Seconds East, along said East Line, 1120.93 feet; thence South 88 Degrees 49 Minutes 19 Seconds West 263.44 feet to the center of a creek; thence South 57 Degrees 03 Minutes 01 Seconds West, along said center, 59.88 feet; thence South 61 Degrees 46 Minutes 05 Seconds West, along said center, 635.72 feet; thence South 44 Degrees 42 Minutes 24 Seconds West, along said center, 843.76 feet; thence South 38 Degrees 50 Minutes 44 Seconds West, along said center, 238.79 feet to a Point on the South Line of said North Half of Section 18; thence South 89 Degrees 57 Minutes

54 Seconds West, along said South Line, 1009.82 feet to the Southwest Corner of said East 160 acres; thence North 1 Degree 08 Minutes 14 Seconds West, along the West Line of said East 160 acres, 2242.86 feet to a Point 407.94 feet South from the North Line of said Section 18; and thence North 89 Degrees 55 Minutes 47 Seconds East, parallel with said North Line, 2648.36 feet to the Point of Beginning, in Livingston County, Illinois.

✓ Excepting from Parcel 1 and Parcel 2: That part of the East 160 acres of the North Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Commencing at the Northeast Corner of said Section 18, and running; thence South 89°-55'-47" West, along the North Line of said Section 18, 1638.21 feet to the point of beginning; thence South 89°-55'-47" West, along said North Line, 1009.81 feet; thence South 01°-08'-14" East, along the West Line of said East 160 acres of the North Half, 2650.80 feet to the Southwest Corner of said East 160 acres; thence North 89°-57'-54" East, along the South Line of said North Half of Section 18, 1009.82 feet; and thence North 01°-08'-14' West, parallel with said West Line of the East 160 acres, 2651.42 feet to the point of beginning. Containing 61.45 acres, more or less.

PIN: 06-06-18-200-008 and 06-06-18-200-006: Farm Land: 72.47 acres, more or less.

Common Address: Round Grove Township: 30847 North 3100 East Road, Dwight, Illinois 60420.

The land described herein contains a total of 200.33 acres, more or less.



2020R-01664

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
05/04/2020 10:53:36AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *\$63*

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of *April 28*, 2020 ("Effective Date"), by and between Jason Blum, whose address is 7146 White Willow Road, Minooka, Illinois 60447 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur

5

of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Jason Blum

ACKNOWLEDGMENT

STATE OF ILLINOIS

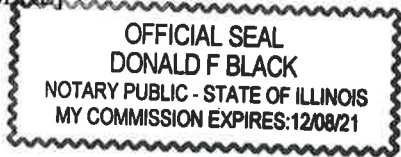
§
§
§

COUNTY OF Grundy

This instrument was acknowledged before me this 18th day of April, 2020 by Jason Blum

Donald F Black

[SEAL]



Notary Public for the State of Illinois
My commission expires: 12/8/21
Commission No.: _____

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: _____

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

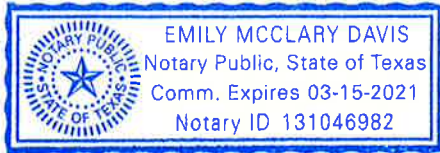
STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 28 day of April 2020,
by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
Delaware limited liability company.

Emily McClary Davis

Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois. Excepting therefrom: That part of the Southeast Quarter of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the Northeast corner of the Southeast Quarter of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian; thence South 00 degrees 12 minutes 19 seconds West, along the East line of said Southeast Quarter for a distance of 361.08 feet to the Point of Beginning; thence North 89 degrees 47 minutes 41 seconds West for a distance of 484.35 feet; thence North 00 degrees 12 minutes 19 seconds East for a distance of 310.00 feet; thence North 89 degrees 47 minutes 41 seconds West for a distance of 479.22 feet; thence South 00 degrees 12 minutes 19 seconds West for a distance of 329.00 feet; thence South 89 degree 47 minutes 41 seconds East for a distance of 184.84 feet; thence South 00 degrees 12 minutes 19 seconds West for a distance of 111.00 feet; thence South 89 degrees 47 minutes 41 seconds East for a distance of 295.00 feet; thence North 45 degrees 12 minutes 19 seconds East for a distance of 113.14 feet; thence South 89 degrees 47 minutes 41 seconds East for a distance of 403.74 feet to a point on the East line of said Southeast Quarter; thence North 00 degrees 12 minutes 19 seconds East, along said East line, for a distance of 50.00 feet to the Point of Beginning, all in Livingston County, Illinois.

PIN: 05-05-22-200-002: Farm Land: 315 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.



2018R-00063

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/05/2018 10:48:58AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 13.50
RHSPS FEE: 9.00
GIS FEE: 16.00
AUTO FEE: 3.50
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *42*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 20, 2017 ("Effective Date"), by and between Bruce A. Bossert and Gloria J. Bossert, whose address is 31565 North 3000 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at Pier 1, Bay 3, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

5

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

A handwritten signature in blue ink, reading "Bruce A. Bossert", written over a horizontal line.

Bruce A. Bossert

A handwritten signature in blue ink, reading "Gloria J. Bossert", written over a horizontal line.

Gloria J. Bossert

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 11th day of December, 2017 by Bruce A. Bossert.

[SEAL]

Rebecca Heinrich
Notary Public for the State of Illinois
My commission expires: _____
Commission No.: _____



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 11th day of December, 2017 by Gloria J. Bossert.

[SEAL]

Rebecca Heinrich
Notary Public for the State of Illinois
My commission expires: _____
Commission No.: _____



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The North Half of the Northeast Quarter of Section 12, Township 30 North, Range 7 East of the Third Principal Meridian, excepting therefrom that part of said North Half lying within the right-of-way of Illinois Route 17 and also excepting that part of the West 726 feet of the North 480 feet of said North Half of the Northeast Quarter lying South of the South right-of-way line of Illinois Route 17, containing 70.08 acres of land, more or less.

PIN: 05-05-12-200-008

Tract 2:

The West Half of the Southwest Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois. Excepting therefrom the following: A part of the Southwest Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois; more particularly described as follows: Beginning at a point on the West Line of said Southwest Quarter lying 900.00 feet North of the Southwest Corner of said Southwest Quarter. From said Point of Beginning, thence North 150.00 feet along said West Line; thence East 150.00 feet along a line which forms an angle to the left of 90 degrees 00 minutes 00 seconds with the last described course; thence South 150.00 feet along a line which forms an angle to the left of 90 degrees 00 minutes 00 seconds with the last described course; thence West 150.00 feet along a line which forms an angle to the left of 90 degrees 00 minutes 00 seconds with the last described course to the Point of Beginning, containing 0.52 acres, more or less.

The land described herein as Tract 2 contains a total of 79.48 acres, more or less.

PIN: 05-05-14-300-004

Tract 3:

The South One-Half (S ½) of the Northeast One-Quarter (NE ¼) of Section Twelve (12), Township Thirty (30) North, Range Seven (7) East of the Third Principal Meridian in Livingston County, Illinois excepting therefrom the following described real estate, to-wit:

Commencing at a point on the East line of the Northeast Quarter of Section Twelve (12), Township Thirty (30) North, Range Seven (7) East of the Third Principal Meridian in Livingston County, Illinois, which point is 365 feet North of the Southeast Corner of said Northeast Quarter of said Section Twelve (12), thence North 150 feet, thence West parallel with the South line of said Northeast Quarter 290 feet, thence South parallel with the East line of said Northeast Quarter 150 feet, thence East parallel with the South line of said Northeast Quarter 290 feet to the Point of Beginning, all of such premises being situated in the County of Livingston and State Illinois.

The land described herein as Tract 3 contains a total of 79 acres, more or less.

PIN: 05-05-12-200-004

The land described herein contains a total of 228.56 acres, more or less.

2023R-04600

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON:
12/22/2023 08:40:13 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

RECORDER'S AUTOMATION FEE 12.00
GIS MAINTENANCE FEE 20.00
RHSPS FEE 18.00
RECORDING FEE 17.00
DOC STORAGE FEE 5.00

PAGES: 6

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of the ____ day of December 18, 2023 ("**Effective Date**"), by and between Boxer Farm Properties, LLC, an Illinois limited liability company, whose address is c/o Peoples National Bank of Kewanee, Dwight Banking Center, Farm Management Department, 122 W. Main Street, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "**Owner**"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "**Developer**"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "**Option Agreement**") which by its terms grants to Developer an option to acquire an easement (the "**Option**") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "**Property**");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("**Notice of Exercise**"), or (b) one (1) year after the Effective Date, unless extended for an additional period of four (4) years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "**Operating Period**," which Operating Period commences upon the earlier to occur of (a) three (3) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty-two (42) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

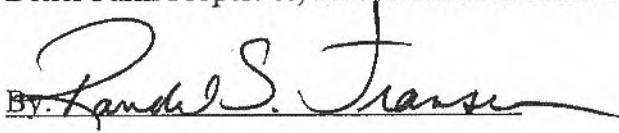
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

[SIGNATURE PAGE FOLLOWS]

“OWNER”

Boxer Farm Properties, LLC, an Illinois limited liability company

By: 

Randal S. Fransen, its Attorney-in-
Fact

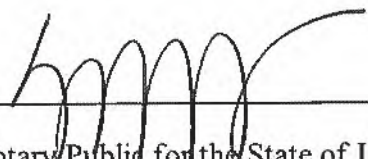
ACKNOWLEDGMENT

STATE OF ILLINOIS

COUNTY OF LIVINGSTON

§
§
§

This instrument was acknowledged before me this 8 day of October, 2023 by Randal S. Fransen as authorized signatory of Boxer Farm Properties, LLC, an Illinois limited liability company.



[SEAL]

Notary Public for the State of Illinois
My commission expires: Aug 30, 2026
Commission No.: 958005



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southwest Quarter of the Southeast Quarter and the East Half of the Southeast Quarter of the Southwest Quarter of Section 11, Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois.

PIN: 05-05-11-400-002: Farm Land: 60 acres, more or less.

Common Address: Dwight Township.

- Exhibit A -



* 2 0 2 0 R - 0 3 0 3 2 7 *

2020R-03032

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/22/2020 12:43:48PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 30.50
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 7

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$76,50

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of APRIL 28, 2020 ("Effective Date"), by and between Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007 and Maureen M. Carlson as Trustee of the Maureen M. Carlson Trust created November 9, 2007, whose address is P. O. Box 177, Campus, Illinois 60920 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Rodney Carlson as Trustee of the Rodney
Carlson Trust created November 9, 2007



Maureen M. Carlson as Trustee of the Maureen
M. Carlson Trust created November 9, 2007

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 23 day of JUNE, 2020 by Rodney Carlson as Trustee of the Rodney Carlson Trust created November 9, 2007.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



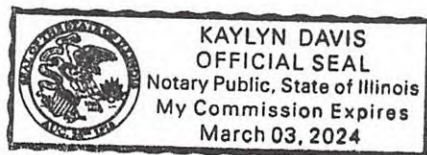
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

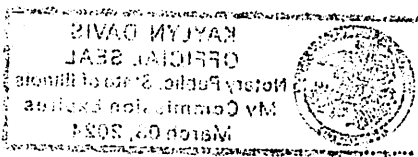
This instrument was acknowledged before me this 22 day of JUNE, 2020 by Maureen M. Carlson as Trustee of the Maureen M. Carlson Trust created November 9, 2007.

[SEAL]

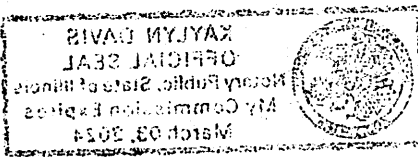
Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



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[Faint, illegible handwritten text]



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
 Name: Blake Rasmussen
 Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

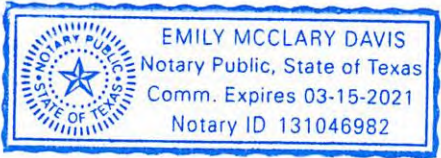
STATE OF Texas §
 COUNTY OF Harris §
 §

The foregoing instrument was acknowledged before me this 7 day of July 2020,
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.

[Signature: Emily McClary Davis]

[SEAL]

Notary Public for the State of Texas
 My commission expires: 3-15-2021
 Commission No.: 131041098

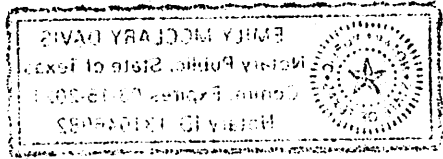


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**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West Half of the Southwest Quarter of Section 11, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, in Livingston County, Illinois, except that part described as beginning 588 feet West of the Southwest corner thereof, thence North 300 feet, then West 252 feet; then North 100 feet, then West 146 feet, then South 248 feet, then East 105 feet, then South 152 feet to the South line of said Section 11, then East along said South line 288 feet to the Point of Beginning, leaving 77.23 acres, more or less.

PIN 06-06-11-300-007: Farm Land: 77.23 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The Northwest Quarter of the Northeast Quarter of Section 15, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-15-200-004: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township.

Tract 3:

The Northeast Quarter of the Northeast Quarter of Section 15, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN 06-06-15-200-007: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township.

Tract 4:

The South Half of the Northeast Quarter of Section 15, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-15-200-008: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township.

Tract 5:

The North one-half of the Northwest one-quarter of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, West of the Westerly right-of-way line of the former Wabash Railroad. except the following:

Exception 1 to Tract 5:

(Tract 2, Parcel A Livingston County, Illinois)

That part of the Northwest Quarter of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Commencing at the Northwest corner of said Northwest Quarter and running thence East 250 feet; thence South 1000 feet; thence West 250 feet; and thence North 1000 feet to the point of the beginning, containing 5.74 acres, more or less. Permanent Real Estate Tax Index No.: 06-34-100-015. (Identified as "A" on a certain Plat of Survey prepared by Carl J. Krause, Illinois Registered Land Surveyor No. 1750 dated July 22nd, 2002.)

Exception 2 to Tract 5:

(Tract 2, Parcel B Livingston County, Illinois)

That part of the Northwest Quarter of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the West line of said Northwest Quarter, which point is 1000 feet South from the Northwest corner of said Northwest Quarter and running; thence South, along said West line 75 feet; thence East, parallel with the North line of said Northwest Quarter, 33 feet; thence Northeasterly 228.81 feet to a point 250 feet Easterly from the point of beginning; and thence West, parallel with said North line 250 feet to the point of Beginning, containing 0.24 acres, more or less. A part of Permanent Real Estate Index No.: 06-34-100-015. (Identified as "B" on a Plat of Survey by Carl J. Krause, Illinois Registered Land Surveyor No. 1750 dated July 22nd, 2002.)

Exception 3 to Tract 5:

(Tract 2, Parcel C Livingston County, Illinois)

That part of the Northwest Quarter of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the North line of said Northwest Quarter, which point is 250 feet East from the Northwest corner of said Northwest Quarter and running; thence South, parallel with the West line of said Northwest Quarter, 400 feet; thence East, parallel with said North line 130 feet; thence Northwesterly 400.31 feet to a point on said North line, said point being 118 feet East from the point of beginning; and thence West, along said North line 118 feet to the point of beginning, containing 1.14 acres, more or less. A part of the Permanent Real Estate Tax Index No.: 06-34-100-015 (Identified as "C" on a Plat of Survey by Carl J. Krause, Illinois Registered Land Surveyor No. 1750 dated July 22nd, 2002.)

PIN: 06-06-34-100-013 and 06-06-34-100-009: Farm Land: 36.97 acres, more or less.

Common Address: Round Grove Township.

Tract 6:

The East Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois excepting therefrom the following:

Exception 1 to Tract 6:

That portion of the said Section 33 South and East of the Westerly right-of-way Line of the former Wabash Railroad;

Exception 2 to Tract 6:

(Tract 3, Parcel A Livingston County, Illinois)

That part of the Northeast Quarter and the Southeast Quarter of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Beginning at the Southeast corner of said Northeast Quarter, being also the Northeast corner of said Southeast Quarter and running; thence North, along the East line of said Northeast Quarter, 145 feet; thence West, parallel with the South line of said Northeast Quarter, 230 feet; thence South, parallel with said East line, 245 feet to a point 100 feet South from the North line of said Southeast Quarter; thence Southwesterly 20.44 feet to a point 104.24 feet South from said North line; thence South, parallel with said East line, 202.99 feet; thence East, parallel with said North line, 214.50 feet to the Westerly right of way line of the former Wabash Railroad; thence Northeasterly, along said Westerly line, 64.67 feet to a point on the East line of said Southeast Quarter, which point is 253.17 feet South from the point of beginning; and thence North, along said East line, 253.17 feet to the point of beginning, containing 2.46 acres, more or less. Permanent Real Estate Tax Index No.: 06-33-426-006. (Identified as "A" on a certain Plat of Survey prepared by Carl J. Krause, Illinois Registered Land Surveyor No. 1750 dated July 22nd, 2002.)

Exception 3 to Tract 6:

(Tract 3, Parcel B Livingston County, Illinois)

That part of the Southeast Quarter of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois bounded and described as follows: Commencing at a point on the East line of said Southeast Quarter, which point is 100 feet South from the Northeast corner of said Southeast Quarter, and running, thence West, parallel with the North line of said Southeast Quarter, 250 feet; thence

South, parallel with said East line, 4.24 feet to the point of beginning, thence South, parallel with said East line, 202.99 feet; thence West, parallel with said North line, 7.72 feet; thence North, parallel with said East line, 60 feet; thence West parallel with said North line 30 feet; thence North, parallel with said East line, 135 feet; and thence Northeasterly 38.56 feet to the point of beginning, containing .013 acres, more or less. A part of Permanent Real Estate Tax Index No.: 06-33-200-006. (Identified as "B" on a Plat of Survey prepared by Carl J. Krause, Illinois Registered Land Surveyor No. 1750, dated July 22nd, 2002.)

Exception 4 to Tract 6:

Certain real estate identified as "C" on a certain Plat of Survey prepared by Carl J. Krause, Illinois Registered Land Surveyor #1750, dated July 22nd, 2002, said parcel being west of and adjacent to the North 245 feet of Exception 2 above, and being 20 feet in width;

Exception 5 to Tract 6:

Certain real estate Identified as "D" on a certain Plat of Survey prepared by Carl J. Krause, Illinois Registered Land Surveyor #1750 dated July 22nd, 2002, said "D" being immediately South of and adjacent to the real estate described as Exception 2 for Tract 6 above as "A", said Exception 5 having a West Line which is an extension of the West Line of Exception 4 above, a South Line parallel to and 42.77 feet normally distance from the South Line of Exception 2, an East Line as the Westerly right-of-way Line of the former Wabash Railroad, and a North Line which is the South Line of Exception 2 to Tract 6 described above.

Exception 6 to Tract 6:

Beginning at a point 33 ½ rods West and 40 rods South of the Half Section corner of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois. Thence South about 25 rods to the line of the right of way of the Wabash Railroad; thence Northeast along said right of way to a point about 14 rods due East of the Point of Beginning, thence West to the Point of Beginning, containing 1.5 acres, more or less. PIN: 06-06-33-426-002.

Exception 7 of Tract 6:

That part of the Southeast ¼ of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at the Point of Intersection of the South line of said Southeast ¼, with the Westerly right-of-way line of the abandoned Wabash Railroad, which point is 1526.76 feet West from the Southeast corner of said Southeast ¼, said point being the Point of Beginning for this tract of land, and running; thence South 89°-08 minutes-27 seconds West, along said South line of said Southeast ¼, 481.00 feet; thence North 00°-51 minutes-33 seconds West, 327.00 feet; thence North 89°-08 minutes-27 seconds East, parallel with said South line, 689.90 feet to said Westerly right-of-way line; and thence South 31°-42 minutes-45 seconds West, along said Westerly right-of-way line, 388.03 feet to the Point of Beginning. Containing 4.39 acres, more or less. PIN: 06-06-33-451-004

PIN: 06-06-33-200-006 and 06-06-33-451-003: Farm Land: 269.67 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 543.87 acres, more or less.



* 2 0 2 0 R - 0 2 8 2 2 5 *

2020R-02822

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

07/09/2020 01:53:10PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

163

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between Mark T. Christenson and Jennifer C. Christenson, husband and wife, whose address is 32810 North 3100 East Road, Dwight Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Mark T. Christenson



Jennifer C. Christenson

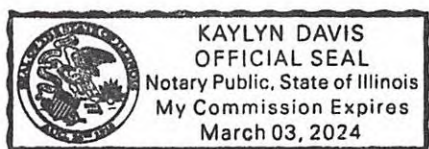
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of June, 2020 by Mark T. Christenson.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: MARCH 03, 2024
Commission No.: 908987



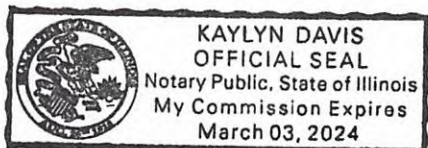
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of June, 2020 by Jennifer C. Christenson.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: MARCH 03, 2024
Commission No.: 908987



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT
DESCRIPTION OF THE PROPERTY**

Tract 1:

That part of the Northwest Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, described as follows: Beginning at a point on the West line of said Northwest Quarter, which point is 1167.68 feet North of the Southwest Corner of said Northwest Quarter, and running thence South 90 Degrees 00 Minutes 00 Seconds East 649.04 feet, to the center of a ditch; thence South 03 Degrees 15 Minutes 52 Seconds West, along said ditch centerline, 110.55 feet; thence South 14 Degrees 35 Minutes 03 Seconds West, along said ditch centerline, 107.11 feet; thence South 25 Degrees 54 Minutes 15 Seconds West, along said ditch centerline, 113.45 feet; thence South 36 Degrees 58 Minutes 03 Seconds West, along said ditch centerline, 107.07 feet; thence South 40 Degrees 13 Minutes 14 Seconds West, along said ditch centerline, 107.36 feet; thence South 47 Degrees 06 Minutes 46 Seconds West, along said ditch centerline, 108.50 feet; thence South 51 Degrees 14 Minutes 14 Seconds West, along said ditch centerline, 108.19 feet; thence South 55 Degrees 37 Minutes 52 Seconds West, along said ditch centerline, 100.40 feet; thence South 48 Degrees 40 Minutes 14 Seconds West, along said ditch centerline, 106.62 feet; thence South 49 Degrees 49 Minutes 31 Seconds West, along said ditch centerline, 60.58 feet; thence South 44 Degrees 42 Minutes 48 Seconds West, along said ditch centerline, 71.16 to a point on the West line of said Northwest Quarter; thence North 00 Degrees 38 Minutes 30 Seconds West, along said West line 841.97 feet to the Point of Beginning, containing 8.15 acres, more or less, in Livingston County, Illinois.

PIN: 06-06-05-100-016: Farm Land: 8.15 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The North Half of the Northwest Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-06-100-002: Farm Land: 57.95 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 66.10 acres, more or less.

2021R-02378

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
05/06/2021 12:42:26PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of April 21, 2021 ("Effective Date"), by and between Dawn M. Rousonelos, as Trustee of the Dawn M. Rousonelos Trust dated August 26, 2009, whose address is 13705 Quail Run Drive, Plainfield, Illinois 60544 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

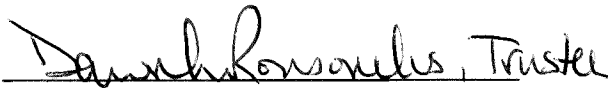
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Dawn M. Rousonelos, as Trustee of the Dawn M. Rousonelos Trust dated August 26, 2009

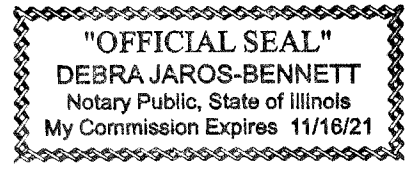
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF GRUNDY §

This instrument was acknowledged before me this 8th day of April, 20 21 by Dawn M. Rousonelos, as Trustee of the Dawn M. Rousonelos Trust dated August 26, 2009.

[SEAL]

Debra Jaros Bennett
Notary Public for the State of Illinois
My commission expires: 11/16/2021
Commission No.: 865328



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southeast Quarter of Section 7, Township 30 North, Range 8 East of the Third Principal Meridian,
Livingston County, Illinois.

PIN: 06-06-07-400-001: Farm Land: 161.34 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 0 R - 0 4 4 7 5 5 *

2020R-04475

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

863

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/09/2020 01:44:57PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 29, 2020 ("Effective Date"), by and between Dennis J. Wilhelmi, as Trustee of The Dennis J. Wilhelmi 2016 Declaration of Trust Dated September 22, 2016 and Loralyn Wilhelmi, as Trustee of The Loralyn Wilhelmi 2016 Declaration of Trust Dated September 22, 2016, whose address is 16555 West 3000 South Road, Buckingham, Illinois 60917 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

5

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

The Dennis J. Wilhelmi 2016 Declaration of Trust Dated September 22, 2016

By: Dennis J. Wilhelmi (Trustee)

Dennis J. Wilhelmi, Trustee

The Loralyn Wilhelmi 2016 Declaration of Trust Dated September 22, 2016

By: Loralyn Wilhelmi Trustee

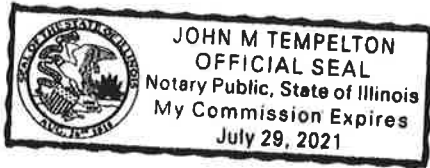
Loralyn Wilhelmi, Trustee

ACKNOWLEDGMENT

STATE OF ILLINOIS §
§
COUNTY OF Kankakee §

This instrument was acknowledged before me this 3 day of September, 20 20 by Dennis J. Wilhelmi, as Trustee of The Dennis J. Wilhelmi 2016 Declaration of Trust Dated September 22, 2016

[SEAL]



[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155

ACKNOWLEDGMENT

STATE OF ILLINOIS §
§
COUNTY OF Kankakee §

This instrument was acknowledged before me this 3 day of September, 20 20 by Loralyn Wilhelmi, as Trustee of The Loralyn Wilhelmi 2016 Declaration of Trust Dated September 22, 2016

[SEAL]



[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East Half Of The Northwest Quarter Of Section 17 In Township 30 North, Range 8 East Of The Third Principal Meridian, Except That Part Bounded And Described As Follows: Beginning At A Point On The North Line Of Said Northwest Quarter, Which Point Is 1675.00 Feet From The Northwest Corner Of Said Northwest Quarter And Running Thence South, Perpendicular To Said North Line, 397.00 Feet; Thence East, Parallel With Said North Line, 348.00 Feet; Thence North 397.00 Feet, To Said North Line; And Thence West, Along Said North Line, 348.00 Feet To The Point Of Beginning, Said Part Containing 3.17 Acres Of Land More Or Less, Situated In The County Of Livingston, State Of Illinois.

Tract 2:

The West Half Of The Northeast Quarter Of Section 17 In Township 30 North, Range 8 East Of Third Principal Meridian, All In Livingston County, Illinois.

PIN: 06-06-17-200-003: Farm Land: 156.83 acres, more or less.

Common Address: Round Grove Township.



2020R-05170

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
11/18/2020 11:10:46AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

\$63

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of November 5, 2020 ("Effective Date"), by and between Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001 and Darlene Drechsel as Trustee of the Darlene Drechsel Trust dated September 17, 2001, whose address is 111 Karen Drive, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

5

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Darlene Drechsel

~~Arnold Drechsel as Trustee~~ of the Arnold
Drechsel Trust dated September 17, 2001

DA. Darlene Drechsel as trustee

Darlene Drechsel


Darlene Drechsel as Trustee of the Darlene
Drechsel Trust dated September 17, 2001

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 17 day of October, 20 20 by Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



ACKNOWLEDGMENT

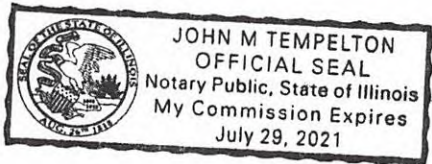
STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 17 day of October, 20 20 by Darlene Drechsel as Trustee of the Darlene Drechsel Trust dated September 17, 2001.

[SEAL]

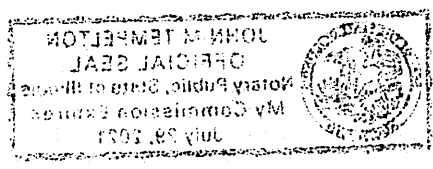


Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



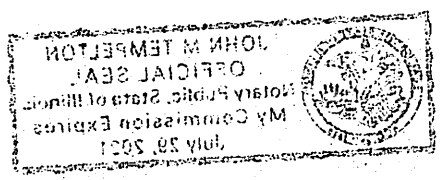
October 17

10-17-01
[Handwritten signature]



October 17

10-17-01
[Handwritten signature]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT
DESCRIPTION OF THE PROPERTY**

The Northeast Quarter of Section 8, Township 30 North, Range 8 East of the Third Principal Meridian,
Livingston County, Illinois.

PIN: 06-06-08-200-002: Farm Land: 160 acres, more or less.

Common Address: Round Grove Township: 31916 East 3200 North Road, Dwight, Illinois 60420.



2020R-05171

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *963*

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
11/18/2020 11:10:47AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of November 5, 2020 ("Effective Date"), by and between Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001, whose address is 111 Karen Drive, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Darlene Drechsel

~~Arnold Drechsel as Trustee~~ of the Arnold
Drechsel Trust dated September 17, 2001


AA Darlene Drechsel as trustee

ACKNOWLEDGMENT

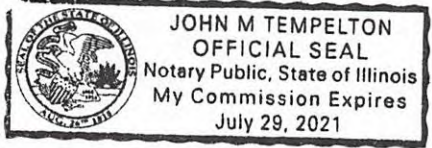
STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 17 day of October, 2020 by Darlene Drechsel as Trustee of the Arnold Drechsel Trust dated September 17, 2001.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Lot 1 in the Northeast Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian (except the right of way of the New York Central Railroad along the South side of said Lot 1), in Livingston County, Illinois.

PIN: 06-06-06-200-002: Farm Land: 75.50 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 0 R - 0 0 5 0 7 5 *

2020R-00507

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

02/05/2020 02:12:51PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *463*

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 29, 2020 ("Effective Date"), by and between Donna Jean Earing, as Fee Simple and Contract Seller, and Gerald Leslie Earing, also known as, Gerald L. Earing and Janice Lynn Earing, also known as, Janice L. Earing, husband and wife, as Contract Purchasers, whose address is 28318 North 3200 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

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Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

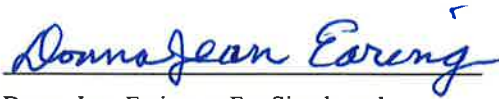
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

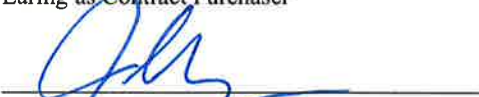
"OWNER"



Donna Jean Earing, as Fee Simple and Contract Seller



Gerald Leslie Earing, also known as, Gerald L. Earing as Contract Purchaser



Janice Lynn Earing, also known as, Janice L. Earing as Contract Purchaser

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Kankakee §

This instrument was acknowledged before me this 10th day of January, 20 20 by Donna Jean Earing, as Fee Simple and Contract Seller

Cheryl K. Elliot
Notary Public for the State of Illinois
My commission expires: 03-01-20
Commission No.: _____

[SEAL]



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Kankakee §

This instrument was acknowledged before me this 10th day of January, 20 20 by Gerald Leslie Earing, also known as, Gerald L. Earing as Contract Purchaser

Cheryl K. Elliot
Notary Public for the State of Illinois
My commission expires: 03-01-20
Commission No.: _____

[SEAL]



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Kankakee §

This instrument was acknowledged before me this 10th day of January, 20 20 by Janice Lynn Earing, also known as, Janice L. Earing as Contract Purchaser

Cheryl K. Elliot
Notary Public for the State of Illinois
My commission expires: 03-01-20
Commission No.: _____

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

✓ ↗

The North Half of the Southwest Quarter of Section 28, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, EXCEPTING therefrom the following: That part of the North Half of the Southwest Quarter of Section 28, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the West line of said Southwest Quarter which point is 825 feet South from the Northwest Corner of said North Half of the Southwest Quarter and running; thence East, perpendicular to said West line, 394 feet; thence South parallel with said West line, 515 feet; thence West perpendicular to said West line 394 feet, and thence North along said West line 515 feet to the point of beginning, said exception containing approximately 4.66 acres, more or less.

PIN: 06-06-28-300-004: Farm Land: 75.34 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 0 R - 0 4 6 4 8 5 *

2020R-04648

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

10/20/2020 02:48:01PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63'*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998, whose address is 716 Bryan Place, Fort Lauderdale, Florida 33312 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

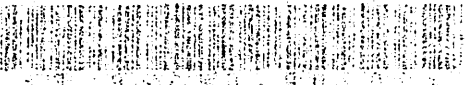
WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5



RESEARCH REPORT

RESEARCH REPORT
TITLE: [Illegible]

AUTHOR: [Illegible]

DATE: [Illegible]

NO. [Illegible]

[Illegible text]

[Illegible text]

ABSTRACT

[Illegible text]

[Illegible text]

F 7509100

INTRODUCTION

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 7 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

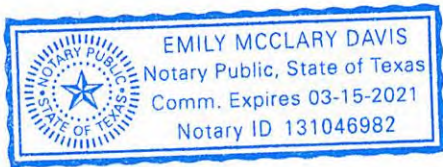


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Parcel 1:

The Southwest $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois. ✓ ↗

AND

Parcel 2:

The Southeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, excepting therefrom the West 346 feet of the South 630 feet thereof, and also excepting therefrom the East 195 feet of the West 541 feet of the South 380 feet thereof. Situated in Livingston County, Illinois. ✓ ↗

PIN: 05-05-27-400-008: Farm Land: 73.3 acres, more or less.

Common Address: Dwight Township.



* 2 0 2 0 R - 0 4 9 8 5 8 *

2020R-04985

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
11/05/2020 02:58:11PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 8

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

\$63

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 16, 2020 ("Effective Date"), by and between Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998; Edward J. Strobel and John Martin Strobel as Co-Trustees of the Edward I. Strobel Trust dated February 1, 1988, as amended; and John M. Strobel as Trustee of the John M. Strobel Declaration of Trust under Agreement dated the 19th day of September 2018, whose address is 716 Bryan Place, Fort Lauderdale, Florida 33312 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to

d

wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998

ACKNOWLEDGMENT

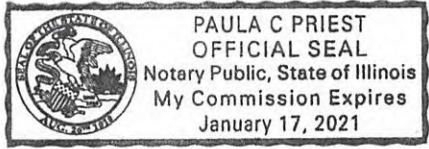
STATE OF Illinois §

COUNTY OF Livingston §

This instrument was acknowledged before me this 25 day of September, 2020 by Edward J. Strobel as Trustee of the Edward J. Strobel Trust dated April 1, 1998.

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 1/17/2021
Commission No.: 9076277

[SEAL]



"OWNER"

[Signature]
Edward J. Strobel as Co-Trustee of the Edward I. Strobel Trust dated February 1, 1988, as amended

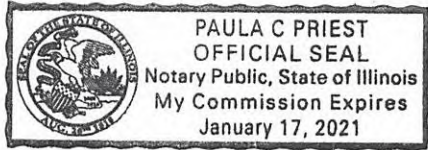
ACKNOWLEDGMENT

STATE OF Illinois §
COUNTY OF Livingston §

This instrument was acknowledged before me this 25 day of September, 2020 by Edward J. Strobel as Co-Trustee of the Edward I. Strobel Trust dated February 1, 1988, as amended.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 1/17/2021
Commission No.: 907627



"OWNER"





John Martin Strobel as Co-Trustee of the Edward I. Strobel Trust dated February 1, 1988, as amended

ACKNOWLEDGMENT

STATE OF Ohio §
COUNTY OF Cuyahoga §

This instrument was acknowledged before me this 5th day of October, 2020 by John Martin Strobel as Co-Trustee of the Edward I. Strobel Trust dated February 1, 1988, as amended.


Notary Public for the State of Ohio
My commission expires: Feb 13, 2023
Commission No.: _____


RAJESH BHATT
Notary Public, State of Ohio
My Comm. Expires Feb. 13, 2023

"OWNER"

[Signature]

John M. Strobel as Trustee of the John M. Strobel Declaration of Trust under Agreement dated the 19th day of September 2018

ACKNOWLEDGMENT

STATE OF Ohio §

COUNTY OF Cuyahoga §

This instrument was acknowledged before me this 5th day of October, 2020 by John M. Strobel as Trustee of the John M. Strobel Declaration of Trust under Agreement dated the 19th day of September 2018.

[SEAL]



[Signature]

RAJESH BHATT
Notary Public, State of Ohio
My Comm. Expires Feb. 13, 2023

[Signature]
Notary Public for the State of Ohio
My commission expires: Feb 13, 2023
Commission No.: _____

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 16 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

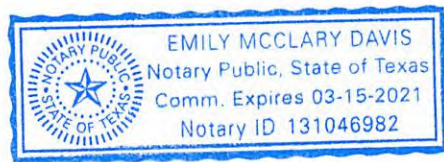


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southwest $\frac{1}{4}$ of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that portion conveyed to the State of Illinois Department of Transportation by two deeds recorded October 20, 1995, as Document Numbers 480340 and 480341.

PIN: 05-05-27-300-001: Farm Land: 156.53 acres, more or less.

Common Address: Dwight Township.



2019R-04702

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/05/2019 11:14:17AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of November 18, 2019 ("Effective Date"), by and between Everett and Dorothy Severson Family LLC Series # 1, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers, whose address is 11265 South Christensen Road, Gardner, Illinois 60424 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the

5

Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Everette and Dorothy Severson Family LLC Series # 1

By: Everett P. Severson, Manager
Everett P. Severson, Manager

By: Dorothy M. Severson, Manager
Dorothy M. Severson, Manager

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

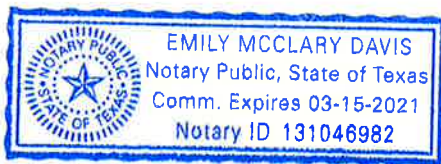
STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 18 day of November 2019, by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

Emily McClary Davis

Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The South Half of the Southwest Quarter of Section 28, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN:06-06-28-300-002: Farm Land: 80 acres, more or less

Common Address: 2800 North Road and 3200 East Road, Round Grove Township



2019R-04703

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/05/2019 11:14:18AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of November 18, 2019 ("Effective Date"), by and between Everett and Dorothy Severson Family LLC Series # 2, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers, whose address is 11265 South Christensen Road, Gardner, Illinois 60424 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the

6

Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Everette and Dorothy Severson Family LLC Series # 2

By: Everett P. Severson, Manager
Everett P. Severson, Manager

By: Dorothy M. Severson, Manager
Dorothy M. Severson, Manager

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 22nd day of October, 2019 by Everett P. Severson as Manager of Everette and Dorothy Severson Family LLC Series # 2.

Carol Dippon
Notary Public for the State of Illinois
My commission expires: 5/23/2021
Commission No.: 440875

[SEAL]



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 22nd day of October, 2019 by Dorothy M. Severson as Manager of Everette and Dorothy Severson Family LLC Series # 2.

Carol Dippon
Notary Public for the State of Illinois
My commission expires: 5/23/2021
Commission No.: 440875

[SEAL]



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §
§

The foregoing instrument was acknowledged before me this 18 day of November 2019, by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]

Emily McClary Davis
Notary Public for the State of Texas.
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

All that part of the West Half of Government Lots 2 and 3 of the Northwest Quarter, lying West of the center of the creek, in Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, in Dwight Township, Livingston County, Illinois. Containing 46.72 acres, more or less.

PIN:05-05-01-100-001: Farm Land: 46.72 acres, more or less

Common Address: Dwight Township

Tract 2:

Lot 2, (EXCEPT the West 539.55 feet thereof) together with all of Lot 1 (EXCEPT the West 539.55 feet thereof) all in the Northeast Quarter in Section 2, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, Further, (EXCEPT therefrom the East 40 feet thereof having been conveyed to the Town of Dwight for a public highway, also EXCEPT RR row along the South side of Lot 1 and except that part of said Lot 2 described as follows: Beginning at a point on the Northline of said Northeast Quarter which point is 683.50 feet West from the Northeast Corner of said Northeast Quarter and running, thence South perpendicular to said North Line 297 feet, thence West, parallel with said North Line 220 feet; thence North, perpendicular to said North Line 297 feet to said North Line, and thence East, along said North Line 220 feet to the point of beginning. Further, EXCEPT West 100 acres therefrom) said exception subject to an easement for ingress and egress over and across the East 70 feet of the North 245 feet of said exception to benefit parcel 2. Containing 52.78 acres, more or less.

PIN:05-05-02-200-005: Farm Land: 52.78 acres, more or less

Common Address: Dwight Township

Tract 3:

The Southeast Quarter of Section 16, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN:06-06-16-400-001: Farm Land: 160 acres, more or less

Common Address: Campus, Illinois 60920: Round Grove Township

Tract 4:

The North Half of the Northwest Quarter of Section 21, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN:06-06-21-100-006: Farm Land: 80 acres, more or less

Common Address: Campus, Illinois 60920: Round Grove Township

Tract 5:

The West Half of the North Half of the Northeast Quarter of Section 21, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois EXCEPT beginning at a point on the North Line of the Northeast Quarter of said Section 21 which point is 1,724 feet West of the Northeast Corner of said Northeast Quarter and running thence South 375 feet, thence West 464.64 feet, thence North 375 feet, thence East along said North Line 464.64 feet to the point of beginning, containing 4 acres, more or less, situated in Livingston County, Illinois.

PIN:06-06-21-200-006: Farm Land: 36 acres, more or less

Common Address: Round Grove Township

The land described herein contains a total of 375.5 acres, more or less.



2019R-04704

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/05/2019 11:14:19AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC ⁶³
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of November 18, 2019 ("Effective Date"), by and between Everett and Dorothy Severson Family LLC Series # 3, represented herein by Everett P. Severson and Dorothy M. Severson, its Managers, whose address is 11265 South Christensen Road, Gardner, Illinois 60424 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

5

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Everette and Dorothy Severson Family LLC Series # 3

By:  Everett P. Severson, Manager


Everett P. Severson, Manager

By:  Dorothy M. Severson, Manager

Dorothy M. Severson, Manager

"DEVELOPER"

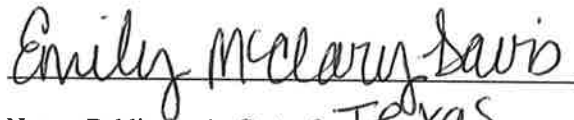
Illinois Generation LLC, a Delaware limited liability company

By: 
 Name: Blake Rasmussen
 Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

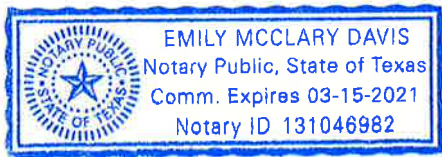
STATE OF Texas §
 COUNTY OF Harris §
 §

The foregoing instrument was acknowledged before me this 18 day of November 20 19,
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.



Notary Public for the State of Texas
 My commission expires: 3-15-2021
 Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West 100 acres of the following description: Lot 2, (EXCEPT the West 539.55 feet thereof) together with all of Lot 1 (EXCEPT the West 539.55 feet thereof) all in the Northeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois further (EXCEPT therefrom the East 40 feet thereof having been conveyed to the town of Dwight for a public highway, also (EXCEPT RR ROW along the South side of Lot 1 and EXCEPT that part of said Lot 2 described as follows: Beginning at a point on the North Line of said Northeast Quarter which point is 683.50 feet West from the Northeast Corner of said Northeast Quarter and running, thence South perpendicular to said North Line 297 feet thence West, parallel with said North Line 220 feet; thence North, perpendicular to said North Line 297 feet to said North Line, and thence East, along said North Line 220 feet to the point of beginning. Said exception subject to an easement for ingress and egress over and across the East 70 feet of the North 245 feet of said exception) to benefit parcel 2 containing 100 acres, more or less.

PIN: 05-05-02-200-004: Farm Land: 100 acres, more or less

Common Address: Dwight Township

Tract 2:

The Southwest Quarter of Section 16, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois EXCEPT commencing at a point on the West Line of said Section 16, 904.57 feet North of the Southwest Corner of said Section; thence North along said West Line, 205 feet to a point; thence Easterly at right angles to said West Line, 445 feet to a point; thence Southerly parallel to said West Line, 205 feet to a point; thence Westerly 445 feet to the point of beginning.

PIN: 06-06-16-300-031: Farm Land: 157.91 acres, more or less

Common Address: Campus, Illinois 60920: Round Grove Township

Tract 3:

The East Half of the Northwest Quarter of Section 27, Township 30 North, Range 8 East of the Third Principal Meridian, located in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-27-100-003: Farm Land: 80 acres, more or less

Common Address: Round Grove Township

Tract 4:

The East 80 acres of all that portion of the South Half of Section 27, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, lying Easterly of the railroad right-of-way, all in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-27-400-004: Farm Land: 80 acres, more or less

Common Address: Round Grove Township

The land described herein contains a total of 417.91 acres, more or less.



2020R-04986

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
11/05/2020 02:58:12PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

363
Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 16, 2020 ("Effective Date"), by and between Glenn A. Ferrari and Rebecca L. Ferrari, husband and wife, whose address is 5570 East Bayview Drive, Morris, Illinois 60450 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

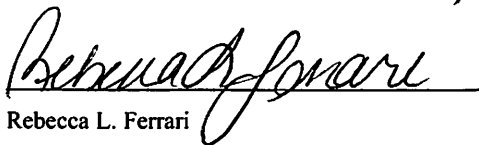
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Glenn A. Ferrari



Rebecca L. Ferrari

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 1st day of October, 2020 by Glenn A. Ferrari.

[SEAL]

Mary C. Ludwig
Notary Public for the State of Illinois
My commission expires: March 10, 2024
Commission No.: _____

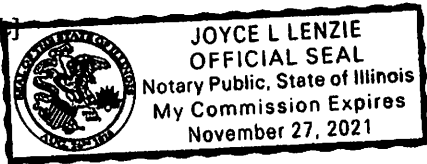


ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF _____ §

This instrument was acknowledged before me this 1st day of October, 2020 by Rebecca L. Ferrari.

[SEAL]

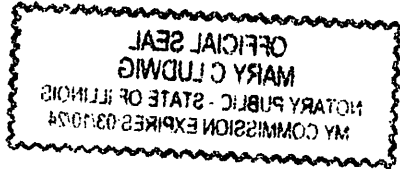


Joyce L. Lenzie
Notary Public for the State of Illinois
My commission expires: Nov 27, 2021
Commission No.: 457142

Mary C Ludwig

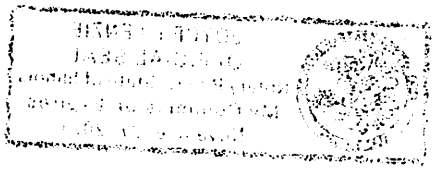
Notary Public

State of Illinois
My Commission Expires 03/10/24



Notary Public

State of Illinois
My Commission Expires 03/10/24



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 16 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

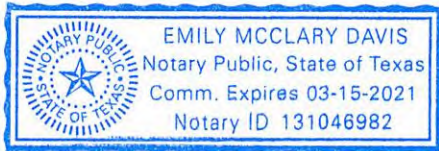
[SEAL]



Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

↙ The Northwest ¼, Except the North 504.25 feet of the West 864 feet thereof, of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois. Containing 151.59 acres, more or less.

Tract 2:

↙ The East 432 feet of the West 864 feet of the North 504.25 feet of the Northwest ¼ of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-13-100-007: Farm Land: 156.59 acres, more or less.

Common Address: Dwight Township.



* 2 0 2 1 R - 0 0 3 3 2 5 *

2021R-00332

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/20/2021 01:21:05PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 8, 2021 ("Effective Date"), by and between Dennis M. Tjelle and Margene E. Tjelle, husband and wife, whose address is 30274 North 3000 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

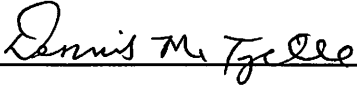
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

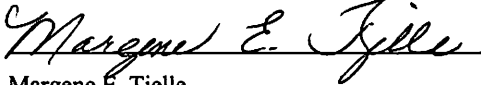
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Dennis M. Tjelle



Margene E. Tjelle

JOHN M TEMPELTON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



JOHN M TEMPELTON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 8 day of January, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

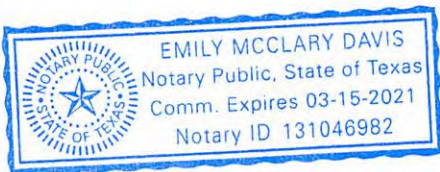
[SEAL]



Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

X Tract 1:

The East 40 acres of the Northeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-13-200-004: Farm Land: 40 acres, more or less.

Common Address: Dwight Township.

X Tract 2:

The Northeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, except the East 40 acres thereof and except the West 60 acres thereof, in Livingston County, Illinois. Also Except: The East 20 acres of the West 80 acres of the Northeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-13-200-006: Farm Land: 41.50 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

X Tract 3:

A part of the East Half of the Southwest Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, described as commencing at the Southwest Corner of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, thence North 90 degrees 00 minutes East 1747.1 feet along the South Line of said Section 13 to the place of beginning. From said place of beginning thence North 0 degrees 10 minutes West 210 feet, thence North 90 degrees 00 minutes East 414.86 feet parallel with the South Line of said Section 13, thence South 0 degrees 10 minutes East 210 feet to the South Line of said Section 13, thence North 90 degrees 00 minutes West 414.86 feet along the South Line of said Section 13 to the place of beginning, as shown on plat recorded March 5, 1959 in plat Book 6 at Page 147, residential; situated in the County of Livingston, in the State of Illinois.

PIN: 05-05-13-300-003: Farm Land: 2 acres, more or less.

Common Address: Dwight Township: 29353 East 3000 North Road, Dwight, Illinois 60420.

X Tract 4:

Part of the North Half of the Southwest Quarter of Section 10, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at the Northeast corner of the Southwest Quarter and running; thence South 88 degrees 42 minutes 25 seconds West, along the North line of said Southwest Quarter, 1722.00 feet, more or less, to a point in the center of a ditch running in a Northerly and Southerly direction; thence meandering in a Southwesterly direction along the center of said ditch 1027.1 feet, more or less, to a point on the East right of way line of Illinois Route 47; thence South 01 degrees 26 minutes 15 seconds East, along said East right of way line, 790.1 feet to the South line of said North Half; thence North 88 degrees 42 minutes 25 seconds East, along said South line, 2578.23 feet to the Southeast corner of said North Half; thence North 01 degrees 22 minutes 49 seconds West, along the East line of said Southwest Quarter, 1327.41 feet to the Point of Beginning.

PIN: 05-05-10-300-006: Farm Land: 72.97 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

The land described herein contains a total of 156.47 acres, more or less.



* 2 0 2 1 R - 0 0 3 3 3 5 *

2021R-00333

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/20/2021 01:21:06PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 8, 2021 ("Effective Date"), by and between Jacob E. Tjelle and Jennifer M. Tjelle, husband and wife, whose address is 31654 East 2600 North Road, Cabery, Illinois 60919 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

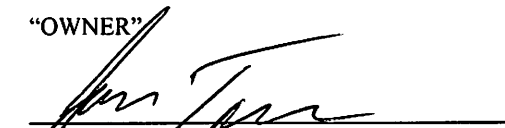
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

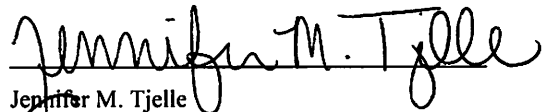
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"




Jacob E. Tjelle




Jennifer M. Tjelle

JOHN M TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



JOHN M TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

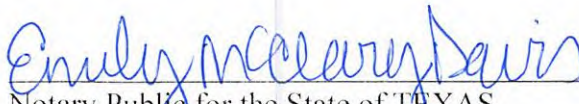
CORPORATE ACKNOWLEDGMENT

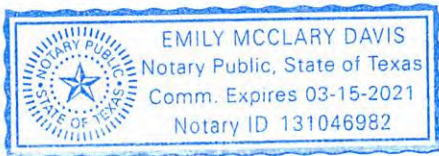
STATE OF TEXAS §

COUNTY OF HARRIS §
§

The foregoing instrument was acknowledged before me this 8 day of January, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West 60 acres of the Northeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-13-200-002: Farm Land: 60 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The East 20 acres of the West 80 acres of the Northeast Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-13-200-005: Farm Land: 20 acres, more or less.

Common Address: Dwight Township: 29700 East 3100 North Road, Dwight, Illinois 60420.

The land described herein contains a total of 80 acres, more or less.



2020R-04649

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/20/2020 02:48:02PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Vanderhyden Farms, LLC, by David Vanderhyden, its Manager, whose address is 30886 East 3300 North Road, Dwight, Illinois 60420 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Vanderhyden Farms, LLC

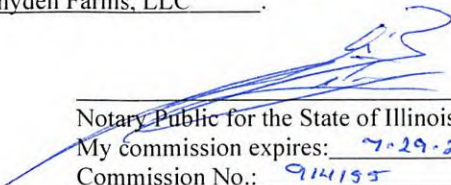
By: 
David Vanderhyden, its Manager

ACKNOWLEDGMENT

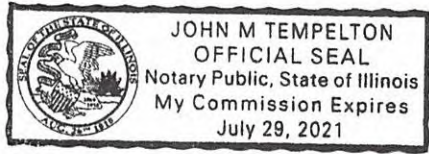
STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 19 day of September, 2020 by David Vanderhyden, as Manager of Vanderhyden Farms, LLC.

[SEAL]




Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914195



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 7 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

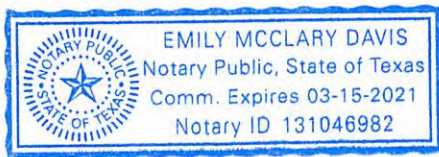


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



THE UNITED STATES OF AMERICA

[Handwritten signature]

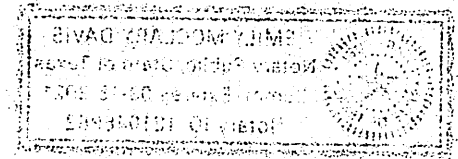
DEPARTMENT OF THE ARMY
WASHINGTON, D.C. 20315

CONFIDENTIAL - SECURITY INFORMATION

OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20315

7
The following information is being furnished to you for your information and is not to be disseminated outside your agency without the express written consent of the source of the information.

[Handwritten signature]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

K ✓

Government Lots 2 and 3 in the Northeast Quarter of Section 6, in Township 30 North, Range 8 East of the Third Principal Meridian, described as follows: Beginning at the Northeast Corner of said Section 6; Thence South 00 degrees 07 minutes 50 seconds East 2099.47 feet along the East Line of said Northeast Quarter Section to the Southeast Corner of said Government Lot 2; Thence North 89 Degrees 02 Minutes 41 Seconds West 2653.88 feet to the Southwest Corner of said Lot 2; Thence North 00 degrees 11 minutes 22 seconds West 2055.26 feet to the Northwest Corner of said Northeast Quarter Section; thence East 2655.52 feet along the North Line of said Northeast Quarter Section to the point of beginning; EXCEPT That part of Government Lot 3 in the Northeast Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, described as follows: Commencing at the Northeast Corner of said Section 6; thence West 408.87 feet along the North Line of said Northeast Quarter Section to the point of beginning; thence South 580.8 feet; thence West 375.0 feet parallel with the North Line of said Northeast Quarter Section; thence North 580.8 feet to the North Line of said Northeast Quarter Section; thence East 375.0 feet along said North Line of the Northeast Quarter Section to the point of beginning, situated in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-06-200-004: Farm Land: 120.34 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.



* 2 0 2 0 R - 0 0 0 7 2 5 *

2020R-00072

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/06/2020 12:59:40PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC 63-
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 16, 2019 ("Effective Date"), by and between John Jeff McGinnis as Trustee of the Vince McGinnis Trust dated May 15, 2015, whose address is 112 A South York Road, Elmhurst, Illinois 60126 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Vince McGinnis Trust dated May 15, 2015

By: *John Jeff McGinnis* TRUSTEE
John Jeff McGinnis, Trustee



ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF DuPage §

This instrument was acknowledged before me this 21st day of November, 2019 by John Jeff McGinnis as Trustee of the Vince McGinnis Trust dated May 15, 2015.



Nancy Becht
Notary Public for the State of Illinois
My commission expires: 1/05/2021
Commission No.: 616592

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

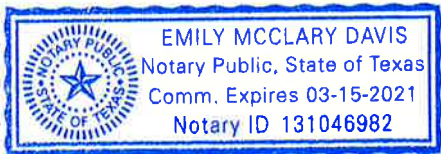
STATE OF Texas
COUNTY OF Harris

The foregoing instrument was acknowledged before me this 16 day of December 2019,
by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
Delaware limited liability company.

[Signature]

Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southwest Quarter of Section 26, Township 30 North, Range 8 East of the Third Principal Meridian,
Livingston County, Illinois.

PIN: 06-06-26-300-007 and 06-06-26-300-008: Farm Land: 160 acres, more or less.

Common Address: Round Grove Township: Emington, Illinois 60934



* 2 0 2 0 R - 0 0 0 7 4 5 *

2020R-00074

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/06/2020 12:59:42PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00


AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC 
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 16, 2019 ("Effective Date"), by and between Walsh Family Farms, LLC, an Illinois Limited Liability Company, by Thomas M. Walsh, Manager, whose address is 33162 E 2700 North Road, Campus, Illinois 60920 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

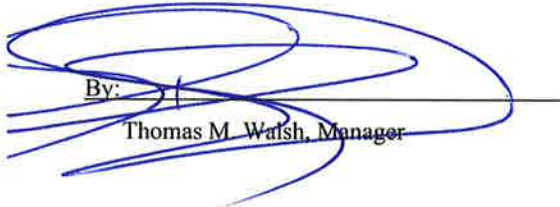
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Walsh Family Farms, LLC, an
Illinois Limited Liability Company

By: 
Thomas M. Walsh, Manager

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 20th day of November, 2019 by Thomas M. Walsh as Manager of Walsh Family Farms, LLC, an Illinois Limited Liability Company.

[SEAL]




Notary Public for the State of Illinois
My commission expires: 10/19/20
Commission No.: _____

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas
COUNTY OF Harris

The foregoing instrument was acknowledged before me this 16 day of December, 2019,
by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
Delaware limited liability company.

Emily McClary Davis

Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]





* 2 0 2 0 R - 0 0 0 4 5 8 *

2020R-00045

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/03/2020 02:05:11PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 8

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 23, 2019 ("Effective Date"), by and between Norval J. Wiemken and Kathleen A. Wiemken, husband and wife, whose address is 123 East South Street, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

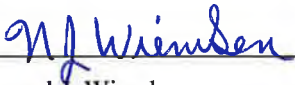
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.


The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Norval J. Wiemken



Kathleen A. Wiemken

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

Commencing at the Northeast Corner of the Southeast Quarter (SE 1/4) of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois; thence West along the North line of the said Southeast Quarter (SE 1/4) to the Northwest corner thereof; thence South along the West line of the said Southeast Quarter (SE 1/4) 413 feet; thence East 1061 feet; thence South 480 feet; thence East 1225 feet; thence North 612 feet; thence East 354 feet, more or less, to the East line of the said Southeast Quarter (SE 1/4); thence North along the East line 281 feet, more or less to the point of beginning.

PIN: 06-06-22-401-005: Farm Land: 37.45 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420

Tract 2:

The South Half of the Southwest Quarter of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

AND

The Southeast Quarter of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT Beginning at the Southeast Corner of Lot 10 in Block 12 of Ahern's Subdivision, thence North along the East line of said Lot 10 and an extension thereof, 384 feet; thence West parallel with said South line, 453 feet; thence South parallel with said East line of Lot 10, 384 feet; and thence East, along said South line, 453 feet to the Point of Beginning; ALSO EXCEPTING Commencing 699 feet West and 33 feet North of the Southeast Corner of the Southeast Quarter which is the Point of Beginning, thence North, along the East line of Eugene Street and an extension thereof 546 feet; thence West parallel with said South line, 216 feet; thence South parallel with said East line of Eugene Street, 546 feet; and thence East, parallel with said South line, 216 feet to the Point of Beginning; ALSO EXCEPTING Lots 1 through 6, Lots 8, 9 and the East Half of Lots 10 and 12 and all alleys in Block 1 of Ahern's Subdivision; ALSO EXCEPTING Lots 1 through 8 and all alleys in Block 2 of Ahern's Subdivision; ALSO EXCEPTING all of Block 3 and all alleys in Block 3 of Ahern's Subdivision; ALSO EXCEPTING Commencing at the Northeast corner of the Southeast Quarter of said Section 22; thence West along the North line of the said Southeast Quarter to the Northwest corner of the Southeast Quarter of said Section 22; thence South along the West line of the Southeast Quarter, 413 feet; thence East, 1061 feet; thence South, 480 feet; thence East, 1225 feet; thence North, 612 feet; thence East, 354 feet, more or less to the East line of the said Southeast Quarter of Section 22; thence North along the East line of Section 22, 281 feet, more or less, to the Point of Beginning; ALSO EXCEPTING all of Frederick Street, Thaddeus Street, all of which are located in Ahern's Subdivision; ALSO EXCEPTING that part of Ahern Street located between Frederick Street and North 3400 East Road in Ahern's Subdivision.

PIN: 06-06-22-401-007: Farm Land: 185.27 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420

Tract 3:

The West Half of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPTING a tract of land of 1 ½ acres located in the Southwest corner of the Southwest Quarter lying North and West of the Westerly Right-of-Way of the former Norfolk and Western Railroad; ALSO EXCEPTING Lots 1, 2, and 3 in Block 1 and the vacant alley lying North and adjacent to Cardiff Coal Company Subdivision; ALSO EXCEPTING Lots 4 through 8, inclusive, in Block 1 and the vacant alley lying North and adjacent to Cardiff Coal Company Subdivision; ALSO EXCEPTING Lots 9 and 10 in Block 1, together with vacated Center Avenue which runs North to South between Lots 9 and 10 in Block 1, and the South Half of the vacated alley which adjoins Lots 9 and 10 to the North, all in Cardiff Coal Company Subdivision; ALSO EXCEPTING Commencing at the Southwest corner of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, thence North along the West line of said Southwest Quarter to the Westerly extension of the South line of Lot 172, which is the Point of Beginning, thence due East to a point on the East line of the now vacated Park Street; thence Northerly along the East line of Park Street to its intersection with the South line of now vacated Shaft Street; thence West along the said South line of Shaft Street to the West line of the Southwest Quarter of Section 23; thence South along the West line to the Point of Beginning, including all of the vacated streets and alleys therein contained; ALSO EXCEPTING Commencing at the Southwest corner of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, thence North along the West line of said Southwest Quarter to the Westerly extension of the North line of Lot 172 to the Point of Beginning; thence North along the West line, 1331.41 feet to a point which is 105 feet South from the Northwest corner of the Southwest Quarter; thence North 88 degrees 11 minutes 12 seconds East, 46 feet; thence South 21 degrees 38 minutes 14 seconds East, 84.12 feet; thence South 31 degrees 44 minutes 05 seconds East, 258.36 feet; thence South 15 degrees 41 minutes 52 seconds East, 39.32 feet; thence South 0 degrees 05 minutes 49 seconds East, 340.53 feet; thence South 05 degrees 34 minutes 27 seconds East, 148.11 feet; thence South 24 degrees 23 minutes 04 seconds East, 94.92 feet; thence South 50 degrees 48 minutes 01 seconds East, 128.02 feet; thence South 20 degrees 08 minutes 51 seconds East, 50.91 feet; thence South 01 degrees 48 minutes 49 seconds East, parallel with said West line, 282.13 feet; and thence South 88 degrees 12 minutes 09 seconds West, along an existing fence, 361.37 feet to the Point of Beginning; ALSO EXCEPTING Commencing at the Southwest corner of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, thence North along the West line of said Southwest Quarter to the westerly extension of the South line of Lot 172 to the Point of Beginning, thence due East to a point on the East line of the now vacated Park Street; then northerly along the East line of Park Street to its intersection with the South line of now vacated Shaft Street; thence East to the Northeast corner of Lot 166 in Block 11 in Cardiff Coal Company Subdivision; thence South along Lot 166 to a line extended to the middle of the now vacated alley in Block 11, thence East to the Westerly Right-of Way of the former Norfolk and Western Railroad in Section 23; thence Southwesterly along the former Norfolk and Western Railroad Right-of-Way to the North line of a Tract of 1 ½ acres located in the Southwest corner of the Southwest Quarter, lying North and West of the Westerly Right-of-Way of the former Norfolk and Western Railroad; thence West to the East line of the Southwest Quarter; thence North along the East line of the Southwest Quarter to the Point of Beginning. AND

That part of the East Half of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, lying West and North of the Westerly Right-of Way of the former Norfolk and Western Railroad.

PIN: 06-06-23-301-004: Farm Land: 56.25 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420

Tract 4:

That part of the West Half of the Southwest Quarter of Section 23, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the West line of said West Half of the Southwest Quarter, which point is 1218.82 feet North from the Southwest corner of said West Half of the Southwest Quarter, said point being the point of beginning for this tract of land, and running; thence North 01 degrees 48 minutes 49 seconds West, along said West line, 1331.41 feet to a point 105 feet South from the Northwest corner of said Southwest Quarter; thence North 88 degrees 11 minutes 12 seconds East, 46.00 feet; thence South 21 degrees 38 minutes 14 seconds East, 84.12 feet; thence South 31 degrees 44 minutes 05 seconds East, 258.36 feet; thence South 15 degrees 41 minutes 52 seconds East, 39.32 feet; thence South 00 degrees 05 minutes 49 seconds East, 340.53 feet; thence South 05 degrees 34 minutes 27 seconds East, 148.11 feet; thence South 24 degrees 23 minutes 04 seconds East, 94.92 feet; thence South 50 degrees 48 minutes 01 seconds East, 128.02 feet; thence South 20 degrees 08 minutes 51 seconds East, 50.91 feet; thence South 01 degrees 48 minutes 49 seconds East, parallel with said West line, 282.13 feet; and thence South 88 degrees 12 minutes 09 seconds West, along an existing fence, 361.37 feet to the point of beginning, containing 7.10 acres, more or less.

PIN: 06-06-23-301-005: Farm Land: 7.10 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420

The land described herein contains a total of 286.07 acres, more or less.



* 2 0 2 0 R - 0 1 3 4 1 5 *

2020R-01341

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
04/13/2020 10:43:11AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC \$63
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of March 30, 2020 ("Effective Date"), by and between Justin D. Seabert, also known as Justin Seabert and Anya B. Seabert, husband and wife, whose address is 28279 North 3100 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

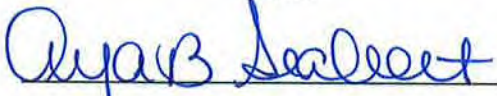
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Justin D. Seabert, also known as Justin Seabert



Anya B. Seabert

ACKNOWLEDGMENT

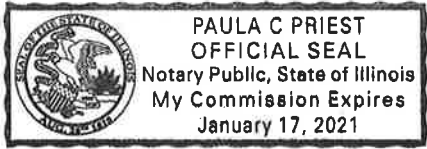
STATE OF ILLINOIS

COUNTY OF Livingston

This instrument was acknowledged before me this 12 day of March, 2020 by Justin D. Seabert, also known as Justin Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: Jan 17, 2021
Commission No.: 907267



ACKNOWLEDGMENT

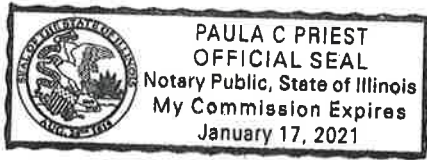
STATE OF ILLINOIS

COUNTY OF Livingston

This instrument was acknowledged before me this 12 day of March, 2020 by Anya B. Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: Jan. 17, 2021
Commission No.: 907267



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The Northwest Quarter of the Northwest Quarter of Section 10, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, excepting from said Northwest Quarter of the Northwest Quarter the following: beginning at the Northeast corner of said Northwest Quarter of the Northwest Quarter, and running; thence West, along the North line of said Northwest Quarter, 250.00 feet; thence South, parallel with the East line of said Northwest Quarter of the Northwest Quarter, 745.00 feet; thence East, parallel with said North line, 210.00 feet; thence South, parallel with said East line, 582.52 feet to the South line of said Northwest Quarter of the Northwest Quarter; thence East, along said South line, 40.00 feet to the Southeast corner of said Northwest Quarter of the Northwest Quarter; and thence North, along said East line, 1327.50 feet to the point of beginning, and also excepting therefrom that part of said Northwest Quarter of the Northwest Quarter, lying within the right of way of Illinois Route 17.

PIN: 06-06-10-100-014: Farm Land: 33.49 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The North Half (N ½) of the Northeast Quarter (NE ¼) of Section Thirty (30) Township Thirty (30) North, Range Eight (8) East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, containing 80 acres, more or less.

PIN: 06-06-30-200-001: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township.

Tract 3:

The East 64 acres of the Southeast Quarter (SE 1/4) of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois, except that part of the Southeast 1/4 of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the East line of said Southeast 1/4, which point is 963.00 feet South from the Northeast corner of said Southeast 1/4, said point being the point of beginning for this tract of land, and running; thence South 00 degrees 05 minutes 46 seconds West, along said East line of the Southeast 1/4, 204.00 feet; thence North 87 degrees 15 minutes 04 Seconds West, 407.00 feet; thence North 02 degrees 03 minutes 45 seconds East, 203.80 feet; and thence South 87 degrees 15 minutes 04 seconds East, 400.00 feet, to the point of beginning. Containing 1.89 acres, more or less.

PIN: 06-06-30-400-048: Farm Land: 62.11 acres, more or less.

Common Address: Round Grove Township: 28279 North 3100 East Road, Dwight, Illinois 60420.

The land described herein contains a total of 175.6 acres, more or less.



* 2 0 2 1 R - 0 1 2 3 2 5 *

2021R-01232

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

63-

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
03/10/2021 10:38:06AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of February 11, 2021 ("Effective Date"), by and between Justin D. Seabert, also known as Justin Seabert and Anya B. Seabert, husband and wife, whose address is 28279 North 3100 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

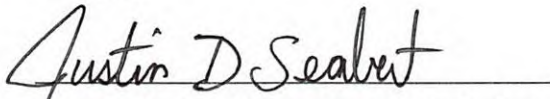
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

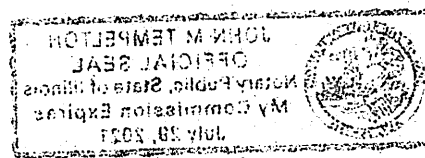
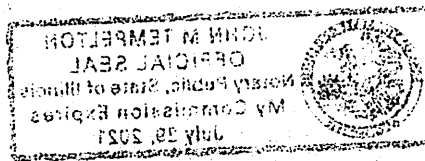
"OWNER"



Justin D. Seabert, also known as Justin Seabert



Anya B. Seabert



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By:  _____

Name: Blake Rasmussen

Title: Authorized Signatory

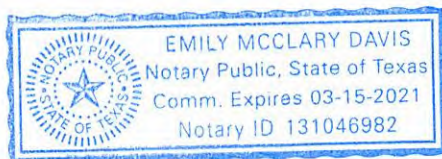
CORPORATE ACKNOWLEDGMENT

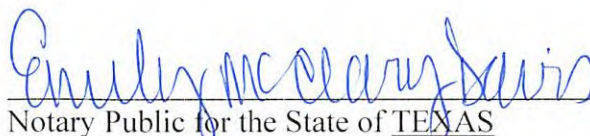
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 11 day of February, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]



 _____
Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

✶ The South ½ of the East 120 acres of the Northeast ¼ of Section 9 in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois.

PIN: 06-06-09-200-013: Farm Land: 60 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 0 R - 0 0 0 4 3 5 *

2020R-00043

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/03/2020 02:05:09PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

863
Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 23, 2019 ("Effective Date"), by and between Severson Family LLC, by Sheila Severson, also known as, Sheila R. Severson, Manager, whose address is 28370 East 2600 North Road, Emington, Illinois 60934 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Severson Family LLC

By: Sheila Severson, manager

Sheila Severson, also known as, Sheila R. Severson, Manager

ACKNOWLEDGMENT

STATE OF ILLINOIS §
§
COUNTY OF Livingston §

This instrument was acknowledged before me this 4th day of December, 2019 by Sheila Severson, also known as, Sheila R. Severson as Manager of Severson Family LLC.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 4-12-20
Commission No.: 892900



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West Half of the Northwest Quarter of Section 27, Township 30 North, Range 8 East of the Third Principal Meridian, located in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-27-100-002: Farm Land: 80 acres, more or less.

Common Address: 3300 East Road and 2900 North Road, Campus, Illinois: Round Grove Township

Tract 2:

The East 161.88 acres of the North One-Half (N 1/2) of Section Six (6), also referred to as the Northeast One-Quarter (NE 1/4) of said Section Six (6), all in Township Twenty-nine (29) North, Range Eight (8) East of the Third Principal Meridian, all in Broughton Township, Livingston County, Illinois, excepting therefrom the following described parcel, to-wit:

That part of the Northeast Quarter (NE 1/4) of Section Six (6), Township 29 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the North Line of said Northeast Quarter which point is 1344.7 feet West of the Northeast Corner of said Northeast Quarter, and running thence South perpendicular to said North Line 660 feet; thence West parallel with said North Line 330 feet; thence North 660 feet to said North Line; and thence East along said North Line 330 feet to the point of beginning and containing five (5) acres.

PIN: 12-12-06-200-003: Farm Land: 156.88 acres, more or less.

Common Address: 2700 North Road and 3100 East Road, Broughton Township

Tract 3:

The Northeast Quarter of Section 9, Township 29 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 12-12-09-200-001: Farm Land: 160 acres, more or less.

Common Address: 2600 North Road and 3100 East Road, Broughton Township

The land described herein contains a total of 396.88 acres, more or less.



* 2 0 2 0 R - 0 0 2 7 9 5 *

2020R-00279

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

01/22/2020 12:15:42PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 13, 2019 ("Effective Date"), by and between Evan P. Severson, whose address is 1413 Rainside Drive, Gibson City, Illinois 60936 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use

and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



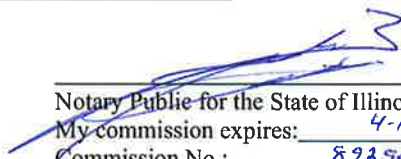
Evan P. Severson

ACKNOWLEDGMENT

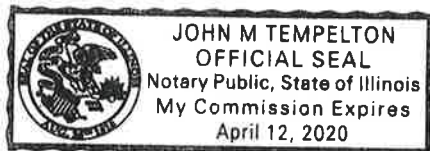
STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 18 day of December, 2019 by Evan P. Severson.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 4-12-20
Commission No.: 892900



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East 40 acres of the North 76 acres of the Northeast Quarter of Section 21, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois. ✂ ✓

PIN: 06-06-21-200-007: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township



* 2 0 2 0 R - 0 0 0 7 5 6 *

2020R-00075

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/06/2020 12:59:43PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 6

MEMORANDUM OF OPTION AND EASEMENT

4

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 16, 2019 ("Effective Date"), by and between Scott C. Severson, also known as, Scott Severson and Alexandria H. Severson, husband and wife, whose address is 28464 East 3300 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Scott C. Severson



Alexandria H. Severson

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 28 day of October, 2019 by Scott C. Severson

[SEAL]



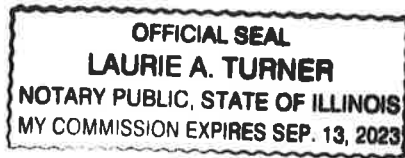
Laurie A Turner
Notary Public for the State of Illinois
My commission expires: 9/13/23
Commission No.: _____

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 28 day of October, 2019 by Alexandria H. Severson

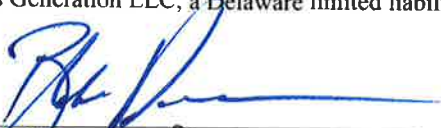
[SEAL]



Laurie A Turner
Notary Public for the State of Illinois
My commission expires: 9/13/23
Commission No.: _____

"DEVELOPER"

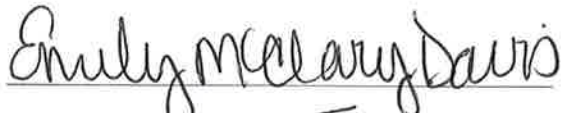
Illinois Generation LLC, a Delaware limited liability company

By: 
 Name: Blake Rasmussen
 Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
 COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 16 day of December 2019,
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.


 Notary Public for the State of Texas
 My commission expires: 3-15-2021
 Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

All that portion of the South Half of Section 27, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, lying Easterly of the railroad right-of-way, excepting therefrom the East 80 acres thereof, all in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-27-400-003: Farm Land: 64.86 acres, more or less.

Common Address: Round Grove Township



* 2 0 2 0 R - 0 4 6 4 7 5 *

2020R-04647

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

10/20/2020 02:48:00PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Clifford C. Steichen and Dorlene H. Steichen, husband and wife, whose address is 108 Scott Drive, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

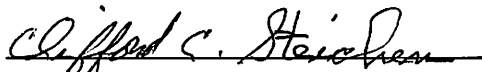
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

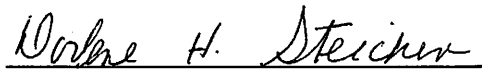
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Clifford C. Steichen



Dorlene H. Steichen

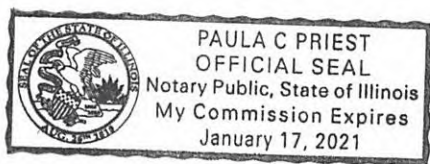
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 24 day of September, 2020 by Clifford C. Steichen.

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 1/17/2021
Commission No.: 907627

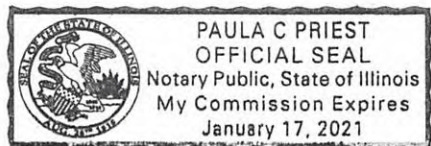


STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 24 day of September, 2020 by Dorlene H. Steichen.

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 1/17/2021
Commission No.: 907627



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 7 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

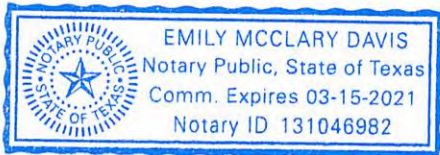


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East Half of the South Half of the Northeast Quarter of Section 21, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-21-200-005: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The East One-Half (E ½) of the Northeast One-Quarter (NE ¼) of Section Twenty-Eight (28), Township Thirty (30) North, Range Eight (8) East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-28-200-002: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township

The land described herein contains a total of 120 acres, more or less.



* 2 0 2 1 R - 0 0 3 3 4 6 *

2021R-00334

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/20/2021 01:21:07PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 8, 2021 ("Effective Date"), by and between T & J Wilson, LLC, an Illinois limited liability company, by Trudy Lynn Wilson, Member and Joan Ann Wilson Rimer, Member, whose address is Post Office Box 1423, Odesa, Texas 79760 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
T & J Wilson, LLC, an Illinois limited liability company

By: 
Trudy Lynn Wilson, Member

CALIFORNIA ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }
County of SAN BERNARDINO }

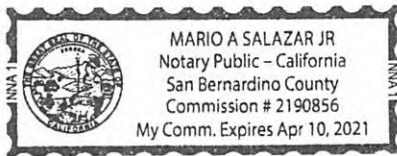
On NOVEMBER 20th, 2020 before me, MARIO A. SALAZAR (NOTARY PUBLIC),
Date Here Insert Name and Title of the Officer

personally appeared TRUDY LYNN WILSON
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal and/or Stamp Above

Signature [Handwritten Signature]
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: MEMORANDUM OF OPTION AND EASEMENTS

Document Date: November 20, 2020 Number of Pages: 1

Signer(s) Other Than Named Above: N/A

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer – Title(s): _____
 Partner – Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer is Representing: _____

Signer's Name: _____
 Corporate Officer – Title(s): _____
 Partner – Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer is Representing: _____

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

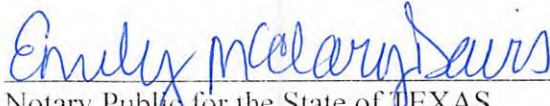
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

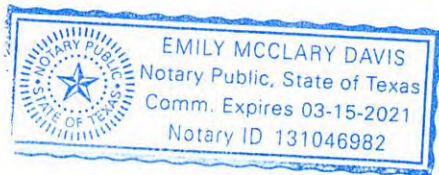
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 8 day of January, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The Southwest Quarter and the South 40 acres of the Northwest Quarter of Section 15, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that part conveyed to the State of Illinois by Deed recorded April 14, 1995 as Document Number 476360. ALSO EXCEPT: That part of the Southwest Quarter of Section 15, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the South line of said Southwest Quarter, which point is 886.00 feet East from the Southwest Corner of said Southwest Quarter and running; thence North 01 degrees 18 minutes 41 seconds West, perpendicular to said South line, 515.00 feet; thence North 89 degrees 40 minutes 54 seconds East, 593.09 feet; thence South 01 degrees 18 minutes 41 seconds East, perpendicular to said South line, 504.72 feet to said South line and thence South 88 degrees 41 minutes 19 seconds West, along said South line, 593.00 feet to the Point of Beginning.

PIN: 05-05-15-300-002: Farm Land: 188.78 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

Tract 2:

The Southeast Quarter of Section 15, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT Beginning at the Southwest Corner of said Southeast Quarter and running thence North 00 degrees 12 minutes 34 seconds West along the West line of said Southeast Quarter 337 feet, thence North 89 degrees 41 minutes 15 seconds East 212 feet, thence North 01 degrees 14 minutes 49 seconds East 134 feet, thence North 89 degrees 58 minutes 41 seconds East parallel with the South line of said Southeast Quarter 240.59 feet, thence South 00 degrees 12 minutes 34 seconds East parallel with said West line 472.09 feet to said South line, and thence South 89 degrees 58 minutes 41 seconds West along said South line 456 feet to the point of beginning, containing 4.28 acres of land more or less.

PIN: 05-05-15-400-003: Farm Land: 155.72 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 344.50 acres, more or less.



* 2 0 2 0 R - 0 2 8 2 7 5 *

2020R-02827

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:15PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

963

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between John J. Rieke and Molly Turner, as Co-Trustees of The Abe Rieke Trust, whose address is 29387 East 2900 North Road, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

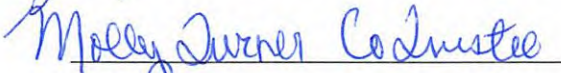
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



John J. Rieke, as Co-Trustee of The Abe Rieke Trust



Molly Turner, as Co-Trustee of The Abe Rieke Trust

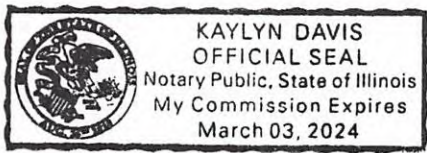
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of JUNE, 20 20 by John J. Rieke, as Co-Trustee of The Abe Rieke Trust.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



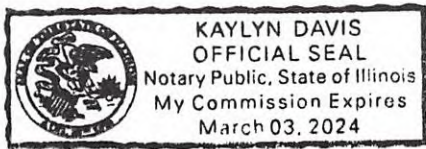
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of JUNE, 20 20 by Molly Turner, as Co-Trustee of The Abe Rieke Trust.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



MAHARAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA



MAHARAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA
M. G. RAJA RAJA



STATE OF TEXAS

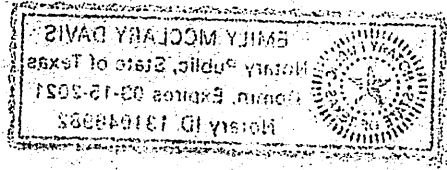
EMILY MOCLARY DAVIS
COUNTY CLERK

STATE OF TEXAS

EMILY MOCLARY DAVIS
COUNTY CLERK

EMILY MOCLARY DAVIS
COUNTY CLERK

EMILY MOCLARY DAVIS
COUNTY CLERK



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of the following described real estate:

The East Half of the Northwest Quarter of Section 8 in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, EXCEPT 3.716 acres, more or less, which were conveyed to the State of Illinois, Department of Transportation, by Warranty Deed dated December 23, 1971 and recorded February 25, 1972, in Book 327 at page 543 as Document Number 344797. ✓ /

PIN: 06-06-08-100-006: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township



* 2 0 2 0 R - 0 2 8 2 8 5 *

2020R-02828

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:16PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$63

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between John J. Rieke and Molly Turner, as Co-Trustees of The Lucy Rieke Trust, whose address is 29387 East 2900 North Road, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

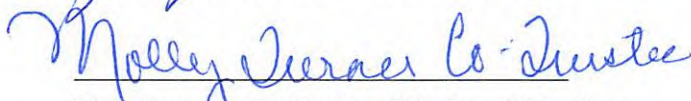
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



John J. Rieke, as Co-Trustee of The Lucy Rieke Trust



Molly Turner, as Co-Trustee of The Lucy Rieke Trust

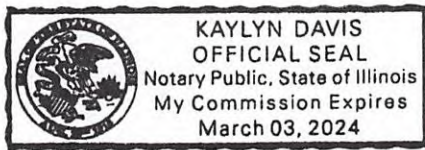
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §
§

This instrument was acknowledged before me this 12 day of JUNE, 2020 by John J. Rieke, as Co-Trustee of The Lucy Rieke Trust.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §
§

This instrument was acknowledged before me this 12 day of JUNE, 2020 by Molly Turner, as Co-Trustee of The Lucy Rieke Trust.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



RAYLYN DAVIS
OFFICIAL SEAL
My Commission Expires
March 03, 2024



RAYLYN DAVIS
OFFICIAL SEAL
My Commission Expires
March 03, 2024



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of the West Half of the Southwest Quarter of Section 8 in Township 30 North, Range 8 East
of the Third Principal Meridian, in Livingston County, Illinois. ✓

PIN: 06-06-08-300-003: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township



* 2 0 2 0 R - 0 2 8 2 9 5 *

2020R-02829

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:17PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *pb3*

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between John J. Rieke and Molly Turner, as Co-Trustees of The Nellie Rieke Trust, whose address is 29387 East 2900 North Road, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.


NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"


John J. Rieke, as Co-Trustee of The Nellie Rieke Trust

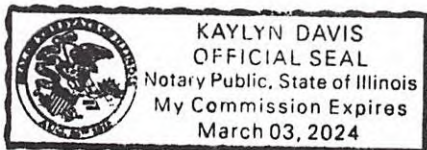

Molly Turner, as Co-Trustee of The Nellie Rieke Trust

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of JUNE, 20 20 by John J. Rieke, as Co-Trustee of The Nellie Rieke Trust.

[SEAL]



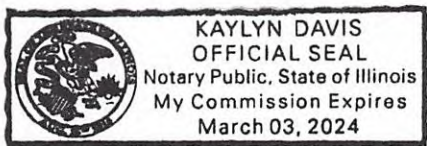
Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of JUNE, 20 20 by Molly Turner, as Co-Trustee of The Nellie Rieke Trust.

[SEAL]



Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987

MARCH 03, 2004
IN COMMISSION EXHIBIT
HONORABLE STATE OF ILLINOIS
OFFICIAL SEAL
KATHY DAVIS



MARCH 03, 2004
IN COMMISSION EXHIBIT
HONORABLE STATE OF ILLINOIS
OFFICIAL SEAL
KATHY DAVIS



3/14/2021

Notary Public for the State of Texas

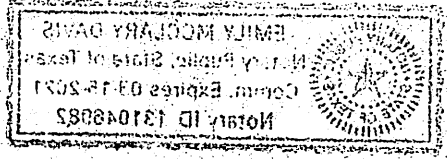
[Handwritten signature]
EMILY MCCLARY DAVIS

Notary Public for the State of Texas

[Handwritten signature]
EMILY MCCLARY DAVIS

[Handwritten signature]
EMILY MCCLARY DAVIS

[Handwritten signature]
EMILY MCCLARY DAVIS



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The West Half of the following described real estate:

The East Half of the Northwest Quarter of Section 8 in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, EXCEPT 3.716 acres, more or less, which were conveyed to the State of Illinois, Department of Transportation, by Warranty Deed dated December 23, 1971 and recorded February 25, 1972, in Book 327 at page 543 as Document Number 344797. ✓ ↗

PIN: 06-06-08-100-005: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township



* 2020R-00047 5 *

2020R-00047

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

01/03/2020 02:05:13PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

463

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 23, 2019 ("Effective Date"), by and between Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011, whose address is Post Office Box 334, Crowell, Texas 79227 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property"):

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011

By: Greg Bednarik Successor Trustee
Greg Bednarik, as Successor Trustee / ps

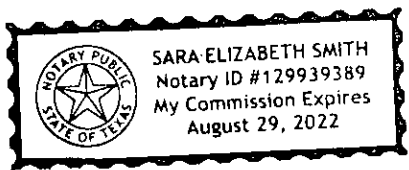
ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Foard §

This instrument was acknowledged before me this 22 day of NOVEMBER, 2019 by Greg Bednarik, as Successor Trustee of The Residuary Trust, under the Last Will and Testament of Virginia J. Bednarik, dated October 6, 2011

[SEAL]

Sara Smith
Notary Public for the State of Texas
My commission expires: 8-29-22
Commission No.: 12993938a



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 23 day of December 2019, by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

Emily McClary-Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131041982

[SEAL]

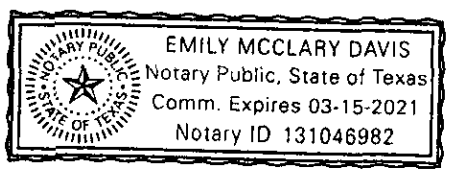


EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT

DESCRIPTION OF THE PROPERTY

Tract 1:
The East 1/2 of the Southwest 1/4 of Section 24, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois.

PIN: 06-06-24-300-002: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township

Tract 2:
The Southeast 1/4 of Section 25, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois; Excepting that part conveyed for road purposes by Instrument recorded as Document No. 430624.

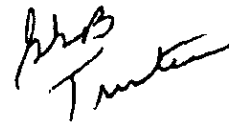
PIN: 06-06-25-400-001: Farm Land: 159.89 acres, more or less.

Common Address: Round Grove Township

Tract 3:
That portion of the South 1/2 of the Northwest 1/4 of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, lying North of the center line of the drainage ditch crossing said parcel in a Northwesterly-Southeasterly direction.

PIN: 06-06-34-100-007: Farm Land: 16 acres, more or less.

Common Address: Round Grove Township



Tract 4:
The South 1/2 of the Northwest 1/4 of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, except that portion of said premises lying North of the center line of the drainage ditch crossing said parcel in a Northwesterly-Southeasterly direction.

PIN: 06-06-34-100-008: Farm Land: 64 acres, more or less.

Common Address: Round Grove Township

Tract 5:
The Northeast 1/4 of Section 34, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-34-200-001: Farm Land: 160 acres, more or less.

Common Address: Round Grove Township

The land described herein contains a total of 479.89 acres, more or less.



* 2 0 2 0 R - 0 2 0 9 6 5 *

2020R-02096

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

3

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
05/28/2020 10:41:28AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00

(Space above this line for Recorder's use only)

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of May 11, 2020 ("Effective Date"), by and between Mark S. Riber and Jane Riber, husband and wife, whose address is 309 West Chippewa Street, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Mark S. Riber



Jane Riber

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 25th day of April, ~~2019~~ ²⁰²⁰ by Mark S. Riber.

[SEAL]



Marcia A. Drach
Notary Public for the State of Illinois
My commission expires: 3-26-21
Commission No.: 438705

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 25th day of April, ~~2019~~ ²⁰²⁰ by Jane Riber.

[SEAL]



Marcia A. Drach
Notary Public for the State of Illinois
My commission expires: 3-26-21
Commission No.: 438706

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

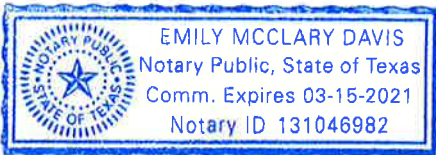
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 11 day of May 20 20
by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
Delaware limited liability company.

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The South Half (1/2) of the South Half (1/2) of the Northeast Quarter (1/4) of Section Twenty (20), Township Thirty (30) North, Range Eight (8) East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-20-200-003: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township



* 2 0 2 0 R - 0 2 8 2 6 5 *

2020R-02826

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:14PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

363

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between John J. Rieke and Molly A. Turner, husband and wife, whose address is 29387 East 2900 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

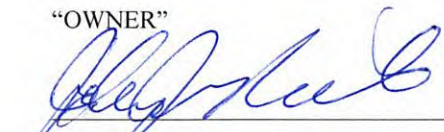
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

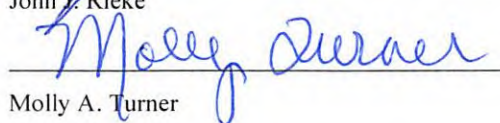
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



John J. Rieke



Molly A. Turner

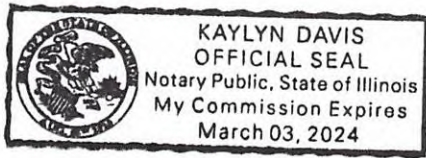
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of June, 20 20 by John J. Rieke.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



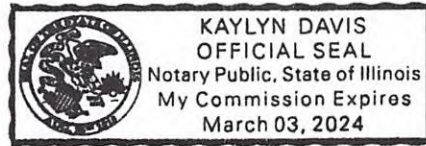
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of June, 20 20 by Molly A. Turner.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



MARCH 03, 2024
My Commission Expires
Notary Public, State of Illinois
ORIGINAL SEAL
KAYLYN DAVIS



MARCH 03, 2024
My Commission Expires
Notary Public, State of Illinois
ORIGINAL SEAL
KAYLYN DAVIS



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

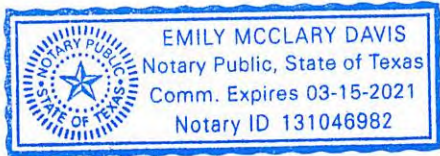
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 30 day of June 2020 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



RECEIVED

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[Handwritten signature]
[Faint handwritten text]

EMILY MCGARY DAVIS
Notary Public, State of Texas
Commission Expires 03-18-2021
Notary ID 1310892

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West Half of the Northwest Quarter of Section 8 in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, EXCEPT 3.716 acres, more or less, which were conveyed to the State of Illinois, Department of Transportation, by Warranty Deed dated December 23, 1971 and recorded February 25, 1972, in Book 327 at page 543 as Document Number 344797. ✓ X

PIN: 06-06-08-100-003: Farm Land: 78.10 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The West Half of the West Half of the Southwest Quarter of Section 8 in Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois. X ✓

PIN: 06-06-08-300-002: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 118.10 acres, more or less.



* 2 0 2 0 R - 0 2 8 2 5 5 *

2020R-02825

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:13PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$63

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between John J. Rieke, whose address is 29387 East 2900 North Road, Dwight, Illinois 60420 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur

of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



John J. Rieke

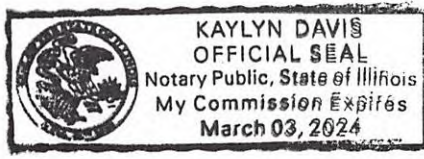
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of June, 2020 by John J. Rieke.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/23/2024
Commission No.: 908987

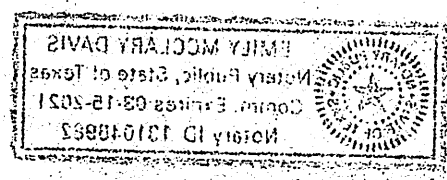


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**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The South Half of the East Half of the Northeast Quarter of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT beginning at a point on the East Line of said Northeast Quarter, which point is 2469.00 feet South from the Northeast Corner of said Northeast Quarter, and running; thence West, perpendicular to said East Line, 243.00 feet; thence South, parallel with said East Line, 283.00 feet; thence East 243.00 feet to said East Line; and thence North, along said East Line, 283.00 feet to the point of beginning, said exception containing 1.58 acres of land, more or less.

PIN: 05-05-01-200-006: Farm Land: 37.5 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The South Half of the Northwest Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-06-100-003: Farm Land: 57.95 acres, more or less.

Common Address: Round Grove Township.

Tract 3:

The South one half of the following described real estate:

The Northwest Fractional Quarter of Section 7 in Township 30 North, Range 8 East of the Third Principal Meridian in Round Grove Township, Livingston County, Illinois, except a strip of land across the North portion of said premises containing 2.257 acres conveyed to the State of Illinois by deed dated February 28, 1972, and containing, after such exception, 93.173 acres, more or less.

PIN: 06-06-07-100-004: Farm Land: 46.5865 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 142.0365 acres, more or less.



* 2 0 2 0 R - 0 1 3 4 0 5 *

2020R-01340

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
04/13/2020 10:43:10AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

\$63

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of March 30, 2020 ("Effective Date"), by and between Rink Agricultural and Investment Partnership, L.P., an Illinois limited partnership, represented by Robert J. Rink and Robert F. Rink, General Partners, whose address is 24332 Stripmine Road, Wilmington, Illinois 60481 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to

wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Rink Agricultural and Investment Partnership, L.P., an Illinois limited partnership

By: Robert J. Rink

Robert J. Rink, General Partner

By: Robert F. Rink

Robert F. Rink, General Partner

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

A

The East 200 acres of the South Half of Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois; EXCEPTING THEREFROM the North 417.12 feet of the South 757.68 feet of the East 450.93 feet thereof (lands of the Round Grove Township Cemetery) and also except the following: Beginning at a point on the South line of said Section 9, which point is 2243.47 feet West from the Southeast corner of said Section 9, and running thence North perpendicular to said South line, 568 feet; thence West, parallel with said South line, 290 feet; thence South perpendicular to said South line, 323 feet; thence East, parallel with said South line 45 feet; thence South, perpendicular to said South line, 245 feet; and thence East, along said South line, 245 feet to the point of beginning, and also except the following: The East 450.93 feet of the East 200 acres of the South Half of Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, except the South 757.68 feet thereof, in Livingston County, Illinois.

PIN: 06-06-09-300-003 and 06-06-09-400-009: Farm Land: 175.61 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 1 R - 0 0 0 8 9 5 *

2021R-00089

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/07/2021 10:21:01AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *63*

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 22 2020 ("Effective Date"), by and between Roger J. Tambling, as Successor Trustee under a Declaration of Trust dated the 1st day of September, 1979, known as the Russell J. Tambling Living Trust, whose address is 310 West Mazon Avenue, Dwight, Illinois 60420 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

5

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

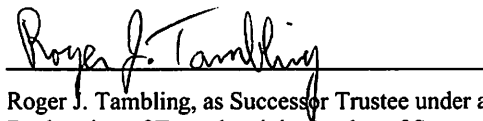
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



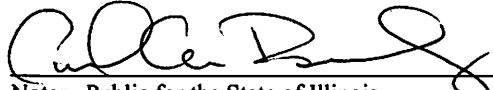
Roger J. Tambling, as Successor Trustee under a Declaration of Trust dated the 1st day of September, 1979, known as the Russell J. Tambling Living Trust

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF COOK §
§

This instrument was acknowledged before me this 23rd day of NOVEMBER, 2020 by Roger J. Tambling, as Successor Trustee under a Declaration of Trust dated the 1st day of September, 1979, known as the Russell J. Tambling Living Trust.

[SEAL]


Notary Public for the State of Illinois
My commission expires: 03/28/21
Commission No.: _____

****OFFICIAL SEAL****
CAROLANN BELPEDIO
Notary Public, State of Illinois
My Commission Expires 03/28/2021

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West 60 acres of the North 80 acres of the West 120 acres of the Northwest Quarter of Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT the South 291.3 feet thereof, AND EXCEPT Commencing at the Northwest Corner of the Northwest Quarter, thence East 433.50 feet, thence South 61 feet to the point of beginning, thence East along South line of Illinois Route 17 444.87 feet thence South 411 feet, thence West 208.87 feet, thence North 37 feet, thence West 236 feet, thence North 374 feet to the point of beginning, ALSO EXCEPT that part heretofore conveyed to the Department of Transportation of the State of Illinois by Warranty Deeds recorded March 24, 1972 in Book 328 pages 186 and 188.

Part of PIN 06-06-09-100-014: Farm Land.

Common Address: Round Grove Township.

Tract 2:

A portion of the following described premises: The East 20 acres of the North 80 acres of the West 120 acres of the Northwest Quarter of Section 9; the East 40 acres of the Northwest Quarter of Section 9; and the West 40 acres of the Northeast Quarter of Section 9, all in Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT a strip across the North part thereof conveyed to the Department of Transportation of the State of Illinois, which portion contains 48.733 acres lying North of a line running East and West through the North Half of the said Section 9, said line being 1409.6 feet North of the South line of said North Half of Section 9.

PIN: 06-06-09-200-005 and part of PIN 06-06-09-100-014: Farm Land.

Common Address: Round Grove Township.

Tract 3:

The North 238.3 feet of the South 1409.6 feet of the East 20 acres of the North 80 acres of the West 120 acres of Section 9; The North 238.3 feet of the South 1409.6 feet of the East 40 acres of the Northwest Quarter of Section 9; The North 238.3 feet of the South 1409.6 feet of the West 40 acres of the Northeast Quarter of Section 9, all in Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

Part of PIN: 06-06-09-100-014: Farm Land.

Common Address: Round Grove Township.

Tract 4:

The East Half of the Southeast Quarter of Section 3, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that part heretofore conveyed for Railroad purposes by Deed dated July 19, 1870 and recorded in Book 78 page 407, AND EXCEPT that part heretofore conveyed to the Department of Transportation of the State of Illinois by Warranty Deed recorded August 24, 1978 as Document Number 380836, ALSO EXCEPT beginning 60 feet North of the Southwest corner of said East Half of the Southeast Quarter, thence North 624 feet, thence East 350 feet, thence South 624 feet, and thence West 350 feet to the point of beginning.

PIN: 06-06-03-400-012: Farm Land.

Common Address: Round Grove Township.

The land described herein contains a total of 174.15 acres, more or less.



2020R-05628

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/15/2020 10:05:15AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *03*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of *November 11*, 2020 ("Effective Date"), by and between J. Marshall Sancken, whose address is 805 Carol Court, Pontiac, Illinois 61764 and Charles S. Sancken as trustee of the Marilyn M. Sancken Family Trust, whose address is 30312 East 2400 North Road, Emington, Illinois 60934 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

6

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

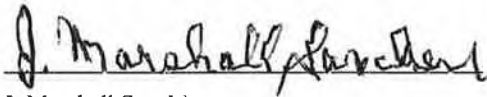
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



J. Marshall Sancken

"OWNER"

Charles S Sancken

Charles S. Sancken as trustee of the Marilyn M. Sancken Family Trust

ACKNOWLEDGMENT

STATE OF ILLINOIS

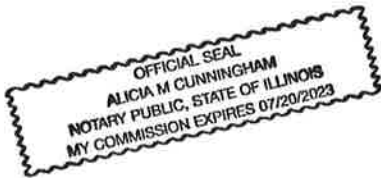
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COUNTY OF Livingston

This instrument was acknowledged before me this 21st day of October, 2020 by Charles S. Sancken as trustee of the Marilyn M. Sancken Family Trust.

[SEAL]

Alicia M. Cunningham
Notary Public for the State of Illinois
My commission expires: 7/20/2023
Commission No.: 823395



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

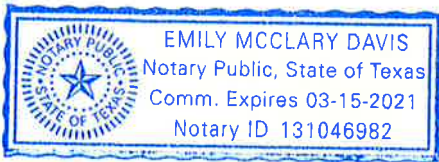
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 11 day of November, 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West Half of the Southeast Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that part conveyed to the State of Illinois by Warranty Deed recorded March 6, 1972 as Document Number 345002, AND ALSO EXCEPT the West 361.50 feet of the South 431.50 feet thereof, and also except a fifty foot strip off the North end thereof used by the railroad. ✓ ✕

PIN: 06-06-06-400-007: Farm Land: 73.33 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The South Half of the Northwest Quarter of Section 28, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois. ✓ T

PIN: 06-06-28-100-002: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 153.33 acres, more or less.



2020R-04650

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/20/2020 02:48:03PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Adam Seabert, also known as, Adam L. Seabert, whose address is 2212 SW 18th Street, Ankeny, Iowa 50023 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

A handwritten signature in blue ink, appearing to read "Adam L. Seabert", written over a horizontal line.

Adam Seabert, also known as, Adam L. Seabert

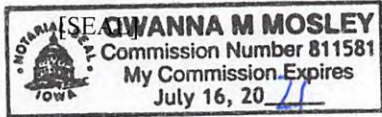
ACKNOWLEDGMENT

STATE OF Iowa

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§
§

COUNTY OF Polk

This instrument was acknowledged before me this 21st day of September, 2020 by
Adam Seabert, also known as, Adam L. Seabert



Gwanne Mosley
Notary Public for the State of Iowa
My commission expires: 7-16-2021
Commission No.: 811581

YELSON M AMAWO
Commission Number 811281
My Commission Expires
July 15, 20

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

CHICAGO, ILLINOIS 60637

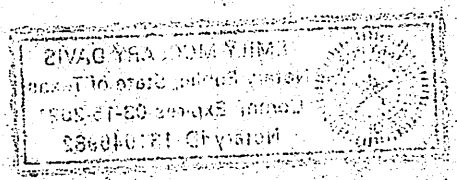
PHYSICS DEPARTMENT

CHICAGO, ILLINOIS 60637

PHYSICS DEPARTMENT

PHYSICS DEPARTMENT

Handwritten signature



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The West Ninety-Three (93) acres of the Southwest Quarter (SW ¼) of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois, EXCEPTING THEREFROM the East Forty-Three (43) acres thereof. T ✓

And

The East 43 acres of the West 93 acres of the Southwest Quarter of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, in Dwight Township, Livingston County, Illinois. T ✓

PIN: 05-05-25-300-022: Farm Land: 93 acres, more or less.

Common Address: Dwight Township



* 2 0 2 0 R - 0 1 3 3 9 6 *

2020R-01339

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
04/13/2020 10:43:09AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 30.50
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *\$ 76,150*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of March 30, 2020 ("Effective Date"), by and between Dale L. Seabert and Diane L. Seabert, husband and wife, whose address is 28323 North 3100 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Dale L. Seabert



Diane L. Seabert

ACKNOWLEDGMENT

STATE OF ILLINOIS §

COUNTY OF Livingston §

This instrument was acknowledged before me this 12 day of March, 2020 by Dale L. Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: Jan. 17, 2021
Commission No.: 907267



ACKNOWLEDGMENT

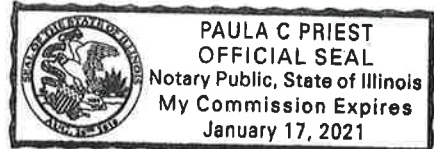
STATE OF ILLINOIS §

COUNTY OF Livingston §

This instrument was acknowledged before me this 12 day of March, 2020 by Diane L. Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: Jan. 17, 2021
Commission No.: 907267



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West Half of the Northeast Quarter of Section 19, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, containing 80.89 acres, more or less.

PIN: 06-06-19-200-001: Farm Land: 80.89 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The South Half of the Northwest Fractional Quarter of said Section Thirty (30), all in Township Thirty (30) North, Range Eight (8) East of the Third Principal Meridian, situated in the County of Livingston in the State of Illinois; EXCEPTING THEREFROM the South 10 acres of the South One-half of the Northwest Fractional Quarter of Section 30, Township 30 North, Range 8 East of the 3rd Principal Meridian, containing 42 acres, more or less.

PIN: 06-06-30-100-002: Farm Land: 42 acres, more or less.

Common Address: Round Grove Township.

Tract 3:

The South Half of the Northeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-30-200-005: Farm Land: 80 acres, more or less.

Common Address: Round Grove Township.

Tract 4:

The East 86.00 acres of the West 284.47 acres of the North 300 acres of Section 31, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois. Containing 86 acres, more or less.

PIN: 06-06-31-200-002: Farm Land: 86 acres, more or less.

Common Address: Round Grove Township.

Tract 5:

The East One-half of the West One-half of the Northwest Quarter of Section 32, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, containing 40.01 acres more or less.

PIN: 06-06-32-100-002: Farm Land: 40.01 acres, more or less.

Common Address: Round Grove Township.

Tract 6:

The West One-half of the East One-half of the Northwest Quarter of Section 32, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, containing 40.03 acres, more or less.

PIN: 06-06-32-100-014: Farm Land: 40.03 acres, more or less.

Common Address: Round Grove Township.

Tract 7:

The Southwest Quarter of Section 32, Township 30 North, Range 8 East of the Third Principal Meridian in Livingston County, Illinois, containing 160 acres, more or less.

PIN: 06-06-32-300-001: Farm Land: 160 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 528.93 acres, more or less.

2022R-03684

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
08/18/2022 09:00:04 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

**RECORDER'S AUTOMATION FEE 12.00
GIS MAINTENANCE FEE 20.00
RHSPS FEE 9.00
RECORDING FEE 30.50
DOC STORAGE FEE 5.00**

PAGES: 6

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of August 17, 2022 ("Effective Date"), by and between Glenn E. Seabert and Mary D. Seabert, husband and wife, whose address is 29873 East 2800 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

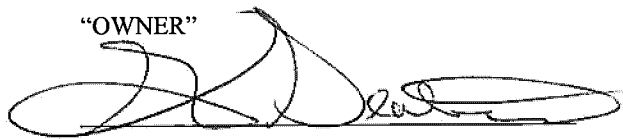
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

A handwritten signature in black ink, appearing to read "Glenn E. Seabert", written over a horizontal line.

Glenn E. Seabert

"OWNER"

Mary D. Seabert
Mary D. Seabert

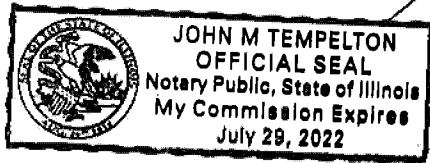
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 19 day of July, 2022 by Mary D. Seabert

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-22
Commission No.: 914155



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East Half of the West Half of the Southeast Quarter of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-25-400-004: Farmland: 40 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The West Half of the West Half of the Southeast Quarter (W1/2 W1/2 SE1/4) of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian in Dwight Township, Livingston County, Illinois.

PIN: 05-05-25-400-003: Farmland: 40 acres, more or less.

Common Address: Dwight Township.

Tract 3:

The West 40 acres of the East 67 acres of the Southwest Quarter (SW1/4) of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian in Dwight Township, Livingston County, Illinois.

PIN: 05-05-25-300-004: Farmland: 40 acres, more or less.

Common Address: Dwight Township.

Tract 4:

The North One-Half (N1/2) of the East One-Half (E1/2) of the Southeast One-Quarter (SE1/4) of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois.

AND

The Southeast Quarter of the Southeast Quarter of Section 25, Township 30 North, Range 7 East of the 3rd P.M. in Livingston County, Illinois.

PIN: 05-05-25-400-002: Farmland: 80 acres, more or less.

Common Address: Dwight Township: 29873 East 2800 North Road, Dwight, Illinois 60420.

Tract 5:

The East Twenty-Seven (27) acres of the Southwest Quarter (SW1/4) of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois.

PIN: 05-05-25-300-005: Farmland: 27 acres, more or less.

Common Address: Dwight Township.

Tract 6:

The North 23.5 acres of the South One Hundred Fourteen (114) acres of the West Two Hundred Eight (208) acres of Fractional Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-30-300-003: Farmland: 23.5 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.

The land described herein contains a total of 250.50 acres, more or less.



2020R-04646

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/20/2020 02:47:59PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 7, 2020 ("Effective Date"), by and between Justin D. Seabert, also known as Justin Seabert and Anya B. Seabert, husband and wife, whose address is 28279 North 3100 East Road, Dwight, Illinois 60420 and Adam L. Seabert, whose address is 2212 SW 18th Street, Ankeny, Iowa 50023 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

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Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

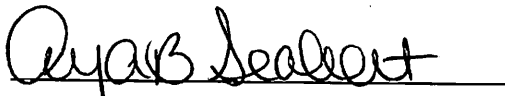
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Justin D. Seabert, also known as Justin Seabert



Anya B. Seabert

ACKNOWLEDGMENT

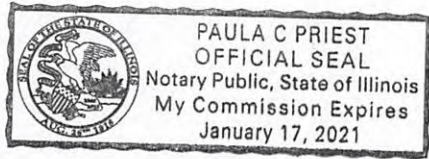
STATE OF ILLINOIS §

COUNTY OF Livingston §

This instrument was acknowledged before me this 24 day of September, 20 20 by Justin D. Seabert, also known as Justin Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 1.17.2021
Commission No.: 907627



ACKNOWLEDGMENT

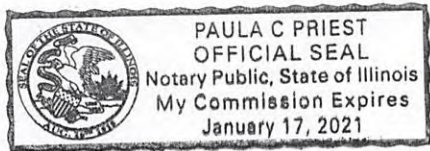
STATE OF ILLINOIS §

COUNTY OF Livingston §

This instrument was acknowledged before me this 24 day of September, 20 20 by Anya B. Seabert

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 1.17.2021
Commission No.: 907627



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 7 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

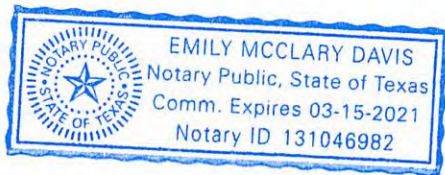


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

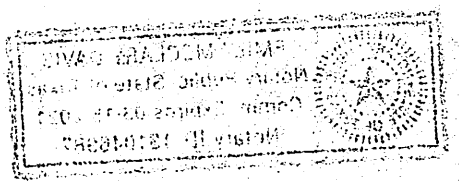
[SEAL]



15

[Handwritten signature]

[Handwritten signature]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The North Half of the East 120 acres of the Northeast Quarter of Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, except that portion deeded to the State of Illinois, Department of Transportation. ✓

PIN: 06-06-09-200-012: Farm Land: 56.72 acres, more or less.

Common Address: Round Grove Township

Tract 2:

The West 12 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 24 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois: ✓

The East 12 acres of the West 36 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 48 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 60 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 72 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 84 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

The East 12 acres of the West 96 acres of the West 120 acres of the Southeast Quarter of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois. ✓

PIN: 06-06-30-400-050: Farm Land: 96 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 152.72 acres, more or less.



2020R-00941

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
03/12/2020 09:02:08AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *103-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of February 21, 2020 ("Effective Date"), by and between Gary L. Marx and Julie L. Marx, husband and wife, whose address is 29400 North 2700 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

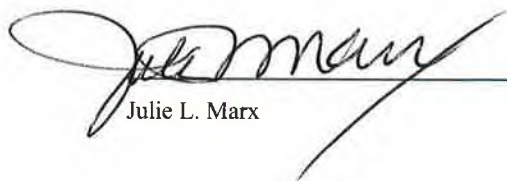
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Gary L. Marx



Julie L. Marx

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 6th day of February, 2020 by Gary L. Marx

Lynne M. Cain
Notary Public for the State of Illinois
My commission expires: 1/17/24
Commission No.: _____

[SEAL]



ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Livingston §

This instrument was acknowledged before me this 6th day of February, 2020 by Julie L. Marx

Lynne M. Cain
Notary Public for the State of Illinois
My commission expires: 1/17/24
Commission No.: _____

[SEAL]



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
 Name: Blake Rasmussen
 Title: Authorized Signatory

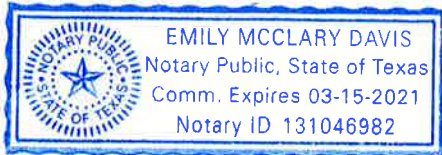
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
 COUNTY OF Harris §
 §

The foregoing instrument was acknowledged before me this 21 day of February 2020
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.

[SEAL]

Emily McClary Davis
 Notary Public for the State of Texas
 My commission expires: 3-15-2021
 Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The North One-Half (N 1/2) of the Northwest Quarter (NW 1/4) of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPTING THEREFROM any portion or portions previously conveyed for road or highway purposes, said premises containing 77.81 acres, more or less.

PIN: 05-05-27-100-002: Farm Land: 77.81 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The South Half of the Northwest Quarter of Section 27 Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT Beginning at the Southwest corner of the Northwest Quarter of said Section 27; thence on an assumed bearing North 00 degrees 22 minutes 21 seconds West 1325.84 feet along the West Line of said Section 27 to the Northwest corner of the South Half of the Northwest Quarter of Section 27; thence South 89 degrees 48 minutes 39 seconds East 60.00 feet along the North Line of the South Half of the Northwest Quarter of Section 27; thence South 00 degrees 22 minutes 21 seconds East 437.05 feet; thence South 89 degrees 37 minutes 39 seconds West 20.00 feet to a point on the existing right of way of Illinois Route 47; thence South 00 degrees 22 minutes 21 seconds East 200.00 feet along said right of way, thence North 89 degrees 37 minutes 39 seconds East 20.00 feet; thence South 00 degrees 22 minutes 21 seconds East 550.00 feet; thence South 02 degrees 26 minutes 06 seconds East 138.94 feet to a point on the South Line of the Northwest Quarter of Section 27; thence North 89 degrees 48 minutes 17 seconds West 65.00 feet along said South Line to the point of beginning, containing 1.742 acres, more or less, of which 1.218 acres are within the existing right of way of IL Route 47, and EXCEPT that part of the Northwest Quarter of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian Livingston County, Illinois, bounded and described as follows: Commencing at the Southwest corner of said Northwest Quarter and running; thence North 01 degrees 48 minutes 11 seconds West, along the West Line of said Northwest Quarter, 688.35 feet; thence North 88 degrees 11 minutes 49 seconds East 39.17 feet to a point on the East right of way line of Illinois Route 47 per recorded document number 475396, said point being the Point of Beginning; thence North 01 degrees 00 minutes 21 seconds West, along said right of way, 200.15 feet; thence North 88 degrees 59 minutes 28 seconds East, along said right of way line, 20.00 feet; thence North 01 degrees 00 minutes 21 seconds West, along said right of way, 268.46 feet; thence North 88 degrees 59 minutes 28 seconds East, 316.00 feet; thence South 01 degrees 00 minutes 21 seconds East, parallel with said right of way line, 471.32 feet; thence South 89 degrees 31 minutes 54 seconds West, 336.00 feet to the point of beginning, containing 3.50 acres, more or less; The premises being conveyed, after the exceptions, containing 74.758 acres, more or less.

PIN: 05-05-27-100-005: Farm Land: 74.758 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 152.568 acres, more or less.



* 2 0 2 0 R - 0 0 0 7 3 5 *

2020R-00073

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

01/06/2020 12:59:41PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 16, 2019 ("Effective Date"), by and between Renee McGinnis as Trustee of the McGinnis Family Trust dated May 15, 2015, whose address is 4352 North Kostner Avenue, Chicago, Illinois 60641 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
McGinnis Family Trust dated May 15, 2015

By: *Renee McGinnis TTEE*
~~Renee McGinnis, Trustee~~
Renee RM



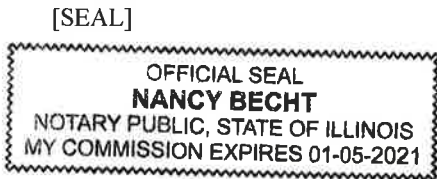
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF DuPage §

This instrument was acknowledged before me this 21st day of November, 2019 by Renee McGinnis as Trustee of the McGinnis Family Trust dated May 15, 2015.

Renee RM

Nancy Becht
Notary Public for the State of Illinois
My commission expires: 1/05/2021
Commission No.: 616592



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 16 day of December 2019, by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]





2021R-01230

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
03/10/2021 10:38:04AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 10

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of February 23, 2021 ("Effective Date"), by and between Maurice J. Miller and M. June Miller, husband and wife; Jane L. Donnelly and Dennis M. Donnelly, wife and husband; Howard J. Miller; and Paul E. Miller, whose address is 605 South Chicago Street, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

10

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Maurice J. Miller

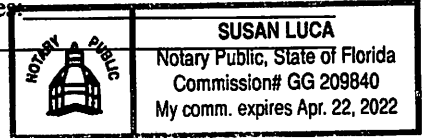
ACKNOWLEDGMENT

STATE OF ~~ILLINOIS~~ ^{Florida} §
COUNTY OF Pinellas §
§

This instrument was acknowledged before me this 2 day of Feb, 2021 by
Maurice J. Miller

[SEAL]

Susan Luca
Notary Public for the State of ~~Illinois~~ Florida
My commission expires
Commission No.:



"OWNER"

M. June Miller
M. June Miller

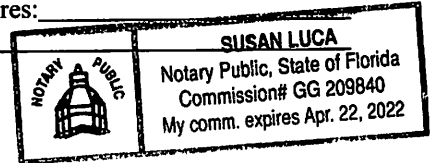
ACKNOWLEDGMENT

STATE OF ~~ILLINOIS~~ §
Florida §
COUNTY OF Pinellas §

This instrument was acknowledged before me this 2 day of Feb, 2021 by
M. June Miller

[SEAL]

Susan Luca
Notary Public for the State of ~~Illinois~~ Florida
My commission expires:
Commission No.:



“OWNER”

Jane L. Donnelly
Jane L. Donnelly

ACKNOWLEDGMENT

STATE OF Colorado §
~~ILLINOIS~~ §
COUNTY OF Larimer §

This instrument was acknowledged before me this 2nd day of February, 20 21 by Jane L. Donnelly.

[SEAL]

JOHN PETER SULLIVAN
Notary Public
State of Colorado
Notary ID # 20184047127
My Commission Expires 12-10-2022

John Peter Sullivan
Notary Public for the State of ~~Illinois~~ Colorado
My commission expires: 12-10-2022
Commission No.: 20184047127

"OWNER"

Dennis M Donnelly

Dennis M. Donnelly

ACKNOWLEDGMENT

STATE OF Colorado §
ILLINOIS §
COUNTY OF Larimer §

This instrument was acknowledged before me this 2nd day of February, 2021 by
Dennis M. Donnelly

[SEAL]

John Peter Sullivan
Notary Public for the State of ~~Illinois~~ Colorado
My commission expires: 12-10-2022
Commission No.: 20184047127

JOHN PETER SULLIVAN
Notary Public
State of Colorado
Notary ID # 20184047127
My Commission Expires 12-10-2022

"OWNER"

Howard J. Miller

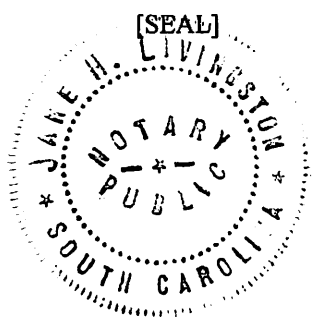
Howard J. Miller

ACKNOWLEDGMENT

SOUTH CAROLINA
STATE OF ~~ILLINOIS~~
COUNTY OF Orangeburg

This instrument was acknowledged before me this 8th day of February, 2021 by
Howard J. Miller

Jane H. Livingston
Notary Public for the State of ~~Illinois~~ SOUTH CAROLINA
My commission expires: 3-13-2028
Commission No.: _____



“OWNER”

Paul E. Miller

Paul E. Miller

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Kankakee §

This instrument was acknowledged before me this 29 day of January, 20 21 by Paul E. Miller.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 23 day of February, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

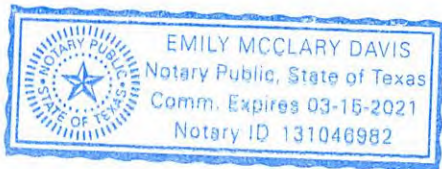


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

✓ The Northeast One-Quarter (NE ¼) of Section 15, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, excepting therefrom approximately one-half acre deeded to Northern Illinois Gas Company described as follows, to-wit: Commencing at the Northwest Corner of the Northeast Quarter of said Section 15, thence East 1441.5 feet along the North Line of the Northeast Quarter of said Section 15 to the point of beginning; thence East 258 feet along said line to a point; thence South 83 feet to a point; thence West 258 feet along a line parallel to the North Line of the Northeast One-Quarter (NE ¼) of said Section 15 to a point; thence North 83 feet to the point of beginning, said exception, all situated in Livingston County, Illinois, also except, beginning at a point on the North Line of said Northeast Quarter, which point is 1902.40 feet West from the Northeast Corner of said Northeast Quarter, and running; thence South, perpendicular to said North Line, 510 feet; thence West, parallel with said North Line, 316 feet; thence North; perpendicular to said North Line 510 feet; and thence East along said North Line, 316 feet to the point of beginning.

PIN: 05-05-15-200-006: Farm Land: 155.81 acres, more or less.

Common Address: Dwight Township.



* 2 0 2 0 R - 0 4 1 8 1 5 *

2020R-04181

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

09/24/2020 10:55:14AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 9, 2020 ("Effective Date"), by and between MKM Oil, Inc., an Illinois Corporation, represented by Gary F. Kavanaugh, its Secretary, whose address is Post Office Box 317, Gardner, Illinois 60424 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

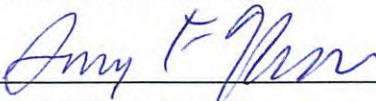
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
MKM Oil, Inc., an Illinois Corporation

By: 

Gary F. Kavanaugh, Secretary

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF GRANDY §

This instrument was acknowledged before me this 25th day of AUGUST, 2020 by Gary F. Kavanaugh as Secretary of MKM Oil, Inc., an Illinois Corporation.

[SEAL] 

Sabrina Hahn
Notary Public for the State of Illinois
My commission expires: 4/26/22
Commission No.: _____

0110 2004-03-20

10/15/04

[Handwritten signature]

NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES 04/15/08
SABRINA HAHN
OFFICIAL SEAL

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

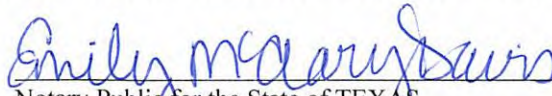
STATE OF TEXAS §

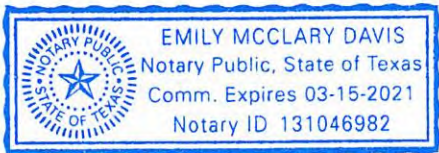
§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 9 day of September 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

Parcel A: The Southwest ¼ of Section 12, Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois, excepting therefrom, the following: Commencing at the Southeast corner of said Southwest Quarter and running; thence South 88 degrees 45 minutes 24 seconds West, along the South line of said Southwest Quarter, 166.06 feet, to the point of beginning; thence North 01 degrees 14 minutes 36 seconds West, 450.32 feet; thence North 82 degrees 11 minutes 53 seconds West, 386.00 feet; thence South 88 degrees 45 minutes 24 seconds West, 135.00 feet; thence South 01 degrees 14 minutes 36 seconds East, 511.00 feet, to said South line of the Southwest Quarter; and thence North 88 degrees 45 minutes 24 seconds East, along said South line, 516.21 feet, to the point of beginning.

Parcel B: The Southeast ¼ of Section 12, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-12-300-003: Farm Land: 317.52 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

Tract 2:

The South 60 acres of the North 120 acres of the Northwest Quarter of Section 15, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that part conveyed to the State of Illinois by Deeds recorded April 1, 1934 in Book 205 page 95 and by Deed recorded August 28, 1997 as Document Number 494751, ALSO EXCEPT that part falling in Deeds recorded October 20, 1958 as Document Number 278112; January 19, 1965 as Document Number 314560; June 20, 2003 as Document Number 546375, Document Number 546376 and Document Number 546377.

PIN: 05-05-15-100-009: Farm Land: 55.03 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 372.55 acres, more or less.



* 2 0 2 0 R - 0 2 6 0 6 5 *

2020R-02606

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
06/24/2020 11:57:04AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of April 28, 2020 ("Effective Date"), by and between Tamara M. Morris and Paul M. Morris, wife and husband, whose address is 15475 Church Road, Minooka, Illinois 60447 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Tamara M. Morris

Tamara M. Morris

Paul M. Morris

Paul M. Morris

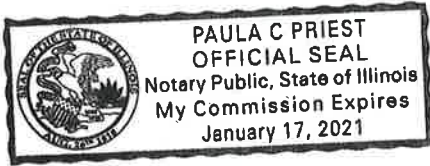
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Kendall §

This instrument was acknowledged before me this 10 day of June, 2020 by Tamara M. Morris.

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 01-17-2021
Commission No.: 967267



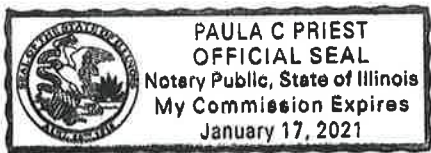
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF Kendall §

This instrument was acknowledged before me this 10 day of June, 2020 by Paul M. Morris.

[SEAL]

Paula C Priest
Notary Public for the State of Illinois
My commission expires: 01-17-2021
Commission No.: 967267



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East 99.47 acres of the West 198.47 acres of the North 300 acres of Section 31, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, excepting therefrom the following: Beginning at a point on the North line of said Section 31, which point is 2488.89 feet East from the Northwest corner of said Section 31, and running; thence North 89°-30'-07" East, along said North line, 418.00 feet to the Northeast corner of said West 198.47 acres; thence South 01°-29'-53" East, parallel with the West line of said Section 31 and along the East line of said West 198.47 acres, 443.00 feet; thence South 89°-30'-07" West, parallel with said North line, 418.00 feet; and thence north 01°-29'-53" West, parallel with said West line, 443.00 feet to the point of beginning. Containing 95.22 acres, more or less.

PIN: 06-06-31-100-004: Farm Land: 95.22 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.

Tract 2:

A part of that part of Section 31, Township 30 North Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, lying South of the North 300 acres of said Section 31 as said North 300 acres was surveyed and recognized in a survey recorded (Circa 1866) in Surveyors Book "B" at page 213 in the Recorders Office of said County, said part being bounded and described as follows: Beginning at a point on the South line of said Section 31, which point is 1503.57 feet East from the Southwest corner of said Section 31 and running; thence North 00 degrees 00 minutes 00 seconds East, parallel with the West line of said Section 31 and along the East line of the West 80 acres of that part of said Section 31 lying South of said surveyed North 300 acres, 2312.51 feet to the South line of said North 300 acres, thence South 89 degrees 00 minutes 23 seconds East, along said South line of the North 300 acres, 1044.10 feet; thence South 00 degrees 00 minutes 00 seconds West, parallel with said West line of Section 31, 2305.23 feet to said South line of Section 31; and thence North 89 degrees 24 minutes 20 seconds West, along said South line, 1044.00 feet to the point of beginning, containing 55.33 acres, more or less, according to Plat of Survey by Krause Surveying, Inc., dated August 26, 2019 and attached to Quitclaim Deed recorded as Document Number 2019R-04463 in the Recorders Office of Livingston County, Illinois.

PIN: 06-06-31-400-025: Farm Land: 55.33 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.

Tract 3:

That part of the East 99.47 acres of the West 198.47 acres of the North 300 acres of Section 31, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the North line of said Section 31, which point is 2488.89 feet East from the Northwest corner of said Section 31, and running; thence North 89°-30'-07" East along said North line 418.00 feet to the Northeast corner of said West 198.47 acres; thence South 01°-29'-53" East, parallel with the West line of said Section 31 and along the East line of said West 198.47 acres, 443.00 feet; thence South 89°-30'-07" West, parallel with said North line, 418.00 feet; and thence North 01°-29'-53" West parallel with said West line, 443.00 feet to the point of beginning. Containing 4.25 acres, more or less.

PIN: 06-06-31-200-001: Farm Land: 4.25 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.

The land described herein contains a total of 154.80 acres, more or less.



* 2 0 2 0 R - 0 2 8 2 4 5 *

2020R-02824

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/09/2020 01:53:12PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$63

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of June 30, 2020 ("Effective Date"), by and between Kathryn A. Patten, also known as, Kathy Patten, whose address is 28273 North 2500 East Road, Dwight, Illinois 60420 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

5

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Kathryn A. Patten, also known as, Kathy Patten

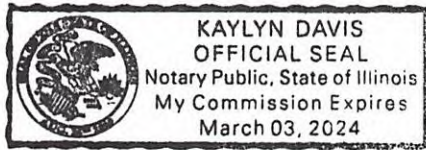
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 12 day of JUNE, 2020 by
Kathryn A. Patten, also known as, Kathy Patten.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: MARCH 03, 2024
Commission No.: 908987



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

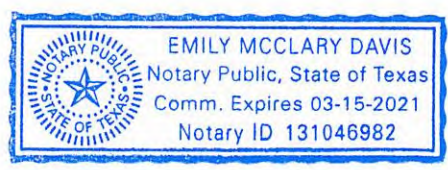
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 30 day of June 20 20 by Blake Rasmussen as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982



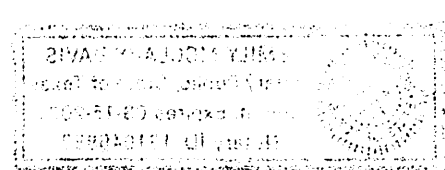
[Faint handwritten text, possibly a signature or name]

[Faint handwritten text]

[Faint handwritten text]

[Faint handwritten text]

[Faint handwritten text]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The North Half of the East Half of the Northeast Quarter of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois. x ✓

PIN: 05-05-01-200-005: Farm Land: 40 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.



* 2 0 2 0 R - 0 4 1 7 7 5 *

2020R-04177

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

09/24/2020 10:55:10AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³⁻
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 15, 2020 ("Effective Date"), by and between Brian L. Perschnick and Amy M. Perschnick, husband and wife, whose address is 28640 North 2800 East Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

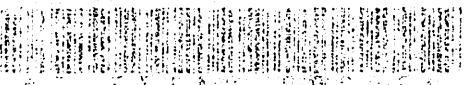
WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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11-10-2000

GENERAL OFFICE & MEMBERS
INVESTIGATION DIVISION
RECORDED ON

RECEIVED
GENERAL OFFICE & MEMBERS
INVESTIGATION DIVISION
RECORDED ON
NOV 10 2000
NOV 10 2000
NOV 10 2000
NOV 10 2000
NOV 10 2000
NOV 10 2000

SEARCHED
SERIALIZED
INDEXED
FILED

NOV 10 2000
FBI - MEMPHIS

September 12

MEMPHIS, TENNESSEE
SEP 12 2000
MEMPHIS, TENNESSEE
SEP 12 2000

MEMPHIS, TENNESSEE
SEP 12 2000
MEMPHIS, TENNESSEE
SEP 12 2000

MEMPHIS, TENNESSEE
SEP 12 2000
MEMPHIS, TENNESSEE
SEP 12 2000

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

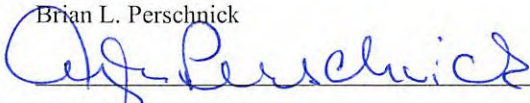
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Brian L. Perschnick




Amy M. Perschnick

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 3 day of September, 20 20 by Brian L. Perschnick.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155




ACKNOWLEDGMENT

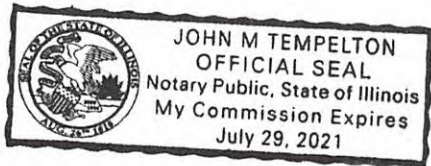
STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 3 day of September, 20 20 by Amy M. Perschnick.


[SEAL]




Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



JOHN M. TEMPELTON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



JOHN M. TEMPELTON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen


Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 15 day of September 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

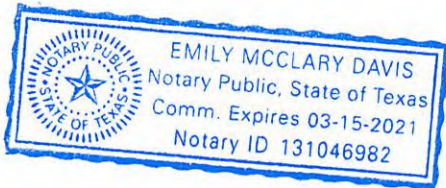


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East 80 acres of the Northwest Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois. ✓ T

PIN: Portion of 05-05-14-100-011: Farm Land: 80 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.



* 2 0 2 0 R - 0 4 1 7 8 5 *

2020R-04178

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
09/24/2020 10:55:11AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

Illinois Generation LLC
c/o Land Dept. *63*
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 15, 2020 ("Effective Date"), by and between Owen R. Perschnick, whose address is 8380 West Livingston Road, Ransom, Illinois 60470 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur

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of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



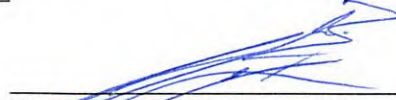
Owen R. Perschnick

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 3 day of September, 20 20 by Owen R. Perschnick.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155




JOHN M. TEMBELTON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 29, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 15 day of September 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

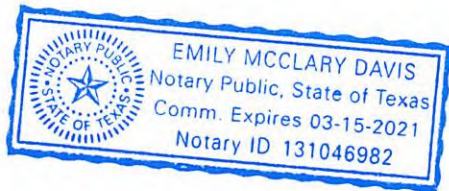


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

✓ T

The Northwest Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois, excepting therefrom the East 80 acres, and also excepting that portion thereof described as follows: Beginning at a point on the North line of said Northwest Quarter of Section 14, which point is 1003.00 feet East of the Northwest Corner of said Northwest Quarter of Section 14; thence South perpendicular to said North line 391 feet; thence East on a line parallel with said North line 187.31 feet; thence North perpendicular to said North line 391 feet; thence West along said North line 187.31 feet to the Point of Beginning,

PIN: Portion of 05-05-14-100-010: Farm Land: 78.32 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.



* 2021R - 00087 5 *

2021R-00087

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
01/07/2021 10:20:59AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: *963*

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 8, 2020 ("Effective Date"), by and between Rebecca Pobloske, also known as, Rebecca L. Pobloske, also known as, Rebecca S. Pobloske, whose address is 915 Clover Ridge Lane, Itasca, Illinois 60143 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Rebecca Pobloske, also known as, Rebecca L. Pobloske,
also known as, Rebecca S. Pobloske

ACKNOWLEDGMENT

STATE OF ILLINOIS

COUNTY OF Livingston

§
§
§

This instrument was acknowledged before me this 27th day of October, 2020 by Rebecca Pobloske, also known as, Rebecca L. Pobloske, also known as, Rebecca S. Pobloske.

[SEAL]

Mary C. Ludwig
Notary Public for the State of Illinois
My commission expires: 3/10/24
Commission No.: _____



OFFICIAL SEAL
MARY C LUDWIG
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES 03/01/04

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

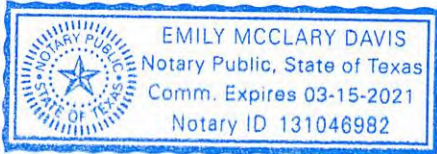
COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 8 day of December, 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.



Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

1 The East 120 acres of the Northeast Quarter of Section 34, Township 30 North, Range 7 East of the Third Principal Meridian, Dwight Township, Livingston County, Illinois.

PIN: 05-05-34-200-008: Farm Land: 120 acres, more or less.

Common Address: Dwight Township.

2022R-00557

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
02/07/2022 11:44:28 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

**RECORDER'S AUTOMATION FEE 12.00
GIS MAINTENANCE FEE 20.00
RHSPS FEE 9.00
RECORDING FEE 17.00
DOC STORAGE FEE 5.00**

PAGES: 10

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of July 15, 2020 ("Effective Date"), by and between Paul G. Riber, whose address is 29801 North 3200 East Road, Dwight, Illinois 60420; Mark S. Riber, whose address is 309 Chippewa Street, Dwight, Illinois 60420; David A. Riber, whose address is 502 Arnold Road, East Peoria, Illinois 61611; Devon Riber Scott, whose address is 7860 Mount Rainer Drive, Jax, Florida 32256; Jeffrey Kent Riber, Jr., whose address is 10744 Crosswicks Road, Jax, Florida 32256 and Blakely Larsen Riber, whose address is 4669 Verona Avenue, Jax, Florida 32210 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Paul G. Riber

"OWNER"

Mark S. Riber

Mark S. Riber

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 26th day of April, 2020 by
Mark S. Riber

Marcia A. Drach

[SEAL]



Notary Public for the State of Illinois
My commission expires: March 26, 2021
Commission No.: 438705

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

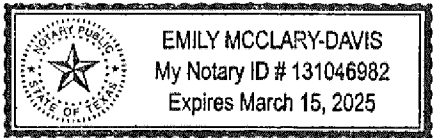
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 30 day of February, 2022 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[Signature: Emily McClary-Davis]
Notary Public for the State of Texas
My commission expires: 3-15-2025
Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The North Half of the Northeast Quarter and the North Half of the South Half of the Northeast Quarter of Section 20, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-20-200-002: Farm Land: 120 acres, more or less.

Common Address: Round Grove Township: 29801 North 3200 East Road, Dwight, Illinois 60420.



* 2 0 2 1 R - 0 0 0 8 8 6 *

2021R-00088

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

01/07/2021 10:21:00AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

963
Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 22, 2020 ("Effective Date"), by and between David J. Leskanich, Life Estate and James R. Leskanich and Nancy Jo Leskanich, husband and wife, Remaindermen, whose address is 29041 East 3200 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



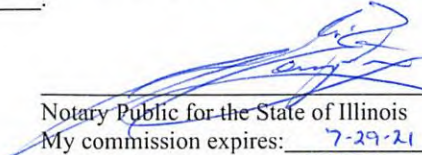
David J. Leskanich, Life Estate

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 19 day of November, 20 20 by
David J. Leskanich, Life Estate.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155





**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

That Part of the Southeast 1/4 of Section 1, in Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois, Lying South of the New York Central Railroad Right of Way, Except the East 71.5 Acres thereof; Subject to the Right of Way of the State of Illinois for Highway Purposes as Contained in a Deed Recorded in Book 187 of Deeds, Page 408, in the Office of the Recorder of Deeds of Livingston County, Illinois.

PIN: 05-05-01-400-003: Farm Land: 78.15 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The East 69.706 Acres of That Part of the Southeast 1/4 of Section 1, Lying South of the Railroad in Township 30 North, Range 7 East of the Third Principal Meridian, In Dwight Township, Livingston County, Illinois.

PIN: 05-05-01-400-004: Farm Land: 69.706 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total or 147.856 acres, more or less.



* 2 0 2 1 R - 0 0 0 8 6 7 *

2021R-00086

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/07/2021 10:20:58AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 30.50

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 7

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO: \$76.50

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 22, 2020 ("Effective Date"), by and between James R. Leskanich and Nancy Jo Leskanich, husband and wife, whose address is 29009 East 3200 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

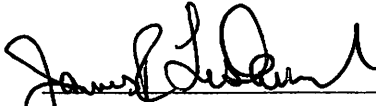
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

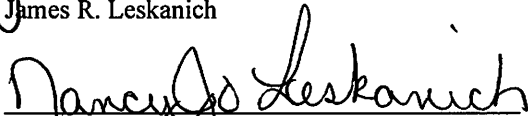
The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



James R. Leskanich




Nancy Jo Leskanich



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

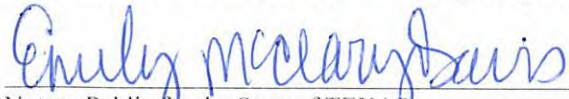
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 27 day of December, 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

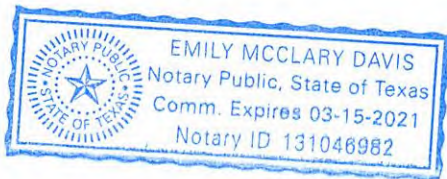


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The Southwest 1/4 of the Northwest Fractional 1/4 of Section 1, in Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois, Subject to the Right-of-Way of the Chicago, Indiana and Southern Railroad Company, and Except That Part Thereof Heretofore Conveyed to the State of Illinois for Highway Purposes as More Particularly Described in the Right-of-Way Deeds Recorded in Book 187 at Page 402 and in Book 187 at Page 444 in the Office of the Recorder of Deeds of Livingston County, Illinois.

PIN: 05-05-01-100-002: Farm Land: 38.05 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The Southwest 1/4 of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, in Livingston County, Illinois, Subject to the Right-of-Way of the Chicago, Indiana and Southern Railroad Company and Except That Part Thereof Heretofore Conveyed to the State of Illinois for Highway Purposes as More Particularly Described in the Right-of-Way Deeds Recorded in Book 187 at Page 402 and in Book 187 at Page 444, in the Office of the Recorder of Deeds of Livingston County, Illinois, and Further Excepting Therefrom the Following:

That Part of the Southwest 1/4 of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, Bounded and Described as Follows: Beginning at the Point of Intersection of the West Line of the Southwest 1/4 and the North Right-of-Way Line of Illinois Route 17, Which Point is 60.00 Feet North from the Southwest Corner of the Said Southwest 1/4 and Running; Thence North 2002.58 Feet; Thence East 197.00 Feet; Thence South 351.58 Feet; Thence West 107.00 Feet; Thence South 1651.00 Feet to Said North Right-of-Way Line of Illinois Route 17; Thence West Along Said North Right-of-Way Line 90.00 Feet to the Point of Beginning.

Also Excepting Therefrom the Following:

That part of the Southwest Quarter of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, described as follows: Beginning at a point on the North Right of Way line of Illinois Route 17, which point is 122 feet East from the West line of the said Southwest Quarter of said Section 1 and running thence North perpendicular to said North line 256 feet, thence East parallel with the said North line 256 feet, thence South 256 feet to the North right of way line of said Illinois Route 17, thence West along said North right of way line 256 feet to the point of beginning, containing 1.5 acres more or less.

PIN:05-05-01-300-005: Farm Land: 148.67 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

X **Tract 3:**

The West 20 acres of the East 50 acres of the West 114 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, except that portion deeded to the State of Illinois recorded March 28, 1972 in Book 328 at page 233.

PIN: 05-05-02-400-008: Farm Land: 20 acres, more or less.

Common Address: Dwight Township.

X **Tract 4:**

The East 40 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian in Livingston County, Illinois, except that part or parts thereof conveyed and sold to the State of Illinois for highway purposes, and except rail road right of way.

PIN: 05-05-02-400-010: Farm Land: 40 acres, more or less.

Common Address: Dwight Township.

X **Tract 5:**

The West 20 acres of the East 92 acres of the West 120 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian, except that part or parts thereof conveyed and sold to the State of Illinois for highway purposes and except railroad right of way. Situated in Livingston County, Illinois. Also excepting therefrom: Part of the West 20 acres of the East 92 acres of the West 120 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian and also a part of the West 22 acres of the East 72 acres of the West 120 acres of the Southeast Quarter of said Section 2, except that part or parts thereof conveyed and sold to the State of Illinois for highway purposes and except the railroad right-of-way, more particularly described as follows: Commencing at the Southwest Corner of the Southeast Quarter of said Section 2; thence North 89° 10' 54" East on the South Line of the Southeast Quarter of said Section 2 for a distance of 545.00 feet; thence North 00° 49' 06" West, 60.00 feet to the North right-of-way line of F.A. Route 18 (Illinois Route 17) according to the right-of-way plat recorded on February 17, 1972 as Document #344696 in Plat Book 1 at Page 28 in Livingston County Recorder's Office, also being the point of beginning; thence continuing North 00° 49' 06" West, 500.00 feet; thence North 89° 10' 54" East on a line parallel with the South Line of the Southeast Quarter of said Section 2 for a distance of 500.00 feet; thence South 00° 49' 06" East, 500.00 feet to North right-of-way line of said F.A. Route 18; thence South 89° 10' 54" West on the North right-of-way line of said F.A. Route 18 for a distance of 500.00 feet to the point of beginning, containing 5.739 acres, more or less, located in Dwight Township, Livingston County, Illinois.

PIN: 05-05-02-400-011: Farm Land: 17.82 acres, more or less.

Common Address: Dwight Township: Dwight, Illinois 60420.

X **Tract 6:**

The West 22 acres of the East 72 acres of the real estate described as: The West 120 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian, EXCEPTING THEREFROM that part or parts thereof heretofore conveyed to the State of Illinois for highway purposes, and EXCEPT that portion of the aforesaid parcel of real estate heretofore conveyed to the New York Central Railroad for right of way purposes, (said 120 acre parcel, excluding said exceptions, contains 114 acres, more or less) all such real estate being situated in the County of Livingston and State of Illinois. Also excepting therefrom: Part of the West 20 acres of the East 92 acres of the West 120 acres of the Southeast Quarter of Section 2, Township 30 North, Range 7 East of the Third Principal Meridian and also a part of the West 22 acres of the East 72 acres of the West 120 acres of the Southeast Quarter of said Section 2, except that part or parts thereof conveyed and sold to the State of Illinois for highway purposes and except the railroad right-of-way, more particularly described as follows: Commencing at the Southwest Corner of the Southeast Quarter of said Section 2; thence North 89° 10' 54" East on the South Line of the Southeast Quarter of said

Section 2 for a distance of 545.00 feet; thence North 00° 49' 06" West, 60.00 feet to the North right-of-way line of F.A. Route 18 (Illinois Route 17) according to the right-of-way plat recorded on February 17, 1972 as Document #344696 in Plat Book 1 at Page 28 in Livingston County Recorder's Office, also being the point of beginning; thence continuing North 00° 49' 06" West, 500.00 feet; thence North 89° 10' 54" East on a line parallel with the South Line of the Southeast Quarter of said Section 2 for a distance of 500.00 feet; thence South 00° 49' 06" East, 500.00 feet to North right-of-way line of said F.A. Route 18; thence South 89° 10' 54" West on the North right-of-way line of said F.A. Route 18 for a distance of 500.00 feet to the point of beginning, containing 5.739 acres, more or less, located in Dwight Township, Livingston County, Illinois.

PIN: 05-05-02-400-013: Farm Land: 18.44 acres, more or less.

Common Address: Dwight Township: East 3200 North Road, Dwight, Illinois 60420.

The land described herein contains a total of 282.98 acres, more or less.



* 2 0 2 0 R - 0 0 0 4 6 5 *

2020R-00046

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/03/2020 02:05:12PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

363

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 23, 2019 ("Effective Date"), by and between Darlene D. Lithgow, represented herein by Norval Wiemken, attorney-in-fact, whose address is 123 East South Street, Dwight, Illinois 60420 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Darlene D. Lithgow

By: Norval Wiemken, P.O.A.
Norval Wiemken, attorney-in-fact

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 27 day of November, 2019 by Norval Wiemken, as attorney-in-fact for Darlene D. Lithgow.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 4-12-20
Commission No.: 892900



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southeast Quarter (SE ¼) of Section 28, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, EXCEPT approximately 5 acres set forth in deed recorded in Book 346 at page 286.

PIN: 06-06-28-400-002: Farm Land: 155 acres, more or less

Common Address: Round Grove Township



* 2 0 2 0 R - 0 4 6 4 5 5 *

2020R-04645

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
10/20/2020 02:47:58PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 13, 2020 ("Effective Date"), by and between Shirley Lucus, also known as, Shirley M. Lucus, represented herein by Sheryl Landstrom, attorney-in-fact, whose address is 502 Boulder Street, Heyworth, Illinois 61745 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

Shirley Lucas, also known as, Shirley M. Lucas

By: Sheryl Landstrom

Sheryl Landstrom, attorney-in-fact

ACKNOWLEDGMENT

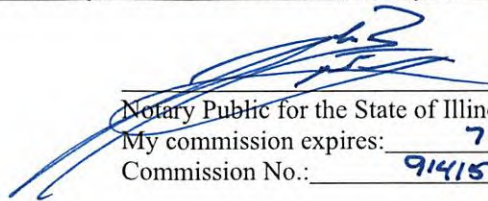
STATE OF ILLINOIS

COUNTY OF McClain

§
§
§

This instrument was acknowledged before me this 28 day of September, 2020 by Sheryl Landstrom, as attorney-in-fact for Shirley Lucas, also known as, Shirley M. Lucas.

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



28

15-11-11

JOHN M. TEMPELTON
 OFFICIAL SEAL
 Notary Public, State of Illinois
 My Commission Expires
 July 29, 2011



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

§

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 13 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

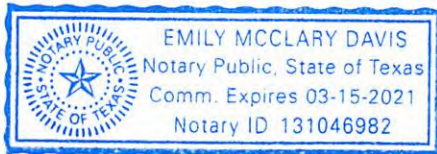


Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982

[SEAL]



1952

Department of the Interior

[Handwritten signature]

Director

Washington, D.C.

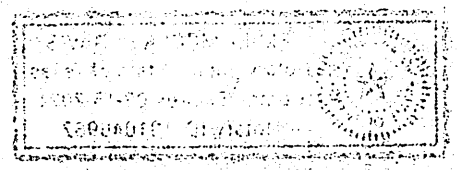
Department of the Interior

1952

Director

13

[Handwritten signature]



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The South 40.92 acres of Lot Two (2) of the Northwest Quarter (NW ¼) of Section Five (5); Also the North 4.08 acres of Lot One (1) of the Northwest Quarter (NW ¼) of Section (5); Also the North Forty (40) acres of Lot Two (2) of the Northwest Quarter (NW ¼) of Section Five (5); all in Township 30 North, Range Eight East of the Third Principal Meridian, situated in the County of Livingston, in the State of Illinois. EXCEPTING THEREFROM: That part of Government Lot 2 of the Northwest ¼ of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the West Line of said Northwest ¼, which point is 1367.68 feet North from the Southwest corner of said Northwest ¼, and running; thence North 01°-57'-07" West, along said West Line, 314.00 feet; thence North 88°-41'-23" East, 442.00 feet; thence South 01°-57'-07" East, parallel with said West Line, 344.64 feet; thence South 88°-41'-23" West, 200.00 feet; thence North 01°-57'-07" West, parallel with said West line. 30.64 feet; and thence South 88°-41'-23" West, 242.00 feet to the point of beginning. Containing 3.33 acres, more or less.

PIN: 06-06-05-100-018: Farm Land: 81.67 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.

Tract 2:

Lot 3 of the Northwest Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-05-100-001: Farm Land: 48.55 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 130.22 acres, more or less.



* 2 0 2 0 R - 0 3 9 6 9 : 5 *

2020R-03969

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
09/10/2020 11:14:52AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 3, 2020 ("Effective Date"), by and between Bruce Lundin, as Trustee under the provisions of a Trust Agreement dated the 10th day of January, 2008 and known as the Bruce Lundin Declaration of Trust, whose address is 15495 Pettengill Road, Empire, Michigan 49630 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Bruce Lundin, as Trustee under the provisions of a Trust Agreement dated the 10th day of January, 2008 and known as the Bruce Lundin Declaration of Trust

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

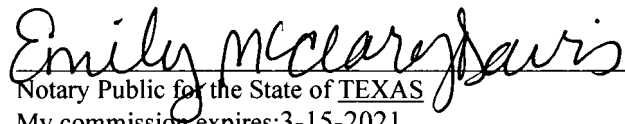
CORPORATE ACKNOWLEDGMENT

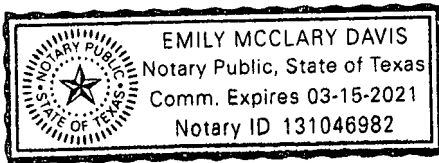
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 3 day of September 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The Southwest Quarter of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian, EXCEPT that part conveyed to the State of Illinois by Deeds recorded as Document Numbers 478596 and 478597, and ALSO EXCEPTING THE FOLLOWING DESCRIBED TWO TRACTS:

TRACT 1:

That part of the Southwest Quarter of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the West line of said Southwest Quarter, which point is 2012 feet North from the Southwest corner of said Southwest Quarter, and running; thence North 89 degrees 58 minutes 56 seconds East 1241.74 feet; thence South 00 degrees 30 minutes 32 seconds West 271.75 feet; thence South 89 degrees 28 minutes 53 seconds East 223.33 feet thence North 02 degrees 20 minutes 36 seconds East 176.60 feet; thence South 89 degrees 46 minutes 19 seconds East 155 feet to a point hereinafter referred to as Point A; thence North 01 degree 23 minutes 37 seconds East 115 feet; thence South 89 degrees 26 minutes 22 seconds East 72.65 feet; thence North 03 degrees 47 minutes 30 seconds East 392.84 feet; thence North 89 degrees 13 minute 36 seconds West 128.20 feet; thence South 03 degrees 45 minutes 38 seconds West 138.62 feet thence North 89 degrees 22 minutes 31 seconds West 341.55 feet; thence South 06 degrees 16 minutes 52 seconds West 141.53 feet; thence South 49 degrees 17 minutes 55 seconds West 116.70 feet; thence North 89 degrees 29 minutes 10 seconds West 1143.57 feet to said West line; and thence South 00 degrees 00 minutes 37 seconds West, along said West line, 69.27 feet to the Point of Beginning, EXCEPTING therefrom that part within the Right of Way of Illinois Route 47; containing 6.90 acres, more or less, said parcel to benefit by an easement for well access and service said easement being 20 feet in width and lying 10 feet on either side of the following described centerline; beginning at Point A, as heretofore mentioned, and running; thence North 01 degree 23 minutes 37 seconds East 43.40 feet to the point of beginning for said centerline; thence South 88 degrees 36 minutes 23 seconds East, along said centerline 222.18 feet to said well, together with a circular easement area, with a radius of 30 feet, centered on said well. Said part also subject to an easement for ingress and egress over and across the most westerly 250 feet of said part.

TRACT 2:

That part of the Southwest Quarter of Section 22, Township 30 North, Range 7 East of the Third Principal Meridian, described as commencing at a point on the West line of said Southwest Quarter, which point is 2012 feet North (2012.20 feet, measured) from the Southwest corner of said Southwest Quarter, said point being a Southwest corner of the parcel of land described in the Warranty Deed recorded as Document Number 00542150; thence North 00 degrees 01 minutes 39 seconds West, 69.18 feet (North 00 degrees 00 minutes 37 seconds East, 69.27 feet, record) on said West line, to a Northwest corner described in said Warranty Deed; thence South 89 degrees 31 minutes 23 seconds East, (South 89 degrees 29 minutes 10 seconds East, record) on a North line of said parcel, 55.05 feet to the East Right of Way line of Illinois Route 47 and to the point of beginning; thence continuing South 89 degrees 31 minutes 23 seconds East, (South 89 degrees 29 minutes 10 seconds East, record) on said North line, 1088.53 feet to a Northerly corner of said parcel; thence North 49 degrees 11 minutes 30 seconds East, on a Westerly line of said parcel, 116.70 feet (North 49 degrees 17 minutes 55 seconds East, 116.70 feet record) to a Westerly corner of said parcel; thence North 06 degrees 19 minutes 44 seconds East, on a Westerly line of said parcel, 141.53 feet (North 06 degrees 16 minutes 52 seconds East, 141.53 feet, record) to a Northerly corner of said parcel; thence South 10 degrees 14 minute 55 seconds West, 141.88 feet; thence South 47 degrees 51 minutes 08 seconds West, 106.29 feet; thence North 89 degrees 50 minutes 20 seconds West, 1088.39 feet to the point of beginning; all situated in the County of Livingston, in the State of Illinois; containing 150.489 acres.

PIN: 05-05-22-300-003: Farm Land: 150.489 acres, more or less.

Common Address: Dwight Township.



* 2 0 2 0 R - 0 4 1 8 0 6 *

2020R-04180

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
09/24/2020 10:55:13AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

63-

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 9, 2020 ("Effective Date"), by and between Lester F. Lydigsen, Jr. and Evelyn M. Lydigsen, husband and wife, whose address is 30733 East 3200 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

6

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

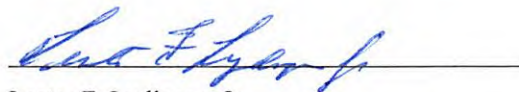
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.


The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"




Lester F. Lydigsen, Jr.




Evelyn M. Lydigsen

JOHN M. TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



JOHN M. TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 28, 2021



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

Part of the East Half of the Southeast Quarter of Section Six (6), Township Thirty (30) North, Range Eight (8), East of the Third Principal Meridian, Livingston County, Illinois, described as follows: Beginning at a point on the South line of the East Half of the Southeast Quarter of said Section Six (6), Township Thirty (30) North, Range Eight (8), East of the Third Principal Meridian, which point is 261.59 feet West of the Southeast corner of said East Half of the Southeast Quarter of said Section Six (6), thence North perpendicular to the South line of said Section Six (6), a distance of 300 feet, thence West perpendicular to the last described line a distance of 284.09 feet, thence South perpendicular to the last described line for a distance of 300 feet to the South line of said Section Six (6), thence East along the South line of said Section Six (6), a distance of 284.09 feet, more or less, to the place of beginning, EXCEPT the South 70 feet of the above described parcel.

PIN: 06-06-06-400-006: Farm Land: 1.5 acres, more or less.

Common Address: Round Grove Township: 30733 East 3200 North Road, Dwight, Illinois 60420.

Tract 2:

The East Half of the Southeast Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT: Beginning at a point on the South line of the East Half of the Southeast Quarter of said Section 6, Township 30 North, Range 8 East of the Third Principal Meridian which point is 261.59 feet West of the Southeast corner of said East Half of the Southeast Quarter of said Section 6, thence North perpendicular to the South line of said Section 6, a distance of 300 feet, thence West perpendicular to the last described line a distance of 284.09 feet, thence South perpendicular to the last described line for a distance of 300 feet to the South line of said Section 6, thence East along the South line of said Section 6, a distance of 284.09 feet, more or less, to the place of beginning.

PIN: 06-06-06-400 005: Farm Land: 74.84 acres, more or less.

Common Address: Round Grove Township.

Tract 3:

The South 36.61 acres of Lot 1 of the Northwest Fractional Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, except the railroad right-of-way across the South end of said premises, in Livingston County, Illinois. EXCEPT: That part of the Northwest Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, described as follows: Beginning at a point on the West line of said Northwest Quarter, which point is 1167.68 feet North of the Southwest Corner of said Northwest Quarter, and running thence South 90 Degrees 00 Minutes 00 Seconds East 649.04 feet, to the center of a ditch; thence South 03 Degrees 15 Minutes 52 Seconds West, along said ditch centerline, 110.55 feet; thence South 14 Degrees 35 Minutes 03 Seconds West, along said ditch centerline, 107.11 feet; thence South 25 Degrees 54 Minutes 15 Seconds West, along said ditch centerline, 113.45 feet; thence South 36 Degrees 58 Minutes 03 Seconds West, along said ditch centerline, 107.07 feet; thence South 40 Degrees 13 Minutes 14 Seconds West, along said ditch centerline, 107.36 feet; thence South 47 Degrees 06 Minutes 46 Seconds West, along said ditch centerline, 108.50 feet; thence South 51 Degrees 14 Minutes 14 Seconds West, along said ditch centerline, 108.19 feet; thence South 55 Degrees 37 Minutes 52 Seconds West, along said ditch centerline, 100.40 feet; thence South 48 Degrees 40 Minutes 14 Seconds West, along said ditch centerline, 106.62 feet; thence South 49 Degrees 49 Minutes 31 Seconds West, along said ditch centerline, 60.58 feet; thence South 44 Degrees 42 Minutes

48 Seconds West, along said ditch centerline, 71.16 to a point on the West line of said Northwest Quarter; thence North 00 Degrees 38 Minutes 30 Seconds West, along said West line 841.97 feet to the Point of Beginning, containing 8.15 acres, more or less, in Livingston County, Illinois.

PIN: 06-06-05-100-015: Farm Land: 32.56 acres, more or less.

Common Address: Round Grove Township.

Tract 4 (Containing 2 Parcels):

Parcel 1:

The South 40 acres of the North 44.08 acres of Lot 1 in the Northwest Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, as said Tract is more particularly delineated in Plat recorded in Plat Book 7 at Pages 34 and 35 and designated as the Alma M. Lydigsen Tract, in Livingston County, Illinois, **EXCEPT:** That part of Lot 1 of the Northwest One-Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and describe as follows: Beginning at a point on the West line of said Northwest One-Quarter, which point is 1267.04 feet North from the Southwest Corner of said Northwest One-Quarter, and running thence East, along the South line of the North 4.08 acres of said Lot 1, and South Line having been established by Survey of July 1, 1937 and recorded in the Recorder's Office of said County May 12, 1955 in Book 7 Page 34, 665 feet; thence Southwesterly 100.45 feet, thence West, along a line parallel with said South Line of North 4.08 acres, 649.04 feet to the said West line; and thence North along said West line, 99.36 feet to the point of beginning. Said Exception containing 1.50 acres of land, more or less. **ALSO EXCEPT:** That part of the Northwest Quarter of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, described as follows: Beginning at a point on the West line of said Northwest Quarter, which point is 1167.68 feet North of the Southwest Corner of said Northwest Quarter, and running thence South 90 Degrees 00 Minutes 00 Seconds East 649.04 feet, to the center of a ditch; thence South 03 Degrees 15 Minutes 52 Seconds West, along said ditch centerline, 110.55 feet; thence South 14 Degrees 35 Minutes 03 Seconds West, along said ditch centerline, 107.11 feet; thence South 25 Degrees 54 Minutes 15 Seconds West, along said ditch centerline, 113.45 feet; thence South 36 Degrees 58 Minutes 03 Seconds West, along said ditch centerline, 107.07 feet; thence South 40 Degrees 13 Minutes 14 Seconds West, along said ditch centerline, 107.36 feet; thence South 47 Degrees 06 Minutes 46 Seconds West, along said ditch centerline, 108.50 feet; thence South 51 Degrees 14 Minutes 14 Seconds West, along said ditch centerline, 108.19 feet; thence South 55 Degrees 37 Minutes 52 Seconds West, along said ditch centerline, 100.40 feet; thence South 48 Degrees 40 Minutes 14 Seconds West, along said ditch centerline, 106.62 feet; thence South 49 Degrees 49 Minutes 31 Seconds West, along said ditch centerline, 60.58 feet; thence South 44 Degrees 42 Minutes 48 Seconds West, along said ditch centerline, 71.16 to a point on the West line of said Northwest Quarter; thence North 00 Degrees 38 Minutes 30 Seconds West, along said West line 841.97 feet to the Point of Beginning, containing 8.15 acres, more or less, in Livingston County, Illinois.

Parcel 2:

That part of Lot 1 of the Northwest $\frac{1}{4}$ of Section 5, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Commencing at a point on the West line of said Northwest One-Quarter, which point is 1267.04 feet North from the Southwest Corner of said Northwest One-Quarter, and running: thence East along the South line of the North 4.08 acres of said Lot 1, said South line having been established by Survey of July 1, 1937 and recorded in the Record's Office of said County May 12, 1955 in Book 7, Page 34, 665 feet to the Point of Beginning; thence East, along said South Line, 2003.68 feet to the East Line of said Northwest One-Quarter; thence North, along said East Line, 32.65 feet; thence West, parallel with said South line, 1998.67 feet; and thence Southeasterly 33.01 feet to the Point of Beginning, containing 1.50 acres of land, more or less.

PIN: 06-06-05-100-13: Farm Land: 32.89 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 141.79 acres, more or less.



* 2 0 1 9 R - 0 4 8 9 0 4 *

2019R-04890

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/17/2019 10:07:31AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept. *63-*
1201 Louisiana St, Suite 3200
Houston, TX 77002

PAGES: 4

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 3, 2019 ("Effective Date"), by and between Ryan E. Hansen, whose address is 326 West Delaware Street, Dwight, Illinois 60420 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use

4

and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Ryan E. Hansen


ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 30th day of October, 2019 by Ryan E. Hansen.

[SEAL]





Notary Public for the State of Illinois
My commission expires: 5/23/2021
Commission No.: 440875

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The West Half of the West Half of the Northeast Quarter of Section 28, Township 30 North, Range 8 East^{✓ T} of the Third Principal Meridian; situated in Livingston County, Illinois.

PIN: 06-06-28-200-003: Farm Land: 40 acres, more or less.

Common Address: 2900 North Road, Cardiff, Illinois

2021R-05133

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
10/14/2021 09:06:38AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 13, 2021 ("Effective Date"), by and between George W. Hoffman and Pauline Jo Hoffman, also known as Pauline J. Hoffinan, husband and wife, whose address is 11220 South Gorman Road, Gardner, Illinois 60424 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

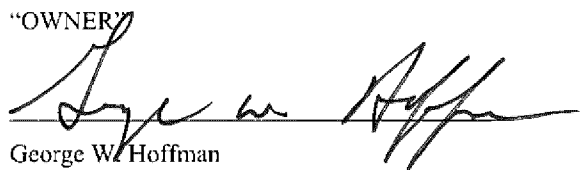
ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

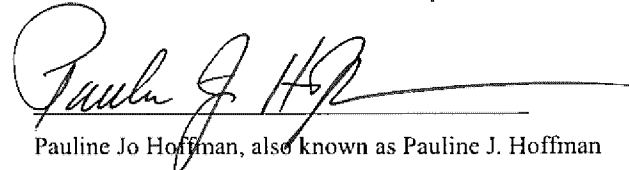
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

George W. Hoffman


Pauline Jo Hoffman, also known as Pauline J. Hoffman

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 26 day of September, 20 21 by George W. Hoffman

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-22
Commission No.: 914155

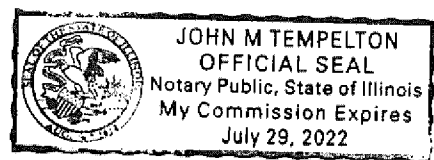


STATE OF ILLINOIS §
 §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 26 day of September, 20 21 by Pauline Jo Hoffman, also known as Pauline J. Hoffman

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-22
Commission No.: 914155



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

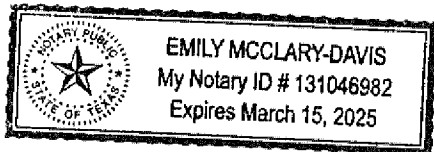
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 13 day of October, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2025
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The West 120 acres of the Southwest Quarter of Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPTING therefrom the West 821.67 feet of the South 926.47 feet thereof.

PIN: 06-06-09-300-016: Farm Land: 104.27 acres, more or less.

Common Address: Round Grove Township: Dwight, Illinois 60420.



* 2 0 2 1 R - 0 1 2 3 1 5 *

2021R-01231

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

03/10/2021 10:38:05AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of February 23, 2021 ("Effective Date"), by and between George W. Hoffman and Pauline Jo Hoffman, husband and wife, whose address is 11220 South Gorman Road, Gardner, Illinois 60424 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

6

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

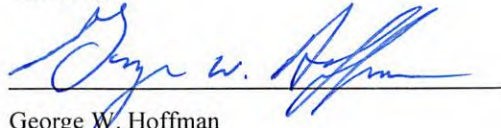
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



George W. Hoffman



Pauline Jo Hoffman

JOHN M. TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 29, 2021



JOHN M. TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 29, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

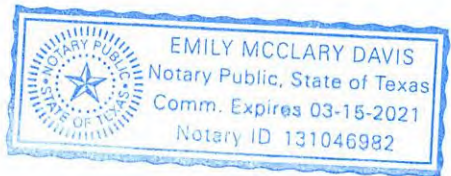
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 23 day of February, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The North 521.88 feet of the South 1,171.30 feet of the Northwest Quarter, together with the North 521.88 feet of the South 1,171.30 feet of the West 40 acres of the Northeast Quarter, all in Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-09-100-015 and 06-06-09-200-010: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The South 649.42 feet of the Northwest Quarter, together with the South 649.42 feet of the West 40 acres of the Northeast Quarter, all in Section 9, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-09-100-016 and 06-06-09-200-011: Farm Land: 49.75 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 89.75 acres, more or less.



2020R-04987

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
11/05/2020 02:58:13PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$63
Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of October 26, 2020 ("Effective Date"), by and between George W. Hoffman, whose address is 11220 South Gorman Road, Gardner, Illinois 60424 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur

5

of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



George W. Hoffman

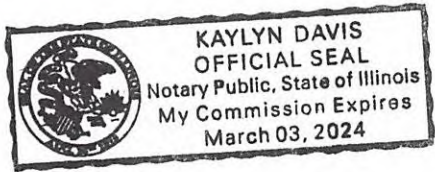
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF GRUNDY §

This instrument was acknowledged before me this 23 day of SEPTEMBER, 20 20 by George W. Hoffman.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987




KAYLYN DAVIS
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
March 03, 2024



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 26 day of October 2020, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

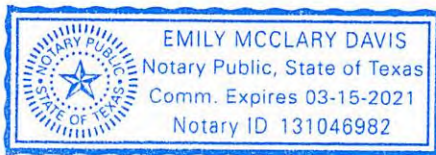
[SEAL]



Notary Public for the State of TEXAS

My commission expires: 3-15-2021

Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

That part of the East 160 acres of the North Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Commencing at the Northeast Corner of said Section 18, and running; thence South 89°-55'-47" West, along the North Line of said Section 18, 1638.21 feet to the point of beginning; thence South 89°-55'-47" West, along said North Line, 1009.81 feet; thence South 01°-08'-14" East, along the West Line of said East 160 acres of the North Half, 2650.80 feet to the Southwest Corner of said East 160 acres; thence North 89°-57'-54" East, along the South Line of said North Half of Section 18, 1009.82 feet; and thence North 01°-08'-14' West, parallel with said West Line of the East 160 acres, 2651.42 feet to the point of beginning. Containing 61.45 acres, more or less.

PIN: 06-06-18-200-007: Farm land: 61.45 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 1 R - 0 1 2 2 9 6 *

2021R-01229

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
03/10/2021 10:38:03AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63-*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of February 23, 2021 ("Effective Date"), by and between Howard J. Miller, as Trustee under the provisions of a trust agreement known as the Howard J. Miller Trust dated June 20th, 2006, whose address is 131 Twisted Oak Trail, Elloree, South Carolina 29047 and Paul Miller, also known as, Paul E. Miller, whose address is 821 South Cheryl Lane, Kankakee, Illinois 60901 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to

wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Howard J. Miller, as Trustee under the provisions
of a trust agreement known as the Howard J. Miller
Trust dated June 20th, 2006



"OWNER"

Paul E. Miller

Paul Miller, also known as, Paul E. Miller

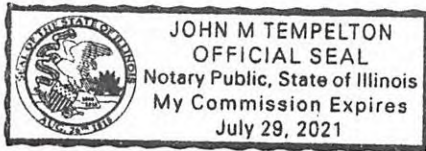
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Kankakee §

This instrument was acknowledged before me this 29 day of January, 20 21 by Paul Miller, also known as, Paul E. Miller.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



JOHN M. TEMPLETON
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
July 29, 2021



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

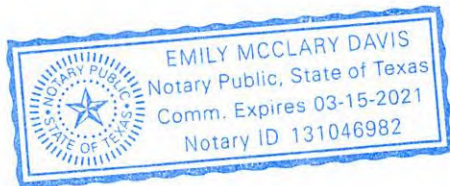
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 23 day of February, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2021
Commission No.: 131046982



A5

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East Half of the Southwest Quarter of Section 24, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-24-300-002: Farm Land: 80 acres, more or less.

Common Address: Dwight Township: 29353 East 2900 North Road, Dwight, Illinois 60420.

Tract 2:

The Northeast Quarter of Section 24, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-24-200-001 and 05-05-24-200-002: Farm Land: 160 acres, more or less.

Common Address: Dwight Township: 29353 East 2900 North Road, Dwight, Illinois 60420.

Tract 3:

The East Half of the Southeast Quarter of Section 23, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-23-400-002: Farm Land: 80 acres, more or less.

Common Address: Dwight Township.

Tract 4:

The North Half of the Northwest Quarter of Section 25, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-25-100-001: Farm Land: 80 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 400 acres, more or less.

2023R-04602

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY**

**RECORDED ON:
12/22/2023 08:40:15 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

**RECORDER'S AUTOMATION FEE 12.00
GIS MAINTENANCE FEE 20.00
RHSPS FEE 18.00
RECORDING FEE 17.00
DOC STORAGE FEE 5.00**

PAGES: 7

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

Illinois Generation LLC
888 Westheimer Road, Suite 350
Houston, TX 77006
Attention: Real Estate Legal Department

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of the 18th day of December, 2023 ("**Effective Date**"), by and between Illinois Valley Investment Company, an Illinois corporation, whose address is P.O. Box 10, Dwight, Illinois 60420, and COBIONDI, Inc., an Illinois corporation, whose address is 10375 Wilshire Boulevard, Apartment 11A, Los Angeles, California 90024 (together with its successors, assigns and heirs, collectively, "**Owner**"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "**Developer**"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "**Option Agreement**") which by its terms grants to Developer an option to acquire an easement (the "**Option**") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "**Property**");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("**Notice of Exercise**"), or (b) one (1) year after the Effective Date, unless extended for an additional period of four (4) years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or portions thereof, at Developer's option, during a term

commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the “**Operating Period**,” which Operating Period commences upon the earlier to occur of (a) three (3) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty-two (42) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer’s sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

[SIGNATURE PAGE FOLLOWS]

commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

~~NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.~~

~~The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.~~

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Illinois Valley Investment Company, an Illinois Corporation

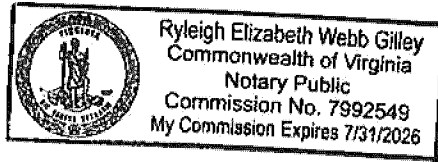
By: Michael T. Damgard
Michael Damgard, President

ACKNOWLEDGMENT

STATE OF Virginia §
City §
COUNTY OF Richmond §

This instrument was acknowledged before me this 19th day of October, 2023 by Michael Damgard, as President of Illinois Valley Investment Company, an Illinois Corporation.

[SEAL]



R. E. Webb Gilley
Notary Public for the State of Virginia
My commission expires: 7.31.2026
Commission No.: 7992549

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

That part of the South Half of Section 27, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, lying West of the former Wabash Railroad right of way, Excepting from said part the following: Commencing at the Northwest Corner of said South Half and running thence South 1 degree 07 minutes 10 seconds East along the West line of said South Half 206.90 feet to the point of beginning, thence North 89 degrees 53 minutes 41 seconds East parallel with the North line of said South Half 628.57 feet; thence South 0 degrees 32 minutes 14 seconds West 366.89 feet; thence North 89 degrees 19 minutes 24 seconds West 618.17 feet to said West line; and thence North 1 degree 07 minutes 10 seconds West along said West line 358.49 feet to the point of beginning, except that portion deed to the State of Illinois, Department of Transportation.

PIN: 06-06-27-300-004: Farm Land: 164.12 acres, more or less.

Common Address: Round Grove Township.

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

2023R-00934

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
03/21/2023 01:59:09 PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

**RECORDER'S AUTOMATION FEE 12.00
GIS MAINTENANCE FEE 20.00
RHSPS FEE 9.00
RECORDING FEE 17.00
DOC STORAGE FEE 5.00**

PAGES: 7

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of March 15th, 2023 ("Effective Date"), by and between Juanita F. Francis, as Trustee of the Juanita F. Francis Irrevocable Trust of 2012, dated November 21, 2012, whose address is 4469 E. Moonlight Way, Paradise Valley, AZ 85253; Carolyn E. Kinsella, whose address is 2975 N. 28th Road, Seneca, IL 61360; and Susan L. Heisner, whose address is 7367 Timberwolf Trail, Fairview Heights, IL 62208 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to

wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

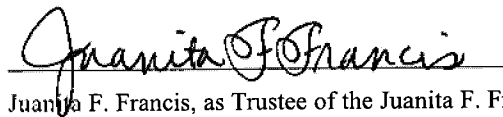
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

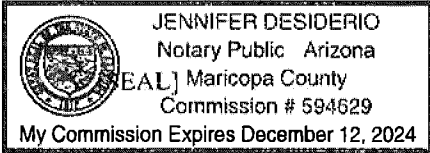


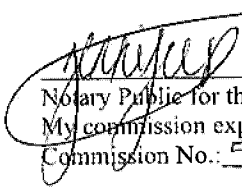
Juanita F. Francis, as Trustee of the Juanita F. Francis Irrevocable Trust of 2012, dated November 21, 2012

ACKNOWLEDGMENT

STATE OF Arizona §
COUNTY OF Maricopa §

This instrument was acknowledged before me this 13 day of February, 2013 by Juanita F. Francis, as Trustee of the Juanita F. Francis Irrevocable Trust of 2012, dated November 21, 2012.




Notary Public for the State of Arizona
My commission expires: 12/12/2024
Commission No.: 594629

"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

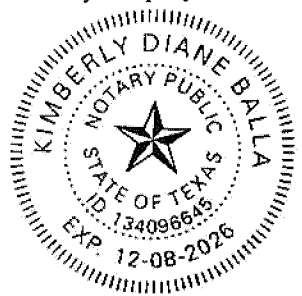
By: [Signature]
 Name: Blake Rasmussen
 Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
 COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 15th day of March 2023,
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.

[SEAL]



[Signature]
 Notary Public for the State of Texas
 My commission expires: 12-8-26
 Commission No.: 134096645

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of the Northeast Quarter and the East Half of the Southeast Quarter and the East Half of the West Half of the Southeast Quarter, all in Section 17, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPTING from said East Half of the Southeast Quarter the following: beginning at the Northeast corner of the Southeast Quarter and running; thence West along the North line of said Southeast Quarter, 505.00 feet; thence South perpendicular to said North line, 330.00 feet; thence East parallel with said North line 510.53 feet to said East line; thence North along said East line 330.00 feet to the point of beginning, and ALSO EXCEPT that part of said Southeast Quarter dedicated for public right of way by Document No. 411544.

PIN: 06-06-17-400-007: Farm Land: 195.47 acres, more or less.

Common Address: Round Grove Township.

2021R-03527

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
07/15/2021 11:07:12AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 7

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of July 13, 2021 ("Effective Date"), by and between Keith F. Kelly, Robert W. Kelly and Rick L. Kelly, whose address is 32198 East 3100 North Road, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

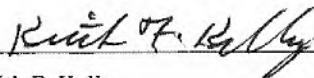
D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



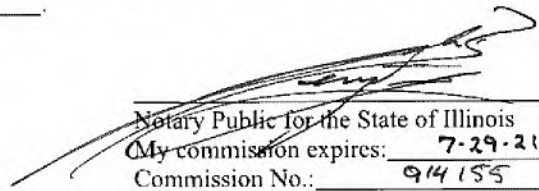
Keith F. Kelly

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 23 day of June, 20 21 by
Keith F. Kelly

[SEAL]



Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



“OWNER”

Robert W. Kelly
Robert W. Kelly

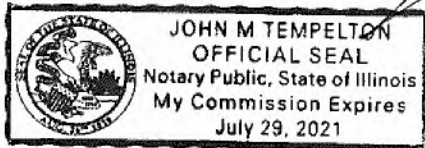
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 23 day of Livingston, 2021 by Robert W. Kelly.

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



"OWNER"

Rick L. Kelly

Rick L. Kelly

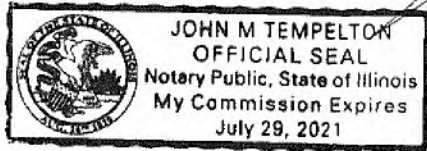
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF L. Washington §

This instrument was acknowledged before me this 23 day of June, 20 21 by
Rick L. Kelly

[SEAL]

[Signature]
Notary Public for the State of Illinois
My commission expires: 7-29-21
Commission No.: 914155



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

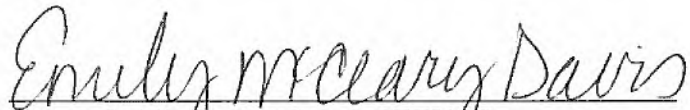
CORPORATE ACKNOWLEDGMENT

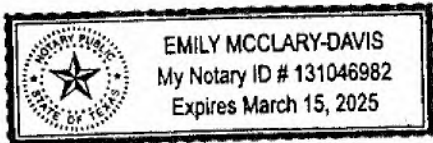
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 13 day of July, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2025
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The North Half (1/2) of the Northwest Quarter (1/4) of Section 30, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-30-100-001: Farmland: 52 acres, more or less.

Common Address: Round Grove Township.



* 2 0 2 0 R - 0 0 2 7 8 5 *

2020R-00278

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY

RECORDED ON

01/22/2020 12:15:41PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC ⁶³
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of January 13, 201⁹ ("Effective Date"), by and between Norma L. Koltveit, whose address is 18487 North 1200 East Road, Pontiac, Illinois 61764 (together with her successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

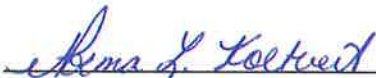
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use

and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



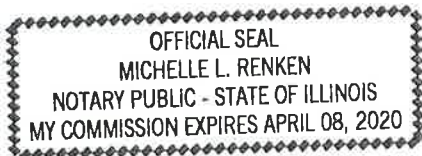
Norma L. Koltveit

ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF Livingston §

This instrument was acknowledged before me this 19th day of December, 2019 by Norma L. Koltveit.

[SEAL]




Notary Public for the State of Illinois
My commission expires: 4/8/20
Commission No.: _____

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT
DESCRIPTION OF THE PROPERTY**

Tract 1:

The South Half of the Northeast Quarter of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-27-200-003: Farm Land: 80 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The North Half of the Southeast Quarter of Section 27, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-27-400-003: Farm Land: 80 acres, more or less.

Common Address: Dwight Township.

The land described herein contains a total of 160 acres, more or less.

2021R-03634

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
07/22/2021 08:35:33AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of July 21, 2021 ("Effective Date"), by and between L & L Monferdini Farms LLC, an Illinois Limited Liability Company, by Donna J. Monferdini, Manager, whose address is 954 Eichler Drive, Mountain View, California 94040 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

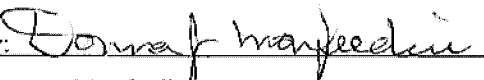
NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

L & L Monferdini Farms LLC, an Illinois Limited Liability Company

By: 
Donna J. Monferdini, Manager

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

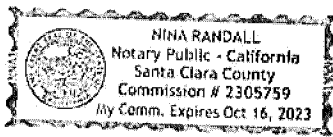
State of California)
County of SANTA CLARA)

On JUNE 15TH, 2021 before me, NINA RANDALL, NOTARY PUBLIC
Date Here Insert Name and Title of the Officer
personally appeared DONNA J. MONFERRINI
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Nina Randall
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: MEMORANDUM OF DECISION AND EASEMENT
Document Date: _____ Number of Pages: pg-2
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

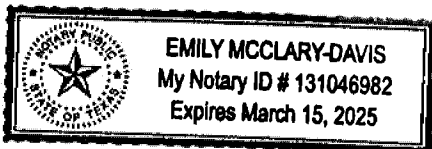
CORPORATE ACKNOWLEDGMENT

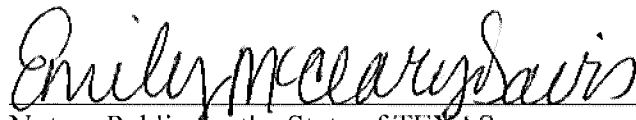
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 21 day of July, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]




Notary Public for the State of TEXAS
My commission expires: 3-15-2025
Commission No.: 131046982

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The Northwest Quarter of Section 29, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois.

PIN: 06-06-29-100-001: Farm Land: 160 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The West Half of Section 20, Township 30 North, Range 8 East of the Third Principal Meridian, in Livingston County, Illinois, (except that part described as follows: beginning at the Northwest corner of said Section 20; thence East along the North line of said Section, 1032.2 feet; thence South perpendicular with the North line of said Section, 449.0 feet; thence West parallel with the North line of said Section, 1025.11 feet to the West line of said Section; thence North along the West line of said Section, 449.05 feet to the point of beginning)

PIN: 06-06-20-100-007, 06-06-20-300-002 and 06-06-20-300-003: Farm Land: 309.40 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 469.40 acres, more or less.



* 2 0 1 9 R - 0 4 8 9 1 4 *

2019R-04891

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/17/2019 10:07:32AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

Illinois Generation LLC
c/o Land Dept. *63*
1201 Louisiana St, Suite 3200
Houston, TX 77002

REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00

(Space above this line for Recorder's use only)

PAGES: 4

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 3, 2019 ("Effective Date"), by and between Leila Farms, LLC, an Illinois Limited Liability Company, by Eric C. Patchett, Manager, whose address is 30128 North 3500 East Road, Reddick, Illinois 60961 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

4

**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The Southwest Quarter of Section 13, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT the railroad right-of-way, and also EXCEPTING Beginning at a point on the West line of said Southwest Quarter, which point is 581 feet North from the Southwest corner of said Southwest Quarter, and running; thence East, perpendicular to said West line, 322 feet; thence North, parallel with said West line, 220 feet; thence West, perpendicular to said West line, 322 feet; and thence South, along said West line, 220 feet to the point of beginning, and also EXCEPTING, Beginning at a point on the West line of said Southwest Quarter, which point is 488.00 feet North from the Southwest Corner of said Southwest Quarter, and running; thence South 89°-18'-55" East 138.00 feet; thence South 00°-00'-00" East 40.00 feet; thence South 89°-18'-55" East 55.00 feet; thence South 07°-30'-32" West 106.00 feet; thence North 89°-35'-02" West 73.95 feet; thence South 00°-00'-00" East 97.00 feet; thence South 89°-18'-55" East 136.00 feet; thence South 55°-32'-32" East 86.30 feet; thence South 89°-18'-55" East 128.00 feet; thence North 00°-00'-00" East 608.85 feet; thence South 89°-59'-57" West 440.33 feet to said West line; and thence South 00°-00'-00" East, along said West line, 313.00 feet to the point of beginning, containing 5.01 acres, more or less.

PIN: 06-06-13-300-008: Farm Land: 153.27 acres, more or less.

Common Address: Round Grove Township: 30068 North 3500 East Road, Reddick, Illinois 60961

Tract 2:

The South Half of the Northwest Quarter of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT the North 185 feet of the West 384.44 feet of the South Half of the Northwest Quarter of Section 22, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-22-100-010: Farm Land: 78.37 acres, more or less.

Common Address: Round Grove Township: Reddick, Illinois 60961

The land described herein contains a total of 231.64 acres, more or less.

2021R-02673

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
05/24/2021 01:57:18PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St. Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of May 24, 2021 ("Effective Date"), by and between First Financial Bank, as Successor to The Pontiac National Bank, as Trustee of the Jens H. and Beatrice Short Spandet Memorial Trust created under the Last Will and Testament of Beatrice Short Spandet, deceased, by Brent Crane, Vice President, whose address is Post Office Box 680, Pontiac, Illinois 61764 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to

wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

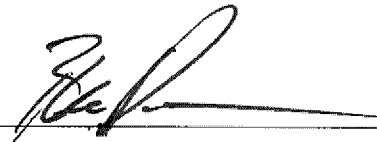
First Financial Bank, as Successor to The Pontiac National Bank, as Trustee of the Jens H. and Beatrice Short Spandet Memorial Trust created under the Last Will and Testament of Beatrice Short Spandet, deceased

By: _____


Vice President

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory

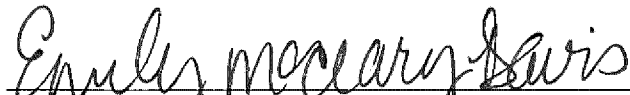
CORPORATE ACKNOWLEDGMENT

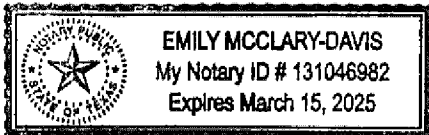
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 24 day of May, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2025
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The West 120.96 acres of the Northeast Quarter of Section 1, Township 30 North, Range 7 East of the Third Principal Meridian, EXCEPT that part used as railroad described in deed recorded in Book 78, page 405 and Book 79, page 165.

PIN: 05-05-01-200-001: Farm Land: 120.96, more or less.

Common Address: Dwight Township.

Tract 2:

The Southwest Fractional Quarter of Section 6, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, EXCEPT that part conveyed to the State in Document Numbers 97162 and 345839, ALSO EXCEPT that part used as a railroad described in deed recorded in Book 79, page 138.

PIN: 06-06-06-300-002: Farm Land: 90.06 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 211.02 acres, more or less.



* 2 0 2 0 R - 0 3 0 3 3 7 *

2020R-03033

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

07/22/2020 12:43:49PM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 7

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

923

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of July 15, 2020 ("Effective Date"), by and between Doreen T. Frerichs, as Life Estate and Remainderman and Craig J. Frerichs and Elizabeth M. Frerichs, husband and wife, as Remaindermen, whose address is 3183 North 600 East Road, Clifton, Illinois 60927 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at

Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Doreen T. Frerichs, as Life Estate and Remainderman

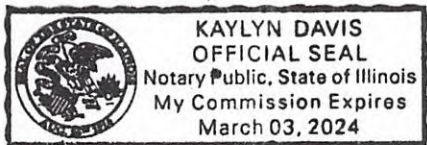
ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF KAWKAKEE §

This instrument was acknowledged before me this 29 day of JUNE, 20 20 by Doreen T. Frerichs, as Life Estate and Remainderman.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 408987



"OWNER"

Craig J. Frerichs

Craig J. Frerichs as Remainderman

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF KANKAKEE §

This instrument was acknowledged before me this 29 day of June, 2020 by
Craig J. Frerichs as Remainderman.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



"OWNER"

Elizabeth M. Frerichs
Elizabeth M. Frerichs as Remainderman

ACKNOWLEDGMENT

STATE OF ILLINOIS §
COUNTY OF HANKAKEE §

This instrument was acknowledged before me this 29 day of June, 20 20 by Elizabeth M. Frerichs as Remainderman.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



"DEVELOPER"

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

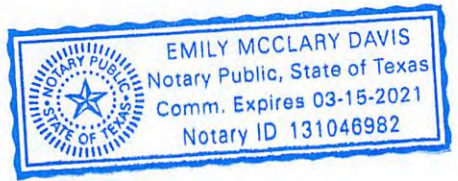
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 15 day of July, 2020, by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

X The Southeast Quarter of Section 15, Township 30 North, Range 8 East of the Third Principal Meridian, EXCEPT: That part of the Southeast Quarter of Section 15, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois, bounded and described as follows: Beginning at a point on the East line of said Southeast Quarter, which point is 1,433 feet North from the Southeast corner of said Southeast Quarter and running, thence West, perpendicular to said East line, 380 feet; thence North, parallel with said East line, 344 feet; thence East, perpendicular to said East line, 380 feet to said East line; and thence South, along said East line, 344 feet to the Point of Beginning containing 3.0 acres of land, more or less, in Livingston County, Illinois.

PIN: 06-06-15-400-002: Farm Land: 157 acres, more or less.

Common Address: Round Grove Township: 3043 North 3400 East Road, Dwight, Illinois 60420.



* 2 0 2 0 R - 0 3 0 3 1 5 *

2020R-03031

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
07/22/2020 12:43:47PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00
PAGES: 5

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

\$63

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of April 28, 2020 ("Effective Date"), by and between Hamilton Elevator Company, a Delaware Corporation, represented herein by Rodney W. Carlson, its President, whose address is P.O. Box 177, Campus, Illinois 60920 (together with its successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

6

ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"
Hamilton Elevator Company, a Delaware Corporation

By: 
Rodney W. Carlson, its President

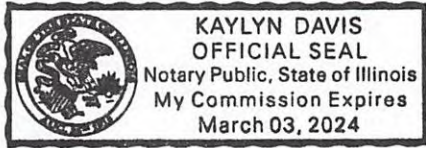
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 22 day of JUNE, 20 20 by Rodney W. Carlson as President of Hamilton Elevator Company, a Delaware Corporation.


[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



"DEVELOPER"

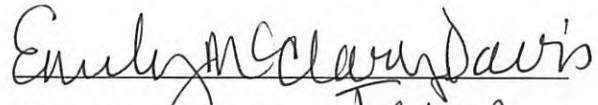
Illinois Generation LLC, a Delaware limited liability company

By: 
 Name: Blake Rasmussen
 Title: Authorized Signatory

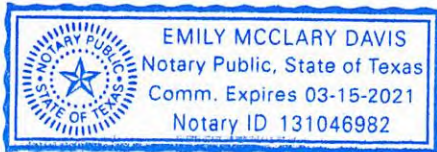
CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
§
§
 COUNTY OF Harris §
§
§

The foregoing instrument was acknowledged before me this 7 day of July 2020,
 by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
 Delaware limited liability company.


 Notary Public for the State of Texas
 My commission expires: 3-15-2021
 Commission No.: 131046982

[SEAL]

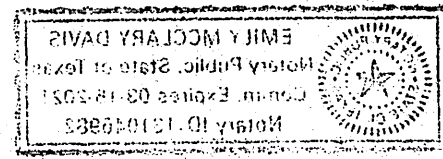


ACCOUNT OF 2023
GROUPS KASHIOLIA

CAVAT
TITIT

2023
KASHIOLIA

2023
KASHIOLIA



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT
DESCRIPTION OF THE PROPERTY**

Tract 1:

The North 67 acres of the West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

AND:

The South 67 acres of the North 134 acres of the West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

AND:

The North Half of the following described real estate:

The West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, EXCEPTING therefrom the North 134 acres and also EXCEPTING therefrom the South 134 acres.

AND:

The South Half of the following described real estate:

The West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, EXCEPTING therefrom the North 134 acres and also EXCEPTING therefrom the South 134 acres.

AND:

The North 66.42 acres of the South 134 acres of the West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-33-100-004: Farm Land: 252.42 acres, more or less.

Common Address: Round Grove Township.

Tract 2:

The South 67.58 acres of the West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois, also described as the South 1115 feet of the West Half of Section 33, Township 30 North, Range 8 East of the Third Principal Meridian, Round Grove Township, Livingston County, Illinois.

PIN: 06-06-33-300-004: Farm Land: 67.58 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 320 acres, more or less.

2021R-02305

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
05/03/2021 09:58:14AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: \$17.00
RHSPS FEE: \$9.00
GIS FEE: \$20.00
AUTO FEE: \$12.00
DOC STOR FEE: \$5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

PAGES: 5

Illinois Generation LLC
c/o Land Dept.
1201 Louisiana St. Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of April 28, 2021 ("Effective Date"), by and between John T. Hanlon, whose address is 29356 East 2400 North Road, Emington, Illinois 60934 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur

of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;


D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



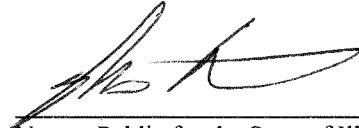
A handwritten signature in black ink, appearing to read "John T. Hanlon", is written over a horizontal line.

John T. Hanlon

ACKNOWLEDGMENT

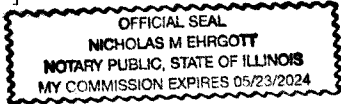
STATE OF ILLINOIS §
 §
COUNTY OF _____ §

This instrument was acknowledged before me this 9 day of April, 2021 by
John T. Hanlon




Notary Public for the State of Illinois
My commission expires: 5/23/2024
Commission No.: _____

[SEAL]



“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: 

Name: Blake Rasmussen

Title: Authorized Signatory


CORPORATE ACKNOWLEDGMENT

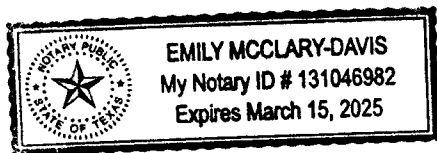
STATE OF TEXAS §

COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me this 29 day of April, 2021, by **Blake Rasmussen**, as its Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company.

[SEAL]


Notary Public for the State of TEXAS
My commission expires: 3-15-2025
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of the Southwest Quarter and the West Half of the West Half of the Southeast Quarter of Section 17, Township 30 North, Range 8 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 06-06-17-300-001: Farm Land: 120 acres, more or less.

Common Address: Round Grove Township.



* 2 0 1 9 R - 0 4 8 8 9 5 *

2019R-04889

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON
12/17/2019 10:07:30AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER
REC FEE: 17.00
RHSPS FEE: 9.00
GIS FEE: 20.00
AUTO FEE: 12.00
DOC STOR FEE: 5.00

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC
c/o Land Dept. 63-
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

PAGES: 5

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of December 3, 2019 ("Effective Date"), by and between Dean E. Hansen and Amy E. Hansen, husband and wife, whose address is 400 East Chippewa Street, Dwight, Illinois 60420 (together with their successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof,

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on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"



Dean E. Hansen



Amy E. Hansen

“DEVELOPER”

Illinois Generation LLC, a Delaware limited liability company

By: [Signature]
Name: Blake Rasmussen
Title: Authorized Signatory

CORPORATE ACKNOWLEDGMENT

STATE OF Texas §
 §
COUNTY OF Harris §

The foregoing instrument was acknowledged before me this 3 day of December 2019,
by Blake Rasmussen, as its Authorized Signatory of Illinois Generation LLC, a
Delaware limited liability company.

[SEAL]

Emily McClary Davis
Notary Public for the State of Texas
My commission expires: 3-15-2021
Commission No.: 131046982



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

The East Half of the West Half of the Northeast Quarter of Section 28, Township 30 North, Range 8 East
of the Third Principal Meridian; situated in Livingston County, Illinois.

PIN: 06-06-28-200-004: Farm Land: 40 acres, more or less.

Common Address: Round Grove Township: 2900 North Road, Cardiff/Dwight, Illinois 60420



* 2 0 2 0 R - 0 4 1 7 9 6 *

2020R-04179

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON

09/24/2020 10:55:12AM

KRISTY A MASCHING
COUNTY CLERK & RECORDER

REC FEE: 17.00

RHSPS FEE: 9.00

GIS FEE: 20.00

AUTO FEE: 12.00

DOC STOR FEE: 5.00

PAGES: 6

PREPARED BY, RECORDING
REQUESTED BY AND WHEN
RECORDED RETURN TO:

Illinois Generation LLC *63*
c/o Land Dept.
1201 Louisiana St, Suite 3200
Houston, TX 77002

(Space above this line for Recorder's use only)

MEMORANDUM OF OPTION AND EASEMENT

THIS MEMORANDUM OF OPTION AND EASEMENT is made and entered into as of September 9, 2020 ("Effective Date"), by and between Kevin R. Hansen, also known as, Kevin Richard Hansen, whose address is 28967 East 3100 North Road, Dwight, Illinois 60420 (together with his successors, assigns and heirs, collectively, "Owner"), and Illinois Generation LLC, a Delaware limited liability company (together with its successors, assigns, "Developer"), located at 1088 Sansome Street, San Francisco, CA 94111.

WHEREAS:

A. The parties have entered into an Option Agreement for Easement and Grant of Easement (the "Option Agreement") which by its terms grants to Developer an option to acquire an easement (the "Option") and further grants to Developer present easements for wind and weather monitoring and access on and across certain land which is more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property");

B. The term of the Option commences on the Effective Date and ends upon the first to occur of (a) the time the Option is exercised by Developer or its successors or assigns by recording a Notice of Exercise of Option in the real property records of the county in which the Property is located ("Notice of Exercise"), or (b) five (5) years after the Effective Date, unless extended for an additional period of two years or earlier terminated in accordance with the Terms of the Option Agreement;

C. If the Option is exercised, then Developer and its successors and assigns will hold an easement for wind energy purposes and for any and all activities related thereto, including but not limited to wind energy development and related rights over, on, across and through the Property or, portions thereof, at Developer's option, during a term commencing upon the date of the recording of the Notice of Exercise and

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ending upon the end of the "Operating Period," which Operating Period commences upon the earlier to occur of (a) five (5) years after the recording date of the Notice of Exercise, or (b) production of wind energy in commercial quantities by Developer or its successors or assigns on the Property, and which Operating Period ends forty (40) years thereafter;

D. The parties desire to enter into this Memorandum of Option and Easement which is to be recorded in order that third parties may have notice of the interest of Developer in the Property and of the existence of the Option to enter into an easement covering the Property, or portions thereof, as set forth in the Option Agreement, and of certain easements and rights granted to Developer in the Property as part of the Option Agreement.

NOW, THEREFORE, in consideration of the rents and covenants provided in the Option Agreement to be paid and performed by Developer, Owner hereby grants to Developer (i) certain easements with respect to the Property during the term of the Option, as more particularly set forth in the Option Agreement, and (ii) that certain exclusive Option to enter into an easement agreement covering the Property, or portions thereof, on the terms and conditions set forth in the Option Agreement together with certain present easements to use and enjoy the Property, all more particularly set forth in the Option Agreement. All of the terms, conditions, provisions, and covenants of the Option Agreement are hereby incorporated into this Memorandum of Option and Easement by reference as though fully set forth herein, and the Option Agreement and this Memorandum of Option and Easement shall be deemed to constitute a single instrument or document. Should there be any inconsistency between the terms of this Memorandum of Option and Easement and the Option Agreement, the terms of the Option Agreement shall prevail. This Memorandum of Option and Easement may be executed in multiple counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

The Option evidenced by this Memorandum of Option and Easement may be exercised by Developer's sole execution and recording of a Notice of Exercise in the real property records of the County in which the Property is located, whereupon all the easements and rights that are the subject of the Option shall immediately become effective and binding upon Owner and the Property, or such portions thereof as Developer may identify in the Notice of Exercise, and on all successive owners of such portions thereof or entirety of the Property and the successors and assigns of Owner, all for the benefit of Developer and its successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Option and Easement as of the date set forth above.

"OWNER"

 _____

Kevin R. Hansen, also known as,
Kevin Richard Hansen

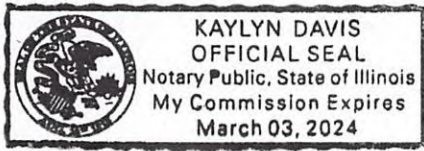
ACKNOWLEDGMENT

STATE OF ILLINOIS §
 §
COUNTY OF LIVINGSTON §

This instrument was acknowledged before me this 29 day of July, 2020 by Kevin R. Hansen, also known as, Kevin Richard Hansen.

[SEAL]

Kaylyn Davis
Notary Public for the State of Illinois
My commission expires: 03/03/2024
Commission No.: 908987



**EXHIBIT A TO
MEMORANDUM OF OPTION AND EASEMENT**

DESCRIPTION OF THE PROPERTY

Tract 1:

The East ½ of the Northeast ¼ of Section 11, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, consisting of 77.78 acres of land, more or less.

PIN: 05-05-11-200-004: Farm Land: 77.78 acres, more or less.

Common Address: Dwight Township.

Tract 2:

The East One-Half (E ½) of the Southeast One-Quarter (SE ¼) of Section 11, in Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, containing 80 acres of land, more or less.

PIN: 05-05-11-400-001: Farm Land: 80 acres, more or less.

Common Address: Dwight Township: 28967 East 3100 North Road, Dwight, Illinois 60420.

Tract 3:

The West One-Half (W ½) of the Northwest One-Quarter (NW ¼) of Section 12, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, containing 78.09 acres, more or less.

PIN: 05-05-12-100-003: Farm Land: 78.09 acres, more or less.

Common Address: Dwight Township.

Tract 4:

The East Half of the Southwest Quarter of Section 13, Township 30 North, Range 7 East of the Third Principal Meridian, in Dwight Township, Livingston County, Illinois, excepting: Commencing at the Southwest Corner of said Section 13 and thence North 90 degrees 00 minutes East 1747.1 feet along the South Line of said Section 13 to the place of beginning. From said place of beginning thence North 00 degrees 10 minutes West 210 feet; thence North 90 degrees 00 minutes East 414.86 feet parallel with the South Line of said Section 13; thence South 00 degrees 10 minutes East 210 feet to the South Line of said Section 13; thence North 90 degrees 00 minutes West 414.86 feet along the South Line of said Section to the place of beginning, containing 78 acres of land, more or less.

PIN: 05-05-13-300-002: Farm Land: 78 acres, more or less.

Common Address: Dwight Township.

Tract 5:

The West One-Half (W ½) of the West One-Half (W ½) of the Northeast One Quarter (NE ¼) of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois, containing 40 acres, more or less.

And

The East One-Half of the West One-Half of the Northeast One Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian, Livingston County, Illinois.

PIN: 05-05-14-200-001: Farm Land: 80 acres, more or less.

Common Address: Dwight Township.

Tract 6:

The West 98.6 acres of the North Half of Section 18, Township 30 North, Range 8 East of the Third Principal Meridian, in Round Grove Township, Livingston County, Illinois.

PIN: 06-06-18-100-001: Farm Land: 98.60 acres, more or less.

Common Address: Round Grove Township.

The land described herein contains a total of 492.47 acres, more or less.

2023R-04601

**COUNTY CLERK & RECORDER
LIVINGSTON COUNTY**

**RECORDED ON:
12/22/2023 08:40:14 AM
KRISTY A MASCHING
COUNTY CLERK & RECORDER**

**Prepared by, and after
recording return to:**

Illinois Generation LLC
Attention: Legal Real Estate Department
888 Westheimer Road, Suite 350
Houston, TX 77006

RECORDER'S AUTOMATION FEE	12.00
GIS MAINTENANCE FEE	20.00
RHSPS FEE	18.00
RECORDING FEE	17.00
DOC STORAGE FEE	5.00

PAGES: 5

MEMORANDUM OF WIND FARM NEIGHBOR EASEMENT AGREEMENT

Boxer Farm Properties, LLC, an Illinois limited liability company, (together with their heirs, successors and assigns, collectively "Owner"), and **Illinois Generation LLC**, a Delaware limited liability company, its successors and assigns ("Grantee"), have executed a Wind Farm Neighbor Easement Agreement ("Easement Agreement") and have agreed to record this memorandum ("Memorandum") solely to give notice of the existence of the Easement Agreement. This Memorandum does not amend, supplement or supersede the Easement Agreement, which will govern if any provision of this Memorandum conflicts with or is inconsistent with any provision of the Easement Agreement.

Easements and Other Provisions. The Easement Agreement includes a grant of Effects, Sound and Non-Interference Easements in connection with a commercial wind power project ("Wind Farm") affecting Owner's Property, which Property is described on the attached Exhibit A. The Easement Agreement also includes provisions regarding construction impacts and television reception.

Term. The Easements and other agreements contained in the Easement Agreement run with the land. The term of the Easement Agreement and the Easements ("Term") began on December 18, 2023 the "Effective Date") and shall end on the date that the Wind Farm is fully decommissioned, unless earlier terminated by the Grantee. Grantee shall have the right to terminate the Easement Agreement at any time and for any reason or no reason, by giving written notice of termination to Owner.

Mortgages and Assignments. Grantee may, upon notice to Owner, but without need to obtain Owner's consent or approval: (i) mortgage, collaterally assign, or otherwise encumber and grant security interests in all or any part of its interest in the Easement Agreement and the Easements; and (ii) assign or otherwise convey all or part of its interest

EXHIBIT D

Error! Unknown document property name.

in this Easement Agreement and the Easement to third parties. Owner may sell, mortgage, assign or convey away all or a part of Owner's interest in Owner's Property without the consent of Grantee, but any conveyance shall be subject to the terms of the Easement Agreement.

Notices. All written notices and demands of any kind which either party may be required or may desire to serve upon the other party in connection with this Easement Agreement may be served by (i) personal service, (ii) registered or certified U.S. mail or (iii) next day overnight delivery service via a nationally recognized overnight courier such as UPS or Federal Express. Any such notice or demand shall be addressed to the other party at the mailing address(es) for such Party listed below. Service of any such written notice or demand shall be deemed complete (i) upon receipt in the event of personal service, (ii) on the second (2nd) business day after it is sent via registered or certified U.S. mail, and (iii) on the next business day if sent via an overnight delivery service. All such written notices and demands sent via registered or certified U.S. mail or overnight delivery service shall be sent postage, pre-paid by the sender in order for it to be considered in compliance with this Section 4.

To Owner:

Boxer Farm Properties, LLC
c/o Peoples National Bank of Kewanee
Dwight Banking Center
Farm Management Department
122 W. Main Street
Dwight, Illinois 60420
Telephone: _____
Email: _____

To Grantee:

Illinois Generation LLC
1088 Sansome Street
San Francisco, California 94111
Attention: General Counsel
With a copy which shall not constitute
notice to:
generalcounsel@patternenergy.com

Any party, by written notice to the other party, may change its mailing address(es), provided that the other party shall not be bound by any such different address(es) unless and until it receives same.

Counterparts. This Memorandum may be executed in multiple counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

[Signature Pages Follow]

EXECUTED AND MADE EFFECTIVE as of the Effective Date.

OWNER:

Boxer Farm Properties, LLC,
an Illinois limited liability company

By: Randal S. Fransen
Randal S. Fransen, its
Attorney-in-Fact

STATE OF ILLINOIS
COUNTY OF LIVINGSTON

This instrument was acknowledged before me on the 18 day of October
2023, by Randal S. Fransen, as Authorized Signatory of Boxer Farm Properties, LLC, an Illinois
limited liability company, on behalf of said entity.

[NOTARY SEAL]

mm
Notary Public
My commission expires: Aug 30, 2024



GRANTEE:

Illinois Generation LLC, a Delaware limited liability company

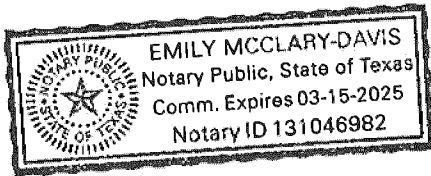
By: Crystal Coffman
Name: Crystal Coffman
Title: Authorized Signatory

STATE OF Texas

COUNTY OF Harris

This instrument was acknowledged before me on the 18 day of December, 2023, by Crystal Coffman, as Authorized Signatory of Illinois Generation LLC, a Delaware limited liability company, on behalf of said entity.

[NOTARY SEAL]



Emily McClary-Davis
Notary Public
My commission expires: 3-15-2025

EXHIBIT A

Property Description

The East Half of the Northeast Quarter of Section 14; and the Southeast Quarter of Section 14 EXCEPT commencing at the Northeast Corner of the Southeast Quarter of Section 14, Township 30 North, Range 7 East of the Third Principal Meridian; thence due South along the East Line of said Southeast Quarter for a distance of 208.28 feet to the point of beginning; thence continuing due South along the said East Line of the Southeast Quarter for a distance of 964.74 feet; thence due West for a distance of 888.00 feet to a point which falls on the center line of a creek as it now exists; thence North 53 degrees 06 minutes 42 seconds East along the center line of said creek for a distance of 201.55 feet; thence North 50 degrees 38 minutes 20 seconds East continuing along the said center line of the creek for a distance of 373.53 feet; thence North 37 degrees 02 minutes 56 seconds East continuing along the center line of the creek for a distance of 152.40 feet; thence North 35 degrees 30 minutes 19 seconds East continuing along the said center line of the creek for a distance of 596.07 feet to the point of beginning, containing 8.433 acres, more or less, all in Township 30 North, Range 7 East of the Third Principal Meridian, County of Livingston, and State of Illinois.

PINs: 05-05-14-400-004 and 05-05-14-200-002: Farm Land: 231.57 acres, more or less.

Commonly Known As: Dwight Township

APPENDIX G — MUNICIPALITY AGREEMENTS

WHEREAS, Livingston County Code of Ordinances Part II, Chapter 56, Article VIII, § 56-618(h)(4) states, “An incorporated village or municipality must approve the location of any tower to be located within one mile and a half miles of the corporate limits of such incorporated village or municipality.”;

WHEREAS, the Village has determined that the development, construction and operation of the Project by Developer, including the portion within one and a half miles of the corporate limits of the Village, and including but not limited to WECS towers, access roads and underground collection lines, will improve the general welfare of the residents of the Village;

WHEREAS, the Village is authorized and empowered under the Illinois Municipal Code, the Livingston County Code of Ordinances, and the Village Code of Ordinances to approve the development, construction and operation of a WECS project or any part thereof, including but not limited to WECS towers, access roads or underground collection lines, within one and a half miles of the Village corporate limits;

WHEREAS, to the extent the Village exercises its zoning authority, including under 65 ILCS 5/11-13-1 et seq., either currently or in the future, the Village wishes to waive any authority it has now or may have in the future to regulate construction of WECS towers, access roads or underground collection lines for the Project pursuant to State statutes or local ordinances including without limitation pursuant to 65 ILCS 5/11-13-26 and 55 ILCS 5/5-12020;

WHEREAS, the Village wishes to communicate its support for the development, construction and operation of the Project to the Livingston County Board and the Livingston County Zoning Board of Appeals;

NOW, THEREFORE, BE IT RESOLVED BY THE VILLAGE OF CAMPUS AS FOLLOWS:

Section 1: The Village of Campus hereby proclaims its support for the development, construction and operation of the Project by Developer in Livingston County, Round Grove and Broughton Townships, and within the one and a half (1½) mile radius from the Village limits, including but not limited to the development, construction and operation of WECS towers, access roads and underground collection lines.

Section 2: The Village of Campus hereby approves the development, construction and operation of the Project, or any part thereof, including but not limited to WECS towers, access roads and underground collection lines, by Developer within one and a half (1½) miles of the Village's corporate limits pursuant to Livingston County Code of Ordinances Part II, Chapter 56, Article VIII, § 56-618(h)(4), as set forth on the preliminary Project Map, so long as the Project otherwise satisfies County setback requirements pursuant to the Livingston County Code of Ordinances. The Village acknowledges that the final locations of the WECS towers, access roads and underground collection lines are subject to final engineering. The Village approves the Developer's right to relocate the WECS towers, access roads or underground collection lines identified on the preliminary Project map to any other portion of the Project, provided that WECS towers sited within one and a half (1½) miles of Village corporate limits may shift by one second or more of latitude and longitude only with additional approval by the Village.

Section 3: To the extent the Village of Campus exercises its zoning authority including under 65 ILCS 5/11-13-1 et seq. either currently or in the future, the Village hereby waives any authority that it has now or will have in the future to regulate the Project or any part or portion thereof, including but not limited to WECS towers and constructed within the one and a half (1½) mile radius of the Village limits, pursuant to State statute or local ordinance, including without limitation pursuant to 65 ILCS 5/11-13-16 and 55 ILCS 5/5-12020.

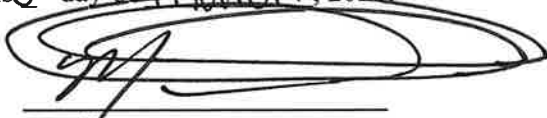
Section 4: The Village of Campus hereby authorizes the Mayor of the Village of Campus to execute and send the Letter of Support attached as Exhibit A to this Resolution to the Livingston County Board and the Livingston County Zoning Board of Appeals.

Section 5: If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Resolution or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Resolution, or any part thereof. The Village Board of Trustees hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective.

Passed this 8th day of March, 2023.

Ayes: 4
Nays: 0
Absent: 1
Abstain: 1

Approved this 8th day of March, 2023.

Signed: 
Matthew D. Galeaz
Village Mayor


Attest: 
Kelsey Kambic
Village Clerk

EXHIBIT A TO RESOLUTION

LETTER OF SUPPORT FOR WECS PROJECT DEVELOPMENT

March 8, 2023

To: Livingston County Board
Livingston County Zoning Board of Appeals

Dear Livingston County Board and Livingston County Zoning Board of Appeals:

On March 8, 2023, the Village of Campus Board of Trustees passed Resolution 1 proclaiming the Village's support for the development, construction and operation of a wind energy conversion system ("WECS") project by Illinois Generation LLC and its affiliates and assigns (collectively, "Developer") in Livingston County, Round Grove and Broughton Townships (the "Project"), and within a one and a half (1½) mile radius from the Village limits, including but not limited to the development, construction and operation of WECS towers and underground collection lines, pursuant to Livingston County Code of Ordinances Part II, Chapter 56, Article VIII. Further by Resolution 1 the Village approves and supports the development, construction and operation of the the Project by Developer, including but not limited to WECS towers and underground collection lines, within the one and a half (1½) mile radius of the corporate limits of the Village of Campus pursuant to Livingston County Code of Ordinances Part II, Chapter 56, Article VIII, § 56-618(h)(4), as set forth on the preliminary Project Map attached as Exhibit B to Resolution 1 (the "Project Map"), so long as the Project otherwise satisfies County setback requirements pursuant to the Livingston County Code of Ordinances. The Village acknowledges that the final locations of the WECS towers or underground collection lines are subject to final engineering. The Village approves the Developer's right to shift the WECS towers, access roads or underground collection lines identified on the preliminary Project map, provided that WECS towers sited within one and a half (1½) miles of Village corporate

limits may shift by one second or more of latitude and longitude only with additional approval by the Village.

Resolution 1 is enclosed herein.

Sincerely,

VILLAGE OF CAMPUS

A handwritten signature in black ink, appearing to read 'M. D. Galeaz', written over a horizontal line.

Matthew D. Galeaz
Village Mayor

EXHIBIT B TO RESOLUTION
PRELIMINARY PROJECT MAP



STATE OF ILLINOIS) RESOLUTION 2
)
COUNTY OF LIVINGSTON)
)
VILLAGE OF CAMPUS)

APPROVAL OF COMMUNITY BENEFIT AGREEMENT

RESOLUTION NUMBER 2

A RESOLUTION approving the Community Benefit Agreement attached as Exhibit A to this Resolution (the “CBA”) and authorizing the Mayor of the Village of Campus to execute the CBA or a Community Benefit Agreement in substantially similar form.

WHEREAS, the Village of Campus (“Village”) is a duly organized and existing body politic and corporate governed by the provisions of the Illinois Municipal Code, 65 ILCS 5/1-1-1 *et seq.* and its own duly adopted Municipal Code, located in the Townships of Round Grove and Broughton and the County of Livingston;

WHEREAS, the Village has determined that entering into the CBA will improve the public health, safety, morals and general welfare of the residents of the Village;

WHEREAS, the Village is authorized and empowered under the Illinois Municipal Code, the Livingston County Code of Ordinances and the Village Code of Ordinances to approve the CBA and to authorize the Village Mayor to execute a CBA in substantially similar form as the CBA attached as Exhibit A;

NOW, THEREFORE, BE IT RESOLVED BY THE VILLAGE OF CAMPUS AS FOLLOWS:

Section 1. The Village of Campus hereby approves the CBA and authorizes the Mayor of the Village of Campus to execute the CBA or a Community Benefit Agreement in substantially similar form.

Section 2: If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Resolution or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Resolution, or any part thereof. The Village Board hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective.

Passed this 8th day of March, 2023.

Ayes: 4

Nays: 0


Absent: 1

Abstain: 1

Approved this 8th day of March, 2023.

Signed: 

Matthew D. Galeaz
Village Mayor

Attest: 

Kelsey Kambic
Village Clerk

EXHIBIT A TO RESOLUTION
COMMUNITY BENEFIT AGREEMENT

This Community Benefit Agreement (“**Agreement**”) is entered into by and between the Village of Campus (“**Village**”), an Illinois municipal corporation and Illinois Generation LLC (“**IG**”), a Delaware limited liability company. The signatories to this Agreement may be referred to herein individually as a “**Party**” and collectively as the “**Parties.**” The effective date of the Agreement is the last date of execution as between the Parties (the “**Effective Date**”).

RECITALS

WHEREAS, IG intends to construct, own and operate a wind energy conversion system project including, without limitation, construction of fifteen (15) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits (the “**Project**”) in Livingston County pursuant to Chapter 56 of the Livingston County Zoning Ordinance, which will generate significant private investment, job creation and future tax revenue for various regional taxing districts located in Livingston County.

WHEREAS, the Village is a municipality in Livingston County, IL that will support the overall development and construction of the Project and provide other good and valuable consideration. This support is anticipated to be ongoing during the operation phase of the Project.

WHEREAS, IG anticipates that one or more wind energy conversion system towers (“**WECS towers**”) will be constructed within a one-and-a-half (1½)-mile radius of the corporate limits of the Village.

WHEREAS, the Village has adopted Resolution 1 (the “**Resolution**”) expressly approving and supporting development and operation of the Project by IG, including without limitation, construction of fifteen (15) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits, as such boundaries exist as of the Effective Date, pursuant to Livingston County Code of Ordinances Part II, Chapter 56, Article VIII, § 56-618(h)(4), subject to certain limitations set forth in Resolution 1.

WHEREAS, the Village acknowledges and agrees that IG has adequately consulted with the Village and accommodated the Village with respect to all aspects of the Project and expressly acknowledges, covenants and confirms that this Agreement serves as its consent, approval and support of the Project.

WHEREAS, the Village acknowledges the many benefits of the Project, including renewable energy, payments to participating property owners in the community, tax revenues to schools and other taxing districts that support the community, job growth and direct and indirect economic benefits of a significant financial investment in the area by the Project.

WHEREAS, in addition to the benefits noted above and in recognition of the Village’s existing and ongoing support for Project development efforts, and other good and valuable

consideration, IG desires to additionally contribute to the welfare and betterment of the Village community by providing funds to the Village for the purpose of supporting community development in the Village.

WHEREAS, pursuant to Article VII, Section 10 of the Constitution of the State of Illinois units of local government, such as the Village, may contract with private entities, such as IG, for any purpose not prohibited by law or ordinance.

NOW THEREFORE, it is agreed by and between the Parties as follows.

AGREEMENT

1. **Recitals.** The recitals stated above are hereby incorporated into the body of this Agreement.
2. **Community Donation.** In accordance with IG's desire to contribute to the welfare and betterment of the Village and for the purpose of supporting community development in the Village, IG shall make the following Donations (as defined below):
 - a. IG shall make a donation of Twenty-Five Thousand dollars and no cents (\$25,000.00) multiplied by the number of WECS towers approved in the Resolution within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date (the "**Guaranteed Donation**"), as further depicted in the project map attached as Exhibit A (the "**Project Map**"). The Guaranteed Donation shall consist of the following donations defined in this Section 2a and shall be paid as follows:
 - i. Within forty-five (45) days of the Effective Date, IG shall make a one-time donation to the Village in the amount of one-third (1/3rd) of the Guaranteed Donation (the "**Initial Donation**").
 - ii. Within forty-five (45) days of IG's receipt of a non-appealable Special Use Permit ("**SUP**") from Livingston County for the Project, IG shall make a one-time donation to the Village in the amount of one-third (1/3rd) of the Guaranteed Donation (the "**SUP Donation**").
 - iii. Within forty-five (45) days of the Commercial Operation Date (as defined below) of the Project, IG shall make a one-time donation to the Village of the final one-third (1/3rd) of the Guaranteed Donation (the "**Commercial Operation Date Donation**").
 - b. Provided the Agreement and Resolution are executed and delivered by the Village on or before March 15, 2023, IG shall make a further donation of Ten Thousand Dollars and no cents (\$10,000) (the "**Supplementary Donation**") to the Village which donation shall be payable within forty-five (45) days of such execution and delivery by the Village.
 - c. Contingent upon (a) the occurrence of the commencement date for commercial operation of electricity production for sale by the Project to a third-party power purchaser, offtakers, merchant buyer, spot market buyer, or other third-party purchaser (and excluding the production of any "test" energy) (such date the

“**Commercial Operation Date**” or “**COD**”) and (b) the placement of a minimum of one (1) WECS tower within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date, IG shall make an Annual Donation (as defined below) to the Village in the amount of Two Thousand dollars and no cents (\$2,000.00) per WECS Tower constructed within one and a half (1½) miles of the limits of the Village as such limits exist as of the Effective Date (the “**Annual Donation**”, collectively with the Guaranteed Donation and the Supplementary Donation, the “**Donations**”), with the first Annual Donation due within forty-five (45) days of the first (1st) anniversary of the COD and each subsequent Annual Donation due each year on the anniversary of the initial Annual Donation for the Term of this Agreement. Starting on the second (2nd) anniversary of the COD and for each Annual Donation thereafter, the Annual Donation shall increase by two percent (2%) over the previous years’ Annual Donation. For certainty and notwithstanding anything to the contrary, if the Village corporate limits change at any time during the term such that the number of WECS towers located within one and a half (1½) miles of the new village corporate limits is different than the number of WECS Towers that existed within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date, the quantum of the Annual Donation shall not change.

- d. The Parties recognize that IG may elect to enter into similar community benefit agreements with other incorporated municipalities to obtain cooperation with the approval and development of WECS towers for the Project. In this event, IG covenants that the financial terms of any such agreement for the Project will mirror the per turbine compensation amounts described in Sections 2(a) and 2(c) of this Agreement. If they do not, and the compensation terms in the other agreement(s) are more favorable than that established in Sections 2(a) and 2(c) herein, IG will be obligated to increase the formula amounts in this Agreement to match those of any other similar agreement entered into with a municipality to benefit the Project.
- e. The Parties acknowledge and agree that the payment of the Donations by IG to the Village in accordance with this Agreement is not intended to and does not, in any way, fetter the discretion of the Village to execute and deliver the Agreement and the Resolution.

3. **Term.** IG shall pay the Annual Donation within forty-five (45) days of the first (1st) anniversary of the COD and then each year thereafter as set forth in Section 2(c) for thirty-eight (38) additional years (resulting in thirty-nine (39) payments total) (the “**Term**”), unless either of the following events takes place prior to the expiration of the Term, in which case the Term shall be amended to expire as follows:

- a. If all WECS towers are decommissioned within one and a half (1½) miles of the Village corporate limits, as such limits exist as of the Effective Date, then IG shall pay the Annual Donation each year until such decommissioning commences, at which time IG’s obligation to pay the Annual Donation shall cease. IG shall provide notice in writing to the Village of commencement of decommissioning resulting in an expiration of the Term.

- b. If the Commercial Operation Date has not occurred prior to the seventh (7th) anniversary of the Effective Date, this Agreement shall automatically terminate.

4. **No Guarantee of Project.** The decision to proceed with or terminate the development or operation of the Project rests solely with IG. By entering into this Agreement, IG in no way guarantees that Project development will proceed or that the Project will achieve a COD or that the Project will continue operations after achievement of the COD.

5. **Village Covenants.** The Village shall continue to provide reasonable support for, and not object to, IG's Project development, construction, replacement and maintenance efforts in Livingston County including without limitation providing documentation reasonably requested by IG for interested parties, including but not limited to Livingston County, other governmental entities, and investors and lenders in the Project, confirming the ongoing validity of the approvals identified in Resolution 1. The Village further acknowledges and agrees that it shall not use all or any portion of the Donations, whether directly or indirectly, to fund any litigation, appeals or other actions (including via third-parties or affiliates of the Village) that seek to oppose, frustrate, restrict, or challenge the development construction, operation or decommission of the Project. For greater certainty, the foregoing covenant does not in any way restrict the Village from participating in any Project related consultations.

6. **Supervening Law.** Any provisions of law that invalidate, or otherwise are inconsistent with, the terms of this Agreement or that would cause one or all of the Parties to be in violation of law, shall be deemed to have superseded the terms of this Agreement; provided, however, that the Parties shall exercise their best efforts to accommodate terms and intent of this Agreement to the greatest extent possible consistent with the requirements of law.

7. **Negation of Partnership and Joint Venture.** Nothing contained in this Agreement shall constitute or be construed to be or to create a partnership or joint venture between the Parties. Each party hereto shall be solely responsible for carrying out the responsibilities assumed by it under this Agreement and no party shall be liable for the acts or omissions of the others in performing its responsibilities.

8. **Events of Default.** Each of the following shall constitute an "Event of Default," which shall permit the non-defaulting Party, at its discretion, to terminate this Agreement and/or pursue such other remedies as are available to it at law or in equity:

- (a) any failure by IG to pay the Donations when due if the failure to pay continues for thirty (30) days after the Village delivers Notice of such failure to IG; and
- (b) any other material breach of this Agreement by IG or any breach of Sections 5, 12, or 18 of this Agreement by the Village, which continues for forty-five (45) days after (i) written notice of default from the non-defaulting Party or, (ii) if the cure will take longer than forty-five (45) days, the length of time necessary to effect such cure so long as the defaulting Party commences to cure within the forty-five (45) day period and continuously and diligently pursues the cure to completion.

9. **Specific Performance Available in Event of Default.** Upon occurrence of an Event of Default, the non-defaulting party shall have the right to seek an order from a court of competent jurisdiction enforcing specific performance of this Agreement. The Parties further agree that the election of this remedy does not waive any other remedies available in equity or under law, including but not limited to injunctive relief or monetary damages.

10. **Refund of the Donations in Event of Material Breach.** Upon the occurrence of a material breach of this Agreement by the Village prior to the COD, in addition to any other remedies available to IG in equity or under law, the Village shall, within ninety (90) business days of notice of such material breach from IG, refund to IG that portion of the Guaranteed Donation made pursuant to this Agreement to the date of such material breach. Upon the occurrence of a material breach of this Agreement by the Village following the COD, in addition to any other remedies available to IG in equity or under law, the Village shall, within ninety (90) business days of notice of such material breach from IG, refund to IG the aggregate amount of any Annual Donations made pursuant to this Agreement within the five (5) year period prior to the date of such breach. For certainty and notwithstanding anything to the contrary, as long as there was no such breach prior to the COD, the Village is not liable for refunding any portion of the Guaranteed Donation, which vests at COD.

11. **Waiver.** Waiver by any Party hereto of any breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by any of the Parties.

12. **Foreign Corrupt Practices Act.** The Village acknowledges and agrees that IG and this Agreement are subject to compliance with anti-corruption legislation, including without limitation the *Foreign Corrupt Practices Act* (United States). The Village covenants and agrees that in no event shall any portion of the Donations be allocated, used, or otherwise made available for the giving or offering of a loan, reward, advantage or direct or indirect personal or financial benefit or gain of any kind to any Government Official. For the purposes of this Section 12, the term “**Government Official**” means any director, executive, employee, elected/appointed official (and their agents) of any government department, ministry, agency, legislature, political party, tribunal, regulatory authority, candidate for political office or government-owned company.

13. **Notices.** Any notice (“**Notice**”) required or permitted to be given under the terms of this Agreement shall be reduced to writing and shall be regarded as given (a) on the day when personally delivered or delivered by facsimile or email or (b) on the day after being sent by Federal Express (or comparable overnight deliver services), all fees prepaid or (c) on the third day after being placed in the United States mail with first class and certified mail return receipt requested postage fully prepaid and addressed to the parties at the following respective addresses:

If to IG, as follows:

Illinois Generation LLC
1201 Louisiana Street, Suite 3200

Houston, Texas 77002

with a copy to:

Illinois Generation LLC
c/o Pattern Energy Group LP
1088 Sansome Street
San Francisco, CA 94111
Attention: General Counsel
Fax: (415) 362-7900
Email: generalcounsel@patternenergy.com

with a copy to:

Illinois Generation LLC
c/o ConnectGen LLC
1001 McKinney Street, Suite 700
Houston, TX 77002
Attention: General Counsel
Email: contractadmin@connectgenllc.com

If to Village of Campus, as follows:

Village of Campus
Campus Municipal Building
P.O.BOX 116
CAMPUS, IL 60920
Fax:
Email:

14. **Headings**. The headings of the several paragraphs hereof are for convenience in reference only and shall not be construed to be a part of this Agreement.

15. **Amendment and Binding Effect**. This Agreement shall not be modified or amended except in writing signed by the Parties hereto.

16. **Severability**. Any provision of this Agreement which shall prove to be invalid, void, or illegal shall in no way affect, impair or invalidate any other provision hereof and the remaining provisions hereof shall nevertheless remain in full force and effect.

17. **Jurisdiction**. This Agreement shall be deemed to have been entered into in the State of Illinois, and all questions concerning the validity, interpretation, or performance of any of its terms or provisions or of any rights or obligation of the parties hereto, shall be governed by and resolved in accordance with the laws of the State of Illinois. Any lawsuit arising from this Agreement shall be filed in the Circuit Court for the Eleventh Judicial Circuit in Livingston County, Illinois or in the United States District Court for the Central District of Illinois.

18. **Assignment.** IG shall have the right at any time, without need for the Village's consent or approval, to assign or convey all or any portion of this Agreement to an assignee or assignees, on an exclusive or nonexclusive basis. Upon such assignment, IG shall be released from its obligations under this Agreement, which obligations shall thereafter be the obligation of the assignee. IG shall have the right at any time, without need for the Village's consent or approval, to mortgage or collaterally assign all or any part of its interest in the Agreement and its rights under the Agreement to any entity (a "**Lender**") without the consent or approval of the Village; provided, however, that IG shall provide Notice of its mortgage or collateral assignment to Village with contact information for the Lender. Any Lender will have no obligations under this Agreement until such time as it exercises its rights to acquire IG's interest subject to the lien of Lender's mortgage by foreclosure or otherwise or assumes the obligations of IG under this Agreement. So long as any mortgage with a Lender remains in effect, this Agreement shall not be modified, and the Village shall not accept a termination or release of this Agreement, without the prior written consent of all Lenders. The Village, upon providing IG any notice of default under this Agreement, shall at the same time provide a copy of such notice to each Lender. The Village shall accept any performance by or at the instigation of any such Lender as if the same had been done by IG (but no Lender shall have any obligation to remedy or cause the remedy of any default). All the terms, conditions, covenants and other provisions contained in this Agreement, including benefits and burdens, shall be binding upon the Village so long as the Village remains an incorporated municipality in the State of Illinois and shall inure to the benefit of and be enforceable by the Village and IG, and their respective heirs, successors and assigns.


19. **Opportunity for Legal Counsel and No Drafting Presumption.** Each Party acknowledges having (a) had the opportunity to obtain its own independent legal advice with respect to this Agreement and the transactions contemplated hereby, and (b) sought such legal advice to the fullest extent deemed necessary by each Party prior to its execution and delivery. There will be no presumption of resolution of any ambiguity in this Agreement in favor of either of the Parties. The execution, delivery and performance by the Parties of this Agreement has been duly authorized by all necessary action and there are no approvals, authorizations, consents, or other actions necessary to authorize either Party's execution and delivery of this Agreement.

20. **Counterparts; Facsimile and PDF Delivery.** This Agreement may be executed in one or more counterparts, each of which so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument. This Agreement may be delivered by facsimile or by PDF file and upon such delivery the facsimile or PDF signature shall have the same force and effect as an original signature.

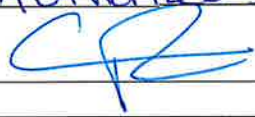
IN WITNESS WHEREOF, the parties hereto, acting by and through their duly authorized officers under authority duly granted by their respective governing bodies, have caused this Agreement to be executed, which will be effective and binding upon the parties only as of the date that both parties have executed this Agreement.

(Signature page to follow)

ILLINOIS GENERATION LLC

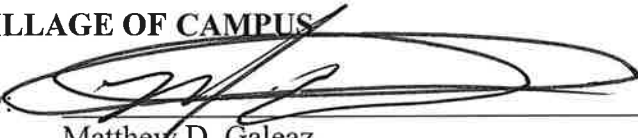
By: 
Print: Blake Rasmussen
Title: Authorized Signatory

Date 3/22/23

By: 
Print: _____
Title: _____

Date 3/10/23

VILLAGE OF CAMPUS

By: 
Matthew D. Galeaz
Village Mayor

Date 3/8/23

EXHIBIT A
PROJECT MAP



FIRST AMENDMENT TO COMMUNITY BENEFIT AGREEMENT

THIS FIRST AMENDMENT TO COMMUNITY BENEFIT AGREEMENT ("First Amendment") is made effective as of August 28, 2023 ("Effective Date"), by and between Village of Campus ("Village"), an Illinois municipal corporation and Illinois Generation LLC ("IG"), a Delaware limited liability company

RECITALS:

WHEREAS Village and IG entered into that certain Community Benefit Agreement dated March 22, 2023 (the "Agreement") whereby Village agreed to support IG's construction, ownership and operation of a wind energy conversion system project including, without limitation, construction of fifteen (15) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits (the "Project")

WHEREAS Village and IG have agreed to amend or modify the Agreement as set forth below, to accommodate the inclusion of two (2) additional WECS towers within the one-and-a-half (1½)-mile radius of the Village's corporate limits, as such boundaries exist as of the Effective Date of this First Amendment.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter contained, Village and IG, intending to be legally bound, hereby, agree effective as of the Effective Date as follows:

1. Project Definition. The first recital of the Agreement which contains the defined term "Project" is hereby deleted and replaced with the following:

IG intends to construct, own and operate a wind energy conversion system project including, without limitation, construction of seventeen (17) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits (the "Project") in Livingston County pursuant to Chapter 56 of the Livingston County Zoning Ordinance, which will generate significant private investment, job creation and future tax revenue for various regional taxing districts located in Livingston County.

2. Project Map. Exhibit A of the Agreement is hereby deleted and replaced with the Project Map attached to this First Amendment as Exhibit A. The definition of "Project Map" contained in Section 2(a) of the Agreement is hereby modified to mean the Project Map attached to this First Amendment as Exhibit A.

3. Guaranteed Donation. For the avoidance of doubt, the calculation of the Guaranteed Donation (as described in Section 2(a) of the Agreement) is hereby modified to mean that such calculation shall be based on seventeen (17) WECS towers; provided, however, that within forty-five (45) days of the Effective Date of this First Amendment, IG shall make a one-time donation to the Village of \$50,000.00 (\$25,000.00 for each of the two (2) additional WECS towers) to reflect the increase in the total number of WECS towers from fifteen (15) to seventeen (17). Payment of the remainder of the Guaranteed Donation shall be made in accordance with Section 2(a) of the Agreement and shall be based on fifteen (15) WECS towers.

4. Binding. This First Amendment, and the Agreement as amended or modified by this First Amendment, shall be binding upon the parties hereto and their respective heirs, executors, successors, administrators and permitted assigns.

5. Severability. If any clause or provision of this First Amendment is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this First Amendment shall not be affected thereby. It is also the intention of the parties to this First Amendment that in lieu of each clause or provision of this First Amendment that is illegal, invalid or unenforceable, there be added, as a part of this First Amendment, a clause or provision as similar in terms to such illegal, invalid or unenforceable clause or provision as may be possible and be legal, valid and enforceable.

6. Counterparts and Delivery. This First Amendment may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one amendment. Execution copies of this First Amendment may be delivered by facsimile or email, and the parties hereto agree to accept and be bound by facsimile signatures or scanned signatures transmitted via email hereto, which signatures shall be considered as original signatures with the transmitted amendment having the binding effect as an original signature on an original document. Neither party may raise the use of a facsimile machine or scanned document or the fact that any signature was transmitted through the use of a facsimile machine or email as a defense to the enforcement of this First Amendment.

7. Conflict; Ratification. Insofar as the specific terms and provisions of this First Amendment purport to amend or modify or are in conflict with the specific terms, provisions and exhibits of the Agreement, the terms and provisions of this First Amendment shall govern and control; in all other respects, the terms, provisions and exhibits of the Agreement shall remain unmodified and in full force and effect and are hereby ratified and affirmed by Village and IG.

8. Defined Terms. Any capitalized terms used in this First Amendment but not defined shall have the meaning ascribed to such terms in the Agreement.

9. Effect on Agreement. Village and IG hereby agree that (a) this First Amendment is incorporated into and made a part of the Agreement, (b) any and all references to the Agreement hereinafter shall include this First Amendment, and (c) the Agreement, and all terms, conditions and provisions of the Agreement, are in full force and effect as of the date hereof, except as expressly modified and amended hereinabove.

(end of page)

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the Effective Date.

VILLAGE:


VILLAGE OF CAMPUS

By: 
Village Mayor


7-26-23
Date

IG:

ILLINOIS GENERATION LLC

By: 
Print: Crystal Coffman
Title: Authorized Signatory




8/28/23
Date

By: _____
Print: CAROL RITZ
Title: Authorized signatory


8-17-23
Date

EXHIBIT A
PROJECT MAP



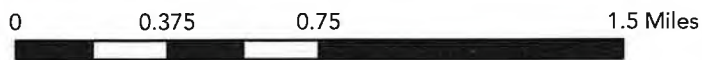
-  WTGs
-  1.5 Mile Buffer
-  Municipal Boundary

Heritage Prairie
Village of Campus

Livingston County, Illinois



8/9/2023



SECOND AMENDMENT TO COMMUNITY BENEFIT AGREEMENT

THIS SECOND AMENDMENT TO COMMUNITY BENEFIT AGREEMENT ("Second Amendment") is made effective as of 1/10, 2024 ("Effective Date"), by and between Village of Campus ("Village"), an Illinois municipal corporation and Illinois Generation LLC ("IG"), a Delaware limited liability company

RECITALS:

WHEREAS Village and IG entered into that certain Community Benefit Agreement dated March 22, 2023 (the "CBA"), and that certain First Amendment to Community Benefit Agreement dated August 28, 2023 (the "First Amendment", together with the CBA, collectively, the "Agreement") whereby Village agreed to support IG's construction, ownership and operation of a wind energy conversion system project within the one-and-a-half (1½)-mile radius of the Village corporate limits (the "Project").

WHEREAS Village and IG have agreed to modify the Project Map (as defined herein) based on the shifting of WECS sited within one and a half (1½) miles of Village by one second or more of latitude and longitude.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter contained, Village and IG, intending to be legally bound, hereby, agree effective as of the Effective Date as follows:

1. Project Map. Exhibit A of the First Amendment is hereby deleted and replaced with the Project Map attached to this Second Amendment as Exhibit A. The definition of "Project Map" contained in the Agreement is hereby modified to mean the Project Map attached to this Second Amendment as Exhibit A.

2. Guaranteed Donation. For the avoidance of doubt, the calculation of the Guaranteed Donation shall in no event be less than the amount described in Section 3 of the First Amendment.

3. Binding. This Second Amendment, and the Agreement as amended or modified by this Second Amendment, shall be binding upon the parties hereto and their respective heirs, executors, successors, administrators and permitted assigns.

4. Severability. If any clause or provision of this Second Amendment is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Second Amendment shall not be affected thereby. It is also the intention of the parties to this Second Amendment that in lieu of each clause or provision of this Second Amendment that is illegal, invalid or unenforceable, there be added, as a part of this Second Amendment, a clause or provision as similar in terms to such illegal, invalid or unenforceable clause or provision as may be possible and be legal, valid and enforceable.

5. Counterparts and Delivery. This Second Amendment may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one instrument. Execution copies of this Second Amendment may be delivered by facsimile or email, and the parties hereto agree to accept and be bound by facsimile signatures or scanned signatures transmitted via email hereto, which signatures shall be considered as original signatures with the transmitted amendment having the binding effect as an original signature on an original document. Neither party may raise the use of a facsimile machine or scanned document or the fact that any signature

was transmitted through the use of a facsimile machine or email as a defense to the enforcement of this Second Amendment.

6. Conflict; Ratification. Insofar as the specific terms and provisions of this Second Amendment purport to amend or modify or are in conflict with the specific terms, provisions and exhibits of the Agreement, the terms and provisions of this Second Amendment shall govern and control; in all other respects, the terms, provisions and exhibits of the Agreement shall remain unmodified and in full force and effect and are hereby ratified and affirmed by Village and IG.

7. Defined Terms. Any capitalized terms used in this Second Amendment but not defined shall have the meaning ascribed to such terms in the Agreement.

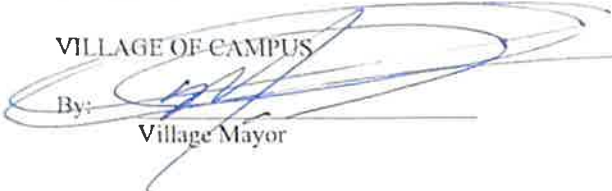
8. Effect on Agreement. Village and IG hereby agree that (a) this Second Amendment is incorporated into and made a part of the Agreement, (b) any and all references to the Agreement hereinafter shall include this Second Amendment, and (c) the Agreement, and all terms, conditions and provisions of the Agreement, are in full force and effect as of the date hereof, except as expressly modified and amended hereinabove.

(end of page)

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment as of the Effective Date.

VILLAGE:

VILLAGE OF CAMPUS

By:  _____
Village Mayor

2-7-24
Date

IG:

ILLINOIS GENERATION LLC

By:  _____
Print: Lauren Haller
Title: Authorized Signatory

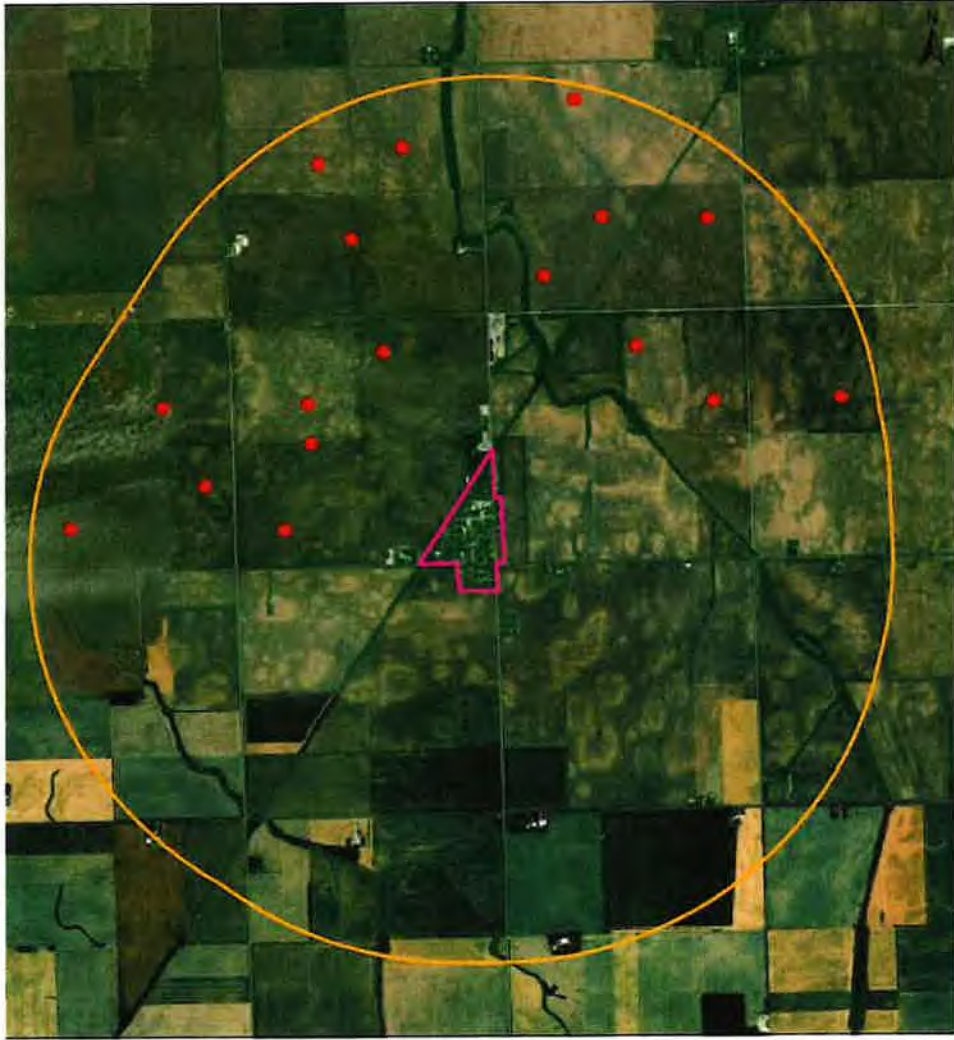
2/15/2024
Date

By:  _____
Print: Caton Fenz
Title: Authorized Signatory

February 15, 2024
Date

SL

EXHIBIT A
PROJECT MAP



FIRST AMENDMENT TO COMMUNITY BENEFIT AGREEMENT

THIS FIRST AMENDMENT TO COMMUNITY BENEFIT AGREEMENT (“First Amendment”) is made effective as of January 10, 2024 (“Effective Date”), by and between Village of Dwight (“Village”), an Illinois municipal corporation and Illinois Generation LLC (“IG”), a Delaware limited liability company.

RECITALS:

WHEREAS Village and IG entered into that certain Community Benefit Agreement dated May 2, 2023 (the “Agreement”) whereby Village agreed to support IG’s construction, ownership and operation of a wind energy conversion system project within the one-and-a-half (1½)-mile radius of the Village corporate limits (the “Project”)

WHEREAS Village and IG have agreed to modify the Project Map (as defined herein) based on the shifting of WECS sited within one and a half (1½) miles of Village by one second or more of latitude and longitude.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter contained, Village and IG, intending to be legally bound, hereby, agree effective as of the Effective Date as follows:

1. **Project Map.** Exhibit A of the Agreement is hereby deleted and replaced with the Project Map attached to this First Amendment as Exhibit A. The definition of “Project Map” contained in Section 2(a) of the Agreement is hereby modified to mean the Project Map attached to this First Amendment as Exhibit A.

2. **Guaranteed Donation.** For the avoidance of doubt, the calculation of the Guaranteed Donation (as described in Section 2(a) of the Agreement) shall in no event be based on a number of WECS towers that is less than the number of WECS towers described in the Agreement.

3. **Binding.** This First Amendment, and the Agreement as amended or modified by this First Amendment, shall be binding upon the parties hereto and their respective heirs, executors, successors, administrators and permitted assigns.

4. **Severability.** If any clause or provision of this First Amendment is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this First Amendment shall not be affected thereby. It is also the intention of the parties to this First Amendment that in lieu of each clause or provision of this First Amendment that is illegal, invalid or unenforceable, there be added, as a part of this First Amendment, a clause or provision as similar in terms to such illegal, invalid or unenforceable clause or provision as may be possible and be legal, valid and enforceable.

5. **Counterparts and Delivery.** This First Amendment may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one amendment. Execution copies of this First Amendment may be delivered by facsimile or email, and the parties hereto agree to accept and be bound by facsimile signatures or scanned signatures transmitted via email hereto, which signatures shall be considered as original signatures with the transmitted amendment having the binding effect as an original signature on an original document. Neither party may raise the use of a facsimile machine or scanned document or the fact that any signature was transmitted through the use of a facsimile machine or email as a defense to the enforcement of this First Amendment.

6. Conflict, Ratification. Insofar as the specific terms and provisions of this First Amendment purport to amend or modify or are in conflict with the specific terms, provisions and exhibits of the Agreement, the terms and provisions of this First Amendment shall govern and control; in all other respects, the terms, provisions and exhibits of the Agreement shall remain unmodified and in full force and effect and are hereby ratified and affirmed by Village and IG.

7. Defined Terms. Any capitalized terms used in this First Amendment but not defined shall have the meaning ascribed to such terms in the Agreement.

8. Effect on Agreement. Village and IG hereby agree that (a) this First Amendment is incorporated into and made a part of the Agreement, (b) any and all references to the Agreement hereinafter shall include this First Amendment, and (c) the Agreement, and all terms, conditions and provisions of the Agreement, are in full force and effect as of the date hereof, except as expressly modified and amended hereinabove.

(end of page)

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the Effective Date.

VILLAGE:


VILLAGE OF DWIGHT

By: 
Village Mayor

1/10/24
Date

IG:

ILLINOIS GENERATION LLC

By: 
Print: Stake Rasmussen
Title: Authorized Signatory

2/6/2024
Date

By: _____
Print: _____
Title: _____

Date

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the Effective Date.

VILLAGE:

VILLAGE OF DWIGHT

By: 
Village Mayor

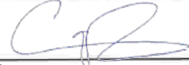
1/10/24
Date

IG:

ILLINOIS GENERATION LLC

By: _____
Print: _____
Title: _____

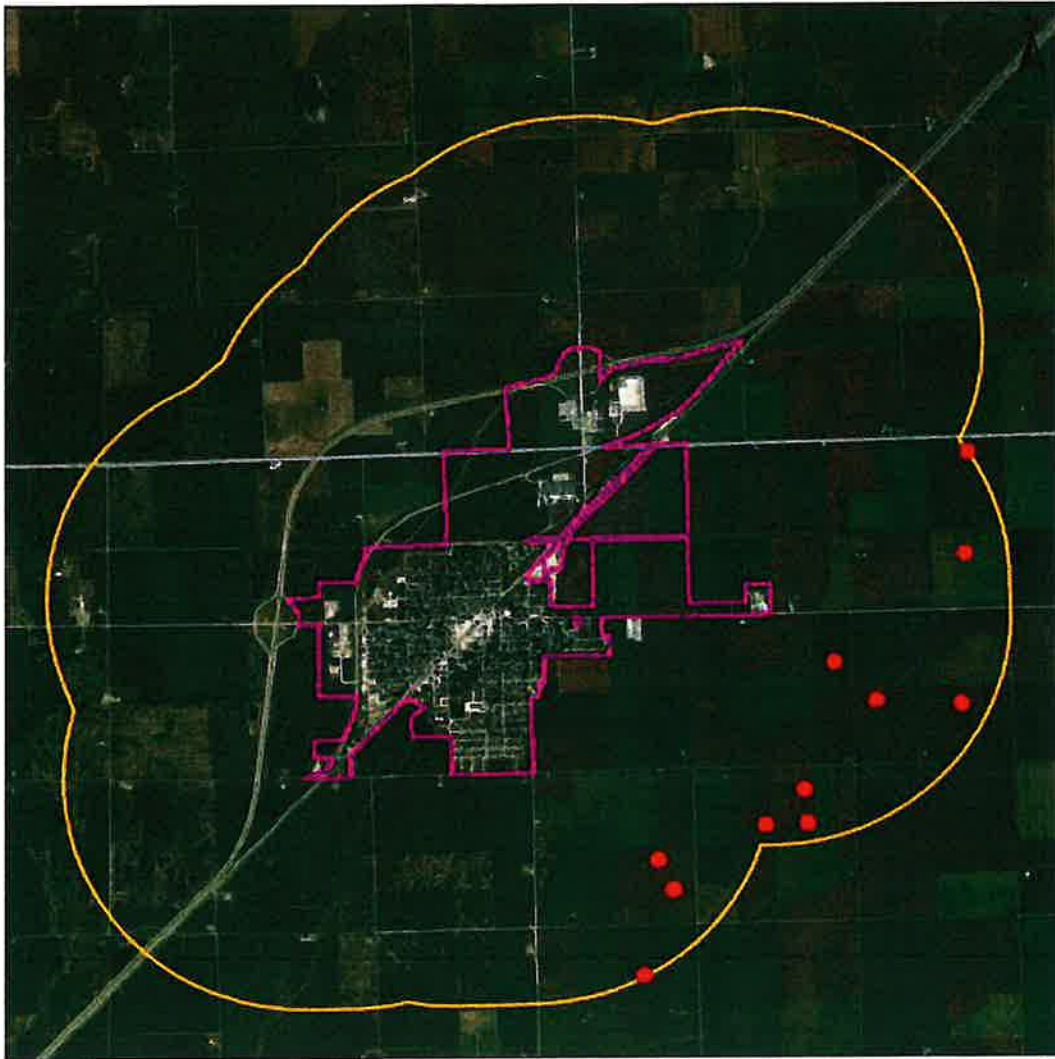
Date

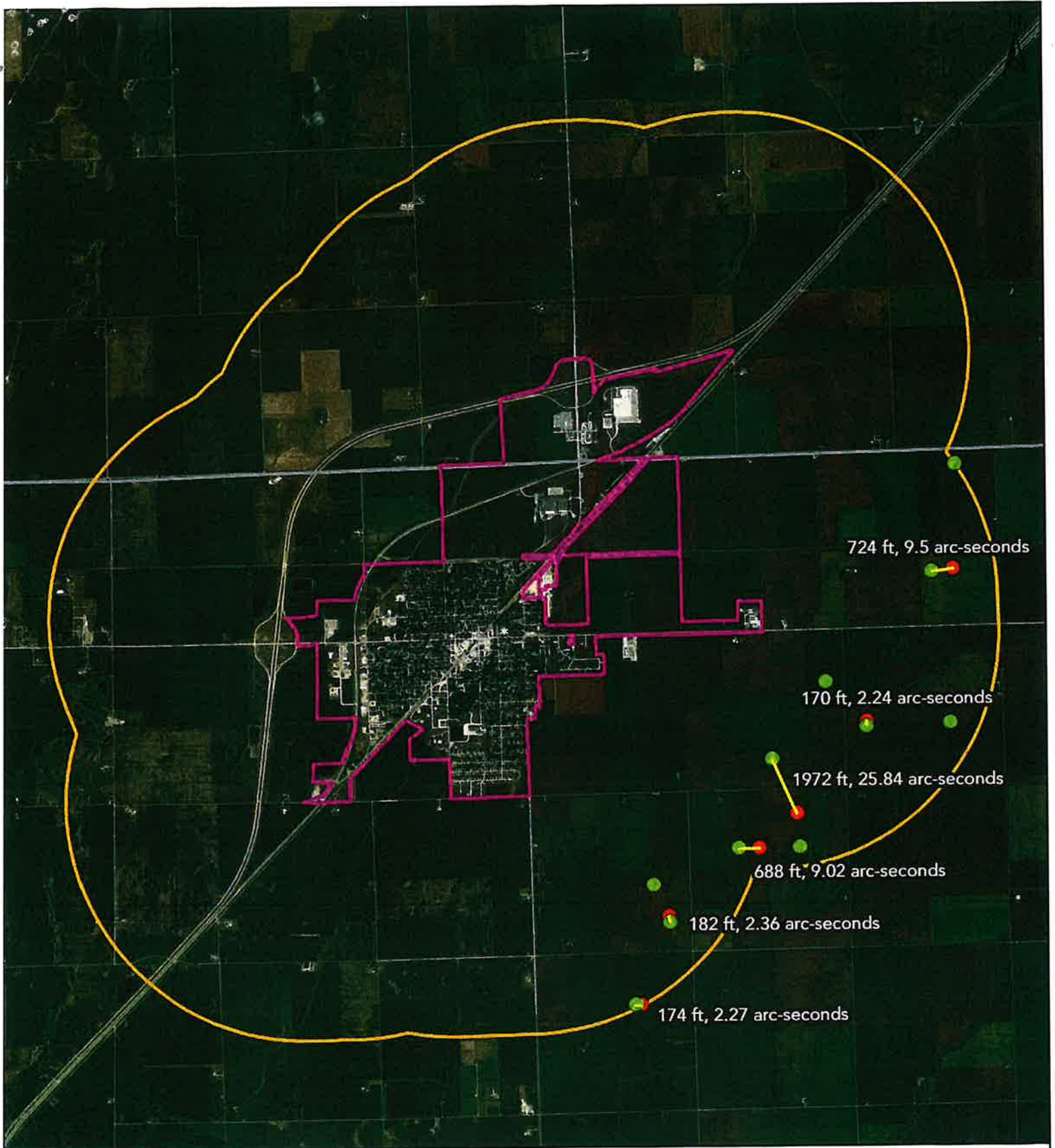
By: 
Print: Caton Fenz
Title: Authorized Signatory


February 6, 2024
Date

SL

EXHIBIT A
PROJECT MAP

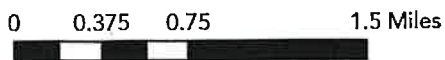




-  Distance Moved
-  Original WTG Locations
-  Updated WTG Locations
-  1.5 Mile Buffer
-  Municipal Boundary

Heritage Prairie
Dwight
Livingston County, IL


 12/20/2023



STATE OF ILLINOIS)
)
COUNTY OF LIVINGSTON)
)
VILLAGE OF DWIGHT)

RESOLUTION 2023-10

APPROVAL OF COMMUNITY BENEFIT AGREEMENT

RESOLUTION NUMBER 2023-10

A RESOLUTION approving the Community Benefit Agreement attached as Exhibit A to this Resolution (the “CBA”) and authorizing the President of the Village of Dwight to execute the CBA or a Community Benefit Agreement in substantially similar form.

WHEREAS, the Village of Dwight (“Village”) is a duly organized and existing body politic and corporate governed by the provisions of the Illinois Municipal Code, 65 ILCS 5/1-1-1 *et seq.* and its own duly adopted Municipal Code, located in the Townships of Dwight and Goodfarm and the County of Livingston;

WHEREAS, the Village has determined that entering into the CBA will improve the public health, safety, morals and general welfare of the residents of the Village;

WHEREAS, the Village is authorized and empowered under the Illinois Municipal Code, the Livingston County Code of Ordinances and the Village Code of Ordinances to approve the CBA and to authorize the Village President to execute a CBA in substantially similar form as the CBA attached as Exhibit A;

NOW, THEREFORE, BE IT RESOLVED BY THE VILLAGE OF DWIGHT AS FOLLOWS:

Section 1. The Village of Dwight hereby approves the CBA and authorizes the President of the Village of Dwight to execute the CBA or a Community Benefit Agreement in substantially similar form.

Section 2: If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Resolution or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Resolution, or any part thereof. The Village Board hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective.

Passed this 27th day of MARCH, 2023.


Ayes: JOHNSON, KINKADE, MEISTER, EGGENBERGER, IRVIN

Nays: Ø

Absent: BUTTERBRODT

Abstain: Ø

Approved this 27th day of MARCH, 2023.

Signed: 
Paul Johnson
Village President


Attest: 
Whitney Scott
Village Clerk

EXHIBIT A TO RESOLUTION
COMMUNITY BENEFIT AGREEMENT

This Community Benefit Agreement (“Agreement”) is entered into by and between the Village of Dwight (“Village”), an Illinois municipal corporation and Illinois Generation LLC (“IG”), a Delaware limited liability company. The signatories to this Agreement may be referred to herein individually as a “Party” and collectively as the “Parties.” The effective date of the Agreement is the last date of execution as between the Parties (the “Effective Date”).

RECITALS

WHEREAS, IG intends to construct, own and operate a wind energy conversion system project including, without limitation, construction of eleven (11) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits (the “Project”) in Livingston County pursuant to Chapter 56 of the Livingston County Zoning Ordinance, which will generate significant private investment, job creation and future tax revenue for various regional taxing districts located in Livingston County.

WHEREAS, the Village is a municipality in Livingston County, IL that will support the overall development and construction of the Project and provide other good and valuable consideration. This support is anticipated to be ongoing during the operation phase of the Project.

WHEREAS, IG anticipates that one or more wind energy conversion system towers (“WECS towers”) will be constructed within a one-and-a-half (1½)-mile radius of the corporate limits of the Village.

WHEREAS, the Village has adopted Resolution 2023-09 (the “Resolution”) expressly approving and supporting development and operation of the Project by IG, including without limitation, construction of eleven (11) WECS towers within the one-and-a-half (1½)-mile radius of the Village corporate limits, as such boundaries exist as of the Effective Date, pursuant to Livingston County Code of Ordinances Part II, Chapter 56, Article VIII, § 56-618(h)(4), subject to certain limitations set forth in Resolution 2023-09.

WHEREAS, the Village acknowledges and agrees that IG has adequately consulted with the Village and accommodated the Village with respect to all aspects of the Project and expressly acknowledges, covenants and confirms that this Agreement serves as its consent, approval and support of the Project.

WHEREAS, the Village acknowledges the many benefits of the Project, including renewable energy, payments to participating property owners in the community, tax revenues to schools and other taxing districts that support the community, job growth and direct and indirect economic benefits of a significant financial investment in the area by the Project.

WHEREAS, in addition to the benefits noted above and in recognition of the Village’s existing and ongoing support for Project development efforts, and other good and valuable

consideration, IG desires to additionally contribute to the welfare and betterment of the Village community by providing funds to the Village for the purpose of supporting community development in the Village.

WHEREAS, pursuant to Article VII, Section 10 of the Constitution of the State of Illinois units of local government, such as the Village, may contract with private entities, such as IG, for any purpose not prohibited by law or ordinance.

NOW THEREFORE, it is agreed by and between the Parties as follows.

AGREEMENT

1. **Recitals**. The recitals stated above are hereby incorporated into the body of this Agreement.

2. **Community Donation**. In accordance with IG's desire to contribute to the welfare and betterment of the Village and for the purpose of supporting community development in the Village, IG shall make the following Donations (as defined below):
 - a. IG shall make a donation of Twenty-Five Thousand dollars and no cents (\$25,000.00) multiplied by the number of WECS towers approved in the Resolution within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date (the "Guaranteed Donation"), as further depicted in the project map attached as Exhibit A (the "Project Map"). The Guaranteed Donation shall consist of the following donations defined in this Section 2a and shall be paid as follows:
 - i. Within forty-five (45) days of the Effective Date, IG shall make a one-time donation to the Village in the amount of one-third (1/3rd) of the Guaranteed Donation (the "Initial Donation").
 - ii. Within forty-five (45) days of IG's receipt of a non-appealable Special Use Permit ("SUP") from Livingston County for the Project, IG shall make a one-time donation to the Village in the amount of one-third (1/3rd) of the Guaranteed Donation (the "SUP Donation").
 - iii. Within forty-five (45) days of the Commercial Operation Date (as defined below) of the Project, IG shall make a one-time donation to the Village of the final one-third (1/3rd) of the Guaranteed Donation (the "Commercial Operation Date Donation").
 - b. Provided the Agreement and Resolution are executed and delivered by the Village on or before March 15, 2023, IG shall make a further donation of Ten Thousand Dollars and no cents (\$10,000) (the "Supplementary Donation") to the Village which donation shall be payable within forty-five (45) days of such execution and delivery by the Village.
 - c. Contingent upon (a) the occurrence of the commencement date for commercial operation of electricity production for sale by the Project to a third-party power

purchaser, offtakers, merchant buyer, spot market buyer, or other third-party purchaser (and excluding the production of any "test" energy) (such date the "Commercial Operation Date" or "COD") and (b) the placement of a minimum of one (1) WECS tower within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date, IG shall make an Annual Donation (as defined below) to the Village in the amount of Two Thousand dollars and no cents (\$2,000.00) per WECS Tower constructed within one and a half (1½) miles of the limits of the Village as such limits exist as of the Effective Date (the "Annual Donation", collectively with the Guaranteed Donation and the Supplementary Donation, the "Donations"), with the first Annual Donation due within forty-five (45) days of the first (1st) anniversary of the COD and each subsequent Annual Donation due each year on the anniversary of the initial Annual Donation for the Term of this Agreement. Starting on the second (2nd) anniversary of the COD and for each Annual Donation thereafter, the Annual Donation shall increase by two percent (2%) over the previous years' Annual Donation. For certainty and notwithstanding anything to the contrary, if the Village corporate limits change at any time during the term such that the number of WECS towers located within one and a half (1½) miles of the new village corporate limits is different than the number of WECS Towers that existed within one and a half (1½) miles of the Village corporate limits as such limits exist as of the Effective Date, the quantum of the Annual Donation shall not change.

- d. The Parties recognize that IG may elect to enter into similar community benefit agreements with other incorporated municipalities to obtain cooperation with the approval and development of WECS towers for the Project. In this event, IG covenants that the financial terms of any such agreement for the Project will mirror the per turbine compensation amounts described in Sections 2(a) and 2(c) of this Agreement. If they do not, and the compensation terms in the other agreement(s) are more favorable than that established in Sections 2(a) and 2(c) herein, IG will be obligated to increase the formula amounts in this Agreement to match those of any other similar agreement entered into with a municipality to benefit the Project.
- e. The Parties acknowledge and agree that the payment of the Donations by IG to the Village in accordance with this Agreement is not intended to and does not, in any way, fetter the discretion of the Village to execute and deliver the Agreement and the Resolution.

3. **Term.** IG shall pay the Annual Donation within forty-five (45) days of the first (1st) anniversary of the COD and then each year thereafter as set forth in Section 2(c) for thirty-eight (38) additional years (resulting in thirty-nine (39) payments total) (the "Term"), unless either of the following events takes place prior to the expiration of the Term, in which case the Term shall be amended to expire as follows:

- a. If all WECS towers are decommissioned within one and a half (1½) miles of the Village corporate limits, as such limits exist as of the Effective Date, then IG shall pay the Annual Donation each year until such decommissioning commences, at which time IG's obligation to pay the Annual Donation shall cease. IG shall provide notice in writing to the

Village of commencement of decommissioning resulting in an expiration of the Term.

- b. If the Commercial Operation Date has not occurred prior to the seventh (7th) anniversary of the Effective Date, this Agreement shall automatically terminate, and no Donations previously made to the Village shall be required to be refunded in the event this Agreement shall be terminated due to the Commercial Operation Date having not occurred.

4. **No Guarantee of Project.** The decision to proceed with or terminate the development or operation of the Project rests solely with IG. By entering into this Agreement, IG in no way guarantees that Project development will proceed or that the Project will achieve a COD or that the Project will continue operations after achievement of the COD.

5. **Village Covenants.** The Village shall continue to provide reasonable support for, and not object to, IG's Project development, construction, replacement and maintenance efforts in Livingston County including without limitation providing documentation reasonably requested by IG for interested parties, including but not limited to Livingston County, other governmental entities, and investors and lenders in the Project, confirming the ongoing validity of the approvals identified in Resolution 2023-09. The Village further acknowledges and agrees that it shall not use all or any portion of the Donations, whether directly or indirectly, to fund any litigation, appeals or other actions (including vial third-parties or affiliates of the Village) that seek to oppose, frustrate, restrict, or challenge the development construction, operation or decommission of the Project. For greater certainty, the foregoing covenant does not in any way restrict the Village from participating in any Project related consultations.

6. **Supervening Law.** Any provisions of law that invalidate, or otherwise are inconsistent with, the terms of this Agreement or that would cause one or all of the Parties to be in violation of law, shall be deemed to have superseded the terms of this Agreement; provided, however, that the Parties shall exercise their best efforts to accommodate terms and intent of this Agreement to the greatest extent possible consistent with the requirements of law.

7. **Negation of Partnership and Joint Venture.** Nothing contained in this Agreement shall constitute or be construed to be or to create a partnership or joint venture between the Parties. Each party hereto shall be solely responsible for carrying out the responsibilities assumed by it under this Agreement and no party shall be liable for the acts or omissions of the others in performing its responsibilities.

8. **Events of Default.** Each of the following shall constitute an "Event of Default," which shall permit the non-defaulting Party, at its discretion, to terminate this Agreement and/or pursue such other remedies as are available to it at law or in equity:

- (a) any failure by IG to pay the Donations when due if the failure to pay continues for thirty (30) days after the Village delivers Notice of such failure to IG; and

- (b) any other material breach of this Agreement by IG or any breach of Sections 5, 12, or 18 of this Agreement by the Village, which continues for forty-five (45) days after (i) written notice

of default from the non-defaulting Party or, (ii) if the cure will take longer than forty-five (45) days, the length of time necessary to effect such cure so long as the defaulting Party commences to cure within the forty-five (45) day period and continuously and diligently pursues the cure to completion.

9. **Specific Performance Available in Event of Material Breach.** Upon the occurrence of a material breach of this Agreement by the Village prior to the COD, in addition to any other remedies available to IG in equity or under law, the Village shall, within ninety (90) business days of notice of such material breach from IG, refund to IG that portion of the Guaranteed Donation made pursuant to this Agreement to the date of such material breach. Upon the occurrence of a material breach of this Agreement by the Village following the COD, in addition to any other remedies available to IG in equity or under law, the Village shall, within ninety (90) business days of notice of such material breach from IG, refund to IG the aggregate amount of any Annual Donations made pursuant to this Agreement within the five (5) year period prior to the date of such breach. For certainty and notwithstanding anything to the contrary, as long as there was no such breach prior to the COD, the Village is not liable for refunding any portion of the Guaranteed Donation, which vests at COD.

10. **Refund of the Donations in Event of Default.** Upon occurrence of an Event of Default caused by the Village, then, in addition to any other remedies available to IG in equity or under law, the Village shall, within forty-five (45) business days of Notice of such Event of Default from IG, refund to IG all of the Donations made pursuant to this Agreement.

11. **Waiver.** Waiver by any Party hereto of any breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by any of the Parties.

12. **Foreign Corrupt Practices Act.** The Village acknowledges and agrees that IG and this Agreement are subject to compliance with anti-corruption legislation, including without limitation the *Foreign Corrupt Practices Act* (United States). The Village covenants and agrees that in no event shall any portion of the Donations be allocated, used, or otherwise made available for the giving or offering of a loan, reward, advantage or direct or indirect personal or financial benefit or gain of any kind to any Government Official. For the purposes of this Section 12, the term **“Government Official”** means any director, executive, employee, elected/appointed official (and their agents) of any government department, ministry, agency, legislature, political party, tribunal, regulatory authority, candidate for political office or government-owned company.

13. **Notices.** Any notice (“Notice”) required or permitted to be given under the terms of this Agreement shall be reduced to writing and shall be regarded as given (a) on the day when personally delivered or delivered by facsimile or email or (b) on the day after being sent by Federal Express (or comparable overnight deliver services), all fees prepaid or (c) on the third day after being placed in the United States mail with first class and certified mail return receipt requested postage fully prepaid and addressed to the parties at the following respective addresses:

If to IG, as follows:

Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, Texas 77002

with a copy to:

Illinois Generation LLC
c/o Pattern Energy Group LP
1088 Sansome Street
San Francisco, CA 94111
Attention: General Counsel
Fax: (415) 362-7900
Email: generalcounsel@patternenergy.com

with a copy to:

Illinois Generation LLC
c/o ConnectGen LLC
1001 McKinney Street, Suite 700
Houston, TX 77002
Attention: General Counsel
Email: contractadmin@connectgenllc.com

If to Village of Dwight, as follows:

Village of Dwight
209 S. PRAIRIE AVE
DWIGHT, ILLINOIS 60420
Fax:
Email:

14. **Headings**. The headings of the several paragraphs hereof are for convenience in reference only and shall not be construed to be a part of this Agreement.
15. **Amendment and Binding Effect**. This Agreement shall not be modified or amended except in writing signed by the Parties hereto.
16. **Severability**. Any provision of this Agreement which shall prove to be invalid, void, or illegal shall in no way affect, impair or invalidate any other provision hereof and the remaining provisions hereof shall nevertheless remain in full force and effect.
17. **Jurisdiction**. This Agreement shall be deemed to have been entered into in the State of Illinois, and all questions concerning the validity, interpretation, or performance of any of its terms or provisions or of any rights or obligation of the parties hereto, shall be governed by and resolved in accordance with the laws of the State of Illinois. Any lawsuit arising from

this Agreement shall be filed in the Circuit Court for the Eleventh Judicial Circuit in Livingston County, Illinois or in the United States District Court for the Central District of Illinois.

18. **Assignment.** IG shall have the right at any time, without need for the Village's consent or approval, to assign or convey all or any portion of this Agreement to an assignee or assignees, on an exclusive or nonexclusive basis. Upon such assignment, IG shall be released from its obligations under this Agreement, which obligations shall thereafter be the obligation of the assignee. IG shall have the right at any time, without need for the Village's consent or approval, to mortgage or collaterally assign all or any part of its interest in the Agreement and its rights under the Agreement to any entity (a "Lender") without the consent or approval of the Village; provided, however, that IG shall provide Notice of its mortgage or collateral assignment to Village with contact information for the Lender. Any Lender will have no obligations under this Agreement until such time as it exercises its rights to acquire IG's interest subject to the lien of Lender's mortgage by foreclosure or otherwise or assumes the obligations of IG under this Agreement. So long as any mortgage with a Lender remains in effect, this Agreement shall not be modified, and the Village shall not accept a termination or release of this Agreement, without the prior written consent of all Lenders. The Village, upon providing IG any notice of default under this Agreement, shall at the same time provide a copy of such notice to each Lender. The Village shall accept any performance by or at the instigation of any such Lender as if the same had been done by IG (but no Lender shall have any obligation to remedy or cause the remedy of any default). All the terms, conditions, covenants and other provisions contained in this Agreement, including benefits and burdens, shall be binding upon the Village so long as the Village remains an incorporated municipality in the State of Illinois and shall inure to the benefit of and be enforceable by the Village and IG, and their respective heirs, successors and assigns.


19. **Opportunity for Legal Counsel and No Drafting Presumption.** Each Party acknowledges having (a) had the opportunity to obtain its own independent legal advice with respect to this Agreement and the transactions contemplated hereby, and (b) sought such legal advice to the fullest extent deemed necessary by each Party prior to its execution and delivery. There will be no presumption of resolution of any ambiguity in this Agreement in favor of either of the Parties. The execution, delivery and performance by the Parties of this Agreement has been duly authorized by all necessary action and there are no approvals, authorizations, consents, or other actions necessary to authorize either Party's execution and delivery of this Agreement.

20. **Counterparts; Facsimile and PDF Delivery.** This Agreement may be executed in one or more counterparts, each of which so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument. This Agreement may be delivered by facsimile or by PDF file and upon such delivery the facsimile or PDF signature shall have the same force and effect as an original signature.

IN WITNESS WHEREOF, the parties hereto, acting by and through their duly authorized officers under authority duly granted by their respective governing bodies, have caused this Agreement to be executed, which will be effective and binding upon the parties only as of the date that both parties have executed this Agreement.

(Signature page to follow)

ILLINOIS GENERATION LLC


By: 
Print: Blake Rasmussen
Title: Authorized Signatory

5-2-2023
Date

By: 
Print: Caron Renz
Title: Authorized signatory 

4.3.23
Date

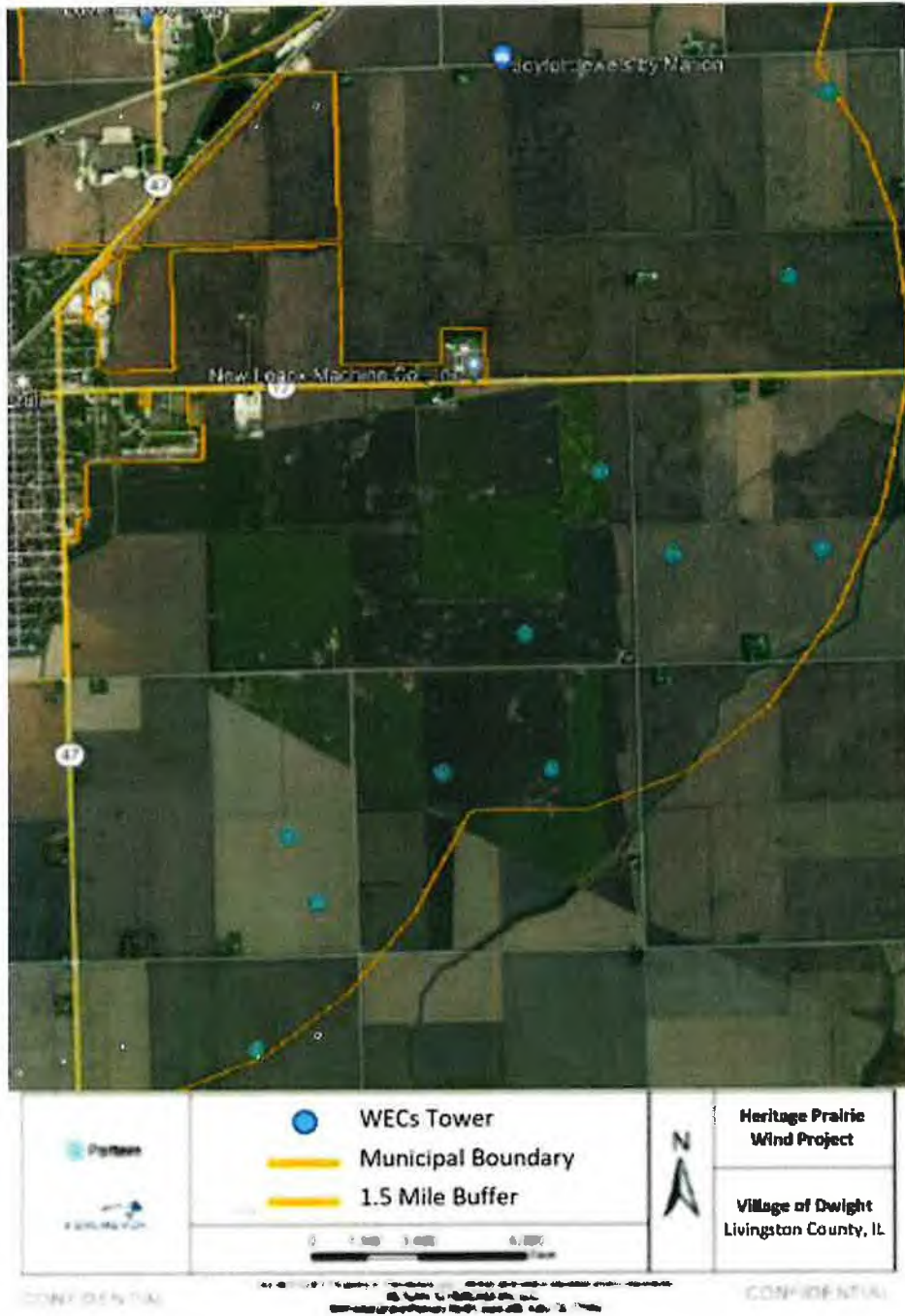
VILLAGE OF DWIGHT

By: 
Paul Johnson
Village President

3/27/23
Date

EXHIBIT "A"

PROJECT MAP



APPENDIX H – FAA COMPLIANCE

Heritage Prairie Wind Project
FAA Wind Turbine Filing Dataset

Aeronautical Study Number	Structure Name (as filed, cannot be changed)	Status	Coordinates (DMS)		Site Elevation (AMSL Feet)	Structure Height (AGL Feet)		Required Marking & Lighting (if determined)	Expiration
			Latitude	Longitude		Proposed	Determined		
2022-WTE-3391-OE	L1	Determination of No Hazard	41-4-17.21N	88-24-47.10W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3392-OE	L2	Determination of No Hazard	41-2-53.23N	88-24-44.63W	645	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3393-OE	L3	Determination of No Hazard	41-4-30.63N	88-24-43.89W	643	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3394-OE	L4	Determination of No Hazard	41-3-37.88N	88-24-25.61W	642	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3395-OE	L5	Determination of No Hazard	41-2-28.73N	88-24-20.74W	649	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3396-OE	L6	Determination of No Hazard	41-2-42.16N	88-24-17.61W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3397-OE	L7	Determination of No Hazard	41-4-17.36N	88-24-17.67W	640	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3398-OE	L8	Determination of No Hazard	41-4-30.54N	88-24-14.59W	638	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3399-OE	L9	Determination of No Hazard	41-4-5.15N	88-24-10.55W	642	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3401-OE	L11	Determination of No Hazard	41-4-29.07N	88-23-40.10W	639	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3403-OE	L13	Determination of No Hazard	41-4-29.57N	88-23-13.44W	636	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3404-OE	L14	Determination of No Hazard	41-5-23.44N	88-23-1.85W	630	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3405-OE	L15	Determination of No Hazard	41-6-19.89N	88-23-2.07W	628	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3406-OE	L16	Determination of No Hazard	41-5-9.14N	88-22-43.83W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3407-OE	L17	Determination of No Hazard	41-4-30.03N	88-22-34.76W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3408-OE	L18	Determination of No Hazard	41-2-25.96N	88-22-23.45W	643	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3409-OE	L19	Determination of No Hazard	41-2-46.02N	88-22-23.30W	638	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3410-OE	L20	Determination of No Hazard	41-5-59.86N	88-22-15.07W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3411-OE	L21	Determination of No Hazard	41-3-49.63N	88-22-6.56W	635	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3412-OE	L22	Determination of No Hazard	41-5-10.07N	88-22-7.28W	628	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3413-OE	L23	Determination of No Hazard	41-4-30.51N	88-22-4.53W	633	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3415-OE	L25	Determination of No Hazard	41-3-38.30N	88-21-56.39W	630	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3417-OE	L27	Determination of No Hazard	41-5-59.43N	88-21-37.67W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3418-OE	L28	Determination of No Hazard	41-4-42.83N	88-21-35.08W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3419-OE	L29	Determination of No Hazard	41-2-56.75N	88-21-29.86W	640	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3420-OE	L30	Determination of No Hazard	41-4-31.16N	88-21-25.70W	630	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3422-OE	L32	Determination of No Hazard	41-6-16.95N	88-21-17.24W	621	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3423-OE	L33	Determination of No Hazard	41-5-9.36N	88-21-13.66W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3424-OE	L34	Determination of No Hazard	41-1-52.55N	88-21-6.14W	651	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3425-OE	L35	Determination of No Hazard	41-4-56.99N	88-21-6.06W	626	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3426-OE	L36	Determination of No Hazard	41-2-42.34N	88-21-1.33W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3427-OE	L37	Determination of No Hazard	41-6-1.60N	88-21-3.23W	617	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3428-OE	L38	Determination of No Hazard	41-2-58.40N	88-20-57.89W	640	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3429-OE	L39	Determination of No Hazard	41-4-6.80N	88-20-57.95W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3430-OE	L40	Determination of No Hazard	41-4-20.40N	88-20-56.06W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3431-OE	L41	Determination of No Hazard	41-5-20.67N	88-20-39.54W	623	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3432-OE	L42	Determination of No Hazard	41-3-36.12N	88-20-34.18W	628	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3433-OE	L43	Determination of No Hazard	41-5-33.54N	88-20-36.22W	622	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3434-OE	L44	Determination of No Hazard	41-1-4.02N	88-20-30.00W	650	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3435-OE	L45	Determination of No Hazard	41-1-41.69N	88-20-23.04W	645	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3436-OE	L46	Determination of No Hazard	41-3-24.90N	88-20-23.95W	630	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3437-OE	L47	Determination of No Hazard	41-6-31.00N	88-20-26.72W	616	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3438-OE	L48	Determination of No Hazard	41-1-55.38N	88-20-19.90W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3439-OE	L49	Determination of No Hazard	41-2-47.18N	88-20-17.54W	637	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3440-OE	L50	Determination of No Hazard	41-3-12.01N	88-20-17.99W	634	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3441-OE	L51	Determination of No Hazard	41-1-15.45N	88-20-14.87W	645	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3442-OE	L52	Determination of No Hazard	41-1-30.09N	88-20-13.51W	649	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3443-OE	L53	Determination of No Hazard	41-4-20.55N	88-20-14.57W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3444-OE	L54	Determination of No Hazard	41-4-8.15N	88-20-7.06W	626	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3445-OE	L55	Determination of No Hazard	41-4-40.09N	88-19-59.17W	623	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3446-OE	L56	Determination of No Hazard	41-5-34.68N	88-20-1.64W	619	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3447-OE	L57	Determination of No Hazard	41-1-55.33N	88-19-48.99W	649	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3448-OE	L58	Determination of No Hazard	41-5-24.61N	88-19-48.75W	622	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3449-OE	L59	Determination of No Hazard	41-1-38.91N	88-19-43.32W	650	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3450-OE	L60	Determination of No Hazard	41-3-42.28N	88-19-44.79W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3451-OE	L61	Determination of No Hazard	41-1-29.14N	88-19-16.74W	649	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3452-OE	L62	Determination of No Hazard	41-2-46.68N	88-19-17.40W	634	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3453-OE	L63	Determination of No Hazard	41-5-9.27N	88-19-20.23W	621	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3454-OE	L64	Determination of No Hazard	41-1-42.67N	88-19-13.88W	648	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3455-OE	L65	Determination of No Hazard	41-5-22.71N	88-19-17.05W	619	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3456-OE	L66	Determination of No Hazard	41-1-56.13N	88-19-10.66W	648	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3457-OE	L67	Determination of No Hazard	41-3-16.14N	88-19-7.46W	631	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3458-OE	L68	Determination of No Hazard	41-4-18.10N	88-19-7.40W	623	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3459-OE	L69	Determination of No Hazard	41-2-30.93N	88-19-3.09W	641	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3460-OE	L70	Determination of No Hazard	41-5-13.58N	88-18-48.78W	618	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3461-OE	L71	Determination of No Hazard	41-2-50.14N	88-18-45.28W	632	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3462-OE	L72	Determination of No Hazard	41-5-36.81N	88-18-48.48W	616	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3463-OE	L73	Determination of No Hazard	41-2-8.36N	88-18-43.57W	648	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3464-OE	L74	Determination of No Hazard	41-4-12.53N	88-18-36.92W	622	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3465-OE	L75	Determination of No Hazard	41-3-13.64N	88-18-8.86W	628	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3466-OE	L76	Determination of No Hazard	41-3-1.89N	88-17-59.23W	632	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3467-OE	L77	Determination of No Hazard	41-3-50.07N	88-18-.02W	623	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3468-OE	L78	Determination of No Hazard	41-1-53.74N	88-17-51.24W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3469-OE	L79	Determination of No Hazard	41-2-35.12N	88-17-52.43W	636	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3470-OE	L80	Determination of No Hazard	41-2-9.09N	88-17-51.58W	642	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3471-OE	L81	Determination of No Hazard	41-4-15.18N	88-17-43.76W	622	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3472-OE	L82	Determination of No Hazard	41-4-38.02N	88-17-28.76W	619	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3473-OE	L83	Determination of No Hazard	41-2-9.93N	88-17-25.02W	642	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3474-OE	L84	Determination of No Hazard	41-5-12.30N	88-17-28.40W	617	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3475-OE	L85	Determination of No Hazard	41-6-2.70N	88-17-27.84W	611	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3476-OE	L86	Determination of No Hazard	41-2-34.85N	88-17-22.25W	639	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3477-OE	L87	Determination of No Hazard	41-1-56.67N	88-17-20.85W	646	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3478-OE	L88	Determination of No Hazard	41-5-12.61N	88-16-57.58W	613	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3479-OE	L89	Determination of No Hazard	41-2-35.28N	88-16-53.76W	638	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3480-OE	L90	Determination of No Hazard	41-2-22.14N	88-16-49.03W	640	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3481-OE	L91	Determination of No Hazard	41-2-8.47N	88-16-48.62W	644	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3482-OE	L92	Determination of No Hazard	41-6-21.75N	88-16-36.55W	607	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3483-OE	L93	Determination of No Hazard	41-6-40.96N	88-16-36.40W	606	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3484-OE	L94	Determination of No Hazard	41-6-44.31N	88-16-6.67W	605	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3485-OE	L95	Determination of No Hazard	41-4-20.44N	88-15-47.58W	621	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3486-OE	L96	Determination of No Hazard	41-6-3.86N	88-15-45.23W	607	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3487-OE	L97	Determination of No Hazard	41-4-8.87N	88-15-39.10W	620	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3488-OE	L98	Determination of No Hazard	41-2-36.20N	88-15-21.41W	639	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3489-OE	Alt-L99	Determination of No Hazard	41-5-2.55N	88-21-53.35W	625	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3490-OE	Alt-L100	Determination of No Hazard	41-4-11.56N	88-20-12.63W	627	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3491-OE	Alt-L101	Determination of No Hazard	41-4-33.72N	88-20-5.84W	624	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3492-OE	Alt-L102	Determination of No Hazard	41-4-5.33N	88-19-58.49W	623	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3493-OE	Alt-L103	Determination of No Hazard	41-4-21.79N	88-20-19.61W	628	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3494-OE	Alt-L104	Determination of No Hazard	41-4-30.45N	88-20-19.61W	625	698	698	White Paint/Synchronized Red Lights	09/16/2024
2022-WTE-3495-OE	Alt-L105	Determination of No Hazard	41-4-18.65N	88-20-10.24W					



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 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2022-WTE-3391-OE
 Prior Study No.
 2021-WTE-3881-OE

Issued Date: 03/16/2023

Allen Wynn
 Illinois Generation LLC - LC
 1088 Sansome Street
 San Francisco, CA 94111

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Wind Turbine L1
 Location: Dwight, IL
 Latitude: 41-04-17.21N NAD 83
 Longitude: 88-24-47.10W
 Heights: 644 feet site elevation (SE)
 698 feet above ground level (AGL)
 1342 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, white paint/synchronized red lights-Chapters 4,13(Turbines),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 60 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

While the structure does not constitute a hazard to air navigation, it would be located within or near a military training area and/or route.

This determination expires on 09/16/2024 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 15, 2023. In the event an interested party files a petition for review, it must contain a full statement of the basis upon which the petition is made. Petitions can be submitted to the Manager of the Rules and Regulations Group via e-mail at OEPetitions@faa.gov, via mail to Federal Aviation Administration, Air Traffic Organization, Rules and Regulations Group, Room 425, 800 Independence Ave, SW, Washington, DC 20591, or via facsimile (202) 267-9328. FAA encourages the use of email to ensure timely processing.

This determination becomes final on April 25, 2023 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Rules and Regulations Group via telephone – 202-267-8783.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above. If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

This determination cancels and supersedes prior determinations issued for this structure.

If we can be of further assistance, please contact Lan Norris, at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-WTE-3391-OE.

Signature Control No: 546551116-576464708

(DNH -WT)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2022-WTE-3391-OE

All FAA determinations and circularized cases are public record and available at the FAA's public website; <https://oeaaa.faa.gov>. The distribution for proposals circularized for public comments includes all "known" aviation interested persons and those who do not have an aeronautical interest but may become involved with specific aeronautical studies. Notification includes both postcard mailers and email notifications to those with registered FAA accounts. The FAA does not have a database for all persons with an aeronautical and non-aeronautical interest. Therefore, the public is encouraged to re-distribute and forward notices of circularized cases to the maximum extent possible. Additionally, it is incumbent upon local state, county and city officials to share notice of circularized cases with their concerned citizens.

A list of commonly used acronyms and abbreviations is available at the end of this document. A full list is available at the FAA's public website at https://oeaaa.faa.gov/oeaaa/downloads/external/content/FAA_Acronyms.pdf.

1. PROPOSAL DESCRIPTION

Proposed are 219 wind turbines for a wind farm project that would be located approximately 2.95 NM - 19.15 NM east-southeast of the Airport Reference Point (ARP) for Dwight Airport (DTG) Dwight, IL and approximately 4.50 NM - 22.70 NM west of the ARP for Greater Kankakee Airport (IKK) Kankakee, IL. For the sake of efficiency, all of the wind turbines in this project have similar impacts and are included in this narrative. The proposed wind turbines' described heights and locations are expressed in Above Ground Level (AGL) height, Above Mean Sea Level (AMSL) height and latitude / longitude.

ASN	/	AGL	/	AMSL	/	Latitude	/	Longitude
2022-WTE-3391-OE	/	698	/	1342	/	41-04-17.21N	/	88-24-47.10W
2022-WTE-3392-OE	/	698	/	1343	/	41-02-53.23N	/	88-24-44.63W
2022-WTE-3393-OE	/	698	/	1341	/	41-04-30.63N	/	88-24-43.89W
2022-WTE-3394-OE	/	698	/	1340	/	41-03-37.88N	/	88-24-25.61W
2022-WTE-3395-OE	/	698	/	1347	/	41-02-28.73N	/	88-24-20.74W
2022-WTE-3396-OE	/	698	/	1342	/	41-02-42.16N	/	88-24-17.61W
2022-WTE-3397-OE	/	698	/	1338	/	41-04-17.36N	/	88-24-17.67W
2022-WTE-3398-OE	/	698	/	1336	/	41-04-30.54N	/	88-24-14.59W
2022-WTE-3399-OE	/	698	/	1340	/	41-04-05.15N	/	88-24-10.55W
2022-WTE-3401-OE	/	698	/	1337	/	41-04-29.07N	/	88-23-40.10W
2022-WTE-3403-OE	/	698	/	1334	/	41-04-29.57N	/	88-23-13.44W
2022-WTE-3404-OE	/	698	/	1328	/	41-05-23.94N	/	88-23-01.85W
2022-WTE-3405-OE	/	698	/	1326	/	41-06-19.89N	/	88-23-02.07W
2022-WTE-3406-OE	/	698	/	1329	/	41-05-09.14N	/	88-22-43.83W
2022-WTE-3407-OE	/	698	/	1329	/	41-04-30.03N	/	88-22-34.76W
2022-WTE-3408-OE	/	698	/	1341	/	41-02-25.96N	/	88-22-23.45W
2022-WTE-3409-OE	/	698	/	1336	/	41-02-46.02N	/	88-22-23.30W
2022-WTE-3410-OE	/	698	/	1329	/	41-05-59.86N	/	88-22-15.07W
2022-WTE-3411-OE	/	698	/	1333	/	41-03-49.63N	/	88-22-06.56W
2022-WTE-3412-OE	/	698	/	1326	/	41-05-10.07N	/	88-22-07.28W
2022-WTE-3413-OE	/	698	/	1331	/	41-04-30.51N	/	88-22-04.53W
2022-WTE-3415-OE	/	698	/	1328	/	41-03-38.30N	/	88-21-56.39W

2022-WTE-3417-OE	/	698	/	1325	/	41-05-59.43N	/	88-21-37.67W
2022-WTE-3418-OE	/	698	/	1329	/	41-04-42.83N	/	88-21-35.08W
2022-WTE-3419-OE	/	698	/	1338	/	41-02-56.75N	/	88-21-29.86W
2022-WTE-3420-OE	/	698	/	1328	/	41-04-31.16N	/	88-21-25.70W
2022-WTE-3422-OE	/	698	/	1319	/	41-06-16.95N	/	88-21-17.24W
2022-WTE-3423-OE	/	698	/	1325	/	41-05-09.36N	/	88-21-13.66W
2022-WTE-3424-OE	/	698	/	1349	/	41-01-52.55N	/	88-21-06.14W
2022-WTE-3425-OE	/	698	/	1324	/	41-04-56.99N	/	88-21-06.06W
2022-WTE-3426-OE	/	698	/	1342	/	41-02-42.34N	/	88-21-01.33W
2022-WTE-3427-OE	/	698	/	1315	/	41-06-01.60N	/	88-21-03.23W
2022-WTE-3428-OE	/	698	/	1338	/	41-02-58.40N	/	88-20-57.89W
2022-WTE-3429-OE	/	698	/	1329	/	41-04-06.80N	/	88-20-57.95W
2022-WTE-3430-OE	/	698	/	1325	/	41-04-20.40N	/	88-20-56.06W
2022-WTE-3431-OE	/	698	/	1321	/	41-05-20.67N	/	88-20-39.54W
2022-WTE-3432-OE	/	698	/	1326	/	41-03-36.12N	/	88-20-34.18W
2022-WTE-3433-OE	/	698	/	1320	/	41-05-33.54N	/	88-20-36.22W
2022-WTE-3434-OE	/	698	/	1348	/	41-01-04.02N	/	88-20-30.00W
2022-WTE-3435-OE	/	698	/	1343	/	41-01-41.69N	/	88-20-23.04W
2022-WTE-3436-OE	/	698	/	1328	/	41-03-24.90N	/	88-20-23.95W
2022-WTE-3437-OE	/	698	/	1314	/	41-06-31.00N	/	88-20-26.72W
2022-WTE-3438-OE	/	698	/	1342	/	41-01-55.38N	/	88-20-19.90W
2022-WTE-3439-OE	/	698	/	1335	/	41-02-47.18N	/	88-20-17.54W
2022-WTE-3440-OE	/	698	/	1332	/	41-03-12.01N	/	88-20-17.99W
2022-WTE-3441-OE	/	698	/	1343	/	41-01-15.45N	/	88-20-14.87W
2022-WTE-3442-OE	/	698	/	1347	/	41-01-30.09N	/	88-20-13.51W
2022-WTE-3443-OE	/	698	/	1325	/	41-04-20.55N	/	88-20-14.57W
2022-WTE-3444-OE	/	698	/	1324	/	41-04-08.15N	/	88-20-07.06W
2022-WTE-3445-OE	/	698	/	1321	/	41-04-40.09N	/	88-19-59.17W
2022-WTE-3446-OE	/	698	/	1317	/	41-05-34.68N	/	88-20-01.64W
2022-WTE-3447-OE	/	698	/	1347	/	41-01-55.53N	/	88-19-48.99W
2022-WTE-3448-OE	/	698	/	1320	/	41-05-24.61N	/	88-19-48.75W
2022-WTE-3449-OE	/	698	/	1348	/	41-01-38.91N	/	88-19-43.32W
2022-WTE-3450-OE	/	698	/	1325	/	41-03-42.28N	/	88-19-44.79W
2022-WTE-3451-OE	/	698	/	1347	/	41-01-29.14N	/	88-19-16.74W
2022-WTE-3452-OE	/	698	/	1332	/	41-02-46.68N	/	88-19-17.40W
2022-WTE-3453-OE	/	698	/	1319	/	41-05-09.27N	/	88-19-20.23W
2022-WTE-3454-OE	/	698	/	1346	/	41-01-42.67N	/	88-19-13.88W
2022-WTE-3455-OE	/	698	/	1317	/	41-05-22.71N	/	88-19-17.05W
2022-WTE-3456-OE	/	698	/	1346	/	41-01-56.13N	/	88-19-10.66W
2022-WTE-3457-OE	/	698	/	1329	/	41-03-16.14N	/	88-19-07.46W
2022-WTE-3458-OE	/	698	/	1321	/	41-04-18.10N	/	88-19-07.40W
2022-WTE-3459-OE	/	698	/	1339	/	41-02-30.93N	/	88-19-03.09W
2022-WTE-3460-OE	/	698	/	1316	/	41-05-13.58N	/	88-18-48.78W
2022-WTE-3461-OE	/	698	/	1330	/	41-02-50.14N	/	88-18-45.28W
2022-WTE-3462-OE	/	698	/	1314	/	41-05-36.81N	/	88-18-48.48W
2022-WTE-3463-OE	/	698	/	1346	/	41-02-08.36N	/	88-18-43.57W
2022-WTE-3464-OE	/	698	/	1320	/	41-04-12.53N	/	88-18-36.92W
2022-WTE-3465-OE	/	698	/	1326	/	41-03-13.64N	/	88-18-08.86W
2022-WTE-3466-OE	/	698	/	1330	/	41-03-01.89N	/	88-17-59.23W

2022-WTE-3467-OE	/	698	/	1321	/	41-03-50.07N	/	88-18-00.02W
2022-WTE-3468-OE	/	698	/	1342	/	41-01-53.74N	/	88-17-51.24W
2022-WTE-3469-OE	/	698	/	1334	/	41-02-35.12N	/	88-17-52.43W
2022-WTE-3470-OE	/	698	/	1340	/	41-02-09.09N	/	88-17-51.58W
2022-WTE-3471-OE	/	698	/	1320	/	41-04-15.18N	/	88-17-43.76W
2022-WTE-3472-OE	/	698	/	1317	/	41-04-38.02N	/	88-17-28.76W
2022-WTE-3473-OE	/	698	/	1340	/	41-02-09.93N	/	88-17-25.02W
2022-WTE-3474-OE	/	698	/	1315	/	41-05-12.30N	/	88-17-28.40W
2022-WTE-3475-OE	/	698	/	1309	/	41-06-02.70N	/	88-17-27.84W
2022-WTE-3476-OE	/	698	/	1337	/	41-02-34.85N	/	88-17-22.25W
2022-WTE-3477-OE	/	698	/	1344	/	41-01-56.67N	/	88-17-20.85W
2022-WTE-3478-OE	/	698	/	1311	/	41-05-12.61N	/	88-16-57.58W
2022-WTE-3479-OE	/	698	/	1336	/	41-02-35.28N	/	88-16-53.76W
2022-WTE-3480-OE	/	698	/	1338	/	41-02-22.14N	/	88-16-49.03W
2022-WTE-3481-OE	/	698	/	1342	/	41-02-08.47N	/	88-16-48.62W
2022-WTE-3482-OE	/	698	/	1305	/	41-06-21.75N	/	88-16-36.55W
2022-WTE-3483-OE	/	698	/	1304	/	41-06-40.96N	/	88-16-36.40W
2022-WTE-3484-OE	/	698	/	1303	/	41-06-44.31N	/	88-16-06.67W
2022-WTE-3485-OE	/	698	/	1319	/	41-04-20.44N	/	88-15-47.58W
2022-WTE-3486-OE	/	698	/	1305	/	41-06-03.86N	/	88-15-45.23W
2022-WTE-3487-OE	/	698	/	1318	/	41-04-08.87N	/	88-15-39.10W
2022-WTE-3488-OE	/	698	/	1337	/	41-02-36.20N	/	88-15-21.41W
2022-WTE-3489-OE	/	698	/	1323	/	41-05-02.55N	/	88-21-53.35W
2022-WTE-3490-OE	/	698	/	1325	/	41-04-11.56N	/	88-20-12.63W
2022-WTE-3491-OE	/	698	/	1322	/	41-04-33.72N	/	88-20-05.84W
2022-WTE-3492-OE	/	698	/	1321	/	41-04-05.33N	/	88-19-58.49W
2022-WTE-3493-OE	/	698	/	1326	/	41-04-21.79N	/	88-20-19.61W
2022-WTE-3494-OE	/	698	/	1323	/	41-04-30.45N	/	88-20-19.61W
2022-WTE-3495-OE	/	698	/	1324	/	41-04-18.65N	/	88-20-10.24W
2022-WTE-3496-OE	/	698	/	1322	/	41-04-40.14N	/	88-19-51.87W
2022-WTE-3498-OE	/	698	/	1336	/	41-05-02.13N	/	88-24-16.40W
2022-WTE-3500-OE	/	698	/	1320	/	41-04-17.98N	/	88-14-50.03W
2022-WTE-3501-OE	/	698	/	1329	/	41-03-02.98N	/	88-14-48.27W
2022-WTE-3502-OE	/	698	/	1310	/	41-05-08.14N	/	88-14-48.30W
2022-WTE-3503-OE	/	698	/	1334	/	41-02-48.38N	/	88-14-42.46W
2022-WTE-3504-OE	/	698	/	1340	/	41-02-33.90N	/	88-14-36.74W
2022-WTE-3505-OE	/	698	/	1325	/	41-03-21.20N	/	88-14-31.26W
2022-WTE-3506-OE	/	698	/	1330	/	41-03-02.60N	/	88-14-15.24W
2022-WTE-3507-OE	/	698	/	1302	/	41-06-42.22N	/	88-14-14.97W
2022-WTE-3508-OE	/	698	/	1334	/	41-02-47.98N	/	88-14-09.37W
2022-WTE-3509-OE	/	698	/	1316	/	41-04-21.53N	/	88-14-09.96W
2022-WTE-3510-OE	/	698	/	1304	/	41-06-26.66N	/	88-14-12.23W
2022-WTE-3511-OE	/	698	/	1310	/	41-05-13.73N	/	88-14-03.56W
2022-WTE-3512-OE	/	698	/	1303	/	41-06-03.01N	/	88-14-00.76W
2022-WTE-3513-OE	/	698	/	1345	/	41-02-11.60N	/	88-13-55.09W
2022-WTE-3514-OE	/	698	/	1339	/	41-02-26.76N	/	88-13-55.12W
2022-WTE-3515-OE	/	698	/	1334	/	41-02-48.01N	/	88-13-37.53W
2022-WTE-3516-OE	/	698	/	1345	/	41-02-26.94N	/	88-13-18.75W
2022-WTE-3517-OE	/	698	/	1334	/	41-03-32.16N	/	88-12-59.37W

2022-WTE-3518-OE	/	698	/	1295	/	41-07-22.92N	/	88-12-57.56W
2022-WTE-3519-OE	/	698	/	1345	/	41-02-41.16N	/	88-12-51.36W
2022-WTE-3520-OE	/	698	/	1324	/	41-03-52.39N	/	88-12-47.41W
2022-WTE-3521-OE	/	698	/	1316	/	41-04-42.43N	/	88-12-29.61W
2022-WTE-3522-OE	/	698	/	1298	/	41-07-12.66N	/	88-12-19.14W
2022-WTE-3523-OE	/	698	/	1309	/	41-06-10.29N	/	88-12-17.83W
2022-WTE-3524-OE	/	698	/	1310	/	41-05-38.55N	/	88-12-14.71W
2022-WTE-3525-OE	/	698	/	1345	/	41-03-04.74N	/	88-11-54.13W
2022-WTE-3526-OE	/	698	/	1321	/	41-04-20.63N	/	88-11-43.62W
2022-WTE-3527-OE	/	698	/	1298	/	41-07-27.89N	/	88-11-47.36W
2022-WTE-3528-OE	/	698	/	1296	/	41-08-08.85N	/	88-11-28.37W
2022-WTE-3529-OE	/	698	/	1316	/	41-05-19.87N	/	88-11-06.27W
2022-WTE-3530-OE	/	698	/	1324	/	41-04-27.82N	/	88-10-50.84W
2022-WTE-3531-OE	/	698	/	1304	/	41-07-14.61N	/	88-10-50.64W
2022-WTE-3533-OE	/	698	/	1306	/	41-07-14.93N	/	88-10-16.52W
2022-WTE-3534-OE	/	698	/	1327	/	41-04-43.67N	/	88-10-11.46W
2022-WTE-3535-OE	/	698	/	1318	/	41-05-21.69N	/	88-09-58.30W
2022-WTE-3536-OE	/	698	/	1307	/	41-07-16.20N	/	88-09-42.68W
2022-WTE-3537-OE	/	698	/	1327	/	41-04-40.91N	/	88-09-38.44W
2022-WTE-3538-OE	/	698	/	1344	/	41-03-09.50N	/	88-09-35.61W
2022-WTE-3539-OE	/	698	/	1341	/	41-03-39.78N	/	88-09-35.39W
2022-WTE-3540-OE	/	698	/	1350	/	41-02-45.29N	/	88-09-31.43W
2022-WTE-3541-OE	/	698	/	1311	/	41-07-17.13N	/	88-09-03.77W
2022-WTE-3542-OE	/	698	/	1363	/	41-02-01.75N	/	88-08-57.79W
2022-WTE-3543-OE	/	698	/	1320	/	41-05-25.19N	/	88-09-00.77W
2022-WTE-3544-OE	/	698	/	1336	/	41-04-22.81N	/	88-08-59.31W
2022-WTE-3545-OE	/	698	/	1337	/	41-04-05.90N	/	88-08-37.27W
2022-WTE-3546-OE	/	698	/	1337	/	41-03-52.85N	/	88-08-26.89W
2022-WTE-3547-OE	/	698	/	1357	/	41-01-55.29N	/	88-08-24.70W
2022-WTE-3548-OE	/	698	/	1342	/	41-03-11.06N	/	88-08-24.12W
2022-WTE-3549-OE	/	698	/	1325	/	41-05-24.37N	/	88-08-26.15W
2022-WTE-3550-OE	/	698	/	1355	/	41-02-10.08N	/	88-08-21.19W
2022-WTE-3551-OE	/	698	/	1349	/	41-02-35.18N	/	88-08-20.95W
2022-WTE-3552-OE	/	698	/	1335	/	41-04-01.41N	/	88-07-38.12W
2022-WTE-3553-OE	/	698	/	1357	/	41-01-56.94N	/	88-07-30.18W
2022-WTE-3554-OE	/	698	/	1316	/	41-06-19.86N	/	88-07-08.49W
2022-WTE-3555-OE	/	698	/	1327	/	41-05-25.40N	/	88-06-46.50W
2022-WTE-3556-OE	/	698	/	1324	/	41-05-44.95N	/	88-06-25.79W
2022-WTE-3557-OE	/	698	/	1315	/	41-07-20.05N	/	88-06-03.21W
2022-WTE-3558-OE	/	698	/	1301	/	41-08-11.81N	/	88-05-50.35W
2022-WTE-3559-OE	/	698	/	1329	/	41-05-19.18N	/	88-05-32.91W
2022-WTE-3560-OE	/	698	/	1320	/	41-06-21.63N	/	88-05-18.56W
2022-WTE-3561-OE	/	698	/	1333	/	41-05-19.67N	/	88-05-02.69W
2022-WTE-3562-OE	/	698	/	1329	/	41-05-46.94N	/	88-04-45.07W
2022-WTE-3563-OE	/	698	/	1320	/	41-06-22.49N	/	88-04-23.34W
2022-WTE-3564-OE	/	698	/	1364	/	41-03-08.29N	/	88-04-13.21W
2022-WTE-3565-OE	/	698	/	1323	/	41-06-49.16N	/	88-03-50.54W
2022-WTE-3566-OE	/	698	/	1367	/	41-03-11.44N	/	88-03-41.33W
2022-WTE-3567-OE	/	698	/	1354	/	41-04-53.85N	/	88-03-16.03W

2022-WTE-3568-OE	/	698	/	1332	/	41-06-23.49N	/	88-02-47.42W
2022-WTE-3570-OE	/	698	/	1364	/	41-04-54.51N	/	88-02-42.88W
2022-WTE-3571-OE	/	698	/	1328	/	41-06-42.72N	/	88-02-26.34W
2022-WTE-3572-OE	/	698	/	1362	/	41-03-20.22N	/	88-01-48.74W
2022-WTE-3573-OE	/	698	/	1368	/	41-03-49.57N	/	88-01-47.97W
2022-WTE-3574-OE	/	698	/	1335	/	41-06-41.69N	/	88-01-50.60W
2022-WTE-3575-OE	/	698	/	1334	/	41-06-28.07N	/	88-01-37.48W
2022-WTE-3576-OE	/	698	/	1356	/	41-05-08.73N	/	88-01-34.56W
2022-WTE-3577-OE	/	698	/	1367	/	41-04-11.09N	/	88-01-31.43W
2022-WTE-3578-OE	/	698	/	1359	/	41-04-54.56N	/	88-01-28.29W
2022-WTE-3579-OE	/	698	/	1360	/	41-04-39.59N	/	88-01-27.26W
2022-WTE-3580-OE	/	698	/	1351	/	41-04-59.30N	/	88-00-55.84W
2022-WTE-3581-OE	/	698	/	1334	/	41-02-51.77N	/	88-14-46.92W
2022-WTE-3582-OE	/	698	/	1337	/	41-02-35.93N	/	88-14-44.32W
2022-WTE-3583-OE	/	698	/	1337	/	41-02-31.92N	/	88-14-09.41W
2022-WTE-3585-OE	/	698	/	1336	/	41-02-40.18N	/	88-13-35.85W
2022-WTE-3586-OE	/	698	/	1339	/	41-02-27.02N	/	88-13-23.89W
2022-WTE-3587-OE	/	698	/	1335	/	41-03-33.43N	/	88-12-59.28W
2022-WTE-3588-OE	/	698	/	1296	/	41-07-25.08N	/	88-12-54.64W
2022-WTE-3589-OE	/	698	/	1323	/	41-04-21.05N	/	88-11-52.65W
2022-WTE-3590-OE	/	698	/	1325	/	41-04-51.06N	/	88-10-11.31W
2022-WTE-3592-OE	/	698	/	1305	/	41-07-16.18N	/	88-09-29.61W
2022-WTE-3593-OE	/	698	/	1321	/	41-05-25.55N	/	88-08-59.02W
2022-WTE-3594-OE	/	698	/	1327	/	41-05-23.77N	/	88-08-25.24W
2022-WTE-3595-OE	/	698	/	1355	/	41-02-09.27N	/	88-08-20.78W
2022-WTE-3596-OE	/	698	/	1323	/	41-05-44.94N	/	88-06-18.07W
2022-WTE-3597-OE	/	698	/	1327	/	41-05-34.08N	/	88-05-03.18W
2022-WTE-3598-OE	/	698	/	1332	/	41-06-25.14N	/	88-02-44.08W
2022-WTE-3599-OE	/	698	/	1367	/	41-04-55.15N	/	88-02-37.25W
2022-WTE-3600-OE	/	698	/	1360	/	41-04-39.41N	/	88-01-26.16W
2022-WTE-3601-OE	/	698	/	1355	/	41-04-55.27N	/	88-01-22.34W
2022-WTE-3602-OE	/	698	/	1330	/	41-06-25.64N	/	88-01-55.51W
2022-WTE-3603-OE	/	698	/	1356	/	41-04-43.81N	/	88-00-50.41W
2022-WTE-3604-OE	/	698	/	1357	/	41-05-07.59N	/	88-01-33.30W
2022-WTE-3605-OE	/	698	/	1312	/	41-04-36.82N	/	88-14-08.41W
2022-WTE-3606-OE	/	698	/	1336	/	41-04-34.71N	/	88-08-58.00W
2022-WTE-3607-OE	/	698	/	1299	/	41-07-29.89N	/	88-11-24.14W
2022-WTE-3608-OE	/	698	/	1339	/	41-03-51.25N	/	88-09-37.30W
2022-WTE-3609-OE	/	698	/	1341	/	41-03-28.24N	/	88-09-34.27W
2022-WTE-4750-OE	/	698	/	1337	/	41-03-49.61N	/	88-10-28.85W
2022-WTE-4751-OE	/	698	/	1372	/	41-03-46.85N	/	88-02-40.80W
2022-WTE-4752-OE	/	698	/	1342	/	41-02-09.49N	/	88-14-10.79W
2022-WTE-4753-OE	/	698	/	1350	/	41-02-45.45N	/	88-09-29.79W
2022-WTE-4754-OE	/	698	/	1333	/	41-05-07.12N	/	88-23-55.64W
2022-WTE-4755-OE	/	698	/	1353	/	41-01-01.27N	/	88-20-48.98W
2022-WTE-4756-OE	/	698	/	1356	/	41-01-51.14N	/	88-24-10.20W
2022-WTE-4757-OE	/	698	/	1333	/	41-04-54.55N	/	88-23-19.88W
2022-WTE-4758-OE	/	698	/	1320	/	41-06-33.92N	/	88-22-05.23W
2022-WTE-4759-OE	/	698	/	1345	/	41-02-31.54N	/	88-21-47.66W

2. TITLE 14 CFR PART 77 - OBSTRUCTION STANDARDS EXCEEDED

- a. Section 77.17(a)(1); exceeds a height of 499 feet AGL at the site of the object. The proposals would exceed this standard by 199 feet.
- b. Section 77.17(a)(3); a height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

Greater Kankakee Airport (IKK); the following proposals would increase the Minimum Safe Altitude (MSA) for the ILS of LOC RWY 04 from 2300 feet to 2400 feet.

- 2022-WTE-3391-OE
- 2022-WTE-3392-OE
- 2022-WTE-3393-OE
- 2022-WTE-3394-OE
- 2022-WTE-3395-OE
- 2022-WTE-3396-OE
- 2022-WTE-3397-OE
- 2022-WTE-3398-OE
- 2022-WTE-3399-OE
- 2022-WTE-3401-OE
- 2022-WTE-3403-OE
- 2022-WTE-3404-OE
- 2022-WTE-3405-OE
- 2022-WTE-3406-OE
- 2022-WTE-3407-OE
- 2022-WTE-3408-OE
- 2022-WTE-3409-OE
- 2022-WTE-3410-OE
- 2022-WTE-3411-OE
- 2022-WTE-3412-OE
- 2022-WTE-3413-OE
- 2022-WTE-3415-OE
- 2022-WTE-3417-OE
- 2022-WTE-3418-OE
- 2022-WTE-3419-OE
- 2022-WTE-3420-OE
- 2022-WTE-3422-OE
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2022-WTE-3530-OE
2022-WTE-3531-OE
2022-WTE-3533-OE
2022-WTE-3534-OE

2022-WTE-3535-OE
2022-WTE-3536-OE
2022-WTE-3537-OE
2022-WTE-3538-OE
2022-WTE-3539-OE
2022-WTE-3540-OE
2022-WTE-3541-OE
2022-WTE-3542-OE
2022-WTE-3543-OE
2022-WTE-3544-OE
2022-WTE-3545-OE
2022-WTE-3546-OE
2022-WTE-3547-OE
2022-WTE-3548-OE
2022-WTE-3549-OE
2022-WTE-3550-OE
2022-WTE-3551-OE
2022-WTE-3552-OE
2022-WTE-3553-OE
2022-WTE-3554-OE
2022-WTE-3555-OE
2022-WTE-3556-OE
2022-WTE-3557-OE
2022-WTE-3558-OE
2022-WTE-3559-OE
2022-WTE-3560-OE
2022-WTE-3561-OE
2022-WTE-3562-OE
2022-WTE-3563-OE
2022-WTE-3564-OE
2022-WTE-3565-OE
2022-WTE-3566-OE
2022-WTE-3567-OE
2022-WTE-3568-OE
2022-WTE-3570-OE
2022-WTE-3571-OE
2022-WTE-3572-OE
2022-WTE-3573-OE
2022-WTE-3574-OE
2022-WTE-3575-OE
2022-WTE-3576-OE
2022-WTE-3577-OE
2022-WTE-3578-OE
2022-WTE-3579-OE
2022-WTE-3580-OE
2022-WTE-3581-OE
2022-WTE-3582-OE
2022-WTE-3583-OE
2022-WTE-3585-OE

2022-WTE-3586-OE
2022-WTE-3587-OE
2022-WTE-3589-OE
2022-WTE-3590-OE
2022-WTE-3592-OE
2022-WTE-3593-OE
2022-WTE-3594-OE
2022-WTE-3595-OE
2022-WTE-3596-OE
2022-WTE-3597-OE
2022-WTE-3598-OE
2022-WTE-3599-OE
2022-WTE-3600-OE
2022-WTE-3601-OE
2022-WTE-3602-OE
2022-WTE-3603-OE
2022-WTE-3604-OE
2022-WTE-3605-OE
2022-WTE-3606-OE
2022-WTE-3608-OE
2022-WTE-3609-OE
2022-WTE-4750-OE
2022-WTE-4751-OE
2022-WTE-4752-OE
2022-WTE-4753-OE
2022-WTE-4754-OE
2022-WTE-4755-OE
2022-WTE-4756-OE
2022-WTE-4757-OE
2022-WTE-4758-OE
2022-WTE-4759-OE
2022-WTE-4760-OE

Morris Municipal Airport-James R. Washburn Field (C09); the following would increase the RNAV (GPS) RWY 18, missed approach minimum holding at DIBBL and the RNAV (GPS) RWY 36, hold-in-lieu of procedure turn at DIBBL from 2200 feet to 2400 feet.

2022-WTE-3404-OE
2022-WTE-3405-OE
2022-WTE-3406-OE
2022-WTE-3407-OE
2022-WTE-3410-OE
2022-WTE-3412-OE
2022-WTE-3417-OE
2022-WTE-3422-OE
2022-WTE-3423-OE
2022-WTE-3425-OE
2022-WTE-3427-OE
2022-WTE-3431-OE

2022-WTE-3433-OE
2022-WTE-3437-OE
2022-WTE-3446-OE
2022-WTE-3489-OE
2022-WTE-3498-OE
2022-WTE-4754-OE
2022-WTE-4757-OE
2022-WTE-4758-OE
2022-WTE-4760-OE

Pontiac Municipal (PNT); the following would increase the VOR RWY 24, procedure turn altitude from 2300 feet to 2400 feet.

2022-WTE-3391-OE
2022-WTE-3392-OE
2022-WTE-3393-OE
2022-WTE-3394-OE
2022-WTE-3395-OE
2022-WTE-3396-OE
2022-WTE-3397-OE
2022-WTE-3398-OE
2022-WTE-3399-OE
2022-WTE-3401-OE
2022-WTE-3403-OE
2022-WTE-3404-OE
2022-WTE-3405-OE
2022-WTE-3406-OE
2022-WTE-3407-OE
2022-WTE-3408-OE
2022-WTE-3409-OE
2022-WTE-3410-OE
2022-WTE-3411-OE
2022-WTE-3412-OE
2022-WTE-3413-OE
2022-WTE-3415-OE
2022-WTE-3417-OE
2022-WTE-3418-OE
2022-WTE-3419-OE
2022-WTE-3420-OE
2022-WTE-3422-OE
2022-WTE-3423-OE
2022-WTE-3424-OE
2022-WTE-3425-OE
2022-WTE-3426-OE
2022-WTE-3427-OE
2022-WTE-3428-OE
2022-WTE-3429-OE
2022-WTE-3430-OE
2022-WTE-3431-OE

2022-WTE-3432-OE
2022-WTE-3433-OE
2022-WTE-3436-OE
2022-WTE-3437-OE
2022-WTE-3439-OE
2022-WTE-3440-OE
2022-WTE-3443-OE
2022-WTE-3444-OE
2022-WTE-3445-OE
2022-WTE-3446-OE
2022-WTE-3447-OE
2022-WTE-3448-OE
2022-WTE-3449-OE
2022-WTE-3450-OE
2022-WTE-3453-OE
2022-WTE-3455-OE
2022-WTE-3458-OE
2022-WTE-3460-OE
2022-WTE-3462-OE
2022-WTE-3489-OE
2022-WTE-3490-OE
2022-WTE-3491-OE
2022-WTE-3492-OE
2022-WTE-3493-OE
2022-WTE-3494-OE
2022-WTE-3495-OE
2022-WTE-3496-OE
2022-WTE-3498-OE
2022-WTE-4754-OE
2022-WTE-4757-OE
2022-WTE-4758-OE
2022-WTE-4759-OE
2022-WTE-4760-OE

ADELL SIX DEPARTURE (RNAV); the following would increase the Minimum Obstruction Clearance Altitude (MOCA), ADELL to AKMIE from 2300 feet to 2400 feet. (Procedure serves: KGYG, KARR, KDPA, KLOT)

2022-WTE-3391-OE
2022-WTE-3392-OE
2022-WTE-3393-OE
2022-WTE-3394-OE
2022-WTE-3395-OE
2022-WTE-3396-OE
2022-WTE-3397-OE
2022-WTE-3398-OE
2022-WTE-3399-OE
2022-WTE-3401-OE
2022-WTE-3403-OE

2022-WTE-3404-OE
2022-WTE-3405-OE
2022-WTE-3406-OE
2022-WTE-3407-OE
2022-WTE-3408-OE
2022-WTE-3409-OE
2022-WTE-3410-OE
2022-WTE-3411-OE
2022-WTE-3412-OE
2022-WTE-3413-OE
2022-WTE-3415-OE
2022-WTE-3417-OE
2022-WTE-3418-OE
2022-WTE-3419-OE
2022-WTE-3420-OE
2022-WTE-3422-OE
2022-WTE-3423-OE
2022-WTE-3424-OE
2022-WTE-3425-OE
2022-WTE-3426-OE
2022-WTE-3427-OE
2022-WTE-3428-OE
2022-WTE-3429-OE
2022-WTE-3430-OE
2022-WTE-3431-OE
2022-WTE-3432-OE
2022-WTE-3433-OE
2022-WTE-3434-OE
2022-WTE-3435-OE
2022-WTE-3436-OE
2022-WTE-3437-OE
2022-WTE-3438-OE
2022-WTE-3439-OE
2022-WTE-3440-OE
2022-WTE-3441-OE
2022-WTE-3442-OE
2022-WTE-3443-OE
2022-WTE-3444-OE
2022-WTE-3445-OE
2022-WTE-3446-OE
2022-WTE-3447-OE
2022-WTE-3448-OE
2022-WTE-3449-OE
2022-WTE-3450-OE
2022-WTE-3451-OE
2022-WTE-3452-OE
2022-WTE-3453-OE
2022-WTE-3454-OE
2022-WTE-3455-OE

2022-WTE-3456-OE
2022-WTE-3457-OE
2022-WTE-3458-OE
2022-WTE-3459-OE
2022-WTE-3460-OE
2022-WTE-3461-OE
2022-WTE-3462-OE
2022-WTE-3463-OE
2022-WTE-3464-OE
2022-WTE-3465-OE
2022-WTE-3466-OE
2022-WTE-3467-OE
2022-WTE-3468-OE
2022-WTE-3469-OE
2022-WTE-3470-OE
2022-WTE-3471-OE
2022-WTE-3472-OE
2022-WTE-3473-OE
2022-WTE-3474-OE
2022-WTE-3475-OE
2022-WTE-3476-OE
2022-WTE-3477-OE
2022-WTE-3478-OE
2022-WTE-3479-OE
2022-WTE-3480-OE
2022-WTE-3481-OE
2022-WTE-3482-OE
2022-WTE-3483-OE
2022-WTE-3484-OE
2022-WTE-3485-OE
2022-WTE-3486-OE
2022-WTE-3487-OE
2022-WTE-3488-OE
2022-WTE-3489-OE
2022-WTE-3490-OE
2022-WTE-3491-OE
2022-WTE-3492-OE
2022-WTE-3493-OE
2022-WTE-3494-OE
2022-WTE-3495-OE
2022-WTE-3496-OE
2022-WTE-3498-OE
2022-WTE-3500-OE
2022-WTE-3501-OE
2022-WTE-3502-OE
2022-WTE-3503-OE
2022-WTE-3507-OE
2022-WTE-3510-OE
2022-WTE-3511-OE

2022-WTE-3512-OE
2022-WTE-4756-OE
2022-WTE-4759-OE

- Chicago TRACON (C90); the following would increase the Minimum Vectoring Altitude (MVA) for C90_MVA_FUS3_2022 and C90_MVA_FUS5_2022, Sector G from 2300 feet to 2400 feet.

2022-WTE-3540-OE
2022-WTE-3542-OE
2022-WTE-3547-OE
2022-WTE-3550-OE
2022-WTE-3553-OE
2022-WTE-3564-OE
2022-WTE-3566-OE
2022-WTE-3567-OE
2022-WTE-3570-OE
2022-WTE-3572-OE
2022-WTE-3573-OE
2022-WTE-3576-OE
2022-WTE-3577-OE
2022-WTE-3578-OE
2022-WTE-3579-OE
2022-WTE-3580-OE
2022-WTE-3595-OE
2022-WTE-3599-OE
2022-WTE-3600-OE
2022-WTE-3601-OE
2022-WTE-3603-OE
2022-WTE-3604-OE
2022-WTE-4751-OE
2022-WTE-4753-OE
2022-WTE-4755-OE
2022-WTE-4756-OE

c. Section 77.17(a)(4); a height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

V-191; The following would increase the Minimum Obstruction Clearance Altitude (MOCA) from Roberts (RBS) VOR/DME, 006 Radial, between NEWTT and JESOG from 2200 feet to 2400 feet.

2022-WTE-3537-OE
2022-WTE-3538-OE
2022-WTE-3539-OE
2022-WTE-3540-OE
2022-WTE-3541-OE
2022-WTE-3542-OE
2022-WTE-3543-OE
2022-WTE-3544-OE

2022-WTE-3545-OE
2022-WTE-3546-OE
2022-WTE-3547-OE
2022-WTE-3548-OE
2022-WTE-3549-OE
2022-WTE-3550-OE
2022-WTE-3551-OE
2022-WTE-3552-OE
2022-WTE-3553-OE
2022-WTE-3554-OE
2022-WTE-3555-OE
2022-WTE-3556-OE
2022-WTE-3557-OE
2022-WTE-3558-OE
2022-WTE-3559-OE
2022-WTE-3560-OE
2022-WTE-3561-OE
2022-WTE-3562-OE
2022-WTE-3563-OE
2022-WTE-3564-OE
2022-WTE-3565-OE
2022-WTE-3566-OE
2022-WTE-3567-OE
2022-WTE-3568-OE
2022-WTE-3570-OE
2022-WTE-3571-OE
2022-WTE-3572-OE
2022-WTE-3573-OE
2022-WTE-3574-OE
2022-WTE-3575-OE
2022-WTE-3576-OE
2022-WTE-3577-OE
2022-WTE-3578-OE
2022-WTE-3579-OE
2022-WTE-3580-OE
2022-WTE-3593-OE
2022-WTE-3594-OE
2022-WTE-3595-OE
2022-WTE-3596-OE
2022-WTE-3597-OE
2022-WTE-3598-OE
2022-WTE-3599-OE
2022-WTE-3600-OE
2022-WTE-3601-OE
2022-WTE-3602-OE
2022-WTE-3603-OE
2022-WTE-3604-OE
2022-WTE-3606-OE
2022-WTE-3608-OE

2022-WTE-3609-OE
2022-WTE-4751-OE
2022-WTE-4753-OE
2022-WTE-4755-OE

3. TITLE 14 CFR PART 77 - EFFECT ON AERONAUTICAL OPERATIONS

a. Section 77.29 (a)(1); the impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules.

At a height greater than 499 feet AGL, the proposed wind farm would extend into airspace normally used for VFR en route flight and located within 2 statute miles (SM) of a potential VFR Route as defined by FAA Order 7400.2, Section 6-3-8. The turbines within 2 SM of a VFR route would have an adverse effect upon VFR air navigation. Further study was required to determine whether the structures would affect a significant volume of VFR aircraft resulting in a substantial adverse effect on VFR en route traffic.

b. Section 77.29 (a)(3); impact on existing and planned public use airports. The following proposals would exceed the Dwight Airport (DTG) Traffic Pattern Airspace (TPA) for the runway (RWY) 09/27 and/or RWY 18/36, climb and/or descent areas as applied to Category (CAT) C and/or D aircraft by up to 560 feet.

CAT C

2022-WTE-3405-OE

CAT D

2022-WTE-3391-OE
2022-WTE-3393-OE
2022-WTE-3397-OE
2022-WTE-3398-OE
2022-WTE-3399-OE
2022-WTE-3401-OE
2022-WTE-3403-OE
2022-WTE-3404-OE
2022-WTE-3405-OE
2022-WTE-3406-OE
2022-WTE-3407-OE
2022-WTE-3410-OE
2022-WTE-3412-OE
2022-WTE-3413-OE
2022-WTE-3417-OE
2022-WTE-3422-OE
2022-WTE-3423-OE
2022-WTE-3489-OE
2022-WTE-3498-OE
2022-WTE-4754-OE
2022-WTE-4757-OE
2022-WTE-4758-OE
2022-WTE-4760-OE

c. Section 77.29(a)(6); effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems.

The wind turbines be located within Radar Line of Sight (RLOS) of the Elwood (Joliet) CARSR (JOL), Oak Forest (Chicago) ASR-9 (QXM) and the DuPage (West Chicago) ASR-9 (DPA) radar facilities. The wind turbines may affect the quality and/or availability of the primary radar signals in the area of the proposed wind farm.

4. TITLE 14 CFR PART 77 - FURTHER STUDY AND PUBLIC COMMENTS

In order to facilitate the public comment process, all 219 studies were circularized under ASN 2022-WTE-3521-OE on 02/02/2023, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. There were no comment received as a result of the circularization concluding on 03/11/2023.

5. BASIS FOR DETERMINATION

a. IFR Effects - The aeronautical study identified an IFR effects for IKK, C09, PNT, C90, V-191 and the departure procedure serving KGYG, KARR, KDPA, KLOT.

Minimum Safe Altitudes (MSA) are the minimum obstacle clearance altitudes within a specified distance from the navigation facilities upon which procedures are predicated. MSA altitudes are designed for emergency use only and are not routinely used by pilots or by air traffic control. Consequently, MSAs are not circulated for public comment as they are not considered a factor in determining the extent of adverse effect.

The increase to the RNAV (GPS) RWY 18 missed approach holding for C09 and the VOR RWY 24, procedure turn altitude for PNT are not considered excessive. Increasing the minimum altitudes would ensure the required obstacle clearances are maintained and would not have a significant impact on a pilot's ability to safely execute the procedures. Therefore, the proposed wind farm would not have a substantial adverse effect on IFR operations for C09 or PNT.

Minimum Obstruction Clearance Altitudes (MOCA) assure obstacle clearance over the entire route segment to which they apply and assure navigational signal coverage within 22 NM of the associated VOR navigational facility. For that portion of the route segment beyond 22 NM from the VOR, where the MOCA is lower than the MEA and there are no plans to lower the MEA to the MOCA, a structure that affects only the MOCA would not be considered to have substantial adverse effect. A review by the controlling ATC facilities determined that increasing the MOCAs for the ADELL SIX DEPARTURE (RNAV) and along V-191 would ensure the required obstacle clearances are maintained and would not have a substantial adverse effect on IFR operations for KGYG, KARR, KDPA, KLOT or V-191.

Minimum Vectoring Altitudes (MVA) are solely used by ATC, not published for public use and therefore are not circulated for public comment. A review by the controlling facility determined that increasing the altitude in the sector would ensure the required obstacle clearance is maintained and therefore would not have a substantial adverse effect on IFR operations for C90.

The proposed structures would have no effect on any other existing or proposed arrival, departure, or en route IFR operations or procedures.

b. VFR Effects - The aeronautical study identified no effect on any existing or proposed VFR arrival or departure operations. The proposals would be located within the traffic pattern airspace for DTG as applied to CAT C and D aircraft. Airport records indicate that DTG does not support regular and continuous CAT C and D operations. Additionally, available annual IFR traffic data for DTG identified no CAT B, C or D operations. Therefore the proposal would be located beyond normal traffic pattern airspace and would not have an adverse effect on VFR operations for DTG, or any other known public use or military airports.

At 698 feet AGL, the structures would be located within the altitudes commonly used for en route VFR flight. In coordination with ATC, an analysis of potential VFR Routes and available traffic data indicated that an average of less than one VFR aircraft per day may be affected by the proposed wind farm. In accordance with FAA Order 7400.2, the proposed wind farm would not affect a significant volume of aircraft and therefore, it is determined they will not have a substantial adverse effect on en route VFR flight operations.

The proposed structures would be charted on VFR sectional aeronautical charts and appropriately obstruction marked/lighted to make them more conspicuous to airmen should circumnavigation be necessary.

c. NAVAIDs/Radar Effects - The aeronautical study identified the proposed turbines as being within the RLOS of the JOL, QXM and DPA radar facilities as described above. Impacts to radar only require a review by the responsible ATC facility and military services. Further study determined the structures would have no substantial adverse effect on military or air traffic operations at this time.

d. Cumulative Effect - The cumulative impact of the proposed structures, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any substantial adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposals affect the capacity of any known existing or planned public-use or military airport.

e. Military Airspace - The aeronautical study included a review by the Army, Navy, Air Force, Department of Defense (DOD) and Department of Homeland Security (DHS). In accordance with JO 7400.2, Par. 6-3-6-f., military personnel are responsible for evaluating the effect on airspace and routes used by the military. The Air Force and DOD identified the proposed structures as being located within the confines or near a military training route or military training area. All structures are within the terms of the Mitigation Agreement on file with the Military Aviation and Installation Assurance Siting Clearinghouse.

6. DETERMINATION

It is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

ACRONYMS & ABBREVIATIONS

AGL, Above Ground Level
AMSL, Above Mean Sea Level
ARP, Airport Reference Point

ARSR, Air Route Surveillance Radar
ARTCC, Air Route Traffic Control Center
ASN, Aeronautical Study Number
ASR, Airport Surveillance Radar
ATC, Air Traffic Control
ATCT, Air Traffic Control Tower
CARSR, Common Air Route Surveillance Radar
CAT, Category
CFR, Code of Federal Regulations
CG, Climb Gradient
DA, Decision Altitude
DME, Distance Measuring Equipment
FAA, Federal Aviation Administration
FUS, Fusion
GPS, Global Positioning System
IAF, Initial Approach Fix
IAP, Instrument Approach Procedure
ICA, Initial Climb Area
IFR, Instrument Flight Rules
INT, Intersection
LAT, Latitude
LNAV, Lateral Navigation
LOC, Localizer
LONG, Longitude
LP, Localizer Performance
LPV, Localizer Performance with Vertical Guidance
MDA, Minimum Descent Altitude
MEA, Minimum En route Altitude
MET, Meteorological Evaluation Tower
MIA, Minimum IFR Altitude
Min, Minimum
MOCA, Minimum Obstruction Clearance Altitude
MSA, Minimum Safe Altitude
MSL, Mean Sea Level
MVA, Minimum Vectoring Altitude
NA, Not Authorized
NAS, National Airspace System
NAVAID, Navigational Aid
NDB, Non-Directional Radio Beacon
NEH, No Effect Height
NM, Nautical Mile
NOTAM, Notice to Airmen
NPF, Notice of Preliminary Findings
OCS, Obstacle Clearance Surface
OE, Obstruction Evaluation
OEG, Obstruction Evaluation Group
Part 77 - Title 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace.
P-NOTAM, Permanent Notice to Airmen

RLOS, Radar Line of Sight
RNAV, Area Navigation
RNP, Required Navigation Performance
RWY, Runway
S-, Straight-in
SE, Site Elevation
S-LOC, Straight-in Localizer
SM, Statute Miles
Std., Standard
TAA, Terminal Arrival Area
TACAN, Tactical Air Navigation System
TERPS, Terminal Instrument Procedures
TPA, Traffic Pattern Airspace
TRACON, Terminal Radar Approach Control
V, Victor Airway
VFR, Visual Flight Rules
VHF, Very High Frequency
VOR, VHF Omnidirectional Radio Range System
VORTAC, VOR/TACAN System
WTE, Wind Turbine East
WTW, Wind Turbine West



APPENDIX I — PREAPPLICATION PUBLIC MEETING

Heritage Prairie Wind

Public Information Sessions

June 1st

Virtual Information Session

Via Zoom from 6–7:30 p.m. CST

Register by emailing:

grace.lacke@patternenergy.com

June 6th

In-Person Information Sessions

Pontiac Elks Lodge, 459 Elks Club Rd., Pontiac, IL 61764

Morning Session from 8–10 a.m. CST

Evening Session from 7–9 p.m. CST

Pattern Energy and ConnectGen are hosting three Livingston County-focused Public Information Sessions for the Heritage Prairie Wind project. Please join us to learn more and meet with the project team.


The In-Person Public Information Sessions will be structured as open houses; attendees are encouraged to arrive and explore the various wind development “stations” at their own pace, with assistance from our expert staff members. Information provided at these events will be focused on our proposed wind project in Livingston County, and similar events for Kankakee County will be held at a later date.

Please note: The same information will be shared at each event. These events will only cover information regarding our project in Livingston County. We will hold a Kankakee County Public Information Session at a later date. Please choose the event that works best for your schedule. See you soon!

For more information please visit HeritagePrairieWind.com



What is Heritage Prairie Wind?



Heritage Prairie Wind is jointly developed by Pattern Energy and ConnectGen and will provide economic benefits and jobs that will last generations. The project will be located in western Kankakee County and northeastern Livingston County, within the Livingston County townships of Dwight, Round Grove, and Broughton.

Heritage Prairie Wind will provide local economic benefits including:

800+

local construction jobs, including several full-time permanent jobs.

\$850+ million

of projected total investment.

\$150+ million

of projected tax revenue to Kankakee and Livingston Counties over the life of the project.

\$ millions

in additional community benefits over the project's lifespan.



Livingston County Public Information Sessions

On June 1st, 2023, and June 6th, 2023, Heritage Prairie Wind hosted a series of virtual and in-person public information sessions to bring awareness to our wind project and its many benefits to Livingston County and its municipalities.

The virtual information session was held from 6 PM-7:30 PM on June 1st, and twelve residents from the community attended.

Two in-person sessions were hosted on June 6th, one at 8 AM and another at 6 PM; collectively, 74 residents attended these events.

To ensure all residents within a mile of the proposed project footprint were properly notified in advance of the event, Heritage Prairie Wind advertised these events in the following ways:

- 1 A large mail piece postmarked more than 2-weeks before the events was mailed to all residents within a 1-mile radius of the project. Over 3,000 residents were notified.
- 2 All of the events were posted and advertised on our Heritage Prairie Wind Facebook page, accessible by the public.
- 3 Digital ads ran in the Dwight Paper (online) for a week and a half, and the events were posted within the Dwight Paper's calendar.
- 4 One large print ad ran in the Pontiac Daily on May 30th.
- 5 The Heritage Prairie Wind team personally called local leaders and community organizations to invite them to the event.

If you have questions about the Livingston County Public Information Session events, please contact Grace Lacke at Grace.Lacke@PatternEnergy.com.

Livingston County Public Information Sessions



If you have questions about the Livingston County Public Information Session events, please contact Grace Lacke at Grace.Lacke@PatternEnergy.com.







APPENDIX J – PRELIMINARY PUBLIC ROAD USE MAP

PREPARED FOR:



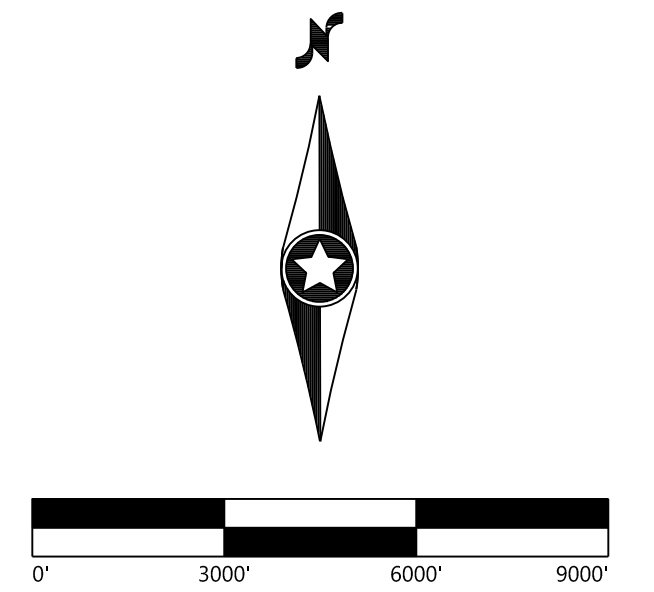
1088 Sansome St.
 San Francisco, California 94111

REVISIONS:

#	DATE	COMMENT

Number of Turning radii NOT on leased land 1

State Road	miles
IL-47	0.4
SR 17	22
IL-115	9.5
Total	31.9



Heritage Prairie Wind

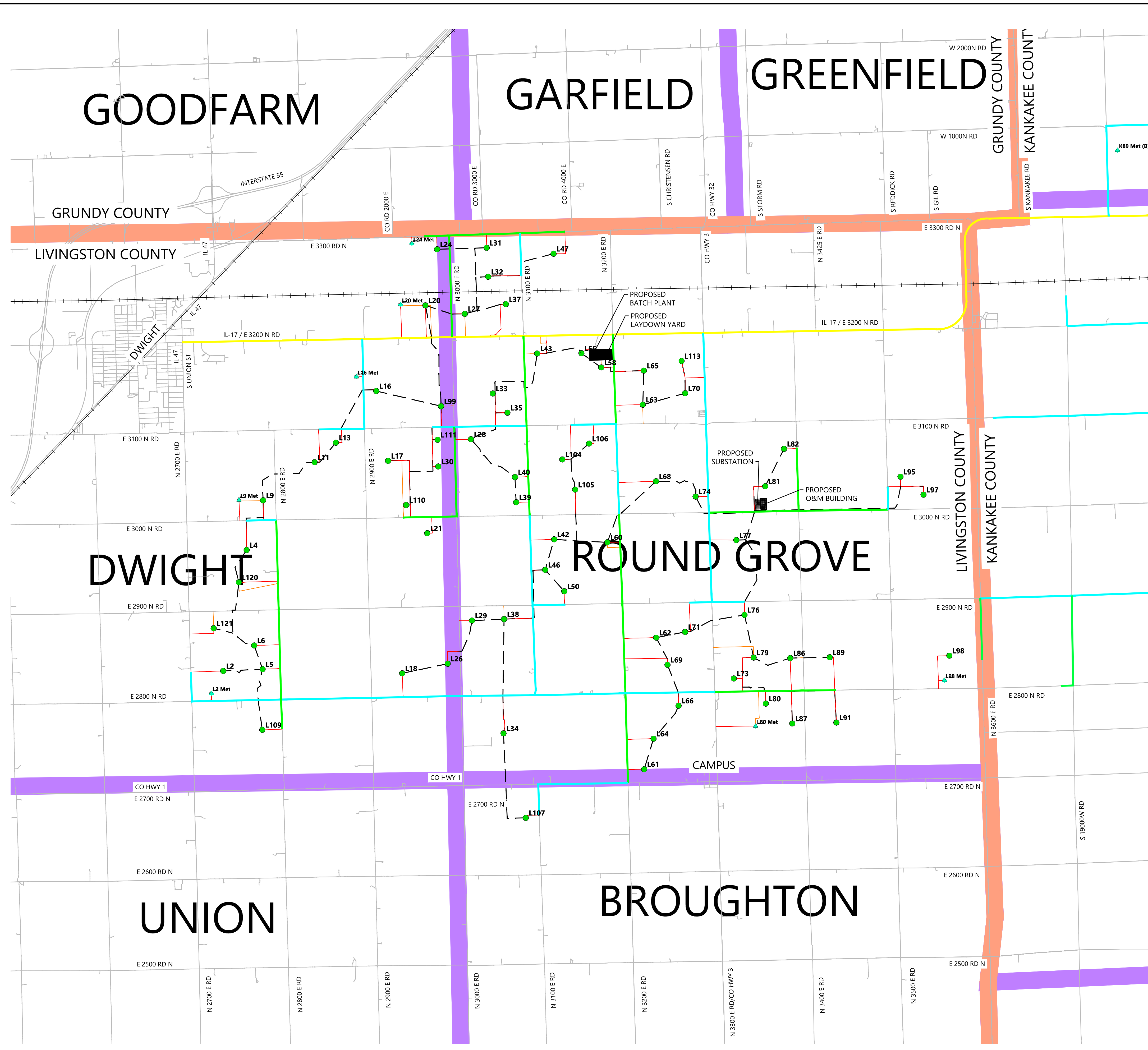
Livingston and Kankakee Counties, IL

Livingston Wind Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 12/22/23

SHEET:



LEGEND:

- XX PRIMARY DESIGN - PRIMARY TURBINE LOCATION
- PRIMARY DESIGN- PRIMARY TURBINE NUMBER
- PRIMARY DESIGN - PROPOSED ACCESS ROAD
- PRIMARY DESIGN - ALTERNATE ACCESS ROAD
- ASPHALT DELIVERY ROUTE
- GRAVEL DELIVERY ROUTE
- STATE ROAD
- EXISTING ROADS
- EXISTING RAIL ROAD
- CRANE PATH
- COUNTY BOUNDARY
- TOWNSHIP BOUNDARY

ITEM	QUANTITY
INFILL INTERSECTION IMPROVEMENT	18
JUGHANDLE INTERSECTION IMPROVEMENT	8
INFILL INTERSECTION IMPROVEMENT (ADDITIONAL LAND CONTROL REQUIRED)	1
JUGHANDLE INTERSECTION IMPROVEMENT (ADDITIONAL LAND CONTROL REQUIRED)	0
BRIDGE CROSSINGS	13
RAIL CROSSINGS	2
LENGTH OF ASPHALT ROADS USED	20.4 MILES
LENGTH OF GRAVEL ROADS USED	18.5 MILES
LENGTH OF STATE ROADS USED	10.1 MILES

Type	Township/County	Miles
Wind	Broughton	0.4
Wind	Dwight	8.7
Wind	Round Grove	25.8
Wind	Livingston (county)	4
	Total	38.9
Number of Turning radii NOT on leased land		1

12/22/2023 10:30 AM, CAD, 10/11/2023 10:30 AM, Heritage Prairie Overall Site Plan, 270202304.03.1, 10/11/2023

APPENDIX K – ECOCAT AND IPAC CONSULTATION LETTERS



Illinois
Department of
**Natural
Resources**

JB Pritzker, Governor • Natalie Phelps Finnie, Director
One Natural Resources Way • Springfield, Illinois 62702-1271

www.dnr.illinois.gov

April 19, 2023

John Kuba
ConnectGen, LLC
1001 McKinney Street
Suite 700
Houston, TX 77002

**RE: Heritage Prairie Wind
Consultation Program
EcoCAT Review #2312269 [2300366]
Livingston County**

Dear Mr. Kuba:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of updating the previous review issued on March 29th, 2021, for the Heritage Prairie Wind project in eastern Livingston County.

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

State Listed

Eryngium Stem Borer (*Papaipema eryngii*)

Pattern Energy and ConnectGen initiated correspondence with the Department on January 30th, 2023. Correspondence indicated that the following recommendations had been considered and resulted in the following:

- No critical habitat for Eryngium Stem Borer (*Papaipema eryngii*) was identified within the project area.
- Presence/absence surveys were conducted in the area for the state and federally listed Northern Long-eared Bat. No individuals of the species were observed at that time.
- Habitat mapping for the Ornate Box Turtle (*Terrapene ornate*) was conducted and yielded negative results for suitable habitat within the project footprint.

- All turbines will abide by the previously recommended setbacks:
 - Minimum of 300-foot setback from perennial streams with a non-forested zone.
 - Minimum of 1,000-foot setback from any forested area five acres or larger or forested riparian zones.
 - All turbines sited a minimum of 0.25 miles from the Goodrich Prairie Illinois Natural Areas Inventory Site.

During discussion and reviews of similar projects in the surrounding area, the following alterations to the Departments recommended curtailment were proposed:

- Turbine operations below wind speeds of 5.0 meters/second, 1 hour after sunset to sunrise, between July 15th and October 15th.

Given the evidence provided, the Department concurs with the alterations to the recommended curtailment. However, the Department maintains that cut-in speeds of 6.9 meters/second is the best recommendations for total avoidance of Take.

The Department recommends the following be considered:

- Post construction monitoring reports be forwarded to the Department annually.
- If Take of a state or federally listed species occurs, the Applicant apply for Incidental Take Authorization.
- Please note that due to the federal status of the Northern-long Eared Bat, and its potential occurrence in the project area, coordination with the U.S. Fish and Wildlife Service may be necessary and is separate from this consultation and Illinois State regulations.

In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.

Consultation on the part of the Department is closed, unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal and should not be regarded as a final statement on the project being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take

Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

If temporary or permanent lighting is required, the Department recommends the following lighting recommendation to minimize adverse effects to wildlife:

- All lighting should be fully shielded fixtures that emit no light upward.
- Only “warm-white” or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) should be used to minimize blue emission.
- Only light the exact space with the amount (lumens) needed to meet facility safety requirement.
- If LEDs are to be used, avoid the temptation to over-light based on the higher luminous efficiency of LEDs.

If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

Please contact me with any questions about this review.

Sincerely,

Kyle Burkwald

Kyle Burkwald
Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Kyle.Burkwald@Illinois.gov
Phone: (217) 785-4984

CC Bradley Hayes – IDNR
Heather Osborn – IDNR
Amber Schorge – USFWS
Chuck Schoop – Livingston County Zoning Commission



Illinois
Department of
**Natural
Resources**

JB Pritzker, Governor • Natalie Phelps Finnie, Director
One Natural Resources Way • Springfield, Illinois 62702-1271
www.dnr.illinois.gov

March 24, 2023

Aaron McAlexander
ConnectGen
1001 McKinney Street
Houston, TX 77002

**RE: Heritage Prairie Cut-in Concurrence – Livingston County Contingent
Consultation Program
EcoCAT Review #2300366
Livingston County**

Dear Mr. Alexander:

The Department has reviewed your recent request for concurrence on the issue of reducing the recommended operational cut-in speed for the wind energy turbines operating in the Livingston County portion of the Heritage Prairie Wind Farm.

Previously, the Department recommended that an operational cut-in speed of 6.9 m/s be implemented to maintain a stance of complete avoidance of take, per operational statutes interpreted under the *Illinois Endangered Species Act* Part 1075. Complete avoidance of Take of state and federally listed species is the goal of consultation under Part 1075.

Given the evidence provided, however, the Department has decided to concur with the proposed alterations outlined in the letter dated January 30th, 2023. This proposal being a reduction of curtailment cut-in speeds to 5.0 m/s during the fall migratory curtailment season.

However, the Department requests that 5 years of post-construction mortality monitoring and documentation be conducted in addition to what was originally recommended in the initial EcoCAT consultation letter [EcoCAT #2300366]. Yearly monitoring reports should be forwarded to the Department for review.

Please contact me with any questions you have.

Sincerely,



Kyle Burkwald
Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Kyle.Burkwald@Illinois.gov
Phone: (217) 785-4984

CC Bradley Hayes – IDNR
Heather Osborn – IDNR
Jesse King – Livingston County

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Kankakee and Livingston counties, Illinois



Local office

Illinois-Iowa Ecological Services Field Office

☎ (309) 757-5800

📠 (309) 757-5807

Illinois & Iowa Ecological Services Field Office

United States Geological Survey Field Office
1511 47th Ave
Moline, IL 61265-7022

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/601	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	Breeds May 15 to Oct 10
<p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 20 to Jul 31
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p>Henslow's Sparrow <i>Ammodramus henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941</p>	Breeds May 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere

Upland Sandpiper *Bartramia longicauda*

Breeds May 1 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/9294>

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

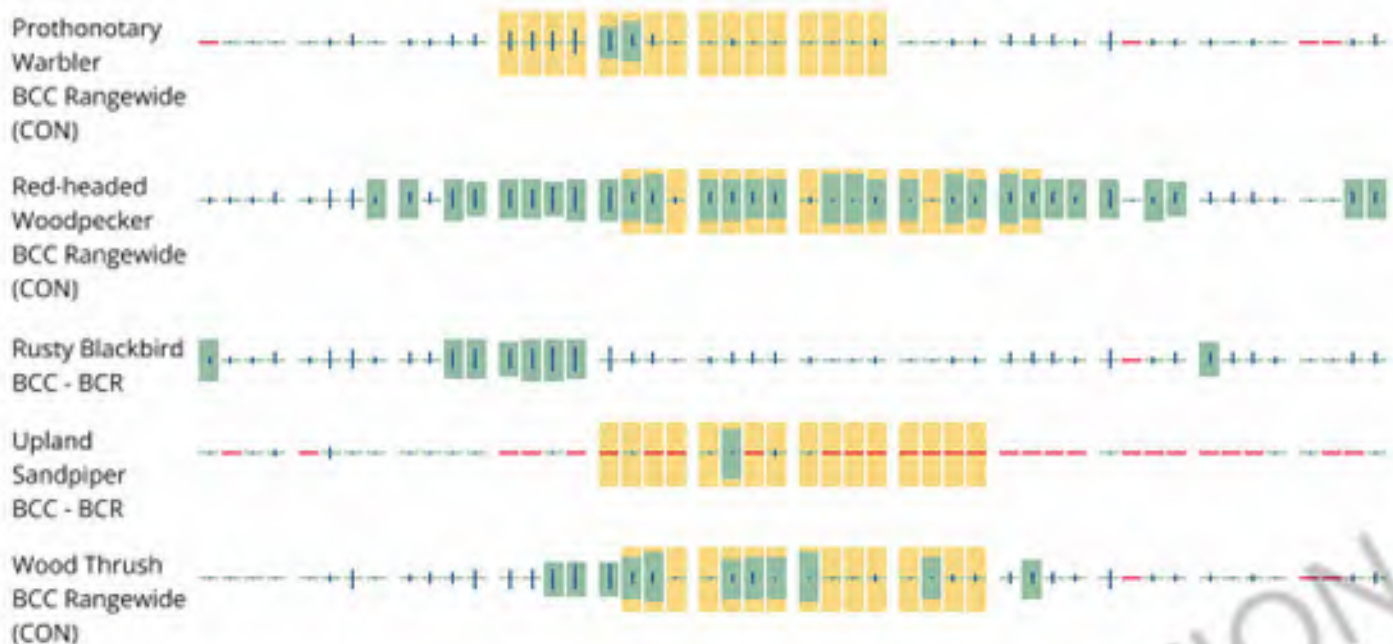
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Livingston County, Illinois



Local office

Illinois-Iowa Ecological Services Field Office

☎ (309) 757-5800

📠 (309) 757-5807

Illinois & Iowa Ecological Services Field Office

Wildlife & Forest Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/601	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Henslow's Sparrow <i>Ammodramus henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

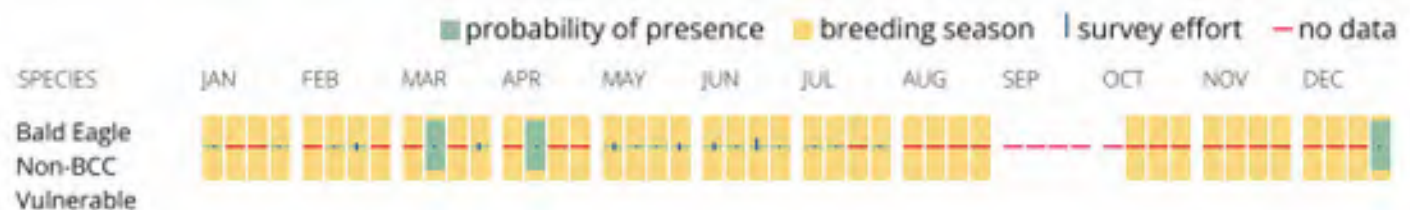
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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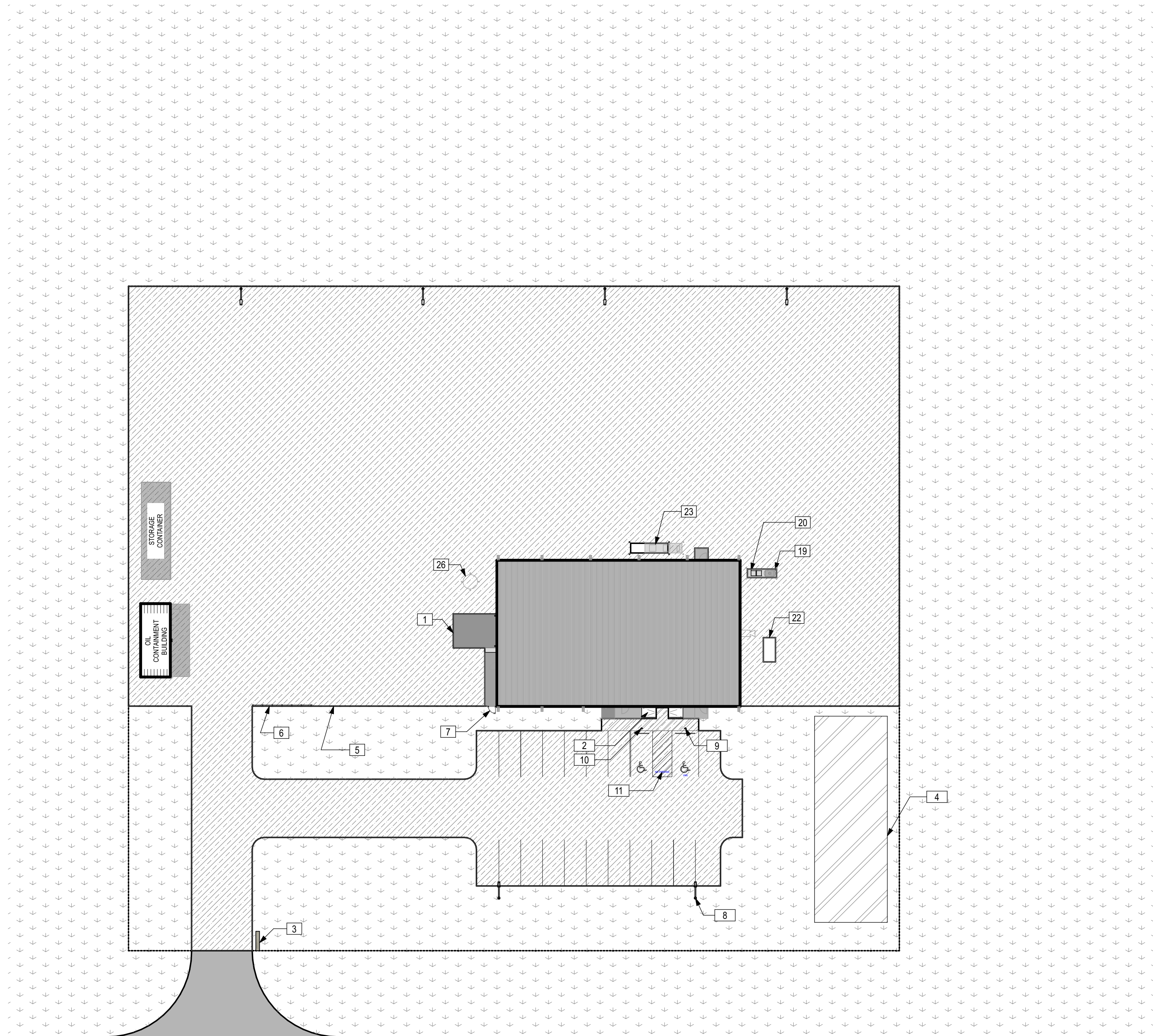
government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

APPENDIX L – OPERATION AND MAINTENANCE BUILDING LAYOUT



REPRESENTATIVE
OPERATIONS AND
MAINTENANCE
BUILDING



GENERAL SITE NOTES

- A. REFERENCE CONSTRUCTION DOCUMENTS FOR SCOPE OF WORK. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGN BUILDER OF ANY DISCREPANCIES BEFORE WORK BEGINS.
- B. CONTRACTOR IS TO PROTECT ALL ADJACENT AREAS FROM CONSTRUCTION RELATED DAMAGE.
- C. ALL WORK SHALL BE ERECTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MAINTAIN STANDARD INSTALLATION/CONSTRUCTION PRACTICES OF THE TRADE AND MANUFACTURER'S RECOMMENDATIONS FOR THAT PARTICULAR ITEM.
- D. REFER TO GEOTECHNICAL REPORT AND PROJECT SPECIFICATION FOR REQUIREMENTS RELATED TO SITE PREPARATION, PLACEMENT OF FILL AND TREATMENT OF SUB-GRADE.
- E. ANY FINISH CHANGES TO FINISH PAVEMENT ELEVATIONS ARE TO MAINTAIN A 0.25% MINIMUM GRADE.
- F. REFER TO ENLARGED SITE PLANS FOR SPECIFIC LOCATIONS OF EXPANSION JOINTS. ALL OTHER EXPANSION JOINTS LAYOUT IN REINFORCED CONCRETE TO BE FURNISHED BY CONTRACTOR FOR REVIEW BY ARCHITECT AND TO COMPLY WITH THE FOLLOWING:
 - 1. EXPANSION JOINT TO TERMINATE PERPENDICULAR TO PAVEMENT EDGE.
 - 2. CURVED WALKWAY EXPANSION JOINTS TO TERMINATE PERPENDICULAR TO PAVEMENT EDGE AND JOINT TO BE IN LINE WITH RADIUS ORIGIN.
 - 3. SURFACE AREAS BORDERED BY CONTROL JOINTS AND/OR PAVEMENT EDGES NOT TO EXCEED 500 SQ FT.
 - 4. MAXIMUM SURFACE AREA FOR EXPANSION JOINTS NOT TO EXCEED 1500 SQ FT.
- H. REFER TO MEP FOR ADDITIONAL LIGHTING LOCATIONS AND PLUMBING CLEAN-OUTS.
- I. REFER TO TOPOGRAPHIC SURVEY FOR PROPERTY LINES BEARINGS AND DISTANCES. PROVIDED BY OTHERS.
- K. TREES ARE NOT SHOWN FOR CLARITY.
- L.
 - 1. ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING.
 - 2. ENSURE ADA ACCEPTABLE ROUTES ARE PROVIDED, MAX 2% CROSS SLOPE
- M. SIDEWALKS AND PAVING SHOWN FOR COORDINATION WITH CIVIL
- N. ENSURE FINAL LOCATION OF WATER WELL TO BE A MINIMUM 60 FT FROM SEPTIC TANK AND 150 FT FROM LEACH FIELD
- O. GEOTECH REPORT, FOUNDATION DESIGN, AND CIVIL DESIGN BY CONTRACTOR

SYMBOL LEGEND

- NEW BUILDING
- NEW GRAVEL, BY OTHERS
- NEW LANDSCAPE AREA
- EXISTING LANDSCAPE AREA
- NEW HEAVY DUTY CONCRETE
- NEW SIDEWALK PAVING

KEY NOTE: SITE PLAN

SITE PLAN GENERAL NOTE: NOT ALL KEYNOTES ARE PRESENT ON THIS SHEET

KEY	KEYNOTE
1	CONCRETE DRIVE
2	ADA RAMP
3	FUTURE MONUMENT SIGN W/ CONDUIT FOR FUTURE LIGHTING
4	SEPTIC FIELD AND SYSTEM. WILL BE COORDINATED BY GC AND SUB-CONTRACTOR. SYSTEM TO BE DESIGNED, ENGINEERED, LOCATED AND PERMITTED BY INSTALLING SUB. ENSURE SYSTEM IS DESIGNED TO CURRENT COUNTY & STATE HEALTH CODE REGULATIONS
5	7' HIGH CHAINLINK FENCE WITH 3 WIRE CLIMB BARRIER (7' TOTAL), 2" DIAMOND MESH
6	25' WIDE BY 7' HIGH CHAINLINK ROLLING GATE WITH 3 WIRE CLIMB BARRIER (7' TOTAL), 2" DIAMOND MESH HIGH KEY PAD ACCESS, MOTORIZED ROLLING, LOCKING ENTRANCE GATE
7	3' MAN GATE WITH LOCK
8	SITE LIGHTING BY OTHERS, N.I.C
9	POLE MOUNTED VAN ACCESSIBLE SIGN TO MEET ADA REQUIREMENTS
10	POLE MOUNTED ACCESSIBLE PARKING SIGN TO MEET ADA REQUIREMENTS
11	"NO PARKING" LETTERS AND INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED TO MEET ADA REQUIREMENTS
18	CONCRETE SPLASH BLOCK AT METAL DOWNSPOUT
19	PROPANE TANK, COORDINATE WITH GC FOR FINAL LOCATION
20	EMERGENCY BACKUP GENERATOR - 48 HR OPERATIONAL TIME. COORDINATE WITH CONTRACTOR
21	5' X 5' CONCRETE STOOP PAVEMENT
22	NEW SEPTIC TANK, WILL BE COORDINATED BY GC AND SUB-CONTRACTOR
23	EQUIPMENT PAD - EXTEND 6" BEYOND UNIT ALL AROUND, RE: STRUCTURAL
24	CONDENSING UNIT, RE: MECHANICAL
26	NEW WATER WELL, WILL BE COORDINATED BY GC AND SUB-CONTRACTOR

REFER TO OWNER'S SCOPE OF REQUIREMENTS FOR ADDITIONAL INFORMATION/ REQUIREMENTS

THE AREA SHOWN TO BE GRADED FOR BUILDING AND PARKING IS FOR A TYPICAL GENERIC O&M SITE. A GRADING, DIMENSION, AND SITE PLAN SPECIFIC TO EACH O&M SITE WILL BE REQUIRED TO DETERMINE ACTUAL SIZE, ORIENTATION, DIMENSIONS, SETBACKS, SLOPES, ELEVATIONS AND DRAINAGE. ALL BUILDING SETBACKS, PARKING AREAS, DRIVEWAYS, EXTERIOR FACILITIES AND EQUIPMENT, MATERIALS, AND SPECIFICATIONS, SHALL BE IN COMPLIANCE WITH ADA, STATE AND LOCAL CODES AND ORDINANCES.

REV	DATE	DESCRIPTION
0	08 AUG 2022	BRIDGING DOC

EA PROJECT NUMBER:
ARCHITECT:
LICENSE #:
Documents and the intellectual knowledge contained therein are the property of Energy Architecture, Inc. Documents cannot be modified, copied, or re-used without written consent from Energy Architecture, Inc.

NOT FOR
REGULATORY
APPROVAL,
PERMITTING OR
CONSTRUCTION

SITE PLAN
A-101



GENERAL NOTES - FLOOR PLAN

- A. ALL DIMENSIONS ARE TAKEN FROM OUTSIDE FACE TO OUTSIDE FACE OF GYPSUM BOARD, UNLESS NOTED OTHERWISE.
- B. REFERENCE SHEET A-001 & A-002 FOR PARTITION ASSEMBLIES. REFERENCE SHEET A-601 FOR DOOR TYPES. REFERENCE SHEET A-602 FOR FINISHES. REFERENCE SHEET A-109 FOR FF&E INFORMATION.
- C. ALL PARTITIONS ARE TYPE B3 UNLESS NOTED OTHERWISE.
- D. REFER TO MEP FOR A/C UNITS EQUIPMENT LOCATIONS.
- E. PROVIDE SOUND ATTENUATION AT RESTROOMS AND SHOP/OFFICE DEMISING WALL.
- F. SIDEWALKS AND PAVING SHOWN FOR GENERAL BASIS. GRADING AND PAVING BY OTHER AND TO BE DESIGNED TO MEET ALL BUILDING, ADA, AND LOCAL MUNICIPAL CODES.
- G. BUILDING FOUNDATION AND STRUCTURAL FRAMING DEPTH, SPAN, SIZING AND TYPE TO BE DESIGNED BY LICENSED STRUCTURAL ENGINEER. COORDINATE WITH PEMB MANUF.
- H. PROVIDE A MINIMUM OF (6) 1/2 IN. DIAMETER SCHEDULE 80 PVC CONDUITS (FOR FIBER OPTIC COMMUNICATION LINES BY OTHERS), ROUTED FROM IT/SCADA ROOM TO LOCATION 5 FEET OUTSIDE BUILDING AND 3 FT BELOW GRADE.

SYMBOL LEGEND

- MILLWORK HATCH. REFER TO MILLWORK DRAWINGS
- CONCRETE STOOP/APRON FOR EXTERIOR DOORS AND OVERHEAD SERVICE DOORS. REFER TO STRUCTURAL DRAWINGS
- RECESSED SLAB. REFER TO STRUCTURAL DRAWINGS
- FE FIRE EXTINGUISHER AND BRACKET
- FD FLOOR DRAIN, RE: PLUMBING
- WA- REFER TO EXTERIOR WALL ASSEMBLIES SHEET
- RA- REFER TO ROOF ASSEMBLIES SHEET
- A DESIGNATES INTERIOR & EXTERIOR WINDOW
- D.S. DENOTES DOWNSPOUT LOCATION

KEYED NOTES - FLOOR PLAN

FLOOR PLAN GENERAL NOTE: NOT ALL KEYNOTES ARE PRESENT ON THIS SHEET

KEY	KEYNOTE
1	FURR-OUTS TO BE K-2 PARTITIONS TIGHT TO STRUCTURE, 10'-6" HIGH, TYP IN OFFICE SPACE
1	FURR-OUTS TO BE K-3 PARTITIONS TIGHT TO STRUCTURE, 10'-0" HIGH, TYP IN OFFICE SPACE
2	RECESSED FLOOR BOX, REFER TO FF&E PLAN AND ELEC
3	EMERGENCY EYEWASH SHOWER STATION WITH 5'X5' CLEAR FLOOR SPACE
4	BOLLARD, TYP RE: C2/A-102
5	FLOOR DRAIN, RE: PLUMBING
6	ICE MAKER
7	GALVANIZED WELDED BAR GRATING OF SUFFICIENT STRENGTH TO SUPPORT OIL DRUMS OVER SUMP PIT
8	SLOPE FLOOR TO A 2' WIDE X 2' LONG X 2' DEEP CONTAINMENT PIT, ENSURE POSITIVE DRAINAGE TO PIT
9	1 1/2" CONCRETE CONTAINMENT CURBS AT PERIMETER OF ENCLOSURE
10	1-1/2 RAMP
11	PEMB METAL PANEL WALL ON 8" WALL GIRTS, TYPICAL
12	HOSE BIBB, FREEZE LESS, RE: PLUMBING
15	PROVIDE TRAFFIC GRADE INDUSTRIAL SHOP RECESSED TRENCH DRAIN, OIL TO BE CONTAINED AND PROPERLY DISPOSED, NOT TO BE DRAINED OFF INTO SURROUNDING ENVIRONMENT
17	DEPRESS CONCRETE FLOOR TO ACCOMMODATE FOR PORCELAIN TILE FLOORING. PROVIDE TRANSITION STRIP AT FINISH FLOOR CHANGE
18	CONCRETE SPLASH BLOCK AT METAL DOWNSPOUT
19	PROPANE TANK, COORDINATE WITH GC FOR FINAL LOCATION
20	EMERGENCY BACKUP GENERATOR - 48 HR OPERATIONAL TIME, COORDINATE WITH CONTRACTOR
22	NEW SEPTIC TANK, WILL BE COORDINATED BY GC AND SUB-CONTRACTOR
23	EQUIPMENT PAD - EXTEND 6" BEYOND UNIT ALL AROUND, RE: STRUCTURAL
24	CONDENSING UNIT, RE: MECHANICAL
26	NEW WATER WELL, WILL BE COORDINATED BY GC AND SUB-CONTRACTOR

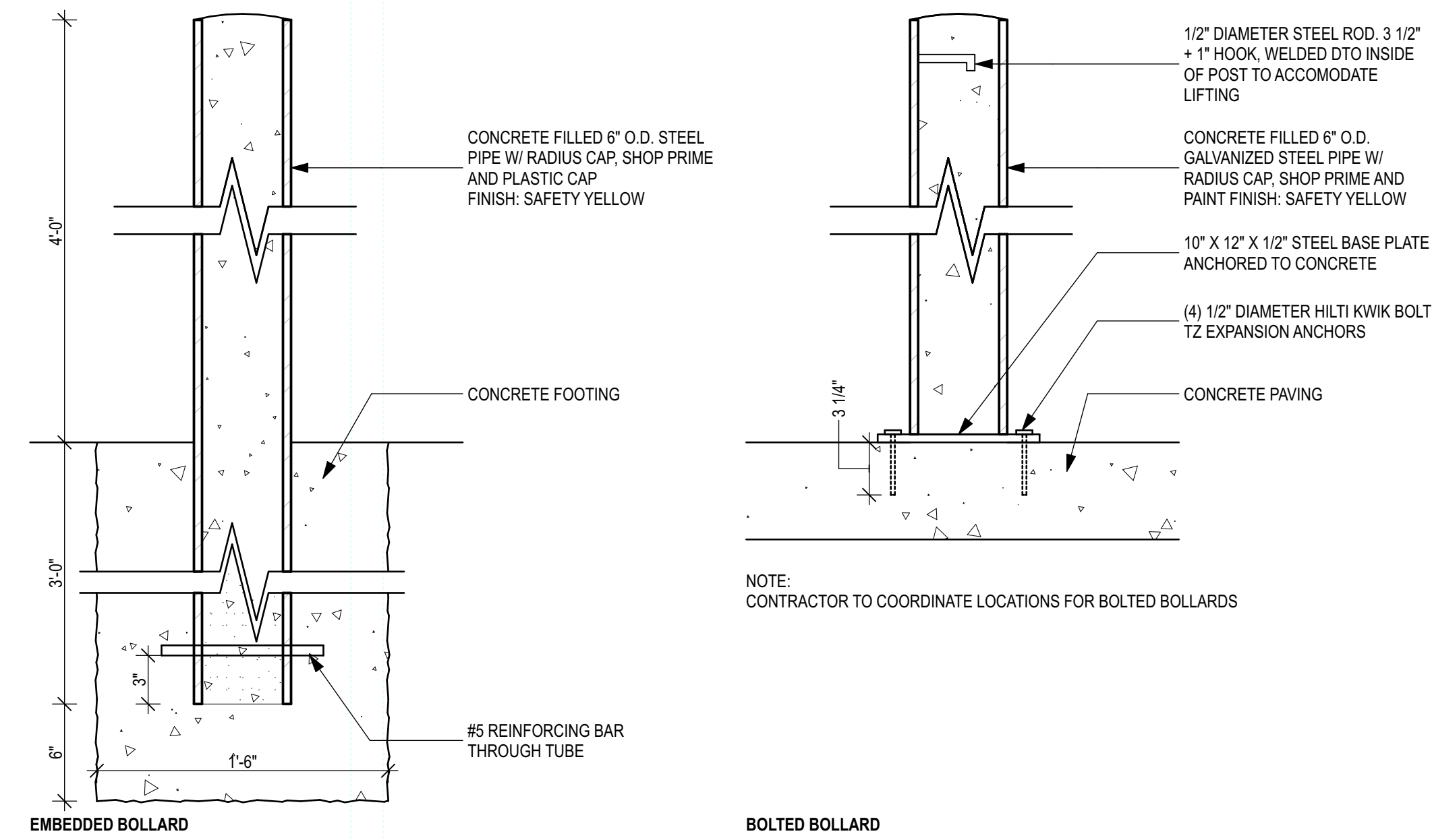
**REPRESENTATIVE
OPERATIONS AND
MAINTENANCE
BUILDING**

REV	DATE	DESCRIPTION
0	08 AUG 2022	BRIDGING DOC

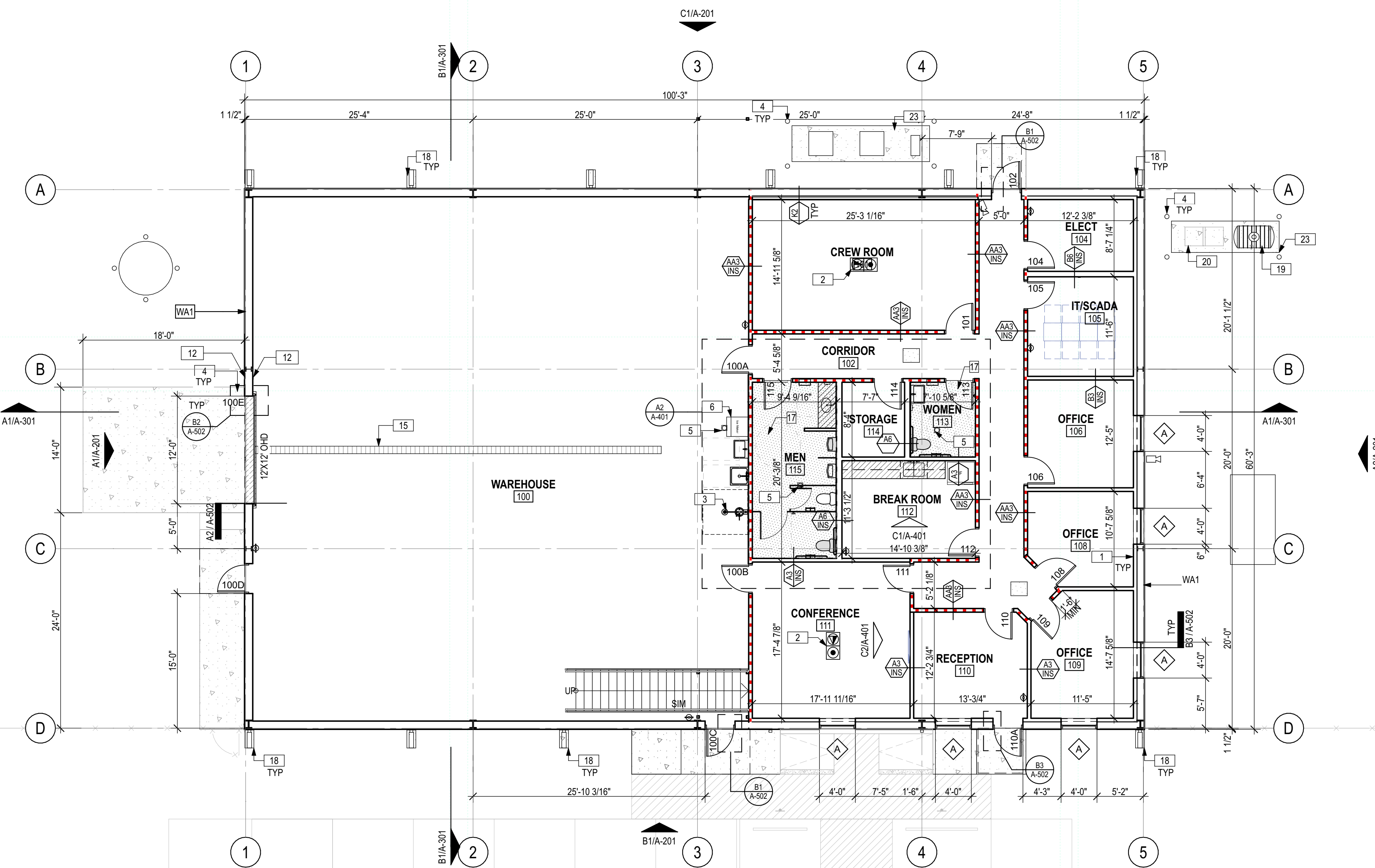
EA PROJECT NUMBER:
ARCHITECT:
LICENSE #:
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**FIRST FLOOR PLAN
A-102**



C2 BOLLARD DETAIL
SCALE: 1 1/2" = 1'-0"



A1 1ST FLOOR PLAN
SCALE: 1/8" = 1'-0"

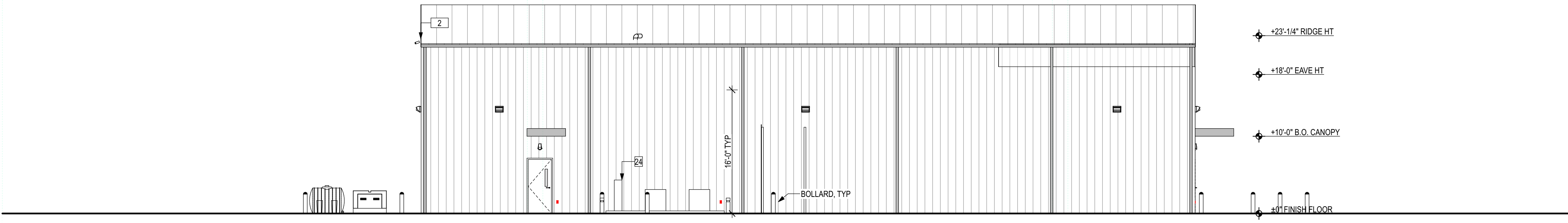
REFER TO OWNER'S SCOPE OF REQUIREMENTS FOR ADDITIONAL INFORMATION/ REQUIREMENTS

ELEVATION NOTES

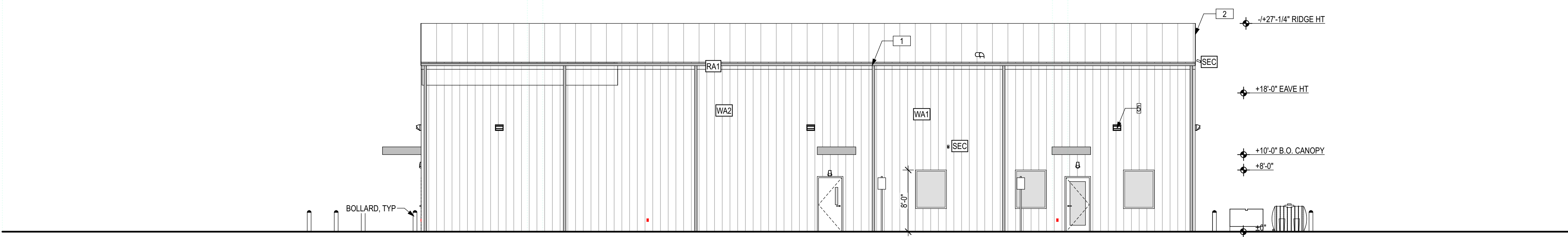
- A. REFER TO A-602 FOR COLOR SELECTIONS TYP.
- B. REFER TO A-601 FOR WINDOW TYPES.
- C. REFER TO A-001 FOR EXTERIOR WALL ASSEMBLY.
- D. CONTRACTOR TO COORDINATE WITH PEMB MANUF TO ENSURE FIELD LOCATIONS OF OPENINGS MATCH ARCH DRAWINGS. LOUVER LOCATIONS TO BE COORDINATED WITH MECHANICAL.
- E. ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE ELEMENTS SHALL RECEIVE ONE COAT OF APPROVED SHOP PAINT, IN ACCORDANCE WITH AISC 308 FOR STEEL STRUCTURES.

ELEVATION/ BLDG SECTION GENERAL NOTE: NOT ALL KEYNOTES ARE PRESENT ON THIS SHEET

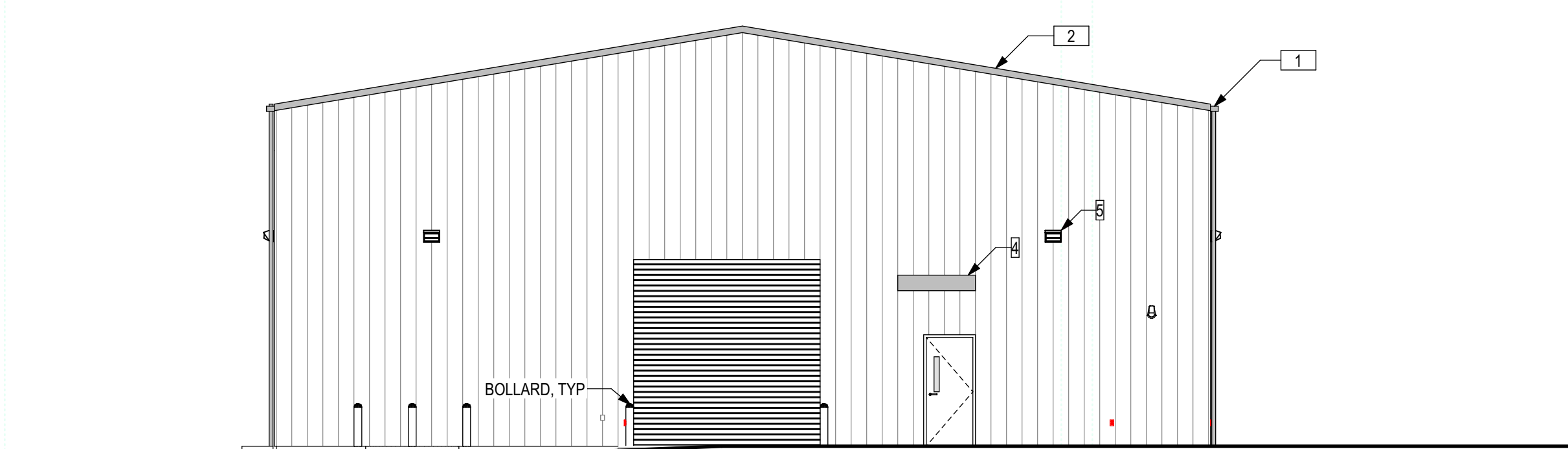
KEY	KEYNOTE
1	GUTTER & DOWNSPOUT, TYP REFER TO FINISH SCHEDULE FOR FINISH
2	RAKE TRIM, TYP
4	CANOPIES BY PEMB MANUFACTURER, TYP
5	SCHEDULED LIGHT FIXTURE, TYP
6	4'-0" TALL WALL LITE PANEL BY PEMB MANUF.
24	CONDENSING UNIT, RE: MECHANICAL



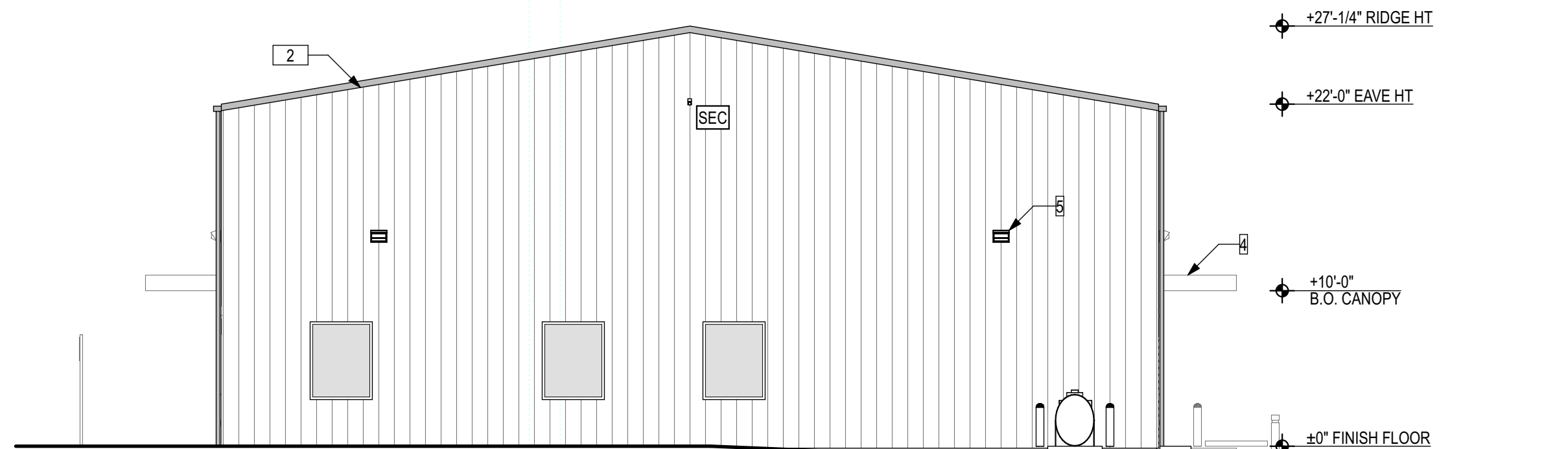
C1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



B1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



A1 WEST ELEVATION
SCALE: 1/8" = 1'-0"



A2 EAST ELEVATION
SCALE: 1/8" = 1'-0"

**REPRESENTATIVE
OPERATIONS AND
MAINTENANCE
BUILDING**

REV	DATE	DESCRIPTION
0	08 AUG 2022	BRIDGING DOC

EA PROJECT NUMBER:
ARCHITECT:
LICENSE #:
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APPENDIX M – INTERFERENCE STUDY

Wind Power GeoPlanner™

AM and FM Radio Report

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 20, 2024





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1. Introduction

Comsearch analyzed AM and FM radio broadcast stations whose service could potentially be affected by the proposed Heritage Prairie Wind project in Livingston County, Illinois.

2. Summary of Results

Project Information

Name: Heritage Prairie Wind

County: Livingston

State: Illinois

Number of Turbines: 71

Number of MET Towers: 7

Blade Diameter: 163 meters

Hub Height: 113 meters



Figure 1: Area of Interest

AM Radio Analysis

Comsearch found no database records¹ for AM stations within approximately 30 kilometers of the project.

FM Radio Analysis

Comsearch determined that there were eighteen database records for FM stations within a 30-kilometer radius of the Heritage Prairie Wind project, as shown in Table 2 and Figure 2. Sixteen of these stations are currently licensed and operating, three of which are translator stations and two are low power stations that operate with limited range. The closest station is WJEZ, which is currently licensed in Dwight, Illinois, to the west of the project area, 2.17 km from the nearest proposed turbine location.

ID	Call Sign	Status ²	Service ³	Frequency (MHz)	Transmit ERP ⁴ (kW)	Latitude (NAD 83)	Longitude (NAD 83)	Distance to Nearest Turbine (km)
1	WJEZ	LIC	FM	98.9	1.3	41.035028	-88.436167	2.17
2	WGVD-LP	LIC	FL	97.3	0.1	41.097444	-88.435778	4.22
3	WWQC	LIC	FM	107.3	6.0	40.951667	-88.181389	11.96
4	WJDK-FM	LIC	FM	95.7	3.0	41.220028	-88.540889	19.16
5	WBEQ	LIC	FM	90.7	1.45	41.285861	-88.430333	20.34
6	W245CE	LIC	FX	96.9	0.25	41.293083	-88.334500	20.45
7	WCSJ-FM	LIC	FM	103.1	6.0	41.293083	-88.334500	20.45
8	WYKT	LIC	FM	105.5	1.3	41.286417	-88.239778	21.48
9	WRXQ	LIC	FM	100.7	2.45	41.295028	-88.170889	25.13
10	WPJC	LIC	FM	88.3	20.0	40.886389	-88.644722	25.93
11	W208AW	APP	FX	89.3	0.08	40.886389	-88.644722	25.93
12	W208AW	LIC	FX	89.5	0.08	40.886417	-88.644778	25.94
13	WYUR	LIC	FM	103.7	3.6	40.898167	-87.999444	26.94
14	WAGI-LP	LIC	FL	97.5	0.068	41.119361	-87.943111	27.31
15	WEGN	LIC	FM	88.7	5.0	41.207389	-87.972722	28.67
16	WUON	CP	FM	89.3	1.95	41.354722	-88.498611	29.44
17	WUON	LIC	FM	89.3	1.35	41.354750	-88.498694	29.44
18	WCFL	LIC	FM	104.7	50.0	41.354750	-88.498694	29.44

Table 2: FM Radio Stations within 30 km

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the AM/FM station's FCC license and governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

² LIC = Licensed and operational station; APP = Application for construction permit; CP=Construction permit granted; CP MOD = Modification of construction permit.

³ FM = FM broadcast station; FX = FM translator station; FS = FM auxiliary (backup) station; FB = FM booster station, FL = FM low power station.

⁴ ERP = Transmit Effective Radiated Power.

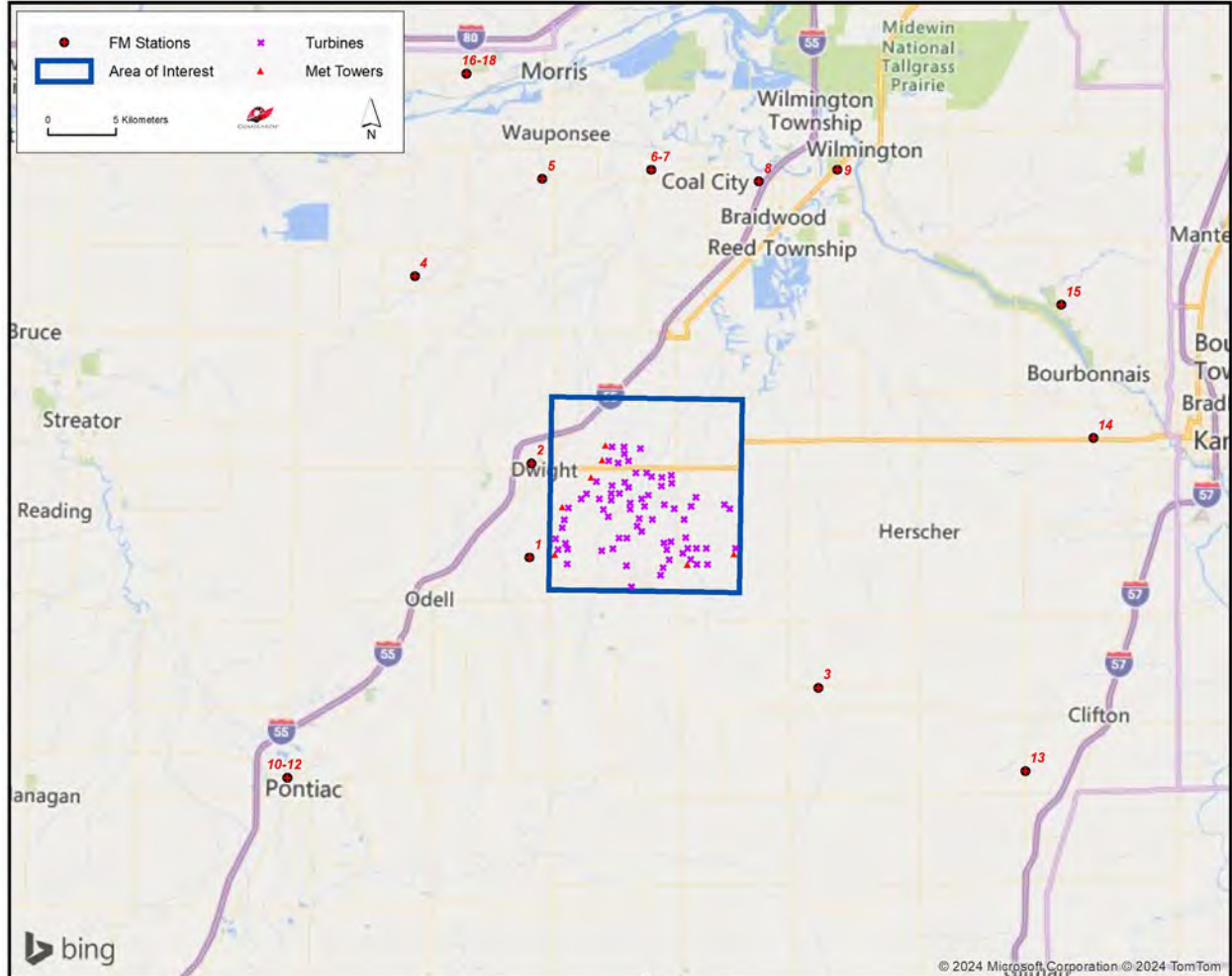


Figure 2: FM Radio Stations within 30 km

3. Impact Assessment

The exclusion distance for AM broadcast stations varies as a function of the antenna type and broadcast frequency. For directional antennas, the exclusion distance is calculated by taking the lesser of 10 wavelengths or 3 kilometers. For non-directional antennas, the exclusion distance is simply equal to 1 wavelength. Potential problems with AM broadcast coverage are only anticipated when AM broadcast stations are located within their respective exclusion distance limit from wind turbine towers. A search radius of 30 km found no AM station records. As there were no stations found within 3 kilometers of the project, which is the maximum possible exclusion distance based on a directional AM antenna broadcasting at 1000 KHz or less, the project should not impact the coverage of local AM stations.

The coverage of FM stations is generally not sensitive to interference due to wind turbines, especially when large objects (e.g., wind turbines) are located in the far field region of the radiating antenna to avoid the risk of distorting its radiation pattern. Station WJEZ would be the nearest FM station to any given turbine at 2.17 km away. At this distance there should be adequate separation to avoid radiation pattern distortion.

4. Recommendations

Since no impact on licensed and operational AM or FM broadcast stations was identified in our analysis, no recommendations or mitigation techniques are required for this project.

5. Contact

For questions or information regarding the AM and FM Radio Report, please contact:

Contact person:	David Meyer
Title:	Senior Manager
Company:	Comsearch
Address:	21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone:	703-726-5656
Fax:	703-726-5595
Email:	David.Meyer@CommScope.com
Web site:	www.comsearch.com

Wind Power GeoPlanner™

Communication Tower Study

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 20, 2024



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A CommScope Company



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1. Introduction

This Communication Tower Study was performed for the Heritage Prairie Wind project in Livingston County, Illinois to identify the tower structures as well as FCC-licensed communication antennas that exist in the project area. This information is useful in the planning stages of the wind energy facilities to identify turbine setbacks and to prevent disruption to the services provided by the tenants on the towers. This data can be used in support of the wind energy facilities communications needs in addition to avoiding any potential impact to the current communications services provided in the region.

2. Summary of Results

The communication towers and antennas in the study area were derived from a variety of sources including the FCC's Antenna Structure Registration (ASR) database, Universal Licensing System (ULS), national and regional tower owner databases, and the local planning and zoning boards. The data¹ was imported into GIS software and the structures mapped in the wind energy area of interest. Each tower location is identified with a unique ID number associated with detailed structure and contact information provided in a spreadsheet attachment.

Five tower structures and twenty-three communication antennas were identified within the Heritage Prairie Wind project area using the data sources described in our methodology above. Four of the structures found were registered with the FCC. The structures identified contain six of the twenty-three communication antennas. The remaining antennas may be located on a variety of structure types such as guyed towers, monopoles, silos, rooftops or portable structures. The specific type of structure would normally need to be determined by an on-site visit.

Detailed information about the tower structures and communication antennas is provided in Table 1 and Table 2 including location coordinates, structure height above ground level, and owner-operator name².

A discussion of turbine setback distances is provided in section three.

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data provided in this report is governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

² Please note that this report analyzes all known operators on the towers from data sources available to Comsearch. Unidentified operators may exist on the towers due to unlicensed or federal government systems, mobile phone operators with proprietary locations, erroneous data on the FCC license, and other factors beyond our control.

Tower ID	ASR Number	Owner	Structure Height AGL (m)	Latitude (NAD83)	Longitude (NAD83)	Distance the Nearest Turbine (km)
Tower001	1258162	Cellco Partnership	76.2	41.01508333	-88.30491667	1.75
Tower002	N/A	American Towers LLC	54.9	41.06580700	-88.39988900	0.36
Tower003	1278119	SBA Towers III LLC	59.4	41.06758333	-88.28883333	0.67
Tower004	1038194	CTI Towers, Inc.	61.9	41.09208333	-88.41844444	1.48
Tower005	1217162	STC Two, LLC	56.4	41.14072222	-88.36669444	3.48

Table 1: Summary of Tower Structures

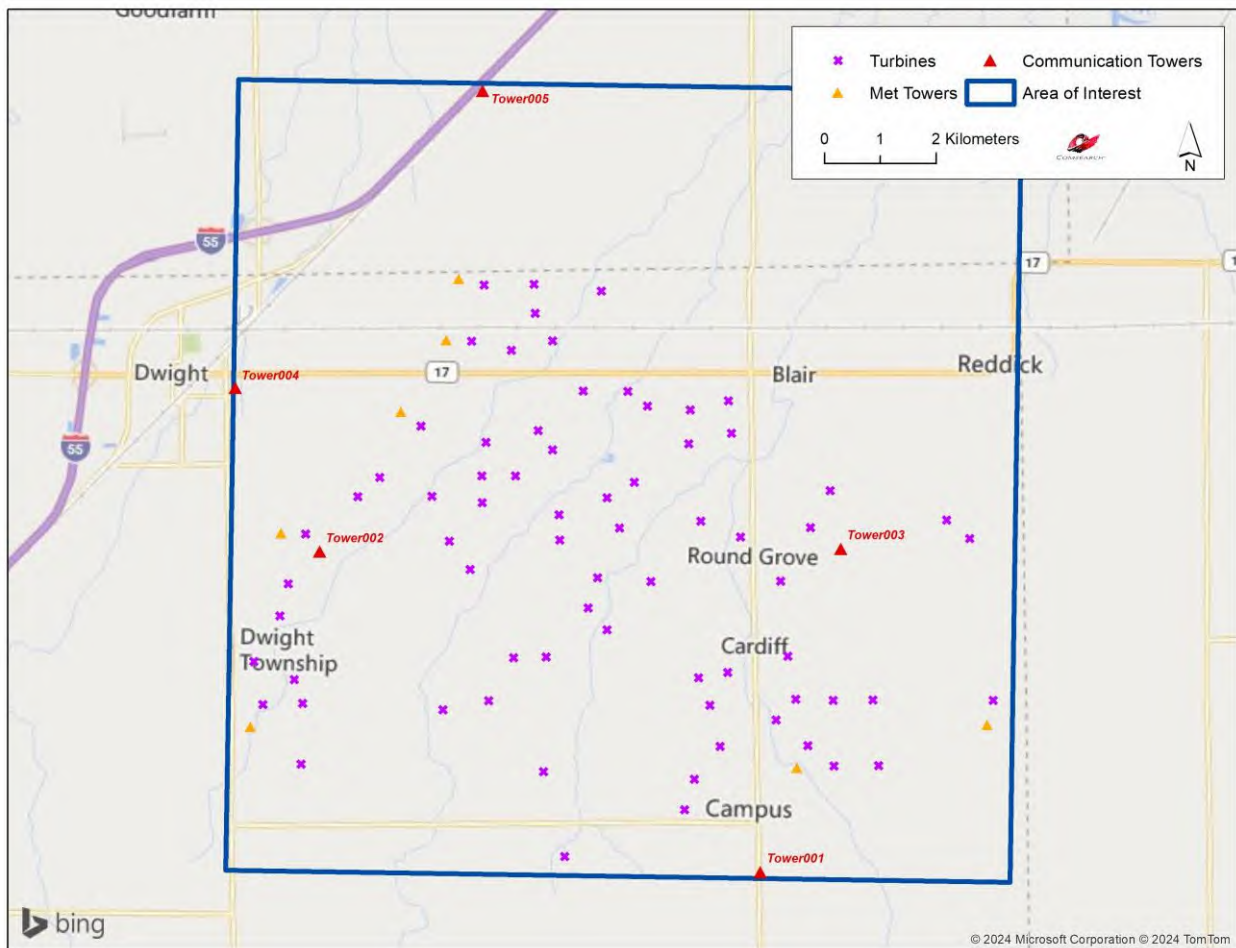


Figure 1: Towers within the Area of Interest

ID	Tower ID	Callsign	Service Type	Licensee	Antenna Height AGL (m)	Latitude (NAD83)	Longitude (NAD83)	Distance the Nearest Turbine (km)
1		WRFW573	Microwave	Surf Air Wireless, LLC	49.0/49.9	41.03661111	-88.30572222	0.46
2		KNJP864	Land Mobile	MASCHING, WILLIAM	58.0	41.03725000	-88.30588889	0.42
3	Tower002	KNKN328	Cellular	AT&T Mobility Spectrum, LLC	50.0/59.7	41.06583333	-88.39988889	0.40
4	Tower003	WQOX523	Microwave	Cellco Partnership - IA/IL/IN/WI	43.28	41.06758333	-88.28883333	0.66
5		KVT268	Land Mobile	ILLINOIS, STATE OF	14.0	41.09030556	-88.41700000	2.68
6	Tower004	WPOV263	Microwave	Vermilion Valley Regional ETSB	30.48	41.09194444	-88.41833333	2.90
7	Tower004	WPGW541	Land Mobile	Vermilion Valley Regional ETSB	45.7	41.09194444	-88.41833333	2.90
8	Tower004	WPGF523	Land Mobile	Vermilion Valley Regional ETSB	30.5	41.09194444	-88.41833333	2.90
9	Tower004	WPGF740	Land Mobile	Vermilion Valley Regional ETSB	30.5	41.09194444	-88.41833333	2.90
10		WQOY493	Land Mobile	AHW LLC	38.0	41.09633333	-88.41727778	3.20
11		WRAX874	Microwave	Olson, Donna J	51.8	41.09916667	-88.34641667	0.41
12		WQHE218	Land Mobile	Norfolk Southern Railway Company	4.1	41.10283333	-88.32827778	1.23
13		WQHE218	Land Mobile	Norfolk Southern Railway Company	4.1	41.10297222	-88.30908333	1.35
14		WQCB489	Land Mobile	Norfolk Southern Railway Company	4.1	41.10297222	-88.30905556	1.35
15		WNYB406	Land Mobile	Norfolk Southern Railway Company	3.1	41.10311111	-88.30850000	1.38
16		WQXW552	Microwave	Surf Air Wireless, LLC	41.4/47.24	41.10358333	-88.30933333	1.41
17		WQCN840	Land Mobile	Norfolk Southern Railway Company	3.1	41.10363889	-88.25225000	3.66
18		KBL646	Land Mobile	RIBER CONSTRUCTION INC	27.0	41.10502778	-88.41727778	3.84
19		WQKU939	Land Mobile	Union Pacific Railroad Company	3.0	41.11111111	-88.40527778	3.33
20		WQNS358	Land Mobile	SEVERSON ENTERPRISES	23.0	41.11391667	-88.30755556	2.57
21		WQTU833	Land Mobile	Aldi Inc	13.4	41.11438889	-88.40861111	3.64
22		WQKU939	Land Mobile	Union Pacific Railroad Company	3.0	41.12222222	-88.39444444	2.80
23		WQKU939	Land Mobile	Union Pacific Railroad Company	3.0	41.12527778	-88.38638889	2.48

Table 2: Summary of Communication Antennas

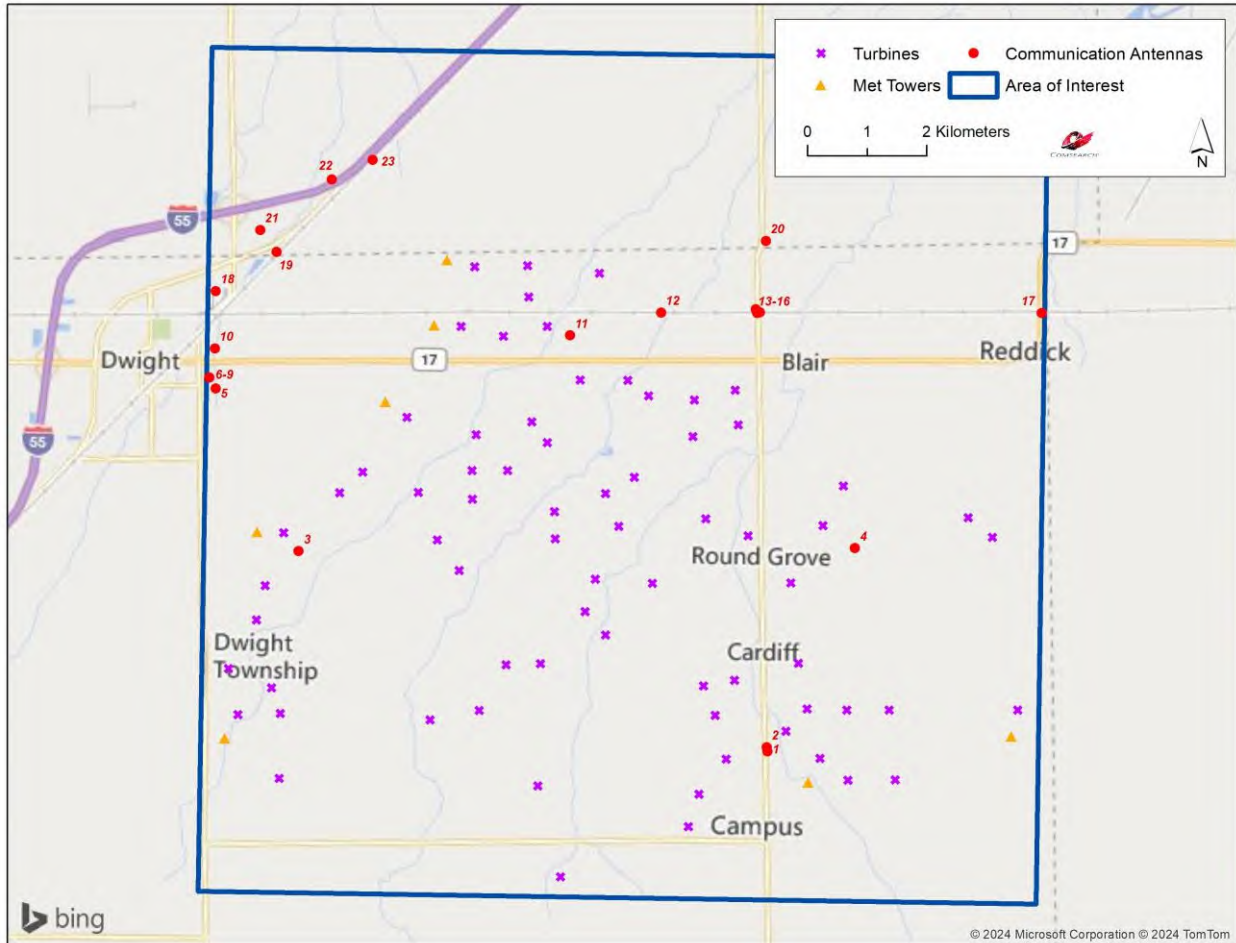


Figure 2: Communication Antennas within the Area of Interest

3. Discussion of Separation Distances

In planning the wind energy turbine locations, a conservative approach would dictate not locating any turbines in close proximity to existing tower structures to avoid any possible impact to the communications services provided by the structures. Reasonable distance between communication towers and wind turbine towers is a function of two things: (1) the physical turning radius of the wind turbine blades and (2) the characteristics of the communication systems on the communication tower.

Since wind turbine blades can rotate 360° in both the vertical and horizontal planes, the first consideration of separation distance to other structures is clearance of the rotating blades. If the blade radius is 50 meters, then a separation distance greater than 50 meters is necessary. From a practical standpoint, a setback distance greater than the maximum height of the turbine is necessary to ensure a “fall” safety zone in the unlikely event of a turbine tower failure. Setback requirements for “fall” safety are typically specified by the local zoning ordinances.

The separation distance required based on the characteristics of the communication systems will vary depending on the type(s) of communication antennas located on the tower. For example, AM, FM and TV communication antennas should be separated by distances that allow for normal coverage. For RADAR and microwave systems, line-of-sight (LOS) is used as the criteria for separation distance as well as the physical clearance necessary for the turbine blades. For land mobile, mobile phone, and wireless Internet systems, setback distances are based on FCC interference emissions from electrical devices according to their respective frequency bands.

Finally, the communication tower structures identified herein could be a potential benefit in support of communications network needs for the wind energy facility. An example would be the implementation of a Supervisory Control and Data Acquisition (SCADA) system that monitors and provides communications access to the wind energy facility.

4. Conclusions

Our study identified five tower structures and twenty-three communication antennas within the project area. They are used for microwave, cellular, and land mobile services in the area.



5. Contact Us

For questions or information regarding the Communication Tower Study, please contact:

Contact person: David Meyer
Title: Senior Manager
Company: Comsearch
Address: 21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone: 703-726-5656
Fax: 703-726-5595
Email: David.Meyer@CommScope.com
Web site: www.comsearch.com

Wind Power GeoPlanner™

Land Mobile & Emergency Services Report

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 20, 2024



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1. Introduction

An assessment of the emergency services in the Heritage Prairie Wind Project area was performed by Comsearch to identify potential impact from the planned turbines. We evaluated the registered frequencies for the following types of first responder entities: police, fire, emergency medical services, emergency management, hospitals, public works, transportation and other state, county, and municipal agencies. We also identified all industrial and business land mobile radio (LMR) systems and commercial E911 operators within the proposed wind energy facility boundaries. This information is useful in the planning stages of the wind energy facility because the data can be used in support of facility communications needs and to evaluate any potential impact on the emergency services provided in that region. An overview of the project area, which is located in Livingston County, Illinois, appears below in Figure 1.

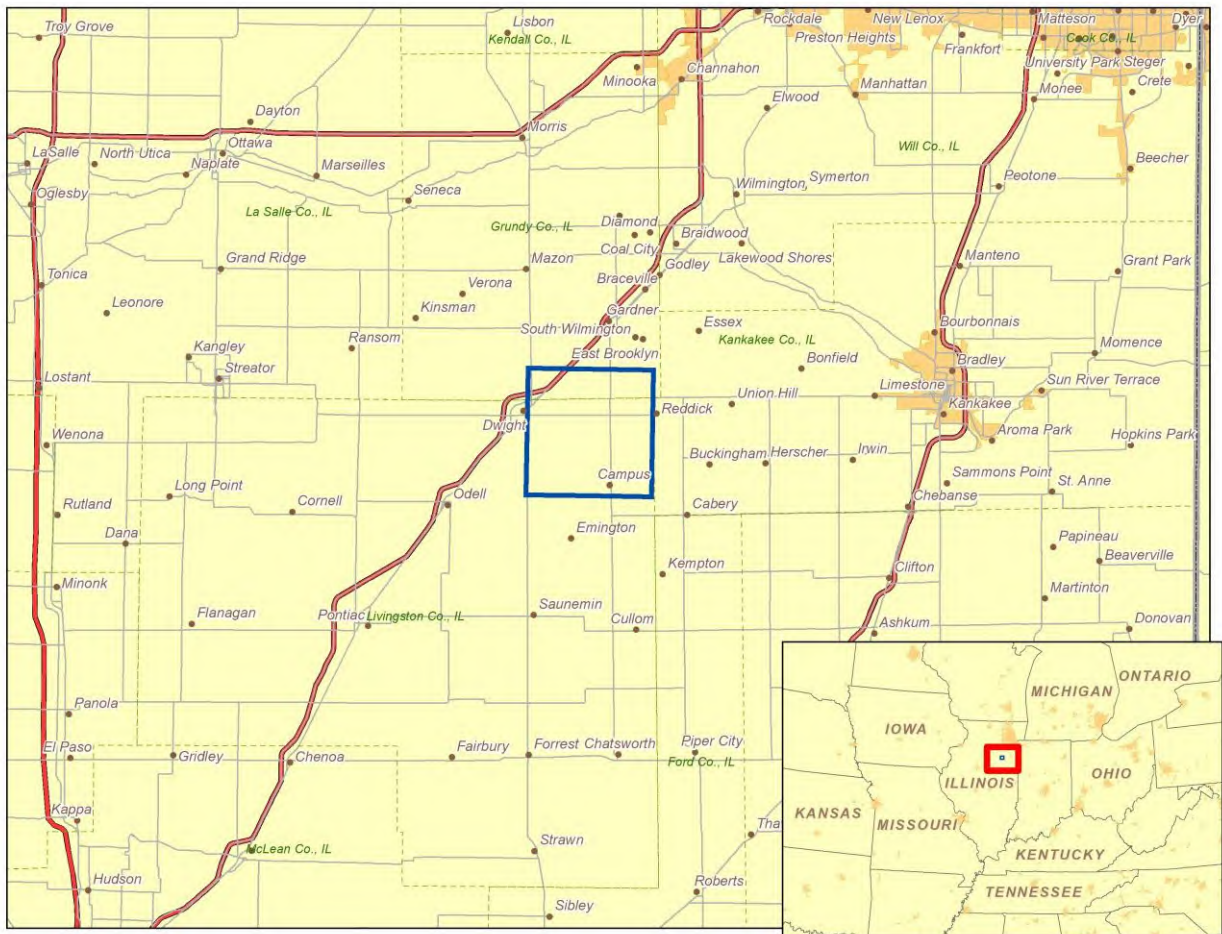


Figure 1: Area of Interest (AOI)

2. Summary of Results

Our land mobile and emergency services incumbent data¹ was derived from the FCC’s Universal Licensing System (ULS) and the FCC’s Public Safety & Homeland Security bureau. We identified both site-based licenses as well as regional area-wide licenses designated for public safety use.

Site-Based Licenses

The site-based licenses were imported into GIS software and geographically mapped relative to the wind energy project area of interest as defined by the customer. Each site on the map was given an ID number and associated with site information in a data table. A depiction of the fixed-site licenses in the project area appears in Figure 2.

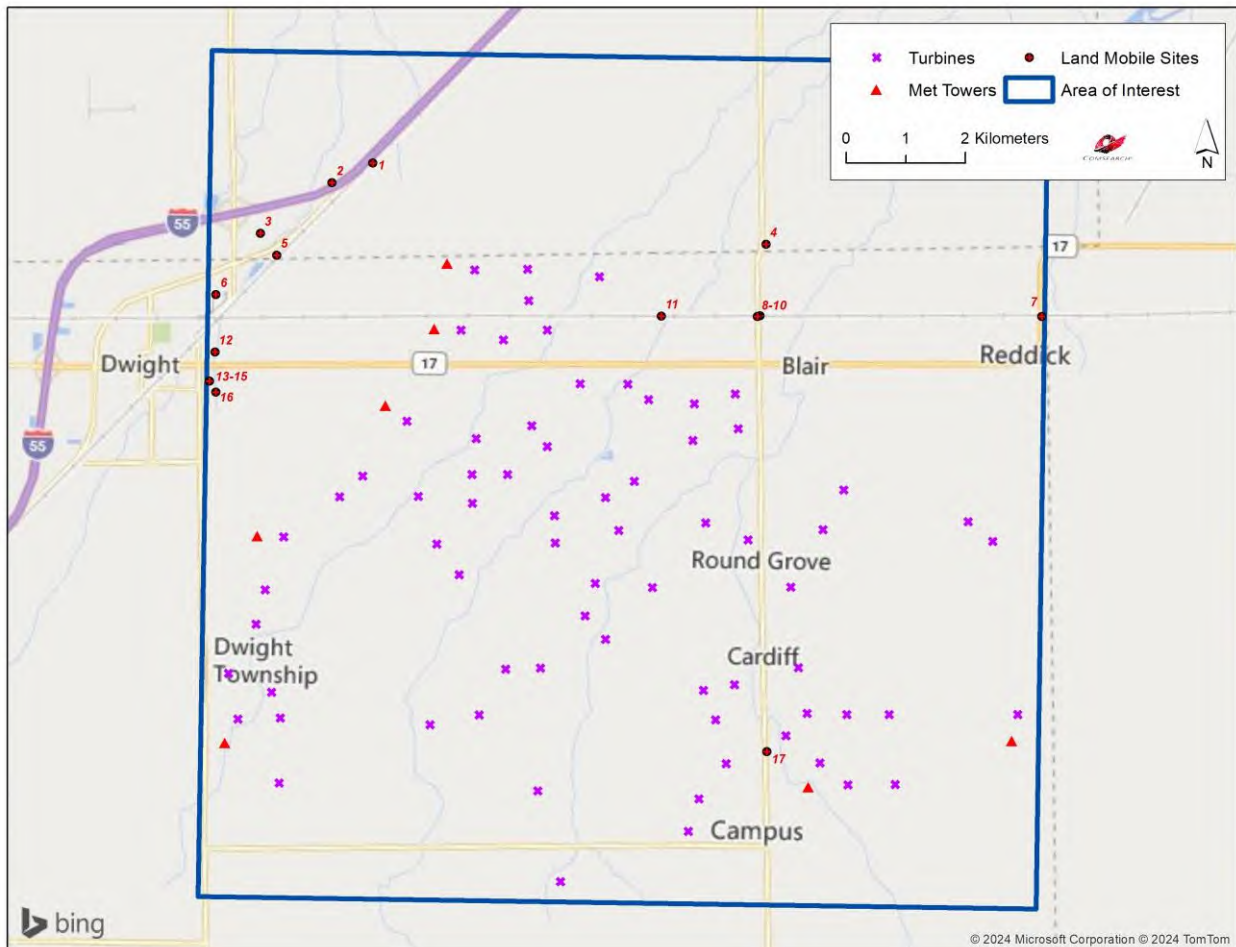


Figure 2: Land Mobile & Emergency Service Sites in Area of Interest

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the land mobile station’s FCC license and governed by Comsearch’s data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf

Figure 2 identifies seventeen site-based licenses in the Heritage Prairie Wind project area of interest. Specific information about these sites is provided in Table 1.

ID	Call Sign	Frequency Band (MHz)	Licensee	Antenna Height AGL (m)	Latitude (NAD83)	Longitude (NAD83)	Distance to Nearest Turbine (km)
1	WQKU939	150-174	Union Pacific Railroad Company	3.0	41.125278	-88.386389	2.48
2	WQKU939	150-174	Union Pacific Railroad Company	3.0	41.122222	-88.394444	2.80
3	WQTU833	450-470	Aldi Inc	13.4	41.114389	-88.408611	3.64
4	WQNS358	150-174	SEVERSON ENTERPRISES	23.0	41.113917	-88.307556	2.57
5	WQKU939	150-174	Union Pacific Railroad Company	3.0	41.111111	-88.405278	3.33
6	KBL646	150-174	RIBER CONSTRUCTION INC	27.0	41.105028	-88.417278	3.84
7	WQCN840	150-174	Norfolk Southern Railway Company	3.1	41.103639	-88.252250	3.66
8	WNYB406	150-174	Norfolk Southern Railway Company	3.1	41.103111	-88.308500	1.38
9	WQCB489	150-174	Norfolk Southern Railway Company	4.1	41.102972	-88.309056	1.35
10	WQHE218	150-174	Norfolk Southern Railway Company	4.1	41.102972	-88.309083	1.35
11	WQHE218	150-174	Norfolk Southern Railway Company	4.1	41.102833	-88.328278	1.23
12	WQOY493	450-470	AHW LLC	38.0	41.096333	-88.417278	3.20
13	WPF523	450-470	Vermilion Valley Regional ETSB	30.5	41.091944	-88.418333	2.90
14	WPF740	450-470	Vermilion Valley Regional ETSB	30.5	41.091944	-88.418333	2.90
15	WPGW541	450-470	Vermilion Valley Regional ETSB	45.7	41.091944	-88.418333	2.90
16	KVT268	450-470	ILLINOIS, STATE OF	14.0	41.090306	-88.417000	2.68
17	KNJP864	450-470	MASCHING, WILLIAM	58.0	41.037250	-88.305889	0.42

Table 1: Land Mobile & Emergency Service Sites in Area of Interest

Mobile Licenses

In addition to the fixed-site licenses above, 664 mobile licenses defined by center point and radius were found to intersect the Heritage Prairie Wind project area. Appendix A contains a tabular summary of these stations.

Area-Wide Licenses

The regional area-wide licenses were compiled from FCC data sources and identified for each county intersected by the wind energy project area. The Heritage Prairie Wind project is located in Livingston County, Illinois, part of Public Safety Region #13, which contains all the counties in Illinois, excluding the greater Chicago metropolitan area. The regional public safety operations are overseen by the entity listed below.

William J. Carter

Chairperson, Public Safety Region #13

Phone: 312-814-5208

Mobile: 312-793-7267

Email: wizard61@hotmail.com

The chairperson for Region #13 serves as the representative for all public safety entities in the area and is responsible for coordinating current and future public safety use in the wireless spectrum. In the bands licensed by the FCC for area-wide first responders, which include 220 MHz, 700 MHz, 800 MHz and 4.9 GHz, as well as the traditional Part 90 public safety pool of frequencies, fifty-two licenses were found for the State of Illinois and three for the County of Livingston (see Table 2). These area-wide licenses are designated for mobile use only.

ID	Licensee	Area of Operation	Frequency Band (MHz)
1	ADVANCED MEDICAL TRANSPORT OF CENTRAL ILLINOIS	Statewide: IL	150-174
2	ALEXIS NORTH HENDERSON AMBULANCE SERVICE	Statewide: IL	150-174
3	AMERICAN MEDICAL RESPONSE INC	Statewide: IL	150-174, 450-470
4	American National Red Cross	Statewide: IL	25-50
5	Beecher Fire Protection District	Statewide: IL	150-174
6	Buncombe Fire Department	Statewide: IL	150-174
7	BUNKER HILL, CITY OF	Statewide: IL	150-174
8	CARLINVILLE, CITY OF	Statewide: IL	150-174
9	CAVE EASTERN FIRE PROTECTION DISTRICT	Statewide: IL	150-174
10	CHARLESTON, CITY OF	Statewide: IL	150-174

ID	Licensee	Area of Operation	Frequency Band (MHz)
11	City of Chicago Heights Police Department	Statewide: IL	4940-4990
12	CLAY, COUNTY OF	Statewide: IL	150-174
13	Deaconess regional Healthcare Services Illinois, Inc	Statewide: IL	150-174
14	DOWNERS GROVE, VILLAGE OF	Statewide: IL	150-174, 450-470
15	EVERGREEN PARK, VILLAGE OF	Statewide: IL	150-174
16	Farina, Village of	Statewide: IL	150-174
17	GALESBURG HOSPITALS AMBULANCE SERVICE	Statewide: IL	150-174
18	GALVA, CITY OF	Statewide: IL	150-174
19	GLENDALE HEIGHTS, VILLAGE OF	Statewide: IL	150-174
20	Illinois Law Enforcement Alarm System	Statewide: IL	0-10
21	ILLINOIS LAW ENFORCEMENT ALARM SYSTEM (ILEAS)	Statewide: IL	25-50, 150-174, 450-470, 800/900
22	Illinois State Toll Highway Authority	Statewide: IL	0-10, 450-470, 800/900, 4940-4990
23	Illinois, State of	Statewide: IL	0-10, 25-50, 150-174, 406-413, 421-430, 450-470, 769-775/799-805, 800/900, 2450-2500
24	Illinois, State of Department of Transportation	Statewide: IL	0-10, 25-50, 150-174
25	JERSEY, COUNTY OF SHERIFF DEPARTMENT	Statewide: IL	150-174
26	JOHNSON COUNTY 9 1 1 ETSB	Statewide: IL	150-174
27	Lakeside EMS, LLC	Statewide: IL	150-174
28	LIVINGSTON COUNTY SHERIFF'S DEPT	Countywide: LIVINGSTON, IL	450-470, 800/900
29	Maine Township Emergency Management Agency	Statewide: IL	25-50, 150-174
30	MEDICONE MEDICAL RESPONSE	Statewide: IL	150-174
31	METAMORA, CITY OF	Statewide: IL	150-174
32	MIDLOTHIAN, VILLAGE OF	Statewide: IL	150-174
33	MORGAN COUNTY ESDA	Statewide: IL	150-174
34	MOUNT ZION FIRE PROTECTION DISTRICT	Statewide: IL	150-174

ID	Licensee	Area of Operation	Frequency Band (MHz)
35	MURPHYSBORO, CITY OF	Statewide: IL	150-174
36	MUTUAL AID BOX ALARM SYSTEM - IL	Statewide: IL	25-50, 150-174, 450-470
37	NATIONAL SKI PATROL SYSTEM INC	Statewide: IL	150-174
38	ONEIDA WATAGA FIRE PROTECTION DISTRICT	Statewide: IL	150-174
39	ORION FIRE PROTECTION DISTRICT	Statewide: IL	150-174
40	PARATECH AMBULANCE SERVICE INC	Statewide: IL	150-174
41	PATOKA FIRE PROTECTION DIST IL	Statewide: IL	150-174
42	RuralMed, LLC	Statewide: IL	150-174
43	Search And Rescue Mutual Aid (SARMA)	Statewide: IL	150-174
44	SOUTH EAST LIVINGSTON COUNTY AMBULANCE SERVICE, INC.	Countywide: LIVINGSTON, IL	150-174
45	SOUTH HOLLAND, VILLAGE OF	Statewide: IL	150-174
46	Stickney, Village of	Statewide: IL	150-174
47	Superior Air Ground Ambulance Inc.	Statewide: IL	150-174
48	TUSCARORA FIRE PROTECTION DISTRICT	Statewide: IL	150-174
49	United Life Care Ambulance Service Inc	Statewide: IL	150-174
50	United Medical Response, LLC	Statewide: IL	150-174
51	Vermilion Valley Regional ETSB	Countywide: LIVINGSTON, IL	150-174, 450-470
52	Village of University Park	Statewide: IL	150-174
53	WAYNE COUNTY AMBULANCE SERVICE	Statewide: IL	150-174
54	WEST CITY, VILLAGE OF	Statewide: IL	150-174
55	WILLIAMSFIELD FIRE PROTECTION DIST	Statewide: IL	150-174

Table 2: Regional Licenses

E911 Operators

Wireless operators are granted area-wide licenses from the FCC to deploy their cellular networks, which often include handsets with E911 capabilities. Since mobile phone market boundaries differ from service to service, we disaggregated the carriers' licensed areas down to the county level. We have identified the type of service for each carrier in Livingston County, Illinois, in Table 3.

Mobile Phone Carrier	Service ²
AT&T	700 MHz, AWS, Cellular, PCS, WCS
DISH Network	700 MHz, AWS
MTCO Communications	Cellular
T-Mobile	700 MHz, AWS, PCS
US Cellular	700 MHz
Verizon	700 MHz, AWS, PCS

Table 3: Mobile Phone Carriers in Area of Interest with E911 Service

3. Impact Assessment

The first responder, industrial/business land mobile sites, area-wide public safety, and commercial E-911 communications as described in this report are typically unaffected by the presence of wind turbines, and we do not anticipate any significant harmful effect to these services in the Heritage Prairie Wind project area. Although each of these services operates in different frequency ranges and provides different types of service including voice, video and data applications, there is commonality among these different networks with regard to the impact of wind turbines on their service. Each of these networks is designed to operate reliably in a non-line-of-sight (NLOS) environment. Many land mobile systems are designed with multiple base transmitter stations covering a large geographic area with overlap between adjacent transmitter sites in order to provide handoff between cells. Therefore, any signal blockage caused by the wind turbines does not materially degrade the reception because the end user is likely receiving signals from multiple transmitter locations. Additionally, the frequencies of operation for these services have characteristics that allow the signal to

² AWS: Advanced Wireless Service at 1.7/2.1 GHz
CELL: Cellular Service at 800 MHz
PCS: Personal Communication Service at 1.9 GHz
WCS: Wireless Communications Service at 2.3 GHz
700 MHz: Lower 700 MHz Service

propagate through wind turbines. As a result, very little, if any, change in their coverage should occur when the wind turbines are installed.

When planning the wind energy turbine locations in the area of interest, a conservative approach would dictate not locating any turbines within 77.5 meters of land mobile fixed-base stations to avoid any possible impact to the communications services provided by these stations. This distance is based on FCC interference emissions from electrical devices in the land mobile frequency bands. As long as the turbines are located more than 77.5 meters from the land mobile stations, they will meet the setback distance criteria for FCC interference emissions in the land mobile bands.

4. Recommendations

In the event that a public safety entity believes its coverage has been compromised by the presence of the wind energy facility, it has many options to improve its signal coverage to the area through optimization of a nearby base station or even adding a repeater site. Utility towers, meteorological towers or even the turbine towers within the wind project area can serve as the platform for a base station or repeater site.

5. Contact

For questions or information regarding the Land Mobile & Emergency Services Report, please contact:

Contact person: David Meyer
Title: Senior Manager
Company: Comsearch
Address: 21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone: 703-726-5656
Fax: 703-726-5595
Email: David.Meyer@CommScope.com
Web site: www.comsearch.com

Appendix A

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
1	WNWK609	450-470	2-WAY ELECTRONICS COMMUNICATIONS	120.0	41.542528	-87.037528
2	WRKP470	800/900	A BEEP LLC	88.0	41.565833	-88.062222
3	WPKU637	470-512	A BEEP, LLC	48.0	41.496417	-88.298944
4	WPMR376	450-470	A BEEP, LLC	32.0	41.122778	-87.893056
5	WPVQ487	450-470	A BEEP, LLC	32.0	41.318083	-88.634806
6	WPWW500	470-512	A BEEP, LLC	48.0	41.496417	-88.298944
7	WPYT234	150-174	A BEEP, LLC	40.0	41.496417	-88.298944
8	WQEI309	470-512	A BEEP, LLC	48.0	41.473056	-88.049694
9	WQHF981	470-512	A BEEP, LLC	48.0	41.304167	-88.175833
10	WQHJ429	450-470	A BEEP, LLC	32.0	41.304167	-88.175833
11	WQIH430	450-470	A Beep, LLC	32.0	41.304167	-88.175833
12	WQJD698	450-470	A BEEP, LLC	32.0	41.122778	-87.893056
13	WQKI908	470-512	A BEEP, LLC	48.0	41.496417	-88.298944
14	WRKP473	800/900	A BEEP, LLC	113.0	42.020000	-88.483611
15	WRKP743	800/900	A BEEP, LLC	88.0	41.565861	-88.062222
16	WRMF907	470-512	A BEEP, LLC	48.0	41.473056	-88.049694
17	WRXJ532	150-174	ABILITY TRANSPORTATION INC	64.0	41.445722	-88.206167
18	WRZH646	150-174	Abry, Jim	40.0	41.020000	-88.563611
19	WRBM329	800/900	ADDISON FIRE PROTECTION DISTRICT	113.0	41.914972	-88.002722
20	WRAT773	800/900	Addison, Village of	113.0	41.987667	-88.016583
21	WRAT773	800/900	Addison, Village of	113.0	41.913833	-88.014861
22	WRAT773	800/900	Addison, Village of	113.0	41.821361	-87.972667
23	WRAT773	800/900	Addison, Village of	113.0	41.730278	-87.969278

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
24	WQXQ636	450-470	AEROPRES CORPORATION	48.0	41.387833	-88.300139
25	WQXQ636	450-470	AEROPRES CORPORATION	48.0	41.415111	-87.983361
26	WPAJ404	450-470	AFFILIATED CUSTOMER SERVICE	121.0	41.797528	-87.954778
27	WQNP347	450-470	AHW LLC	32.0	41.093694	-88.460944
28	WQOX297	450-470	AHW LLC	32.0	41.158194	-88.652028
29	WQOX540	450-470	AHW LLC	32.0	41.142694	-88.275556
30	WQOX540	450-470	AHW LLC	32.0	41.104583	-88.004111
31	WQOY493	450-470	AHW LLC	32.0	41.374528	-88.612000
32	WQOY493	450-470	AHW LLC	32.0	41.096333	-88.417278
33	WQOY493	450-470	AHW LLC	32.0	41.106778	-88.147583
34	WRUJ587	450-470	Air Products & Chemicals, Inc	32.0	41.413056	-88.328889
35	KB70306	450-470	ALARM DETECTION SYSTEMS INC	113.0	41.779750	-88.295917
36	KCX586	25-50	ALARM DETECTION SYSTEMS INC	113.0	41.779750	-88.296194
37	WNCG283	450-470	ALARM DETECTION SYSTEMS, INC.	112.0	41.779750	-88.296194
38	WPKN431	450-470	ALARM DETECTION SYSTEMS, INC.	120.0	41.780306	-88.296750
39	WPXK705	450-470	Alarm Detection Systems, Inc.	120.0	41.625361	-87.728417
40	WQTU833	450-470	Aldi Inc	13.0	41.114389	-88.408611
41	WPKT892	150-174	ALLEN TOWNSHIP FIRE PROTECTION DISTRICT	24.0	41.158361	-88.651444
42	WPPA619	450-470	ALLIANCE PIPELINE L P	32.0	41.411139	-88.298111
43	WQSE530	450-470	ALLIANCE SPECIALTY TRADES INC	80.0	41.672333	-88.074694
44	WPED653	450-470	ALPHA PRIME WIRELESS COMMUNICATIONS	113.0	41.530306	-87.805056
45	WPIX671	800/900	Ameren Services Company	113.0	40.791972	-89.619806
46	WPLY438	800/900	Ameren Services Company	113.0	41.063083	-89.585639
47	WPMP607	800/900	Ameren Services Company	113.0	40.794194	-89.198417

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
48	WNXH406	450-470	American National Red Cross	80.0	41.307500	-88.146111
49	WPFZ494	150-174	AMITY, TOWNSHIP OF	32.0	40.988917	-88.740333
50	WQLV439	450-470	Andy Wurm Tire & Wheel Co Inc	320.0	38.740667	-90.304083
51	WNMQ237	450-470	AQUA LAND COMMUNICATIONS INC	120.7	41.614361	-87.188528
52	WNMQ237	450-470	AQUA LAND COMMUNICATIONS INC	120.7	41.522778	-87.024444
53	KD23109	150-174	Archer Daniels Midland Company	121.0	41.357250	-88.421167
54	WPPX534	150-174	Archer Daniels Midland Company	113.0	41.313361	-89.198139
55	WRJH392	150-174	B&B Ag. Products, Inc.	40.0	40.856667	-88.806667
56	WQRC450	150-174	BCS LLC	40.0	40.744222	-88.623139
57	WPMZ946	450-470	BEARDSLEY, CRAIG L	250.0	41.694194	-87.687556
58	WQYG630	150-174	BERG FARMS	80.0	41.501111	-88.386667
59	WQXF713	450-470	BERGLUND CONSTRUCTION COMPANY	120.0	41.844694	-87.957639
60	WQFB702	25-50, 150-174, 450-470, 470-512, 800/900	B-K ELECTRIC INC	300.0	39.713278	-90.722639
61	KBB386	150-174	BNSF RAILWAY CO.	40.0	41.278361	-88.290139
62	KNCT660	150-174	BNSF Railway Co.	40.0	41.157167	-88.657833
63	WPWJ813	150-174	BNSF Railway Co.	32.0	41.399944	-88.147278
64	WPWJ813	150-174	BNSF Railway Co.	40.0	41.388417	-88.146167
65	WQOW598	150-174	BNSF Railway Co.	40.0	41.401694	-88.150306
66	WQOW598	150-174	BNSF Railway Co.	40.0	41.399583	-88.147028
67	WQLB828	150-174	BOUCHER, MATTHEW	40.0	41.118056	-88.500000
68	WRCH516	150-174	BOURBONNAIS ELEMENTARY SCHOOL DIST 53	40.0	41.179806	-87.891972
69	WNHE649	450-470	BOURBONNAIS, TOWNSHIP OF	32.0	41.122250	-87.950056
70	WQLC444	800/900	BP Products North America Inc.	113.0	41.650611	-87.506861

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
71	WQLC444	800/900	BP Products North America Inc.	113.0	41.658389	-87.491611
72	WQLC444	800/900	BP Products North America Inc.	113.0	41.677583	-87.483306
73	WQAY427	150-174	BRACEVILLE VOLUNTEER FIRE DEPARTMENT	40.0	41.224194	-88.264222
74	WPEY520	150-174	BRADLE, ROGER	72.0	40.729194	-89.135083
75	WPPV420	150-174	BRAIDWOOD FIRE DEPARTMENT INC	16.0	41.264472	-88.230611
76	WPPV420	150-174	BRAIDWOOD FIRE DEPARTMENT INC	32.0	41.404361	-88.117583
77	WNNM518	150-174	BRAIDWOOD, CITY OF	19.0	41.264472	-88.230611
78	WPRI457	150-174	BRAIDWOOD, CITY OF	25.0	41.264194	-88.227000
79	WQUP972	150-174	BRESSNER, JEFF	45.0	40.877250	-88.772556
80	WPEM984	150-174	Bressner, Roger	40.0	40.886139	-88.672833
81	KB91386	450-470	BRINK'S INCORPORATED	121.0	41.874472	-87.639500
82	KD24524	450-470	BRINK'S INCORPORATED	121.0	41.950028	-88.066750
83	KD28608	450-470	BRINK'S INCORPORATED	121.0	40.695028	-89.592611
84	KD28612	450-470	BRINK'S INCORPORATED	121.0	41.783361	-89.191750
85	KD28613	450-470	BRINK'S INCORPORATED	121.0	40.783361	-88.250056
86	KD28616	450-470	BRINK'S INCORPORATED	121.0	41.566694	-87.500028
87	WQPC633	150-174	BROUGHTON, TOWNSHIP OF	15.0	40.958333	-88.358056
88	KNIA629	150-174	BROWN, GARY DBA G & J FARMS INC	32.0	40.820306	-88.383944
89	KZZ283	150-174	BUCKLEY FIRE PROTECTION DISTRICT	64.0	40.600028	-88.038917
90	KNDS826	150-174	CABERY AREA FIRE PROTECTION DISTRICT	32.0	40.995583	-88.206722
91	WPAW276	450-470	CAILTEUX, KENNETH	80.0	40.375306	-87.875306
92	WPEC498	450-470	CAILTEUX, KENNETH	80.0	40.930306	-87.932250
93	WPLD691	450-470	CAILTEUX, KENNETH J	32.0	41.016972	-87.904750
94	WQLP696	450-470	Cargill, Incorporated	32.0	41.354861	-88.425778
95	WQLP696	150-174	Cargill, Incorporated	40.0	41.354861	-88.425778

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
96	WQLP696	450-470	Cargill, Incorporated	32.0	41.390528	-88.145222
97	WQLP696	150-174	Cargill, Incorporated	40.0	41.390528	-88.145222
98	WQNN319	150-174, 450-470, 470-512	CBS BROADCASTING INC.	100.0	41.883694	-87.629306
99	WPPZ694	150-174	CENTRAL UNIT 4 SCHOOL DISTRICT	32.0	41.016972	-87.904750
100	WRXE455	450-470	CERENITI DATASENSE NETWORKS	5.0	41.101250	-88.423639
101	KST435	150-174	CHEBANSE AG SERVICE INC	48.0	40.998917	-87.909750
102	WQWA212	450-470	CHELLINO CRANE	120.0	41.875722	-87.645500
103	KSI382	150-174	CHENOA COMMUNITY FIRE PROTECTION DISTRICT	40.0	40.741111	-88.710000
104	KUI731	150-174	CHENOA, CITY OF	40.0	40.743083	-88.715333
105	KZV881	150-174, 450-470	CHENOA, CITY OF	40.0	40.741111	-88.710000
106	WQTY827	450-470	CHEXX SYSTEMS	80.0	41.608583	-88.457306
107	WNAJ329	800/900	CHICAGO, CITY OF	113.0	41.977306	-87.904139
108	WQNZ370	150-174	CHIEF REDI-MIX,INC.	40.0	40.882778	-88.619444
109	WNWK651	150-174	Christensen, Ron D	121.0	41.082250	-86.856417
110	WQVD946	800/900	CITY COLLEGES OF CHICAGO	113.0	41.878000	-87.673639
111	WQVD946	800/900	CITY COLLEGES OF CHICAGO	113.0	41.780250	-87.643861
112	WNDW413	800/900	City of Chicago - Office of Public Safety Administration	113.0	41.885556	-87.620833
113	WNDV931	800/900	City of Naperville	121.0	41.878917	-87.636167
114	WNNL334	800/900	City of Naperville	121.0	41.878917	-87.636167
115	WQWP711	150-174	CL FARMS	40.0	41.320417	-88.773194
116	WQVA715	450-470	CLARK, BRENT A	32.0	40.960944	-88.601417
117	WQCV973	450-470	COAL CITY CUSD #1	32.0	41.288000	-88.300000
118	WNUF574	150-174	COAL CITY, VILLAGE OF	48.0	41.281694	-88.284222
119	WRE646	150-174, 450-470	COAL CITY, VILLAGE OF	24.0	41.281694	-88.285056

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
120	WRKW464	450-470	Code Red Safety & Rental, LLC	32.0	41.414556	-88.184750
121	WPGE359	450-470	COLLEGE OF DU PAGE	121.0	41.843361	-88.083389
122	WRMP283	800/900	Commonwealth Edison Company	113.0	41.919722	-88.429500
123	WRMP283	800/900	Commonwealth Edison Company	113.0	41.981667	-88.242778
124	WRMP752	800/900	Commonwealth Edison Company	113.0	41.687250	-88.477556
125	WRMP752	800/900	Commonwealth Edison Company	113.0	42.051139	-87.754500
126	WRMP758	800/900	Commonwealth Edison Company	113.0	41.880556	-88.751389
127	WRMP758	800/900	Commonwealth Edison Company	113.0	41.388333	-88.281111
128	WRMP758	800/900	Commonwealth Edison Company	113.0	41.624167	-87.932222
129	WRMP758	800/900	Commonwealth Edison Company	113.0	41.208889	-87.913333
130	WRMP758	800/900	Commonwealth Edison Company	113.0	41.985278	-87.655556
131	WRMT870	800/900	Commonwealth Edison Company	113.0	41.041667	-88.765000
132	WRMT870	800/900	Commonwealth Edison Company	113.0	41.894722	-88.045556
133	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.719444	-89.067222
134	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.008056	-88.265833
135	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.761972	-87.767250
136	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.881583	-87.630583
137	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.429167	-87.592222
138	WRMZ768	800/900	Commonwealth Edison Company	113.0	41.716139	-87.543917
139	WQWZ925	450-470	CONSOLIDATED DISTRIBUTION CORPORATION	24.0	41.340139	-88.210528
140	WQWZ925	450-470	CONSOLIDATED DISTRIBUTION CORPORATION	24.0	41.340139	-88.210500
141	WQOC703	450-470	Consolidated Grain & Barge	32.0	41.093694	-88.461000
142	WNCL915	216-220	Constellation Energy Generation, LLC	121.0	41.298361	-88.434778
143	WNCL915	216-220	Constellation Energy Generation, LLC	121.0	41.981417	-88.243139
144	WNPK678	800/900	Constellation Energy Generation, LLC	113.0	41.389750	-88.270333

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
145	WNWY533	150-174, 450-470	Constellation Energy Generation, LLC	20.0	41.242528	-88.229500
146	WQCH324	150-174	Constellation Energy Generation, LLC	40.0	41.298889	-88.419722
147	WQHI515	450-470	Constellation Energy Generation, LLC	32.0	41.242528	-88.229500
148	WNNS514	800/900	COOK DUPAGE TRANSPORTATION COMPANY INC	113.0	41.937222	-88.124722
149	WNNS514	800/900	COOK DUPAGE TRANSPORTATION COMPANY INC	113.0	41.966139	-87.943889
150	WNNS514	800/900	COOK DUPAGE TRANSPORTATION COMPANY INC	113.0	41.878917	-87.636167
151	WNNS514	800/900	COOK DUPAGE TRANSPORTATION COMPANY INC	113.0	41.895861	-87.622556
152	WNNS514	800/900	COOK DUPAGE TRANSPORTATION COMPANY INC	113.0	41.553889	-87.371111
153	WQEL763	800/900	COOK DUPAGE TRANSPORTATION INC	113.0	41.512500	-88.255556
154	WQEL763	800/900	COOK DUPAGE TRANSPORTATION INC	113.0	41.708611	-87.783889
155	WQEL763	800/900	COOK DUPAGE TRANSPORTATION INC	113.0	41.620833	-87.681944
156	WQEL763	800/900	COOK DUPAGE TRANSPORTATION INC	113.0	41.878917	-87.636167
157	WPFV399	150-174	COOLEY, H MICHAEL	97.0	40.738917	-87.311972
158	KTE868	150-174	CORN BELT ENERGY CORPORATION	80.0	40.417667	-88.906500
159	WRAD322	450-470	Costco Wholesale	32.0	41.389917	-88.437417
160	WQZR562	450-470	Costco Wholesale Corporation	32.0	41.393556	-88.423861
161	WQSK637	150-174	CSX Transportation Inc	40.0	41.319667	-88.610278
162	WQSK637	150-174	CSX Transportation Inc	40.0	41.417444	-88.319806
163	KW8774	150-174	CULLOM FIRE PROTECTION DISTRICT	48.0	40.878917	-88.255333
164	KXH634	150-174	CULLOM FIRE PROTECTION DISTRICT	32.0	40.878917	-88.255333
165	WRCQ810	150-174	Custer Fire Protection District	32.0	41.248667	-88.135194
166	WPGQ917	450-470	D & I ELECTRONICS, INC.	121.0	41.564750	-88.219778
167	KVM538	150-174	DANFORTH, TOWNSHIP OF	64.0	40.824472	-87.976972

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
168	WPNV723	150-174	DE PATIS, DARIN	40.0	40.916972	-87.806972
169	WPDT431	450-470	DEFENBAUGH, ANN	64.0	41.088917	-88.688389
170	WQSB645	150-174	DIEMER, DALE D	40.0	40.945556	-88.453333
171	WQGX719	450-470	DMC SECURITY SERVICES, INC.	80.0	41.625361	-87.728417
172	WPES847	25-50	DU PAGE, COUNTY OF	105.0	41.865861	-88.146472
173	WQTF323	150-174	DUFFY, STEVE	40.0	40.902472	-88.716833
174	WRAS761	450-470	Duffy-Baier-Snedecor Ambulance Service, LLC	32.0	40.881167	-88.628417
175	KNAB580	150-174	DUNELAND SCHOOL CORPORATION	121.0	41.581139	-87.045583
176	KSR490	800/900	DURHAM SCHOOL SERVICES	113.0	41.878917	-87.636167
177	WQWH629	450-470	DWIGHT TOWNSHIP HIGH SCHOOL DISTRICT 230	32.0	41.087167	-88.427111
178	KZZ342	150-174	DWIGHT, VILLAGE OF	16.0	41.092528	-88.429500
179	WPMN729	150-174	DWIGHT, VILLAGE OF	40.0	41.092528	-88.429500
180	WNKP742	150-174, 450-470	EASTERN ILLINI ELECTRIC COOPERATIVE	129.0	40.453083	-88.103111
181	KD42341	150-174	EASTERN MARSHALL COUNTY EMS	80.0	41.050028	-89.049250
182	WREQ921	450-470	EDF RENEWABLES	32.0	40.967278	-88.197361
183	WRFQ852	450-470	EDF Renewables Services, Inc.	32.0	40.967389	-88.171222
184	WRFR876	450-470	EDF Renewables Services, Inc.	32.0	41.014417	-88.031000
185	WQWN981	450-470	EDP RENEWABLES - TOP CROP WIND FARM	32.0	41.141917	-88.504111
186	KNIG682	150-174	Elliot, Randall	72.0	40.993083	-87.972278
187	KSG895	150-174	ELMHURST-CHICAGO STONE COMPANY	80.0	41.836139	-88.539250
188	KSG895	150-174	ELMHURST-CHICAGO STONE COMPANY	80.0	41.717250	-88.086167
189	WRJY591	150-174	ELWOOD FIRE PROTECTION DISTRICT	40.0	41.383556	-88.116750
190	WREM265	150-174	EMINGTON - CAMPUS FIRE PROTECTION DISTRICT	40.0	41.024889	-88.307944
191	KD3809	450-470	Enbridge Energy Company, Inc.	80.0	41.639444	-88.045278
192	KD3809	450-470	Enbridge Energy Company, Inc.	80.0	41.348889	-87.400556

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193	WQRD828	450-470	Enbridge Energy Company, Inc.	32.0	40.945111	-88.646000
194	WPHA781	800/900	ENERSTAR POWER COMPANY	113.0	41.301417	-88.953139
195	KC27732	450-470	ENTERCOM LICENSE, LLC	100.0	41.878917	-87.636167
196	WQUU475	450-470	ENTERCOM LICENSE, LLC	100.0	41.878889	-87.635917
197	KQT706	450-470	Equistar Chemicals, LP	32.0	41.413083	-88.331167
198	WNJF872	150-174, 450-470	Equistar Chemicals, LP	48.0	41.413083	-88.331167
199	WRVB270	150-174	Erschen, Frank	40.0	40.951667	-88.735278
200	WPIK959	450-470	ESP Wireless Technology Group, Inc	113.0	41.496417	-88.298944
201	WQRD737	150-174	ESSEX FIRE PROTECTION DIST	32.0	41.177278	-88.187083
202	WQQX430	25-50	ESSEX FIRE PROTECTION DISTRICT	16.0	41.169750	-88.186167
203	WQTG511	150-174	ESSEX, TOWNSHIP OF	32.0	41.173611	-88.195000
204	WPBE333	150-174, 450-470	ESSEX, VILLAGE OF	8.0	41.176417	-88.193944
205	WRKU312	800/900	Estate of Terry J Mack	113.0	41.610278	-88.439167
206	WQDX913	150-174	EXXON COMMUNICATIONS COMPANY	32.0	41.414194	-88.184778
207	WQVE754	450-470	FAIRBURY FIRE PROTECTION DISTRICT	32.0	40.747056	-88.518194
208	WRKP469	800/900	FBA Corporation	88.0	41.565833	-88.062222
209	WRKP469	800/900	FBA Corporation	113.0	41.878917	-87.636167
210	WRVH880	800/900	FBA Corporation	113.0	41.496417	-88.298944
211	WRVH880	800/900	FBA Corporation	113.0	41.565833	-88.062222
212	KB78213	450-470	FCA US LLC	120.7	41.874472	-87.639500
213	WQTN610	150-174	FEHR, DARREN	40.0	40.982194	-88.644861
214	KAN885	800/900	First Student Inc	113.0	41.895861	-87.622556
215	KNGL509	800/900	First Student Inc	98.0	41.863917	-88.113944
216	KSF842	150-174	FIRST STUDENT INC	40.0	41.238639	-88.830083
217	WNVE333	800/900	First Student Inc	113.0	41.922250	-88.751750

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218	WPXG762	150-174	First Student Inc	40.0	41.131194	-87.830333
219	WNZW397	150-174	FORD, COUNTY OF Ford 911	40.0	40.758361	-88.191694
220	WQNZ372	150-174	FORREST REDI- MIX,INC.	40.0	40.737500	-88.416667
221	WQPP891	150-174	FOX, BRODY	121.0	40.497167	-87.417083
222	WQTL950	150-174	FOX, RICH	40.0	40.991250	-88.412917
223	WPWY702	800/900	Francis Ms., Bini	113.0	40.180861	-88.317833
224	WRAM333	150-174	FREEDOM EMS LLC	64.0	41.310972	-88.138250
225	WNUF738	450-470	FROELICH, GENE:FROELICH, MARK E DBA F TROOP FARMS	32.0	40.807528	-88.155611
226	WPKL271	450-470	FSS Technologies, L.L.C.	120.0	41.755583	-87.956444
227	WPKL974	150-174	Gardner Fire Protection District	40.0	41.183361	-88.305889
228	WREN957	450-470	GARDNER SOUTH WILMINGTON HIGH SCHOOL DISTRICT 73	8.0	41.193722	-88.305972
229	WNKQ387	450-470	GARY DIETRICH FARMS	48.0	41.028361	-87.819750
230	WRAI201	450-470	Gavilon Fertilizer	32.0	41.315806	-88.657861
231	WRWS668	450-470	GCS SUPPLY, LLC.	80.0	41.701389	-88.008889
232	WNQT248	25-50	GODLEY PARK DISTRICT	32.0	41.233361	-88.246444
233	WNSK382	800/900	GRAINCO FS INC	48.0	41.496417	-88.298944
234	WPGH577	450-470	GRAINLAND COOPERATIVE	80.0	40.744472	-89.134806
235	WQZU398	150-174	GRAND RIDGE GRADE SCHOOL	40.0	41.237778	-88.835556
236	WQMI710	470-512	GRAY TELEVISION LICENSEE, LLC	270.0	41.528639	-90.573444
237	WRKX844	800/900	GREENPORT PROPERTIES, LLC	88.0	41.565833	-88.062222
238	WPZW710	150-174, 450-470	GREMLEY & BIEDERMANN	160.0	41.962500	-87.732500
239	KC25310	450-470	GRUNDY COUNTY BROADCASTERS, INC.	48.3	41.293083	-88.334500
240	WPMX444	150-174	Grundy County E T S B	30.0	41.307528	-88.414778
241	WPMH798	150-174, 450-470	GRUNDY COUNTY E.T.S.B.	40.0	41.307500	-88.414722
242	WPOY799	150-174	GRUNDY COUNTY E.T.S.B.	40.0	41.358639	-88.422556

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243	WPU1945	800/900	GRUNDY COUNTY E.T.S.B.	40.0	41.285861	-88.430333
244	WQBY987	800/900	GRUNDY COUNTY E.T.S.B.	40.0	41.285861	-88.430333
245	WNWF904	450-470	Grundy County ETSB	29.0	41.307500	-88.414722
246	WQJZ345	800/900	GRUNDY COUNTY ETSB	35.0	41.285861	-88.430333
247	KGL514	25-50	GRUNDY, COUNTY OF	32.0	41.371139	-88.432833
248	KGL583	25-50, 150-174	GRUNDY, COUNTY OF	32.0	41.371139	-88.432833
249	WPEP959	25-50	GRUNDY, COUNTY OF	113.0	41.371139	-88.432833
250	WQRJ756	150-174	GTC SPECTRUM CORPORATION	40.0	41.395306	-88.297278
251	WPPD445	150-174	GUNDERSEN LUTHERAN MEDICAL CENTER	600.0	43.794417	-91.249583
252	WQUU959	150-174	HAAS, JEREMY	40.0	40.850000	-88.663889
253	WPBS287	450-470	Hagenbuch Hag, Henry	64.0	41.454194	-88.961750
254	WRMB900	150-174	HALEY BROTHERS FARMS LLC	40.0	40.919000	-88.091556
255	WPGV881	150-174	HAMSTRA, GARY	121.0	41.173639	-87.179194
256	KSU993	150-174	Haney, Daryl	56.0	40.755583	-88.691722
257	WNPY659	450-470	Haney, Daryl	56.0	40.734194	-88.789222
258	WNBS407	450-470	HANSEN, DONALD	56.0	40.576694	-88.243111
259	WPZZ858	450-470	Hardee's Food Systems, LLC	121.0	40.138556	-87.630333
260	WQZB989	450-470	HARFORD FARMS	30.0	41.241694	-88.425889
261	WRKR329	150-174	Harms, Paul E	40.0	40.803250	-88.439528
262	WPGX814	150-174	HARMS, RONALD J	48.0	41.023917	-88.894528
263	WRNS818	150-174	Harrison, David	40.0	40.704167	-88.658889
264	WQKZ728	150-174	HARTMAN, JOHN	48.0	40.686111	-88.484722
265	WQI355	150-174	HELENA AGRI-ENTERPRISES, LLC	121.0	41.002250	-89.132028
266	WPEY269	150-174	HERITAGE FS INC	121.0	40.572250	-88.247278
267	WPEY269	150-174	HERITAGE FS INC	121.0	40.569167	-88.247111

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268	WPEY269	150-174	HERITAGE FS INC	121.0	40.750583	-87.996694
269	WPEY269	150-174	HERITAGE FS INC	121.0	40.768917	-87.922528
270	WPEY269	150-174	HERITAGE FS INC	121.0	40.555306	-87.885306
271	WPEY269	150-174	HERITAGE FS INC	121.0	40.538361	-87.680861
272	WQTU608	150-174	HERITAGE FS INC	40.0	40.743611	-87.998333
273	WPGV644	150-174	Heritage FS, Inc.	40.0	40.818500	-88.289250
274	WPGV644	150-174	Heritage FS, Inc.	80.0	41.241694	-87.633361
275	WPWF314	450-470	HERSCHER COMMUNITY UNIT SCHOOL DIST. #2	32.0	41.049889	-88.096111
276	WNSP531	150-174	HITCHINGS, MELVIN	121.0	40.889472	-87.117250
277	KUL525	150-174	Hodel Brothers Farms	80.0	40.774194	-89.192861
278	WRKP330	450-470	Hoffman Transportation	32.0	41.261306	-88.276611
279	KC25111	450-470	HOLY FAMILY COMMUNICATIONS, INC	402.0	40.766167	-83.837167
280	WQYN709	450-470	Hoosier Energy Rural Electric Cooperative, Inc.	32.0	40.931500	-88.655472
281	WNFU757	150-174	HUSTEDT, CHRISTOPHER R	56.0	41.418083	-88.444500
282	WQHN319	150-174	IFFT, MATTHEW D	80.0	40.752778	-88.325000
283	KDM489	150-174	ILLINOIS CENTRAL RAILROAD COMPANY	40.0	41.130028	-87.858389
284	KGJ580	150-174	ILLINOIS CENTRAL RAILROAD COMPANY	40.0	40.787250	-87.988361
285	KQU228	150-174	ILLINOIS CENTRAL RAILROAD COMPANY	40.0	41.128639	-87.864500
286	WNHW924	150-174	ILLINOIS CENTRAL RAILROAD COMPANY	40.0	40.787250	-87.988361
287	WPKF630	150-174	ILLINOIS CENTRAL RAILROAD COMPANY	40.0	41.128639	-87.864500
288	WQWF257	450-470	ILLINOIS CENTRAL SCHOOL BUS LLC	32.0	41.354722	-88.498611
289	WQWF517	450-470	ILLINOIS CENTRAL SCHOOL BUS LLC	32.0	41.018611	-88.593889
290	WQWF517	450-470	ILLINOIS CENTRAL SCHOOL BUS LLC	32.0	41.386583	-88.439944
291	WQCT757	800/900	Illinois Cooperative Association, Inc.	56.0	41.301389	-88.953056
292	KNET289	800/900	Illinois Cooperative dba Clear Talk	113.0	41.309750	-88.812306

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293	WNMO293	800/900	Illinois Cooperative dba Clear Talk	113.0	40.793639	-87.754750
294	WNWB448	800/900	Illinois Cooperative dba Clear Talk	113.0	41.151139	-87.855611
295	WPBZ996	800/900	Illinois Cooperative dba Clear Talk	113.0	41.106694	-87.888389
296	WPER444	800/900	Illinois Cooperative dba Clear Talk	113.0	40.126389	-88.290278
297	WPHA805	800/900	Illinois Cooperative dba Clear Talk	113.0	40.161417	-87.696417
298	WPHA808	800/900	Illinois Cooperative dba Clear Talk	113.0	40.891417	-88.445889
299	WPHN431	800/900	Illinois Cooperative dba Clear Talk	70.0	41.077528	-87.756139
300	WPJK853	800/900	Illinois Cooperative dba Clear Talk	113.0	40.645833	-89.179167
301	WPLY587	800/900	Illinois Cooperative dba Clear Talk	113.0	40.645833	-89.179167
302	WPLY617	800/900	Illinois Cooperative dba Clear Talk	90.0	41.301389	-88.953056
303	WPMD703	800/900	Illinois Cooperative dba Clear Talk	113.0	41.077528	-87.756139
304	WPMD731	800/900	Illinois Cooperative dba Clear Talk	113.0	40.891417	-88.445889
305	WPMF885	800/900	Illinois Cooperative dba Clear Talk	113.0	41.372222	-89.487778
306	WPPA251	800/900	Illinois Cooperative dba Clear Talk	113.0	41.336972	-88.763972
307	WPPA256	800/900	Illinois Cooperative dba Clear Talk	113.0	41.871111	-89.020833
308	WPRG706	800/900	Illinois Cooperative dba Clear Talk	113.0	40.884222	-88.742444
309	WPRG707	800/900	Illinois Cooperative dba Clear Talk	113.0	41.138889	-87.852194
310	WPRG708	800/900	Illinois Cooperative dba Clear Talk	113.0	40.793611	-87.754722
311	WPRH230	800/900	Illinois Cooperative dba Clear Talk	113.0	40.161528	-87.696444
312	WPSM625	800/900	Illinois Cooperative dba Clear Talk	113.0	40.508333	-88.987500
313	WPSM641	800/900	Illinois Cooperative dba Clear Talk	113.0	40.644722	-89.179722
314	WPST700	800/900	Illinois Cooperative dba Clear Talk	113.0	40.733056	-89.486111
315	WPSU481	800/900	Illinois Cooperative dba Clear Talk	113.0	40.508333	-88.987500
316	WPTF624	800/900	Illinois Cooperative dba Clear Talk	113.0	40.126389	-88.290278
317	WPTF927	800/900	Illinois Cooperative dba Clear Talk	112.0	40.126389	-88.290278

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318	WPUI397	800/900	Illinois Cooperative dba Clear Talk	113.0	40.161528	-87.696444
319	WNMF342	800/900	ILLINOIS PUBLIC SAFETY AGENCY NETWORK	113.0	41.918639	-88.235917
320	WNXS419	800/900	ILLINOIS PUBLIC SAFETY AGENCY NETWORK	112.7	40.729750	-89.554806
321	WPKG583	800/900	ILLINOIS PUBLIC SAFETY AGENCY NETWORK	80.0	41.583361	-88.083389
322	WPKI933	800/900	ILLINOIS PUBLIC SAFETY AGENCY NETWORK	97.0	41.864750	-87.887000
323	WPKI933	800/900	ILLINOIS PUBLIC SAFETY AGENCY NETWORK	55.0	41.156694	-87.871167
324	WRWP572	450-470	Illinois State Rifle Association	32.0	41.140278	-88.009722
325	WQTP507	150-174	Illinois Transport Inc	40.0	41.335889	-88.095139
326	KEO371	150-174	ILLINOIS, STATE OF	64.0	41.363056	-89.098611
327	KNFB428	450-470	ILLINOIS, STATE OF	64.0	41.579194	-88.083389
328	WPLH933	150-174	ILLINOIS, STATE OF	95.0	41.866694	-88.100056
329	WPNQ269	800/900	ILLINOIS, STATE OF	20.0	41.095306	-88.474778
330	WQAZ301	800/900	ILLINOIS, STATE OF	32.0	41.285861	-88.430333
331	WQCW207	800/900	ILLINOIS, STATE OF	32.0	40.869250	-88.641472
332	WQDC310	800/900	ILLINOIS, STATE OF	32.0	40.883361	-87.970583
333	WRNU712	450-470	Immke, Don	48.0	40.855000	-88.408333
334	WPXR836	450-470	IMTT-Illinois LLC	32.0	41.414194	-88.202000
335	WNVW879	800/900	INCOBRASA INDUSTRIES, LTD.	56.0	40.761694	-88.014750
336	WQKF981	150-174	INDIAN GROVE TOWNSHIP	40.0	40.741972	-88.514222
337	WRKP471	800/900	Infinite Inet, Inc	88.0	41.565833	-88.062222
338	WRFM568	150-174	INFRA METALS CORPORATION	32.0	41.318611	-88.682500
339	KXZ315	150-174	JAKOB, WILLARD	56.0	40.960583	-88.036722
340	WQBV416	150-174	Jehle Bros., Inc.	40.0	40.878083	-88.269444
341	WROD702	450-470	JGB SECURITY AND CONSULTING INC	64.0	41.531972	-87.873944
342	KDI634	150-174	JOHNSON, DAVID E	40.0	41.129750	-87.868111



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343	WRUG745	450-470	Johnson, Howard	32.0	41.266694	-88.600083
344	WPJT201	800/900	JOLIET, CITY OF	113.0	41.524194	-88.085056
345	WQZZ455	769-775/799-805	JOLIET, CITY OF	40.0	41.285861	-88.430333
346	WRAQ941	769-775/799-805	JOLIET, CITY OF	40.0	41.435389	-88.183333
347	WQBY340	150-174	JOYCE, MARTY	40.0	41.158361	-88.242556
348	WRWD568	450-470	K BROS LLC	32.0	41.008556	-88.731611
349	WQTA695	150-174	KAFER TILING & EXCAVATING, INC.	40.0	40.746139	-88.491806
350	WRFC799	150-174	KAMINKE, TOM	40.0	40.988056	-88.873056
351	KA92936	150-174	Kankakee County Sheriff's Department	51.0	41.117806	-87.860889
352	WNYU311	150-174	Kankakee County Sheriff's Department	40.0	41.119472	-87.860611
353	WRDZ975	150-174	KANKAKEE SCHOOL DISTRICT 111	40.0	41.114639	-87.832583
354	WNGD750	150-174	KANKAKEE, COUNTY OF	40.0	41.116972	-87.861722
355	WPBV982	150-174	KANKAKEE, COUNTY OF	40.0	41.117778	-87.860833
356	WQBU816	150-174	KANKAKEE, COUNTY OF	40.0	41.076139	-87.859472
357	WPUY811	450-470	Keltron Corporation	120.0	41.672222	-88.004167
358	WPYS418	450-470	Keltron Corporation	120.0	41.932222	-88.178611
359	WQKZ718	450-470	Keltron Corporation	80.0	41.750278	-88.003500
360	WQKZ719	450-470	Keltron Corporation	80.0	41.780722	-87.893361
361	WQKZ720	450-470	Keltron Corporation	80.0	41.766083	-88.059944
362	KBS718	150-174	KENDALL COUNTY CONCRETE INC	120.7	41.500028	-88.500083
363	WQVS245	450-470	Kensing, LLC	32.0	41.085556	-87.879722
364	WNLP353	150-174	KOELLER, JAN	56.0	40.898639	-88.872306
365	WRDG655	150-174	KURTZ AMBULANCE SERVICE	80.0	41.514972	-88.000972
366	KWK423	150-174	LANDER, WILLIAM A	40.0	41.125028	-88.838694
367	KWK423	150-174	LANDER, WILLIAM A	40.0	41.373361	-88.417000

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368	KWK423	150-174	LANDER, WILLIAM A	40.0	41.325583	-88.248111
369	KWK423	150-174	LANDER, WILLIAM A	40.0	41.339194	-88.195611
370	KWK423	150-174	LANDER, WILLIAM A	40.0	41.309750	-88.148111
371	WQOK773	450-470	LAZY H INC.	32.0	40.893306	-88.405889
372	WQOX691	450-470	LEWIS UNIVERSITY	80.0	41.602778	-88.080278
373	WPNP415	450-470	LIFE CARE RETIREMENT COMMUNITIES INC DBA BEACON HILL	80.0	41.840833	-88.026111
374	WPOY842	150-174	LIMESTONE FIRE PROTECTION DISTRICT	40.0	41.117528	-87.965333
375	WRAN408	150-174	LIMESTONE TOWNSHIP RD DISTRICT	40.0	41.117111	-87.964889
376	WQQV800	450-470	LIVINGSTON LANDFILL DIVISION OF REPUBLIC SERVICES	32.0	40.931889	-88.662250
377	WRDH542	450-470	LIVINGSTON STONE, INC.	32.0	40.795778	-88.619806
378	WNDG589	150-174	LOTTINVILLE FARMS INC	56.0	41.021972	-87.709194
379	WRXW773	450-470	LSC COMMUNICATIONS MCL LLC	80.0	41.660944	-88.109889
380	WRDG977	150-174	Lucas Ambulance & Medi-Car Service, Inc.	161.0	41.760361	-87.860917
381	WRPY533	450-470	LUKOW BROS FARMS	40.0	41.015694	-87.904194
382	WNPZ490	150-174	LYONS, LAWRENCE	64.0	41.442806	-88.782861
383	WNWW223	150-174	MANTENO, CITY OF	80.0	41.251694	-87.833667
384	WQSD591	150-174	MARSEILLES AREA AMBULANCE SERVICE	40.0	41.328361	-88.700083
385	WRZL420	450-470	MARSEILLES SCHOOL DISTRICT	32.0	41.324306	-88.697278
386	KNJP864	450-470	MASCHING, WILLIAM	48.0	41.037250	-88.305889
387	WPHZ795	450-470	MATERIAL SERVICE CORPORATION	80.0	41.327806	-88.483389
388	KRB443	150-174	MAZON FIRE PROTECTION DISTRICT	32.0	41.238917	-88.423667
389	WQFQ273	150-174	MAZON VERONA KINSMAN AMBULANCE SQUAD	40.0	41.238917	-88.423667
390	KLK903	150-174	MC ILVAINE, CLIFFORD J	121.0	41.901972	-88.317861
391	WQZF281	450-470	McGreal, Tim	32.0	40.739444	-88.250000



ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
392	KAW751	150-174	MEYER JR, JOHN A	40.0	41.251139	-88.103111
393	WQPF208	150-174	MILKS GROVE TOWNSHIP	32.0	40.939500	-88.093528
394	WQTM803	450-470	MILLER AND COMPANY	32.0	41.308583	-88.598778
395	WPZP763	450-470	MILNER MEDIA PARTNERS, LLC	40.0	41.160833	-87.875000
396	WQJA559	150-174	Minooka High School District 111	40.0	41.417139	-88.256889
397	WQYJ761	150-174	MINOOKA SCHOOL DISTRICTS 111 & 201	40.0	41.433500	-88.268972
398	WRDZ289	800/900	Mobile Relay Associates, LLC	113.0	41.878917	-87.636167
399	WQNZ921	450-470	MORRIS COMMUNITY HIGH SCHOOL DISTRICT # 101	32.0	41.364861	-88.432917
400	WPYT671	450-470	MORRIS HOSPITAL & HEALTH CARE CENTERS	32.0	41.369389	-88.426556
401	KB75622	150-174	MORRIS, CITY OF	40.0	41.358639	-88.425333
402	WRMY753	150-174	Moser Holdings, Inc.	40.0	40.715000	-88.542778
403	WNRG952	800/900	MOTOROLA SOLUTIONS, INC.	113.0	42.065028	-88.048417
404	WNSN246	800/900	MOTOROLA SOLUTIONS, INC.	113.0	42.062528	-88.052306
405	WPIG593	150-174	NAFFZIGER, RONALD	121.0	40.665306	-89.463694
406	WQVL794	450-470	NAGEL FARMS	80.0	41.820250	-88.723750
407	WQCM665	450-470	NEWTOWN, TOWNSHIP OF	32.0	41.069472	-88.780639
408	WQVZ521	800/900	NEXGEN COMMUNICATIONS CORP.	113.0	41.415278	-88.271944
409	WRMU515	800/900	NEXGEN COMMUNICATIONS CORPORATION	113.0	41.885306	-87.621583
410	WNRO588	150-174	NILES, VIRGIL L	48.0	40.618639	-88.143944
411	WNPH280	150-174	Noe Farms	80.0	40.342528	-88.484500
412	KTE293	150-174	Norfolk Southern Railway Company	40.0	41.098417	-88.811528
413	KTE293	150-174	Norfolk Southern Railway Company	40.0	41.103806	-88.250944
414	KTE293	150-174	Norfolk Southern Railway Company	40.0	41.121778	-87.910250
415	WQCB489	150-174	Norfolk Southern Railway Company	16.0	41.102972	-88.309056
416	WQCB489	150-174	Norfolk Southern Railway Company	16.0	41.104750	-88.211639

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
417	WQGV447	150-174	Norfolk Southern Railway Company	16.0	41.106000	-88.172806
418	WQGV447	150-174	Norfolk Southern Railway Company	16.0	41.106972	-88.146861
419	WQHE218	150-174	Norfolk Southern Railway Company	16.0	41.102833	-88.328278
420	WQHE218	150-174	Norfolk Southern Railway Company	16.0	41.102972	-88.309083
421	WQRQ302	150-174	Norfolk Southern Railway Company	8.0	41.103639	-88.252250
422	WQRZ209	150-174	Norfolk Southern Railway Company	8.0	41.103056	-88.308472
423	WNIY497	150-174	NORTHEAST ILLINOIS REGIONAL COMMUTER RAILROAD CORPORATION	80.0	41.655583	-87.676722
424	WNJS224	150-174	Northeast Illinois Regional Commuter Railroad Corporation	72.0	41.524167	-88.072500
425	WNAS534	800/900	NORTHERN INDIANA PUBLIC SERVICE COMPANY	113.0	41.216694	-87.022528
426	WNAS534	800/900	NORTHERN INDIANA PUBLIC SERVICE COMPANY	177.0	41.116167	-86.163889
427	WNVR293	800/900	Northern Indiana Public Service Company	177.0	41.116167	-86.163889
428	WPAH495	800/900	NORTHERN INDIANA PUBLIC SERVICE COMPANY	257.0	41.116167	-86.163889
429	WQSJ209	450-470	NORTHERN INDIANA PUBLIC SERVICE COMPANY	257.0	41.116167	-86.163889
430	KB64148	150-174	NORTHWEST HOMER FIRE PROTECTION DISTRICT	58.0	41.622250	-87.992000
431	KSK362	150-174	NORTON TOWNSHIP	40.0	41.050028	-88.181722
432	KNFR505	450-470	NOTTKE, ALAN R	56.0	40.925583	-87.922528
433	WPXW241	450-470	NUTRIEN AG SOLUTIONS INC	32.0	40.738889	-88.511111
434	WRKQ397	450-470	O CONNOR, MARK P	32.0	41.078528	-87.963583
435	WNFH351	150-174	OAKWOOD COMMUNITY UNIT 76	121.0	40.113639	-87.828083
436	WPML765	150-174	ODELL, TOWNSHIP OF	32.0	40.997528	-88.518667
437	WNQJ460	150-174	OGLESBY, CITY OF	103.0	41.297250	-89.061194
438	WRFQ501	450-470	OHIO SEMITRONICS OF CA, INC	80.0	41.588389	-88.161194
439	WRFQ502	450-470	OHIO SEMITRONICS OF CA, INC	80.0	41.649000	-87.823139
440	WRYT529	450-470	Ohio Semitronics of California, Inc.	80.0	40.961472	-88.544861

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441	KPH391	450-470	OLIVET NAZARENE UNIVERSITY	32.0	41.156694	-87.871167
442	WQMJ670	450-470	OLIVET NAZARENE UNIVERSITY	32.0	41.156667	-87.871111
443	WQIS472	450-470	OLSON, DONNA J	32.0	41.158278	-88.651500
444	WQTE615	450-470	ONEOK INC.	32.0	41.412194	-88.343583
445	WRXN259	450-470	Operating Engineers Local 150	32.0	41.339917	-88.084889
446	WPPY924	150-174	Orland Fire protection District	40.0	41.358639	-88.422556
447	WPPY924	150-174	Orland Fire protection District	40.0	41.083917	-87.878944
448	WNWC408	150-174	OSF Healthcare System, d/b/a OSF Heart of Mary Medical Center (Urbana)	121.0	40.117778	-88.227500
449	WRYG510	150-174	Ottawa Elementary School District #141	40.0	41.323806	-88.828000
450	WREC954	450-470	Otter Creek Wind, LLC	32.0	41.114000	-88.719083
451	WNVH434	800/900	P T FERRO CONSTRUCTION CO	64.0	41.565861	-88.062278
452	WPF640	800/900	PACE SUBURBAN BUS SERVICE OF THE RTA	113.0	41.853361	-87.917833
453	WQML646	150-174	PACIFIC RAIL SERVICES	40.0	41.479111	-88.118083
454	WPKZ525	450-470	PANDUIT CORPORATION	120.0	41.590028	-88.020056
455	WPXF228	150-174	PARSEC, INC	40.0	41.388333	-88.146222
456	KNNW324	450-470	PAYNE, RON	32.0	41.237528	-87.895333
457	KNNK875	800/900	PDV Spectrum Holding Company, LLC	113.0	41.870000	-88.298333
458	KNNK875	800/900	PDV Spectrum Holding Company, LLC	113.0	41.301111	-87.826389
459	KNNK875	800/900	PDV Spectrum Holding Company, LLC	112.0	41.878917	-87.636167
460	WNIC991	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
461	WNNR460	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
462	WNNY752	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
463	WNSK691	800/900	PDV Spectrum Holding Company, LLC	113.0	41.885583	-87.620889
464	WNVX274	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167

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465	WNXG468	800/900	PDV Spectrum Holding Company, LLC	113.0	41.870583	-88.295917
466	WNYR576	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
467	WPCB780	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
468	WPCF913	800/900	PDV Spectrum Holding Company, LLC	113.0	42.001417	-87.924222
469	WPCG770	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
470	WPEM264	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
471	WPEX511	800/900	PDV Spectrum Holding Company, LLC	112.0	41.878917	-87.636167
472	WPFK412	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
473	WPKX425	800/900	PDV Spectrum Holding Company, LLC	113.0	41.870000	-88.298333
474	WPKX425	800/900	PDV Spectrum Holding Company, LLC	113.0	41.301111	-87.826389
475	WPKX425	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
476	WPLP777	800/900	PDV Spectrum Holding Company, LLC	112.0	41.878917	-87.636167
477	WPML271	800/900	PDV Spectrum Holding Company, LLC	113.0	42.105583	-88.379528
478	WPML271	800/900	PDV Spectrum Holding Company, LLC	113.0	41.769444	-88.245556
479	WPML271	800/900	PDV Spectrum Holding Company, LLC	113.0	41.301111	-87.826389
480	WPML271	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
481	WPMU599	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
482	WPPZ283	800/900	PDV Spectrum Holding Company, LLC	112.0	41.885583	-87.620889
483	WPRM224	800/900	PDV Spectrum Holding Company, LLC	113.0	42.105583	-88.379528
484	WPRM224	800/900	PDV Spectrum Holding Company, LLC	112.0	41.878917	-87.636167
485	WPRS297	800/900	PDV Spectrum Holding Company, LLC	56.0	41.301111	-87.826389
486	WPSM466	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
487	WPTD567	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
488	WPTG711	800/900	PDV Spectrum Holding Company, LLC	113.0	41.870000	-88.298333
489	WPTG711	800/900	PDV Spectrum Holding Company, LLC	113.0	41.301111	-87.826389



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490	WPTG711	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
491	WPTT850	800/900	PDV Spectrum Holding Company, LLC	112.0	41.898889	-87.623056
492	WPTU725	800/900	PDV Spectrum Holding Company, LLC	112.0	41.496417	-88.298944
493	WPUD749	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
494	WPUV824	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
495	WQBG748	800/900	PDV Spectrum Holding Company, LLC	113.0	41.524444	-87.018889
496	WQGN683	800/900	PDV Spectrum Holding Company, LLC	112.0	41.878917	-87.636167
497	WQGN888	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
498	WQGN889	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
499	WQGN891	800/900	PDV Spectrum Holding Company, LLC	113.0	41.870000	-88.298333
500	WQGS774	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
501	WQHK844	800/900	PDV Spectrum Holding Company, LLC	56.0	41.301111	-87.826389
502	WQIF432	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
503	WQII739	800/900	PDV Spectrum Holding Company, LLC	113.0	41.878917	-87.636167
504	WQSU784	800/900	PDV Spectrum Holding Company, LLC	113.0	42.058944	-88.020694
505	WQSU784	800/900	PDV Spectrum Holding Company, LLC	113.0	41.977222	-87.959722
506	KNIK497	150-174	PERKINS, JAMES	80.0	40.835722	-88.335833
507	WQCS655	150-174, 450-470	PETERSON RADIO INC	482.8	38.754806	-83.536111
508	WQDJ528	150-174	PHI AIR MEDICAL, LLC	120.0	40.749750	-86.871972
509	WQNT646	450-470	PILOT TOWNSHIP ROAD DISTRICT	24.0	41.049194	-88.097639
510	WNBM965	150-174	PIPER CITY FIRE PROTECTION DISTRICT	40.0	40.747250	-88.190333
511	WPXE238	450-470	POLYNT COMPOSITES USA, INC.	32.0	41.388361	-88.299778
512	WREM969	450-470	Pontiac Community Consolidated School Dist #429	32.0	40.882750	-88.616806
513	WQCJ535	450-470	PONTIAC SCHOOL DISTRICT 90	32.0	40.992500	-88.598056
514	WNWA393	150-174	PONTIAC, CITY OF	40.0	40.908917	-88.630333



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515	WSAG307	150-174	PONTIAC, CITY OF	40.0	40.881722	-88.630111
516	WNCY806	450-470	POPEJOY PLUMBING & HEATING	64.0	40.735583	-88.515333
517	WQEV221	450-470	PORTILLO'S HOT DOGS LLC	80.0	40.513556	-88.954056
518	WQEV221	450-470	PORTILLO'S HOT DOGS LLC	80.0	41.548694	-88.125111
519	WQEV221	450-470	PORTILLO'S HOT DOGS LLC	80.0	41.496167	-87.470250
520	WQLF337	150-174	PRAIRIE CENTRAL SCHOOL DISTRICT 8	40.0	40.745028	-88.507833
521	WRWK381	150-174	PRAIRIE CENTRAL SCHOOL DISTRICT 8	40.0	40.755028	-88.409222
522	WQPS937	450-470	Prairie State Tractor LLC	32.0	40.917222	-88.593056
523	WRPT775	450-470	Prairie State Tractor LLC	32.0	40.878667	-88.269028
524	WNRD584	450-470	Presence Care Transformation Corporation	40.0	41.106972	-87.865333
525	WQNF752	450-470	PROTECTION ASSOCIATES, INC	80.0	41.116944	-87.865972
526	WQVW909	450-470	PROTECTION ASSOCIATES, INC.	80.0	41.116944	-87.865972
527	WQIB772	450-470	PROTECTION PLUS SECURITY SYSTEMS, INC.	80.0	41.669222	-87.723333
528	WRNS833	450-470	Quality Alarm Systems Inc.	80.0	41.662778	-87.755556
529	WNUH257	450-470	R R DONNELLEY & SONS	32.0	41.105028	-88.419222
530	WNUH257	450-470	R R DONNELLEY & SONS	32.0	41.105000	-88.419167
531	WNZX556	450-470	RA COMM INC	120.0	41.008639	-86.883083
532	WPEW337	150-174	RABIDEAU GRAIN & LUMBER	56.0	40.935306	-87.937250
533	WNHD772	800/900	RAGAN COMMUNICATIONS INC	113.0	40.653056	-89.587333
534	WNHD772	800/900	RAGAN COMMUNICATIONS INC	113.0	40.697806	-89.471750
535	WNIC994	800/900	RAGAN COMMUNICATIONS INC	113.0	40.834306	-89.616667
536	WRBW200	450-470	RAINBOW COUNCIL BOY SCOUTS OF AMERICA	32.0	41.325083	-88.342417
537	WNNL226	450-470	RANSOM FERTILIZER SALES INC	56.0	41.157528	-88.655333
538	WQLD611	800/900	RCP Enterprises, Inc	113.0	41.937222	-88.124722
539	WQLD611	800/900	RCP Enterprises, Inc	113.0	41.540556	-88.035556



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540	WQLD611	800/900	RCP Enterprises, Inc	113.0	41.966139	-87.943889
541	WRVY825	450-470	READ, SUSAN L	32.0	40.758389	-88.188806
542	WRVY825	450-470	READ, SUSAN L	32.0	40.918833	-88.149583
543	KRV214	150-174	READING TOWNSHIP VOLUNTEER FIRE DEPT	48.0	41.105583	-88.832861
544	WRAK491	150-174	REDDICK, TOWN OF (IL)	40.0	41.096111	-88.246694
545	WPOX272	450-470	REED CUSTER SCHOOL DISTRICT 255U	32.0	41.286417	-88.239778
546	WPOX272	450-470	REED CUSTER SCHOOL DISTRICT 255U	32.0	41.258306	-88.205972
547	WPBK617	450-470	Reichhold LLC 2	32.0	41.388361	-88.299778
548	WRTP782	150-174	REMPREX, LLC	40.0	41.399833	-88.147250
549	KBL646	150-174	RIBER CONSTRUCTION INC	40.0	41.105028	-88.417278
550	WNSZ338	150-174	RIENTS, JEFF	64.0	40.924750	-88.866750
551	KIS343	150-174	RIVERSIDE MEDICAL CENTER	48.0	41.123917	-87.882556
552	WPDZ270	450-470	RIVERSIDE MEDICAL CENTER	48.0	41.123917	-87.882556
553	WRQV523	150-174	Roberts, Adam	48.0	40.799167	-88.775833
554	KNJE387	150-174	ROBISKY, JOHN	64.0	40.892250	-88.268111
555	WRVW213	150-174	ROGERS FARMS, LLC	40.0	41.303056	-88.419167
556	WNDZ341	150-174	ROLUDINA FARMS INC	40.0	41.084750	-88.247278
557	WQCR252	25-50	RUFF, JERRY	40.0	40.991694	-88.825639
558	WSAF636	150-174	Ryan Honegger Farms	40.0	40.792778	-88.431667
559	WQTD937	450-470	RYDER/TLC	32.0	41.407000	-88.426028
560	WQGS649	450-470	S & K SECURITY CORP.	80.0	41.339861	-87.526694
561	WRJI718	150-174	Sancken, Brandon E	40.0	40.871389	-88.489167
562	WQHL595	150-174	SANCKEN, WALTER	32.0	40.877222	-88.415278
563	WPFC911	450-470	SANDWICH COMMUNITY UNIT SCHOOL DIST 430	64.0	41.665278	-88.576111
564	WRFF657	150-174	SAUNEMIN FIRE PROTECTION DISTRICT	14.5	40.892222	-88.404722

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565	WQWJ613	150-174	SCHAFFER, KEVIN W	40.0	40.790583	-88.587556
566	WRNQ843	150-174	Schaffer, Matthew	40.0	40.831389	-88.603056
567	WPDF633	450-470	SCHAUMBURG, BRIAN	72.0	40.755583	-88.607000
568	KNIE705	150-174	SCHERR, ROGER	48.0	40.661139	-88.512556
569	WQTF818	450-470	SCHOTT FARMS	30.0	41.100833	-88.145000
570	WQNS358	150-174	SEVERSON ENTERPRISES	40.0	41.113917	-88.307556
571	WQML239	150-174	SLAGEL, DONALD	40.0	40.715278	-88.451389
572	WRCV421	150-174	SMALL, MARK	40.0	41.187000	-88.342194
573	WPWB726	450-470	Solid Platforms Inc	121.0	41.596972	-87.344194
574	WQLD344	450-470	SOUND INCORPORATED	80.0	41.794139	-88.225056
575	WNAJ770	800/900	SSS Inc,	112.0	41.878917	-87.636167
576	KNIK458	150-174	ST. JAMES HOSPITAL	56.0	40.872778	-88.671944
577	KSJ862	150-174	STARADIO CORP.	40.0	41.122806	-87.893111
578	WRPV690	450-470	STATE LINE FARMS	121.0	40.193889	-87.522583
579	WQWM975	150-174	STEPHENS, DOUG	40.0	40.817639	-88.439750
580	WNIR674	450-470	Sterrenberg, Casey	56.0	40.834472	-88.314778
581	WNQT203	450-470	STEVES TOWING AND ASSOC INC	121.0	41.563917	-87.334472
582	WRKC238	150-174	Streator Woodland Community Unit District 5	32.0	41.296528	-88.730750
583	WQKT892	450-470	Streator-Cayuga Ridge Wind Power, LLC	32.0	40.980722	-88.441139
584	WQSU415	450-470	Streator-Cayuga Ridge Wind Power, LLC	32.0	40.961111	-88.445444
585	WRXD629	450-470	SUN AG, INC.	32.0	40.877028	-88.262278
586	KSX271	450-470	Superior Air Ground Ambulance Inc.	56.0	41.407528	-88.805639
587	WNGS881	800/900	SUPREME RADIO COMMUNICATIONS, INC	113.0	40.619472	-89.572333
588	WNGS881	800/900	SUPREME RADIO COMMUNICATIONS, INC	113.0	40.483056	-88.995278
589	WNXX459	450-470	Supreme Radio Communications, Inc.	80.0	40.483056	-88.995278

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
590	WQCH508	150-174	SWARTZ, GARY	80.0	40.920278	-88.388056
591	WRKX712	800/900	TCJ ENTERPRISES, INC	88.0	41.496417	-88.298944
592	WRKX712	800/900	TCJ ENTERPRISES, INC	88.0	41.565833	-88.062222
593	WQMI805	150-174	Texas Eastern Communications, LLC	80.0	40.720194	-89.088889
594	WQMI805	150-174	Texas Eastern Communications, LLC	80.0	40.828806	-88.861111
595	WQMI805	150-174	Texas Eastern Communications, LLC	80.0	41.099694	-88.277306
596	KNYI658	450-470	THIESEN, GERALD	24.0	41.273361	-88.273667
597	WRJC321	150-174	THORSON, RYAN W	40.0	40.993333	-88.643889
598	WQUC790	150-174	Toledo Peoria & Western Railway Inc	40.0	40.751111	-88.335556
599	WRMD382	450-470	TOTAL AUTOMATION CONCEPTS, INC	80.0	41.674167	-87.763611
600	WPSY974	450-470	Trainor Grain & Supply Company	32.0	40.806667	-88.217778
601	WRJI305	150-174	TRAUB, JOHN C	64.0	40.736111	-88.516389
602	WNGN554	450-470	TRI CENTRAL COOP	56.0	40.880583	-87.956139
603	KD53949	450-470	TRI ELECTRONICS INC	121.0	41.667250	-87.506167
604	WQWF717	450-470	TRI-POINT CUSD 6J	32.0	40.866694	-88.266722
605	WPFS815	150-174	TROY FIRE PROTECTION DISTRICT	48.0	41.545028	-88.199778
606	WPEV259	450-470	Tyco Integrated Security, LLC	121.0	41.919472	-87.836167
607	WROQ724	450-470	UCP - UTILITY CONCRETE	32.0	41.388056	-88.373611
608	WQWJ306	450-470	UNICOMM ELECTRONICS	121.0	41.638083	-88.080056
609	KFX965	150-174	UNION PACIFIC RAILROAD COMPANY	40.0	40.818917	-88.675056
610	KFX965	150-174	UNION PACIFIC RAILROAD COMPANY	40.0	41.206417	-88.285389
611	WQER916	150-174	Union Pacific Railroad Company	40.0	41.064778	-88.463111
612	WQKU939	150-174	Union Pacific Railroad Company	40.0	40.873667	-88.640556
613	WQKU939	150-174	Union Pacific Railroad Company	40.0	41.111111	-88.405278
614	WQNT920	450-470	UNIS, LLC	32.0	41.398639	-88.126083

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
615	WRAG716	450-470	UNITED FACILITIES, INC.	32.0	41.296917	-88.130806
616	WQXP651	450-470	United Parcel Service	32.0	41.081111	-87.875778
617	KB82881	216-220	UNIVERSITY OF MEMPHIS	640.0	36.000056	-86.000000
618	KNIT480	150-174	UNZ, CHARLES	24.0	41.124750	-88.180611
619	WQYI618	450-470	USA HOIST	80.0	41.562917	-88.110278
620	WQBA572	25-50	VCNA PRAIRIE ILLINOIS INC.	40.0	41.122222	-87.864528
621	KRJ514	150-174	VEATCH AND SONS	121.0	40.585861	-88.143111
622	WPGW541	450-470	Vermilion Valley Regional ETSB	40.0	40.992500	-88.598056
623	WPHP729	450-470	Vermilion Valley Regional ETSB	40.0	40.880861	-88.629778
624	WPHX984	450-470	Vermilion Valley Regional ETSB	40.0	40.880861	-88.629778
625	WPTQ622	450-470	Vermilion Valley Regional ETSB	32.0	40.870861	-88.639611
626	WPZS315	150-174	Vermilion Valley Regional ETSB	40.0	40.992500	-88.598056
627	WQZS385	450-470	VESTAS	24.0	41.121917	-88.642694
628	WQPT498	450-470	Vestas American Wind Technology Inc	16.0	40.966750	-88.197083
629	WREK925	150-174	Vital Ambulance Services, LLC	80.0	41.549167	-87.838611
630	WRCS783	150-174	VITKO, ED	35.0	41.229417	-88.303889
631	WPXA381	150-174	Vollmer, Francis G	40.0	40.967250	-88.728111
632	WQFH265	450-470	VON MAUR	79.0	40.515278	-88.951111
633	WNSF383	450-470	WALLRICH, GENE	64.0	40.833361	-88.300611
634	KTR830	150-174	WALTER, PETER D	48.0	40.706972	-88.411167
635	WRAI757	450-470	Warehouse Services No. 4 LLC	24.0	41.341056	-88.203167
636	WPSS738	150-174	Waste Management Holdings, Inc	40.0	41.025000	-87.872222
637	WQOT887	150-174	WATTERS, ROBERT K	48.0	41.055583	-88.470889
638	WQQT873	72-76, 150-174, 450-470, 470-512	WCIU-TV LIMITED PARTNERSHIP	120.0	41.881972	-87.647806

ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
639	WRZI370	150-174	Wenger, Nathan D	40.0	40.741389	-88.523611
640	WQPK263	150-174	Western Will County Communication Center	24.0	41.308722	-88.146083
641	WQZT877	800/900	Western Will County Communication Center	113.0	41.308722	-88.146083
642	WQZT878	800/900	Western Will County Communication Center	113.0	41.435389	-88.183333
643	WRAQ940	769-775/799-805	WESTERN WILL COUNTY COMMUNICATION CENTER	40.0	41.435389	-88.183333
644	WQOD299	150-174, 450-470, 470-512	WGBO LICENSE PARTNERSHIP, G.P.	120.0	41.892250	-87.619833
645	WZH965	800/900	WILLE BROTHERS COMPANY	64.0	41.536389	-87.854722
646	WPSH670	450-470	Willet Hofmann & Assoc Inc	161.0	41.850000	-89.475000
647	KDV822	150-174	WILMINGTON FIRE PROTECTION DISTRICT	24.0	41.312250	-88.144500
648	KNID218	150-174	WILMINGTON, CITY OF	40.0	41.304194	-88.118944
649	WSAU882	150-174	WILMINGTON, CITY OF	32.0	41.308833	-88.146278
650	WSAU882	150-174	WILMINGTON, CITY OF	40.0	41.308833	-88.146278
651	WPEH585	800/900	Wireless US LC	113.0	40.180861	-88.317833
652	KD50657	150-174	WISCONSIN POWER AND LIGHT COMPANY	241.0	43.005000	-89.196222
653	KJM544	450-470	WLS TELEVISION, INC.	160.0	41.878917	-87.636167
654	WRDF445	800/900	WOODFORD, COUNTY OF	64.0	40.900944	-89.039444
655	WQUM697	800/900	Wyndham Express, LLC	113.0	41.983028	-87.844250
656	WQRZ454	800/900	Wyndham Garden LLC	113.0	41.935306	-87.636722
657	WQRZ454	800/900	Wyndham Garden LLC	113.0	41.878917	-87.636167
658	WQMF261	800/900	WYNDHAM GARDEN, LLC.	113.0	41.878917	-87.636167
659	WQMF261	800/900	WYNDHAM GARDEN, LLC.	113.0	41.891694	-87.612306
660	WSAL530	150-174	Yoder, Thomas D	40.0	40.820000	-88.401389
661	WNGC296	800/900	Young, Joseph	113.0	40.716667	-88.001111
662	WNGC296	800/900	Young, Joseph	113.0	40.923250	-87.825889



ID	Call Sign	Frequency Band (MHz)	Licensee	Mobile Area Radius (km)	Latitude (NAD83)	Longitude (NAD83)
663	WNGC296	800/900	Young, Joseph	113.0	40.753333	-87.747778
664	WPEY408	800/900	Young, Joseph	113.0	40.181111	-88.317500

Table A: Mobile Licenses Intersecting Project Area

Wind Power GeoPlanner™

Microwave Study

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 16, 2024



COMSEARCH
A CommScope Company

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1. Introduction

Microwave bands that may be affected by the installation of wind turbine facilities operate over a wide frequency range (900 MHz – 23 GHz). Comsearch has developed and maintains comprehensive technical databases containing information on licensed microwave networks throughout the United States. These systems are the telecommunication backbone of the country, providing long-distance and local telephone service, backhaul for cellular and personal communication service, data interconnects for mainframe computers and the Internet, network controls for utilities and railroads, and various video services. This report focuses on the potential impact of wind turbines and met towers on licensed, proposed and applied non-federal government microwave systems.

2. Project Overview

Project Information

Name: Heritage Prairie Wind

County: Livingston

State: Illinois

Number of Turbines: 71

Number of Met Towers: 7

Blade Diameter: 163 meters

Max Hub Height: 113 meters

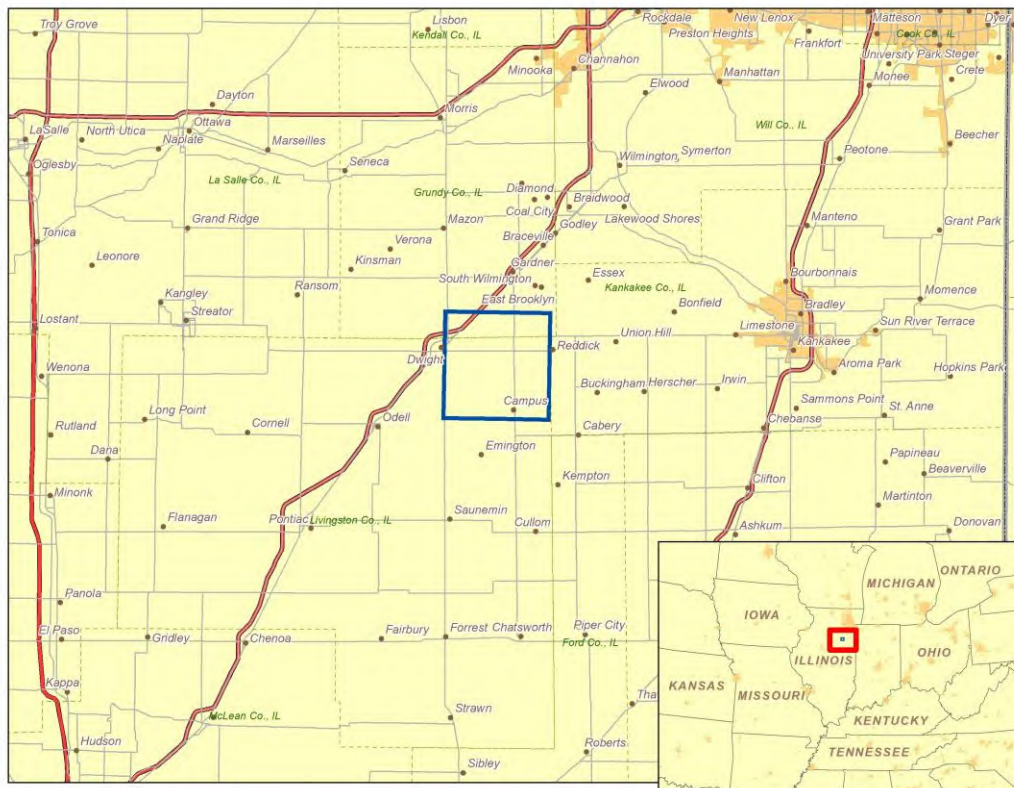


Figure 1: Area of Interest

3. Two-Dimensional Fresnel Zone Analysis

Methodology

Our obstruction analysis was performed using Comsearch’s proprietary microwave database, which contains all non-government licensed, proposed and applied paths from 0.9 - 23 GHz¹. First, we determined all microwave paths that intersect the area of interest² and listed them in Table 1. These paths and the area of interest that encompasses the planned turbine locations are shown in Figure 2.

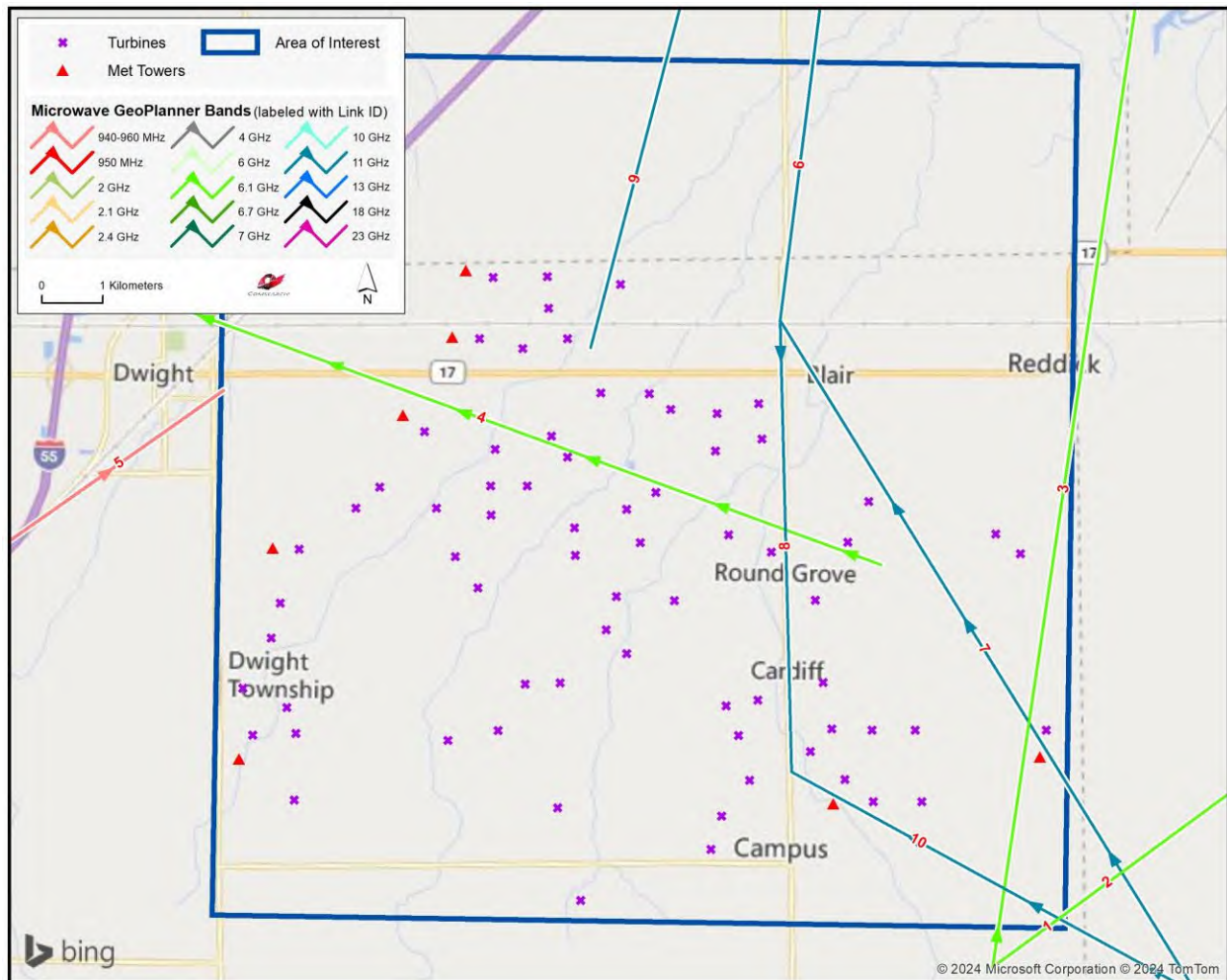


Figure 2: Microwave Paths that Intersect the Area of Interest

¹ Please note that this analysis does not include unlicensed microwave paths or federal government paths that are not registered with the FCC.

² We use FCC-licensed coordinates to determine which paths intersect the area of interest. It is possible that as-built coordinates may differ slightly from those on the FCC license.

ID	Status	Callsign 1	Callsign 2	Band	Path Length (km)	Licensee
1	Licensed	WCP851	WNTS470	6.1 GHz	37.07	ComEd a.k.a. Commonwealth Edison
2	Licensed	WCP851	WNTS470	6.1 GHz	37.07	ComEd a.k.a. Commonwealth Edison
3	Licensed	WQOX523	WQOX509	6.1 GHz	14.06	Cellco Partnership -IA/IL/IN/WI
4	Licensed	WPOV267	WPOV263	940-960 MHz	18.72	Vermilion Valley Regional ETSB
5	Licensed	WQQU253	WQQU254	6.1 GHz	30.19	Verizon Wireless (VAW) LLC- IA/IL/IN/WI
6	Licensed	WQXV259	WQXW552	11 GHz	18.07	Surf Air Wireless, LLC
7	Licensed	WQXV260	WQXW552	11 GHz	20.01	Surf Air Wireless, LLC
8	Licensed	WQXW552	WRFW573	11 GHz	7.44	Surf Air Wireless, LLC
9	Licensed	WRBL389	WRAX874	11 GHz	10.26	Olson, Donna J
10	Licensed	WRFW571	WRFW573	11 GHz	9.63	Surf Air Wireless, LLC

Table 1: Summary of Microwave Paths that Intersect the Area of Interest

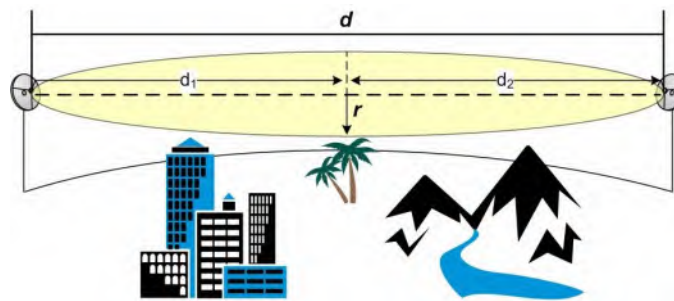
*(See enclosed mw_geopl.xlsx for more information and
GP_dict_matrix_description.xls for detailed field descriptions)*

Verification of Coordinate Accuracy

It is possible that as-built coordinates may differ from those on the FCC license. For this project, ten of the paths cross within close proximity of the proposed structures and the tower locations for these paths will have a critical impact on the result. Therefore, we verified these locations using aerial photography. Some of the towers were found to be slightly off and were moved to their locations based on the aerial photos³.

³ See enclosed mw_geopl.shp (adjusted locations based on aerial photography/basis for report images and results) and mw_geopl_fcc.shp (locations solely based on FCC licensed information) for details.

Next, we calculated a Fresnel Zone for each path based on the following formula:

$$r \cong 17.3 \sqrt{\frac{n}{F_{GHz}} \left(\frac{d_1 d_2}{d_1 + d_2} \right)}$$


Where,

- r = Fresnel Zone radius at a specific point in the microwave path, meters
- n = Fresnel Zone number, 1
- F_{GHz} = Frequency of microwave system, GHz
- d₁ = Distance from antenna 1 to a specific point in the microwave path, kilometers
- d₂ = Distance from antenna 2 to a specific point in the microwave path, kilometers

In general, this is the area where the planned wind turbines and met towers should be avoided, if possible. Likewise, Comsearch recommends that an area directly in front of each microwave antenna should be avoided. This corresponds to the Consultation Zone which measures 1 kilometer along the main beam of the antenna and 24 ft (7.3 meters) wide. A depiction of the Fresnel Zones and Consultation Zones for each microwave path listed can be found in Figure 3, and is also included in the enclosed shapefiles^{4,5}.

⁴ The ESRI® shapefiles enclosed are in NAD 83 UTM Zone 16 projected coordinate system.

⁵ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data provided in this report is governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

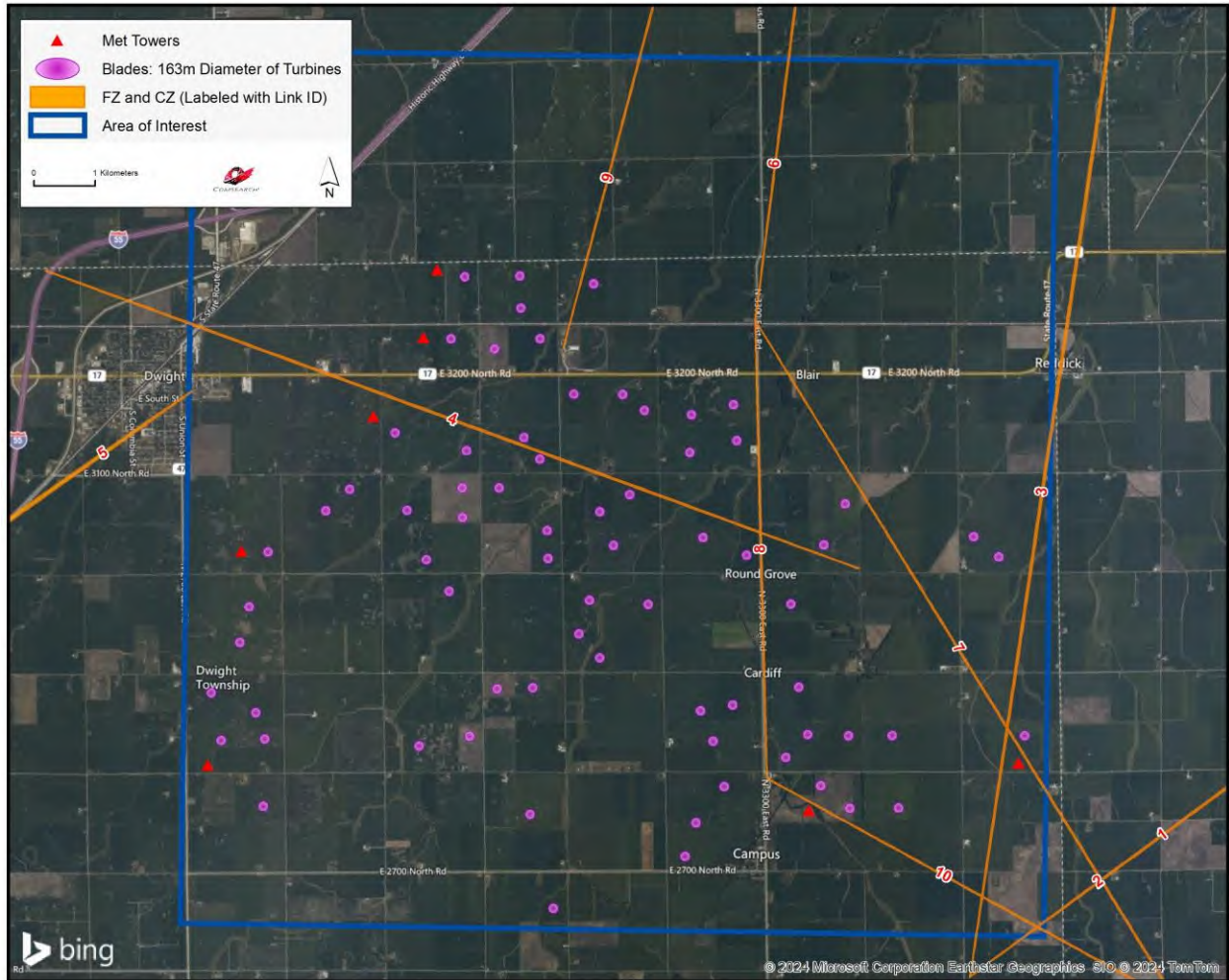


Figure 3: Microwave Paths with Fresnel Zones

4. Conclusion

Total Microwave Paths	Paths with Affected Fresnel Zones	Total Turbines	Total Met Towers	Turbines intersecting the Fresnel Zones
10	0	71	7	0

Table 2: Fresnel Zone Analysis Result

Our study identified ten microwave paths intersecting the Heritage Prairie Wind area of interest. The Fresnel and Consultation Zones for these microwave paths were calculated and mapped in order to assess the potential impact from the turbines. A total of 71 turbines and 7 met towers were considered in the analysis. Each turbine has a rotor diameter of 163 meters and a hub height of 113 meters. Of those turbines and met towers, none were found to have potential obstruction with the microwave systems in the area.

5. Contact

For questions or information regarding the Microwave Study, please contact:

Contact person: David Meyer
 Title: Senior Manager
 Company: Comsearch
 Address: 21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
 Telephone: 703-726-5656
 Fax: 703-726-5595
 Email: David.Meyer@CommScope.com
 Web site: www.comsearch.com

Appendix: Turbine and Met Tower Locations

Name	Latitude (NAD83)	Longitude (NAD83)
L2	41.04089996	-88.41151692
L4	41.06052594	-88.40652165
L5	41.04120107	-88.40308817
L6	41.04504340	-88.40489500
L9	41.06858765	-88.40301520
L11	41.07477097	-88.39196856
L13	41.07794637	-88.38741950
L16	41.08633301	-88.37877903
L17	41.07500359	-88.37622752
L18	41.04054353	-88.37317655
L20	41.10022360	-88.36823675
L21	41.06326464	-88.36783021
L24	41.10932934	-88.36574240
L26	41.04209863	-88.36343329
L27	41.09885469	-88.35977869
L28	41.07851504	-88.35846482
L29	41.04909715	-88.35823132
L30	41.07409401	-88.36546259
L31	41.10957503	-88.35510049
L32	41.10486959	-88.35478301
L33	41.08593788	-88.35379876
L34	41.03080019	-88.35147261
L35	41.08282633	-88.35064178
L37	41.10043485	-88.35098104
L38	41.04934096	-88.35136096
L39	41.06829545	-88.34877221
L40	41.07237954	-88.34903054
L42	41.06227765	-88.34062167
L43	41.09242261	-88.34426083
L46	41.05733292	-88.34255971
L47	41.10860974	-88.34075904
L50	41.05385372	-88.33846214
L56	41.09246575	-88.33477888
L58	41.09016103	-88.33053887
L60	41.06179975	-88.32923559
L61	41.02499030	-88.32133998
L62	41.04632782	-88.31876420
L63	41.08411764	-88.32163055
L64	41.02994284	-88.31933675
L65	41.08964683	-88.32140700
L66	41.03529480	-88.31396937
L68	41.07169669	-88.31879865
L69	41.04192612	-88.31626404



Name	Latitude (NAD83)	Longitude (NAD83)
L70	41.08597258	-88.31255970
L71	41.04725799	-88.31257463
L73	41.03970250	-88.30214195
L74	41.06921491	-88.31031126
L76	41.05001465	-88.29983805
L77	41.06215580	-88.30159562
L79	41.04309317	-88.29796245
L80	41.03562725	-88.29528971
L81	41.07088598	-88.29538415
L82	41.07694790	-88.29135753
L86	41.04300794	-88.29005665
L87	41.03239840	-88.28961487
L89	41.04313883	-88.28159438
L91	41.03254347	-88.28016359
L95	41.07242269	-88.26638939
L97	41.06950638	-88.26146200
L98	41.04338518	-88.25594753
L99	41.08387330	-88.36487305
L104	41.07524142	-88.33888926
L105	41.07034457	-88.33612481
L106	41.07781076	-88.33314875
L107	41.01710087	-88.34669118
L109	41.03135366	-88.40314014
L110	41.06783675	-88.37236238
L111	41.07842926	-88.36560797
L113	41.09121356	-88.31330860
L120	41.05528700	-88.40818678
L121	41.04782773	-88.41358016
L24 Met	41.11024006	-88.37113354
L20 Met	41.10034340	-88.37354888
L16 Met	41.08864213	-88.38304474
L9 Met	41.06863646	-88.40818157
L2 Met	41.03726698	-88.41405307
L80 Met	41.03198274	-88.29745526
L98 Met	41.03938594	-88.25703288

Wind Power GeoPlanner™

Mobile Phone Carrier Report

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 19, 2024



COMSEARCH
A CommScope Company



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1. Introduction

Comsearch has developed and maintains comprehensive technical databases containing information on licensed mobile phone carriers across the US. Mobile phone carriers operate in multiple frequency bands and are often referred to as Advanced Wireless Service (AWS), Personal Communication Service (PCS), 700 MHz Band, Wireless Communications Service (WCS), and Cellular. They hold licenses on an area-wide basis which are typically comprised of several counties.

This report focuses on the potential impact of wind turbines on mobile phone operations in the project area.

2. Summary of Results

Methodology

Our mobile phone analysis was performed using Comsearch’s proprietary carrier database, which is derived from a variety of sources including the Federal Communications Commission (FCC). Since mobile phone market boundaries differ from service to service, we disaggregated the carriers’ licensed areas down to the county level. Then we compiled a list of all mobile phone carriers in the main counties that intersect the area of interest. The area of interest was defined by the client and encompasses the planned turbine locations. A depiction of the wind project area and counties appears below.



Figure 1: Counties that intersect the Area of Interest

Results

The Heritage Prairie Wind Project is located in Livingston County, Illinois. We have identified the type of service, channel block, market ID and FCC callsign for each carrier in the county of interest. A description of the various service types and geographic market areas is below with a summary table on the following page.

AWS

AWS licensees won their spectrum in an auction that started in August 2006. The licensees are authorized by 734 Cellular Market Areas (CMA) for Block A, 176 Economic Areas (BEA) for Blocks B and C, and 12 Regional Economic Area Groupings (REAG) for Blocks D, E and F. This spectrum at 1.7 and 2.1 GHz was allocated for mobile broadband and advanced wireless services. Partitioning and leases are permitted in the band.

Cellular

Licensees are authorized by Metropolitan and Rural Statistical Areas, also known as CMAs. Unserved areas can be covered by licensees other than the original A or B block licensee. To determine the most realistic coverage, we compiled the Cellular Geographic Service Areas (CGSA) from the 32 dBu contours defined by Part 22.911(a) of the FCC rules. Mobile services are provided at 800 MHz and partitioning and leases are permitted in the band.

PCS

There have been nine auctions for this band, with the last one being held in August 2008. Licensees are authorized by 51 Major Trading Areas (MTA) for Blocks A and B, 493 Basic Trading Areas (BTA) for Blocks C through F, and 176 Economic Areas (EA) for Block G. This band has been heavily partitioned and disaggregated both by counties and by smaller polygons within counties (known as undefined areas or partial counties). The 1.9 GHz PCS carriers provide mobile services and leases are permitted in the band.

700 MHz Band

Originally used for analog television broadcasting, this band consists of an upper and lower band, each having its own set of frequency blocks. There have been three auctions in this band with the last one (Auction 73) being held in 2008 and mobile phone carriers eventually winning licenses for Blocks A, B, and C of the Lower 700 MHz band and Block C of the Upper 700 MHz band. Licensees are authorized by 176 Economic Areas (EA) for Lower Block A, 734 Cellular Market Areas (CMA) for Lower Blocks B and C, and 12 Regional Economic Area Groupings (REAG) for Upper Block C. Partitioning and leases are permitted in the band.

WCS

Mobile services provided in the 2.3 GHz band occupy frequency blocks above and below the spectrum allocated for Satellite Digital Audio Radio Service (SDARS) from 2320 MHz to 2345 MHz. WCS licensees are authorized by 52 Major Economic Areas (MEA) for Blocks A and B and 12 Regional Economic Area Groupings (REAG) for Blocks C and D. Partitioning and leases are permitted in the band.

Service ¹	Mobile Phone Carrier	Channel Block	County	ST	Market ID	Callsign
700 MHz	T-Mobile	Lower A	Livingston	IL	BEA064	WQJQ707
700 MHz	US Cellular	Lower B	Livingston	IL	CMA395	WQLE725
700 MHz	AT&T	Lower C	Livingston	IL	CMA395	WPYZ902
700 MHz	AT&T	Lower D	Livingston	IL	EAG704	WPZA238
700 MHz	DISH Network	Lower E	Livingston	IL	BEA064	WQJZ206
700 MHz	Verizon	Upper C	Livingston	IL	REA003	WQJQ691
AWS	Verizon	A	Livingston	IL	CMA395	WQGB347
AWS	Verizon	B	Livingston	IL	BEA064	WQGA952
AWS	AT&T	C	Livingston	IL	BEA064	WQGA776
AWS	AT&T	D	Livingston	IL	REA003	WQGV784
AWS	T-Mobile	E	Livingston	IL	REA003	WQGB376
AWS	T-Mobile	F	Livingston	IL	REA003	WQPZ970
Cellular	AT&T	A	Livingston	IL	CMA395	KNKN328
Cellular	Cellular One	B	Livingston	IL	CMA395	KNKN583
Cellular	Cellular One	B	Livingston	IL	CMA395	KNKN581
Cellular	Cellular One	B	Livingston	IL	CMA395	KNKN582
PCS	AT&T	A	Livingston	IL	MTA003	KNLF206
PCS	AT&T	A	Livingston	IL	MTA003	WPSF246
PCS	Verizon	B	Livingston	IL	MTA003	KNLF207
PCS	T-Mobile	B	Livingston	IL	MTA003	WQRJ905
PCS	T-Mobile	C	Livingston	IL	BTA046	WPOK680
PCS	T-Mobile	C	Livingston	IL	BTA046	WQND997
PCS	T-Mobile	D	Livingston	IL	BTA046	KNLH478
PCS	Verizon	E	Livingston	IL	BTA046	KNLF927
PCS	T-Mobile	F	Livingston	IL	BTA046	KNLF892
PCS	T-Mobile	G	Livingston	IL	BEA064	WQKT278
WCS	AT&T	A	Livingston	IL	MEA018	KNLB305

¹ AWS: Advanced Wireless Service at 1.7/2.1 GHz
 CELL: Cellular Service at 800 MHz
 PCS: Personal Communication Service at 1.9 GHz
 700 MHz: Commercial Mobile Phone at 700 MHz
 WCS: Wireless Communication Service at 2.3 GHz

Service ¹	Mobile Phone Carrier	Channel Block	County	ST	Market ID	Callsign
WCS	AT&T	B	Livingston	IL	MEA018	KNLB279
WCS	AT&T	C	Livingston	IL	REA003	WPQL712
WCS	AT&T	D	Livingston	IL	REA003	KNLB325

Table 1: Mobile Phone Carriers in the Area of Interest

FCC-Licensed Sites

For competitive and confidentiality reasons, most mobile phone carriers' individual sites are not licensed with the FCC. However, in the cellular band, if a base station extends the existing Cellular Geographic Service Area (CGSA), then it must be recorded with the FCC. We identified one cellular site within the Heritage Prairie Wind area of interest. Figure 2 on the next page depicts its location in relation to the area of interest and Table 2 contains the technical parameters on the FCC license.

Callsign	Licensee	Antenna Height (m)	Latitude (NAD83)	Longitude (NAD83)	Distance to the Nearest Turbine (km)
KNKN328	AT&T	59.7	41.065833	-88.399889	0.40

Table 2: FCC-Licensed Mobile Phone Sites

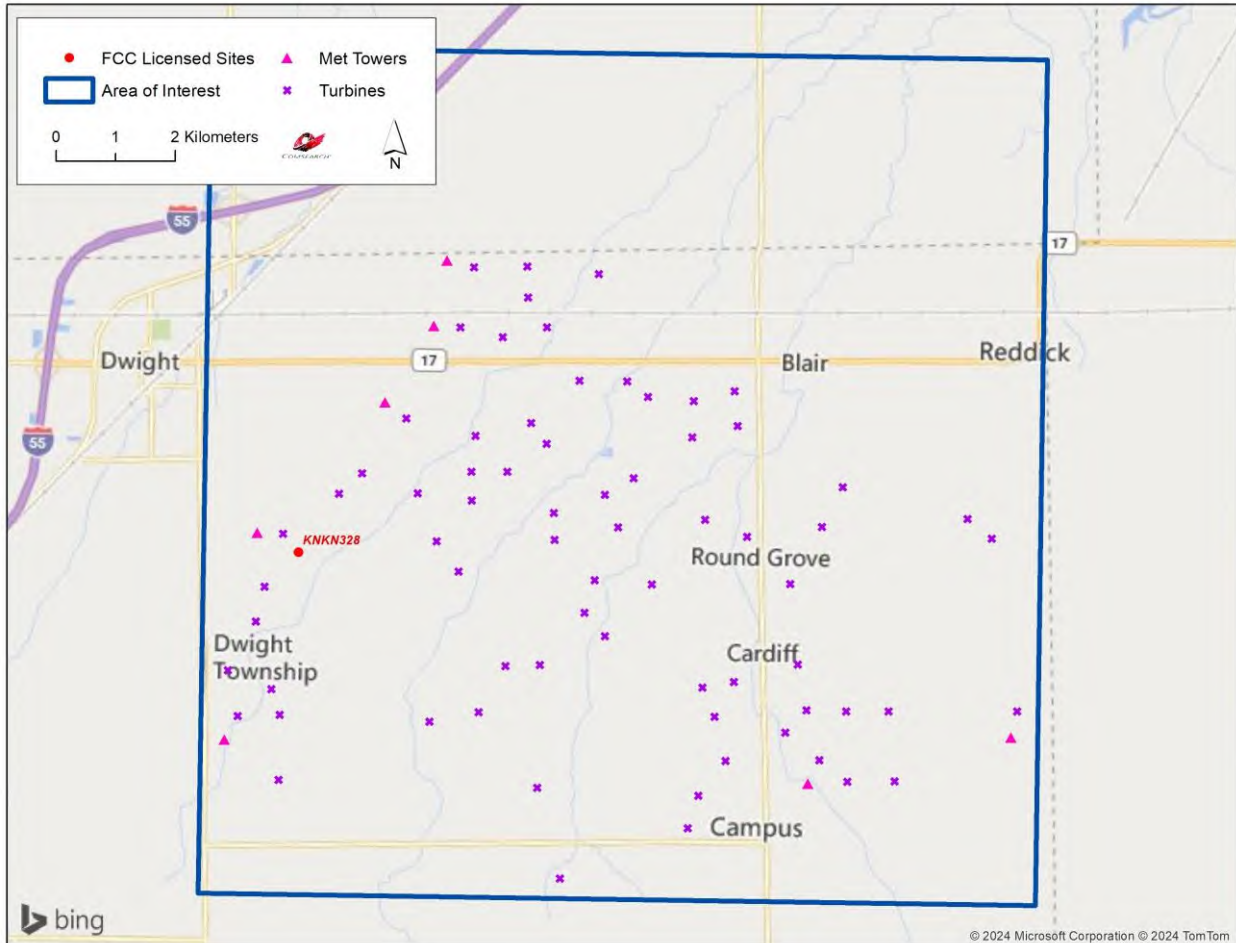


Figure 2: FCC-Licensed Mobile Phone Sites within the Area of Interest

Impact Assessment and Distance Setback Requirements

The cellular mobile phone signal propagation is typically not affected by physical structures because the beam widths of the radiated signal from the base stations and mobile units are very wide and the wavelength of the signal is long enough to wrap around objects such as wind turbine towers and blades. In addition, the cellular network consists of multiple base stations that are designed so that if the connection cannot be made to one base station it will shift to adjacent base stations to make the connection. This enables cellular mobile telephone systems to provide coverage in areas that are congested with physical structures such as downtown urban areas. Areas containing wind turbines have less of a coverage issue than urban areas, so the wind turbines presence does not require any special setback for signal obstruction consideration other than physical clearance of the blades. From an electromagnetic interference standpoint, the emissions from the wind turbines, which are specified by the FCC, should be taken into account to ensure they will not interfere with the base stations or the mobile units. Part 15 of the FCC regulations covers the emissions from unintentional radiating devices, such as wind turbines. The field strength limits for the emissions from unintentional radiators is given in paragraph 15.109 of Part 15 of the FCC rules. The emission limits are stated for a distance of 3 meters or approximately 10 feet and are shown below.

Radiated Emission Limits at 3 Meters

<u>Frequency of Emission (MHz)</u>	<u>Field Strength (microVolts/meter)</u>
30 – 88	100
88 – 216	150
216 – 960	200
> 960	500

From these limits and the receiver sensitivity of the cellular base stations and mobile units we can determine a setback requirement for wind turbines and cellular system. The typical sensitivity of mobile units is -90 dBm (1×10^{-12} Watts) and the typical sensitivity of base stations is -93 dBm (5×10^{-13} Watts). The gain of mobile unit antennas are -10dB or 0.1 and the gain of base station antennas are 17 dB or 50. The effective area (A) of the mobile unit and base station antennas are determined from the following formula.

$$A = G \cdot \lambda^2 / 4 \cdot \pi$$

Where,

G = Antenna Gain, number

λ = Wavelength, 0.353 meters

π = 3.14

This gives us an effective area for the mobile unit antenna of 9.9×10^{-4} meter² and the effective area for the base station antenna of 0.496 meter². Using the typical receiver sensitivities of the mobile and base units above, we can determine their power flux density (P_D) from the following formula:

$$P_D = S/A$$

Where S is defined as the sensitivity for Mobile Unit or for the Base Station expressed in Watts

To calculate the electric field strength (E) we use the following formula:

$$E = (P_D * 377)^{1/2}$$

So for the mobile unit, $P_D = 1.01 \times 10^{-9}$ Watts/meter² and $E = 617$ microVolts/meter. And, for the base station unit, $P_D = 1.008 \times 10^{-12}$ Watts/meter² and $E = 19.4$ microVolts/meter.

These results show that the mobile units' sensitivity expressed as field strength is above the level allowed as an emission for the wind turbines at a distance of 3 meters. Therefore, no setback for the use of a mobile unit is needed beyond 3 meters. Since the base station has field strength sensitivity below the allowed emission level of the wind turbines a setback distance is needed to ensure that the base stations will not be affected. The field strength of the emission is inversely proportional to separation distance in meters. To determine the setback distance to reduce the field strength to 19.4 microVolts/meter the following formula is used.

$$D = (500 \text{ MicroVolts/meter}) * (3 \text{ meters}) / 19.4 \text{ MicroVolts/meter}$$

Where,

D = Setback Distance for Base Station to avoid interference, meters

Thus the setback distance for the cellular tower base station from the wind turbines should be 77.3 meters or greater.

Summary

The telephone communications in the mobile phone carrier bands are typically unaffected by the presence of the wind turbines and we do not anticipate any significant harmful effect to mobile phone services in the Heritage Prairie Wind Project area. Mobile phone systems are designed with multiple base transmitter stations covering a specific area. Since mobile telephone signals are designed with overlap between adjacent base transmitter sites in order to provide handoff between cells, any signal blockage caused by the wind turbines does not materially degrade the reception because the end user may be receiving from multiple transmitter locations. For example, if a particular turbine attenuates the signal reception into a mobile phone, the phone may receive an alternate signal from a different transmit location, resulting in no disruption in service. Mobile phone systems that are implemented in urban areas near large structures and buildings often have to combat even more problematic signal attenuation and reflection conditions than rural areas containing a wind energy turbine facility.

For the cellular towers located within the project area, no setback distance is required from an interference standpoint other than physical clearance of the blades. From an electromagnetic



standpoint, a setback distance of 77.3 meters should be used to meet FCC emission requirements.

In the unlikely event that a mobile phone carrier believes their coverage has been compromised by the presence of the wind energy facility, they have many options to improve their signal coverage to the area through optimization of a nearby base transmitter or even adding a new sector or cell site. Utility towers, meteorological towers or even the turbine towers within the wind project area can serve as the platform for a base transmit site or cell enhancer.

3. Contact Us

For questions or information regarding the Mobile Phone Carrier Report, please contact:

Contact person: David Meyer
Title: Senior Manager
Company: Comsearch
Address: 21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone: 703-726-5656
Fax: 703-726-5595
Email: David.Meyer@CommScope.com
Web site: www.comsearch.com

Wind Power GeoPlanner™

Off-Air TV Analysis

Heritage Prairie Wind



Prepared on Behalf of
Illinois Generation LLC

February 19, 2024



COMSEARCH
A CommScope Company



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1. Introduction

Off-air television stations broadcast signals from terrestrially-based facilities directly to television receivers. Comsearch identified those off-air stations whose service could potentially be affected by the proposed Heritage Prairie Wind project in Livingston County, Illinois. Comsearch then examined the coverage of the stations and the communities in the area that could potentially have degraded television reception due to the location of the proposed wind turbines.

2. Summary of Results

The proposed wind energy project area and local communities are depicted in Figure 1, below.



Figure 1: Wind Farm Project Area and Local Communities

To begin the analysis, Comsearch compiled all off-air television stations¹ within 150 kilometers of the proposed turbines. TV stations at a distance of 150 kilometers or less are the most likely to provide off-air coverage to the project area and neighboring communities. These stations are listed in Table 1, on the next page, and a plot depicting their locations is provided in Figure 2. There are a total of 85 database records for stations within approximately 150 kilometers of the proposed turbines. Of these stations, only 66 stations are currently licensed and operating, 25 of which are low-power stations or translators. Translator stations are low-power stations that receive signals from distant broadcasters and retransmit the signal to a local audience. These stations serve local audiences and have limited range, which is a function of their transmit power and the height of their transmit antenna.

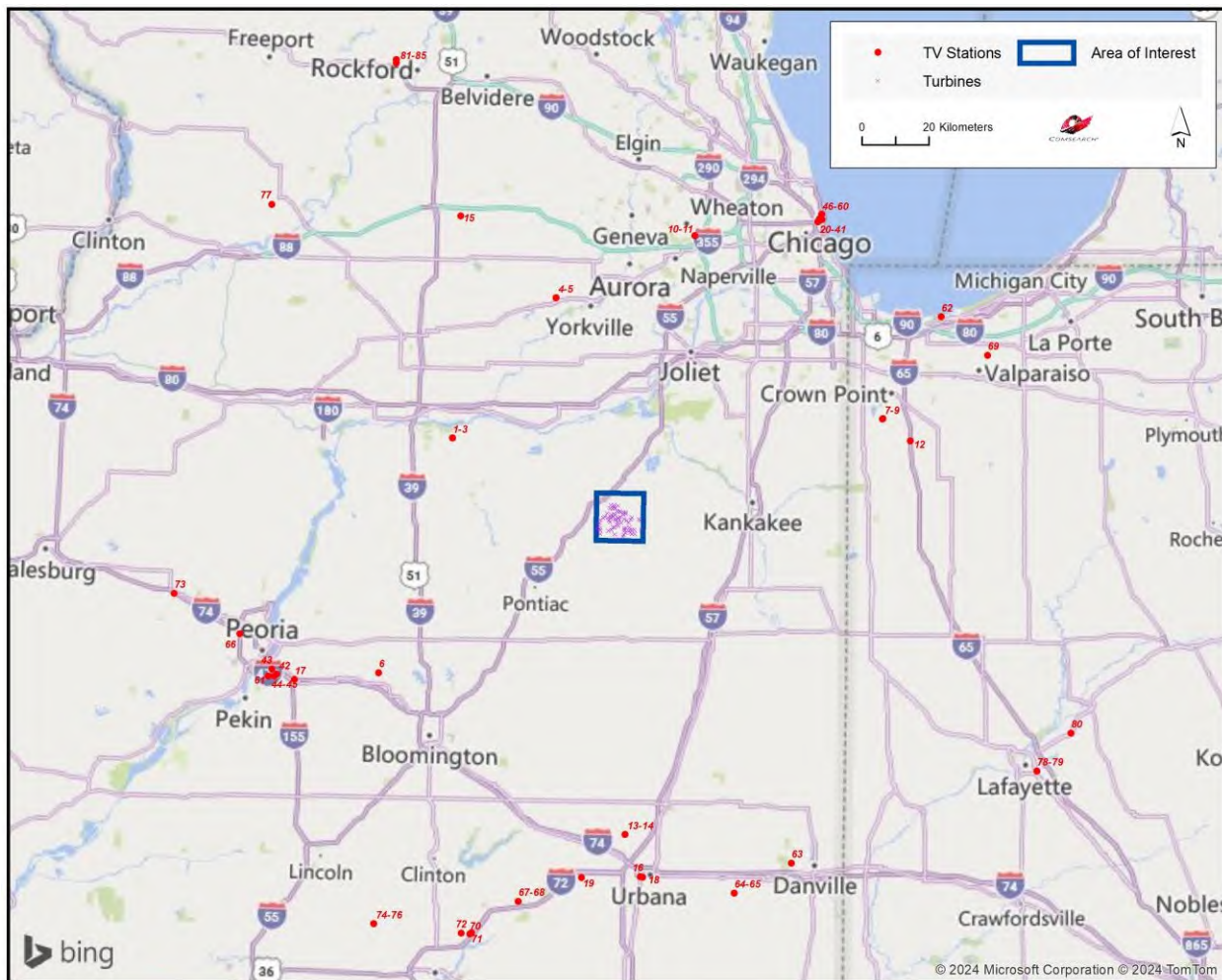


Figure 2: Plot of Off-Air TV Stations within 150 Kilometers of Proposed Turbines

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the TV station's FCC license and governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

ID	Call Sign	Status	Service ²	Channel	Transmit ERP ³ (kW)	Latitude (NAD 83)	Longitude (NAD 83)	Distance to the Closest Turbine (km)
1	WTVK	STA	DTV	10	30.0	41.281833	-88.936417	50.63
2	WAOE	LIC	DTV	10	24.0	41.281833	-88.936417	50.63
3	WTVK	LIC	DTS	10	30.0	41.281833	-88.936417	50.63
4	WAUR-LD	LIC	LPD	29	15.0	41.665278	-88.576111	64.19
5	WSPY-LD	LIC	LPD	30	10.8	41.665278	-88.576111	64.19
6	WYZZ-TV	LIC	DTV	28	1000.0	40.645833	-89.179167	78.20
7	WYIN	LIC	DTV	17	300.0	41.348889	-87.400556	78.56
8	WYIN	STA	DTV	17	300.0	41.349806	-87.399472	78.68
9	WYIN	CP	DTV	17	1000.0	41.349806	-87.399472	78.68
10	WAUR-LD	CP	LPD	29	12.3	41.838417	-88.080250	83.90
11	WWTO-TV	STA	DTV	35	15.0	41.838417	-88.080250	83.90
12	KPDS-LD	LIC	LPD	9	3.0	41.289917	-87.299917	84.28
13	W07DD-D	STA	LPD	7	0.1	40.224167	-88.298889	88.12
14	W07DD-D	LIC	LPD	7	0.28	40.224167	-88.298889	88.12
15	WYCH-LD	LIC	LPD	11	3.0	41.880028	-88.924889	97.49
16	WBXC-CD	LIC	DCA	18	15.0	40.111111	-88.243056	100.96
17	W27EQ-D	LIC	LPD	27	15.0	40.621944	-89.476667	101.17
18	W27EL-D	LIC	LPD	27	15.0	40.109361	-88.234889	101.22
19	WCIA	LIC	DTV	34	681.0	40.105833	-88.450000	101.55
20	WMEU-CD	LIC	DCA	18	15.0	41.878917	-87.636167	103.80
21	WGN-TV	LIC	DTV	19	645.0	41.878917	-87.636167	103.80
22	WWME-CD	LIC	DCA	20	15.0	41.878917	-87.636167	103.80
23	WCIU-TV	LIC	DTV	23	1000.0	41.878917	-87.636167	103.80

² Definitions of service and status codes:

ACA - Analog Class A
DCA - Digital Class A
DRT - Digital Replacement Translator
DT - ETL testing
DTS - Distributed Transmission System
DTV - Full Service Television
DTX - Digital TV Auxiliary
LPA - Low Power Analog TV
LPD - Low Power Digital TV
LPT - Digital TV Translator
LPX - Analog TV Translator
TS - Legacy Service for Analog TV Auxiliary
TV - Analog TV legacy

LIC – Licensed and operational station
CP – Construction permit granted
CP MOD – Modification of construction permit
APP – Application for construction permit, not yet operational
STA – Special transmit authorization, usually granted by FCC for temporary operation
AMD - Amendment

³ ERP = Transmit Effective Radiated Power

ID	Call Sign	Status	Service ²	Channel	Transmit ERP ³ (kW)	Latitude (NAD 83)	Longitude (NAD 83)	Distance to the Closest Turbine (km)
24	WFLD	CP	DTV	24	1000.0	41.878917	-87.636167	103.80
25	WTTW	LIC	DTV	25	250.0	41.878917	-87.636167	103.80
26	WEDE-CD	LIC	DCA	28	2.84	41.878917	-87.636167	103.80
27	WMAQ-TV	LIC	DTV	29	350.0	41.878917	-87.636167	103.80
28	WSNS-TV	LIC	DTV	29	350.0	41.878917	-87.636167	103.80
29	WFLD	LIC	DTV	31	1000.0	41.878917	-87.636167	103.80
30	WPWR-TV	LIC	DTV	31	1000.0	41.878917	-87.636167	103.80
31	WMAQ-TV	CP	DTV	33	398.0	41.878917	-87.636167	103.80
32	WRJK-LP	AMD	LPD	11	0.09	41.878889	-87.635556	103.82
33	WBBM-TV	LIC	DTV	12	10.9	41.878889	-87.635556	103.82
34	WBBM-TV	CP	DTV	12	30.0	41.878889	-87.635556	103.82
35	WJYS	LIC	DTV	21	140.0	41.878889	-87.635556	103.82
36	WXFT-DT	LIC	DTV	22	1000.0	41.878889	-87.635556	103.82
37	WLS-TV	LIC	DTV	22	1000.0	41.878889	-87.635556	103.82
38	WRJK-LP	CP	LPD	24	15.0	41.878889	-87.635556	103.82
39	WCPX-TV	LIC	DTV	34	400.0	41.878889	-87.635556	103.82
40	WDCI-LD	LIC	LPD	30	15.0	41.885028	-87.621583	105.05
41	WCHU-LD	LIC	LPD	7	3.0	41.889083	-87.626667	105.18
42	WMBD-TV	LIC	DTV	26	822.0	40.635000	-89.538611	105.20
43	WAOE	LIC	DRT	18	15.0	40.648056	-89.557222	106.01
44	WHOI	LIC	DTV	24	402.0	40.629444	-89.548056	106.19
45	WEEK-TV	LIC	DTV	25	536.0	40.629444	-89.548056	106.19
46	WOCK-CD	LIC	DCA	4	3.0	41.898917	-87.623111	106.24
47	WRME-LD	LIC	LPD	6	3.0	41.898917	-87.623111	106.24
48	WTVK	LIC	DTS	10	13.85	41.898917	-87.623111	106.24
49	WMEU-CD	CP	DCA	18	15.0	41.898917	-87.623111	106.24
50	WWME-CD	CP	DCA	20	15.0	41.898917	-87.623111	106.24
51	WCIU-TV	CP	DTV	23	1000.0	41.898917	-87.623111	106.24
52	WPVN-CD	LIC	DCA	26	15.0	41.898917	-87.623111	106.24
53	W27EB-D	LIC	DCA	27	15.0	41.898917	-87.623111	106.24
54	WDCI-LD	CP	LPD	30	0.85	41.898917	-87.623111	106.24
55	W31EZ-D	LIC	LPD	31	15.0	41.898917	-87.623111	106.24
56	WESV-LD	LIC	LPD	31	15.0	41.898917	-87.623111	106.24
57	WWTO-TV	LIC	DTV	32	15.0	41.898917	-87.623111	106.24
58	WLPD-CD	LIC	DCA	32	15.0	41.898917	-87.623111	106.24
59	WGBO-DT	LIC	DTV	35	635.0	41.898917	-87.623111	106.24
60	WRJK-LD	LIC	LPT	36	5.1	41.898917	-87.623111	106.24
61	WTVP	LIC	DTV	35	155.0	40.628889	-89.570000	107.89
62	WODN-LD	LIC	LPD	13	3.0	41.624472	-87.191139	108.69
63	W23EQ-D	LIC	LPT	23	12.1	40.151611	-87.713556	108.92
64	WICD	LIC	DTV	32	1000.0	40.069444	-87.912778	111.35
65	WCCU	LIC	DTV	36	125.0	40.069444	-87.912778	111.35

ID	Call Sign	Status	Service ²	Channel	Transmit ERP ³ (kW)	Latitude (NAD 83)	Longitude (NAD 83)	Distance to the Closest Turbine (km)
66	WSIO-LD	CP	LPT	19	11.0	40.741153	-89.673717	111.45
67	WILL-TV	LIC	DTV	9	30.0	40.038889	-88.669444	111.99
68	WILL-TV	APP	DTV	9	35.0	40.038889	-88.669444	111.99
69	WAAA-LD	LIC	LPD	16	14.0	41.521389	-87.023889	115.12
70	WAND	LIC	DTV	20	1000.0	39.952389	-88.832389	125.17
71	WBUI	LIC	DTV	22	325.0	39.948889	-88.836917	125.67
72	WLCF-LD	LIC	LPD	17	15.0	39.950833	-88.868056	126.27
73	W19ES-D	LIC	LPT	19	1.62	40.843389	-89.911083	128.13
74	WCQA-LD	STA	LPD	12	1.5	39.971056	-89.174361	134.65
75	WCQA-LD	STA	LPD	12	1.5	39.971056	-89.174361	134.65
76	WCQA-LD	LIC	LPD	12	3.0	39.971056	-89.174361	134.65
77	W27EJ-D	LIC	LPD	27	15.0	41.897861	-89.606056	135.61
78	WPBI-LD	LIC	LPD	17	15.0	40.402258	-86.849731	138.45
79	WPBY-LD	LIC	LPD	35	13.0	40.402250	-86.849722	138.45
80	W18EZ-D	LIC	LPD	18	0.5	40.503333	-86.729722	142.07
81	WTVO	LIC	DTV	16	196.0	42.287222	-89.170833	146.97
82	WQRF-TV	LIC	DTV	36	910.0	42.287222	-89.170833	146.97
83	WFBN-LD	LIC	LPD	23	15.0	42.296667	-89.170833	147.90
84	WSLN	LIC	DTV	9	30.0	42.296750	-89.170833	147.91
85	WIFR-LD	LIC	LPD	28	15.0	42.296750	-89.170833	147.91

Table 1: Off-Air TV Stations within 150 Kilometers of Proposed Turbines

3. Impact Assessment

Based on a contour analysis of the licensed stations within 150 kilometers of the Heritage Prairie Wind, it was determined that 19 of the full-power digital stations, identified below in Table 2, may have their reception disrupted in and around the project. The areas primarily affected would include TV service locations within 10 kilometers of the turbines that have clear line-of-sight (LOS) to a proposed wind turbine but not to the respective station. After the wind turbines are installed, communities and homes in these locations may have degraded reception of these stations. This is due to multipath interference caused by signal scattering as TV signals are reflected by the rotating wind turbine blades and mast.

ID	Call Sign	Status	Service	Channel	Transmit ERP (kW)	Latitude (NAD 83)	Longitude (NAD 83)	Distance to the Closest Turbine (km)
2	WAOE	LIC	DTV	10	24	41.281833	-88.936417	50.63
3	WTVK	LIC	DTS	10	30	41.281833	-88.936417	50.63
3	WTVK	LIC	DTS	10	30	41.281833	-88.936417	50.63
6	WYZZ-TV	LIC	DTV	28	1000	40.645833	-89.179167	78.20
7	WYIN	LIC	DTV	17	300	41.348889	-87.400556	78.56
8	WGN-TV	LIC	DTV	19	645.0	41.878917	-87.636167	103.80
23	WCIU-TV	LIC	DTV	23	1000	41.878917	-87.636167	103.80
25	WTTW	LIC	DTV	25	250	41.878917	-87.636167	103.80
27	WMAQ-TV	LIC	DTV	29	350.0	41.878917	-87.636167	103.80
28	WSNS-TV	LIC	DTV	29	350	41.878917	-87.636167	103.80
29	WFLD	LIC	DTV	31	1000.0	41.878917	-87.636167	103.80
30	WPWR-TV	LIC	DTV	31	1000	41.878917	-87.636167	103.80
33	WBBM-TV	LIC	DTV	12	10.9	41.878889	-87.635556	103.82
35	WJYS	LIC	DTV	21	140	41.878889	-87.635556	103.82
36	WXFT-DT	LIC	DTV	22	1000	41.878889	-87.635556	103.82
37	WLS-TV	LIC	DTV	22	1000	41.878889	-87.635556	103.82
39	WCPX-TV	LIC	DTV	34	400	41.878889	-87.635556	103.82
59	WGBO-DT	LIC	DTV	35	635.0	41.898917	-87.623111	106.24
64	WICD	LIC	DTV	32	1000	40.069444	-87.912778	111.35

Table 2: Licensed Off-Air TV Stations Subject to Degradation

4. Recommendations

While TV signals are reflected by wind turbines, which can cause multipath interference to the TV receiver, modern digital TV receivers have undergone significant improvements to mitigate the effects of signal scattering. When used in combination with a directional antenna, it becomes even less likely that signal scattering from wind farms will cause interference to digital TV reception.

Nevertheless, signal scattering could still impact certain areas currently served by the TV station mentioned above, especially those that would have line-of-sight to at least one wind turbine but not to the station antenna. In the unlikely event that interference is observed in any of the TV service areas, it is recommended that a high-gain directional antenna be used, preferably outdoors, and oriented towards the signal origin in order to mitigate the interference.

Both cable service and direct broadcast satellite service will be unaffected by the presence of the wind turbine facility and may be offered to those residents who can show that their off-air TV reception has been disrupted by the presence of the wind turbines after they are installed.



5. Contact

For questions or information regarding the Off-Air TV Analysis, please contact:

Contact person: David Meyer
Title: Senior Manager
Company: Comsearch
Address: 21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone: 703-726-5656
Fax: 703-726-5595
Email: David.Meyer@CommScope.com
Web site: www.comsearch.com

APPENDIX N – EMERGENCY PREPAREDNESS AND RESPONSE PLAN

Draft Emergency Preparedness & Response

**Emergency Action Plan
Heritage Prairie Wind Farm**

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EMERGENCY ACTION PLAN (EAP) – HERITAGE PRAIRIE WIND FARM

1. EMERGENCY CONTACTS

Site Name: Heritage Prarie Wind Farm	Site Address: TBD	Site Phone Number: TBD
Inside Assembly Area Name:	O&M Conference Room	Location: TBD
Outside Assembly Area: Name:	Muster Point 1 TBD Muster Point 2 TBD	Location: TBD
Evacuation Area: TBD	Phone Number: TBD	Address: TBD
Facility Manager Name: TBD	Office: TBD Cell: TBD	Email: TBD
Assistant Facility Manager Name: TBD	Office: TBD Cell: TBD	Email: TBD
Regional Manager Name: TBD	Office: TBD Cell: TBD	Email: TBD
Livingston County Sheriff Office	Phone Number: 911 Non Emergency: 815.844.0911	Address: 844 W Lincoln St, Pontiac, IL 61764
Hospital: Riverside Medical Center Emergency Department	Phone Number: 911 Non Emergency: 815.935.7500	Address: 350 N Wall St, Kankakee, IL, 60901
Dwight Fire Protection District	Phone Number: 911 Non Emergency: 815.584.2373	Address: 111 S Prairie Ave, Dwight, IL 60420
Chemical Spill: Safety Kleen	Phone Number: 708.225.8500	Address: 615 E. 138 th Street, Dolton, IL 60419
Pattern OCC	Main: 713.308.4242 Secondary: 713.308.4243/4244	patternocc@patternenergy.com
Pattern EHS Manager Name: TBD	Cell: TBD	E-mail: TBD
Director, Asset Operations & Maintenance Name: TBD	Cell: TBD	Email: TBD
Contractor – GE EHS Specialist Name: TBD	Cell: TBD	E-mail: TBD
Contractor Manager Name: TBD	Office: TBD Cell: TBD	E-mail: TBD

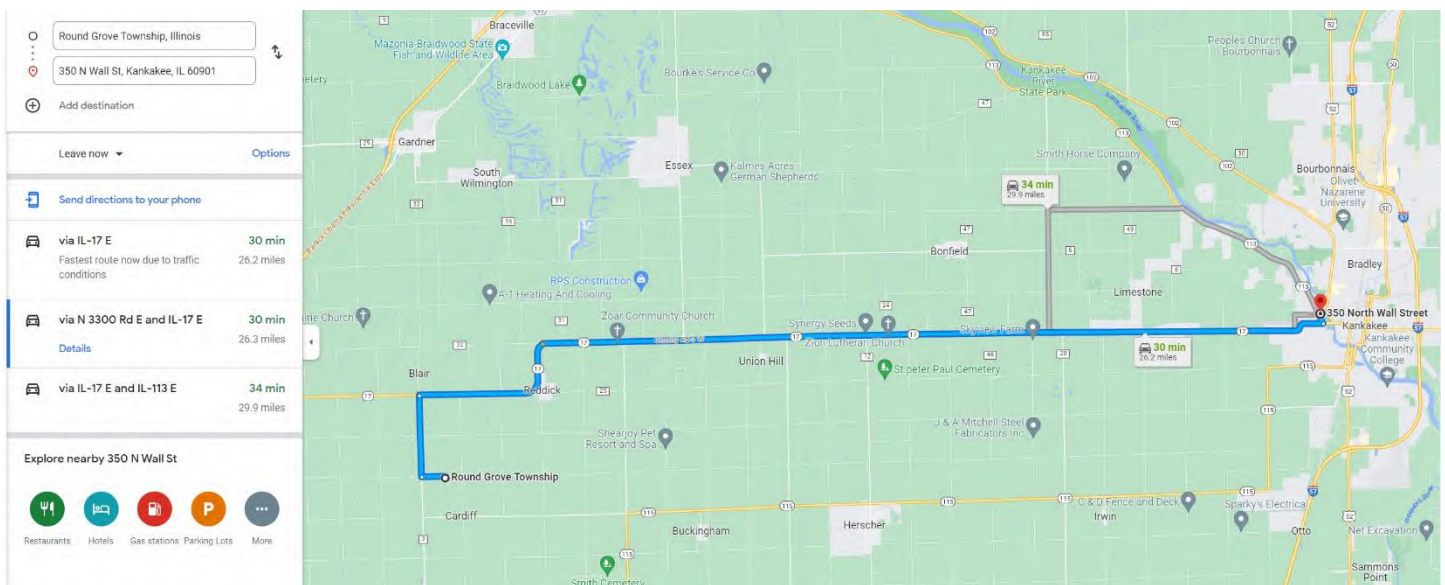
2. BASIC EMERGENCY INSTRUCTIONS

- 2.1 Anyone observing an emergency condition should immediately contact Site Management, by cell phone or radio.
- 2.2 Site Management will issue a site-wide stop work announcement, initiate the general emergency procedure and take on or designate the role of Emergency Coordinator.
- 2.3 In the case of fire or injury/illness, the scenario-specific emergency response actions shall be initiated as well (as described in this document).
- 2.4 Once notified of the emergency condition, the Emergency Coordinator shall determine whether outside resources are needed and manage the support and interaction with those outside resources.

3. DIRECTIONS TO NEAREST HOSPITAL/CLINIC

Directions to nearest Medical Facility (Substation to Riverside Medical Center)

- 1) Head west on E3000 N Rd toward N3300 Rd E for 0.6 miles
- 2) Turn right onto N3300 Rd E and continue for 22.6 miles.
- 3) Turn right onto IL-17 E and continue for 0.4 miles.
- 4) Turn left onto N Main Ave.
- 5) Turn right onto Butterfield Trail.
- 6) Turn right into Riverside Medical Center Emergency Department (350 N Wall St, Kankakee, IL, 60901).



4. SITE MAP:

Final Site Plan to be added.

5. FIRE

Personnel and contractors shall notify Site Management immediately upon discovery of a fire. Site Management will designate an Emergency Coordinator to manage the incident.

5.1 Grass, Brush and Forest Fires

- 5.1.1 In the event of grass and brush fires, personnel and contractors shall notify Site Management.
- 5.1.2 Site Management will designate an Emergency Coordinator to manage the incident.
- 5.1.3 The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.
- 5.1.4 The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department.
- 5.1.5 The Emergency Coordinator will contact any land owners in the area with the location and size of the fire. Personnel may be directed by the Emergency Coordinator to visit any buildings/dwellings that may be in the anticipated path of a fire.
- 5.1.6 Only personnel trained to fight fires may do so and only under instruction from the civil authorities. In all other events, personnel shall at no time attempt to extinguish or “fight” a large brush or grass fire.

5.2 Turbine Fire – No Personnel Present

- 5.2.1 In the event of a turbine fire, personnel discovering the fire shall contact Site Management.
- 5.2.2 Site Management will designate an Emergency Coordinator to manage the incident.
- 5.2.3 The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.
- 5.2.4 The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department.
- 5.2.5 The responder will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the scene.
- 5.2.6 Personnel or contractors shall at no time attempt to go up tower to extinguish or “fight” a turbine fire. The role of personnel/contractor is to notify Site Management, liaise with the Emergency Coordinator, and lead fire-fighting equipment to the scene.

5.3 Turbine Fire – People in Nacelle, Fire in Down Tower Control Cabinet

- 5.3.1 If a fire occurs in the down tower control cabinet while personnel or contractors are working in the nacelle, all nacelle hatches shall be opened immediately.
- 5.3.2 Personnel discovering the fire will contact Site Management.
- 5.3.3 The Site Management will designate an Emergency Coordinator to manage the incident.
- 5.3.4 The Emergency Coordinator shall obtain details of the exact location and size of the fire from the notifier.
- 5.3.5 The Emergency Coordinator will contact 911 and request fire and medical assistance.
- 5.3.6 The Emergency Coordinator will nominate a designated responder to meet at the Emergency Responder Meeting Point and lead fire-fighting equipment and medical resources to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department and medical

resources.

- 5.3.7 The designated responder will then proceed to a designated meeting point and be available to direct fire-fighting equipment and medical resources to the scene.
- 5.3.8 Personnel and contractors in the nacelle will follow all normal fall protection procedures and attempt to remain in smoke free air until directed by fire-fighting personnel to climb down.
- 5.3.9 If a smoke free environment cannot be maintained or the fire is not extinguished within 30 minutes, personnel will communicate with the designated responder to determine if emergency descent on the outside of the tower is feasible and appropriate.
- 5.3.10 At no time shall personnel attempt to climb down until directed.

5.4 Turbine Fire – People in Nacelle, Fire in Nacelle

- 5.4.1 If a fire occurs in the nacelle while personnel are present, personnel shall abandon all tools and equipment and immediately descend the tower ladder and exit the turbine.
- 5.4.2 If the fire blocks access to the exit, personnel shall use the emergency descent system to reach ground level.
- 5.4.3 Personnel nor contractors shall not attempt to extinguish or “fight” a nacelle fire, unless required to maintain access to an exit.
- 5.4.4 Once away from the fire, personnel discovering the fire shall contact Site Management.
- 5.4.5 Site Management will designate an Emergency Coordinator to manage the incident.
- 5.4.6 The Emergency Coordinator will obtain details of the exact location and size of the fire from Site Management.
- 5.4.7 The Emergency Coordinator will contact 911 and request fire and medical assistance.
- 5.4.8 The Emergency Coordinator will nominate a designated responder to lead fire-fighting equipment and medical resources to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department and medical resources.
- 5.4.9 The designated responder will then proceed to the designated meeting point and be available to direct fire-fighting equipment and medical resources to the scene.

5.5 Fire - O&M Building

- 5.5.1 In the event of a fire in the O&M building, personnel discovering the fire will activate the building fire alarm.
- 5.5.2 At the alarm sound, Site Management will designate an Emergency Coordinator who will immediately notify 911 and request fire and medical assistance.
- 5.5.3 The General Emergency Response and Evacuation Procedures will then be followed.
- 5.5.4 All employees, contractors and visitors will remain clear of buildings and structures until

an all clear notice is received from fire-fighting personnel.

5.5.5 Personnel and contractors shall at no time attempt to extinguish or “fight” a fire.

5.6 Fire - Electrical Facilities

5.6.1 In the event of a fire inside a substation, personnel discovering the fire will contact Site Management.

5.6.2 Site Management will designate an Emergency Coordinator to manage the incident.

5.6.3 The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.

5.6.4 The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department

5.6.5 Personnel that discovered the fire will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the substation.

5.6.6 Transformers and capacitors contain flammable, combustible material and all personnel must remain in safe areas away from these potentially explosive sources.

5.6.7 Personnel and contractors shall at no time attempt to extinguish or “fight” a fire.

6. INJURY/ILLNESS

6.1 Injury/Illness – Ground

6.1.1 In the event of an injury/illness requiring medical treatment, personnel will contact Site Management immediately.

6.1.2 Site Management will designate an Emergency Coordinator who will obtain details of the exact location and severity of the injury.

6.1.3 The Emergency Coordinator will contact 911 and coordinate meeting points with medical assistance and site personnel.

6.2 Injury/Illness – At Heights

6.2.1 In the event of an injury/illness requiring medical treatment to personnel working in a nacelle or tower, personnel will contact Site Management immediately.

6.2.2 Site Management will designate an Emergency Coordinator who shall obtain details of the exact location and severity of the injury.

6.2.3 The Emergency Coordinator will contact 911 and coordinate meeting points with medical assistance and site personnel.

6.2.4 In the event personnel injured or ill is suspended in their harness, attending personnel will lower injured person using approved rescue devices.

6.2.5 If the injured person is not suspended in their harness, the attending personnel will wait

for EMT assistance and instruction before lowering injured person using approved rescue devices.

6.3 Injury/Illness – Pesticide/Herbicide Treated Fields

- 6.3.1 In the event of an injury/illness due to pesticide or herbicide exposure, contact Site Management immediately.
- 6.3.2 Site Management will designate an Emergency Coordinator who will look at the pesticide labeling or Right to Know Bulletin Board and MSDS, if available. If it gives specific first aid instructions, the Emergency Coordinator will disseminate the instructions.
- 6.3.3 The Emergency Coordinator will contact 911 if determined necessary by the extent of the injuries and/or the MSDS and coordinate meeting points with medical assistance and site personnel.
- 6.3.5 All are to read the COVID-19 Safety Plan and take the COVID-19 Site Orientation

7. CRIMINAL BEHAVIOR

7.1 Suspicious People

- 7.1.1 In case of suspicious people, it is the responsibility of all personnel, contractors and visitors to notify Site Management and report the location and nature of the suspicious activity. Personnel, contractors and visitors should not confront or attempt to detain trespassers or suspicious people. If sabotage is suspected, Site Management shall refer to RMS 403 Sabotage Recognition and Reporting.
- 7.1.2 Site Management will determine the scope of the emergency response. For reports of criminal behavior such as vandalism, shooting, or illegal vehicles, Site Management or the Emergency Coordinator will contact local law enforcement.
- 7.1.3 Investigations into suspicious individual(s) may require conversation with the individual to ascertain that person's connection with the site. At no time should any confrontation be allowed. If suspicious individuals seem hostile or violent, personnel should leave the area and inform Site Management to contact local law enforcement.

7.2 Personnel, Contractor or Visitor

- 7.2.1 Confrontational situations between personnel, contractors or visitors involving threats, harassment, confrontations or obscene acts or language should be reported immediately to Site Management.
- 7.2.2 If at any time personnel, contractors or visitors working at a site are concerned about their safety, it is their responsibility to report the situation to Site Management.

7.3 Third Party Threats to Facilities

- 7.3.1 In the event there is a threat to personnel or the site, Site Management will designate an Emergency Coordinator, initiate the Evacuation Procedure, and contact law enforcement. If sabotage is suspected, Site Management shall refer to RMS 403 Sabotage Recognition and Reporting.
- 7.3.2 Once all personnel have been accounted for, the Emergency Coordinator will order the

site evacuated.

7.3.3 Upon “all clear” notification from law enforcement, personnel may return to the building.

8. 911 GPS COORDINATES

Site Address: TBD

Turbine coordinates: table to be populated based on final site plan.

Turbine Coordinates					
ID	Latitude	Longitude	ID	Latitude	Longitude

APPENDIX O – HAZARDOUS FLUIDS

Hazardous Fluids within Wind Farm			
Description	Location	Type	Containment
Gearbox Oil	Wind turbine nacelle	Sealed operating equipment	Nacelle yaw deck
Hydraulic Oil	Wind turbine nacelle	Sealed operating equipment	Nacelle yaw deck
Grease	Wind turbine nacelle	Sealed operating equipment	Nacelle yaw deck
Transformer Mineral Oil	Wind turbine base	Sealed operating equipment	Foundation with 3' deep vault, sealed with slurry base; surrounded by level gravel bed
Spare Transformer Mineral Oil	O&M Facility outdoor yard	Sealed operating equipment	Stored near O&M and Oil Storage Buildings away from vehicle traffic. Level gravel yard, with low containment berm around transformers, away from fence.
Main GSU Transformer Mineral Oil	Wind Farm Facility Substation	Sealed operating equipment	Concrete containment structure

Hazardous Fluids within Operations and Maintenance Building			
Description	Location	Type	Containment
Gearbox Oil	Oil Storage Sheds	Plastic containers	Indoors, concrete containment floor building
Hydraulic Oil	Oil Storage Sheds	Plastic containers	Indoors, concrete containment floor building
Grease	Oil Storage Sheds	Plastic containers	Indoors, concrete containment floor building
Used Oil	Oil Storage Sheds	Plastic tank or steel drum	Indoors, concrete containment floor building
Waste Coolant	Oil Storage Sheds	Steel drum	Indoors, concrete containment floor building

APPENDIX P – SHADOW FLICKER ANALYSIS

ILLINOIS GENERATION LLC

SHADOW FLICKER ANALYSIS

HERITAGE PRAIRIE WIND PROJECT
PROJECT NO. 132138

REVISION 5
FEBRUARY 20, 2024

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List of Abbreviations

Abbreviation	Term/Phrase/Name
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
Client	Illinois Generation LLC
hr	Hour
kg/m ³	Kilograms per cubic meter
m	Meter
m/s	Meters per second
MW	Megawatt
Project	Heritage Prairie Wind Project
Project Site	Location of Project in Livingston and Kankakee County, Illinois
Study	Shadow Flicker Analysis
yr	Year
V	Vestas

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1.0 Introduction

1.1 Study Overview

Burns & McDonnell Engineering Company, Inc. (“Burns & McDonnell”) was retained by Illinois Generation LLC (“Client”) to conduct a shadow flicker analysis (the “Study”) for the proposed Heritage Prairie Wind Project (the “Project”). The objective of the Study was to estimate the annual frequency of shadow flicker on occupied residences caused by Project wind turbines.

1.2 Project Overview

The proposed Heritage Prairie Wind will be located in Livingston and Kankakee County, Illinois, approximately 15 miles west of the city of Kankakee. The Project will include up to a quantity of 137 Vestas (“V”) 163-4.5 wind turbine generators with a nameplate capacity of approximately 4.5 megawatts per turbine, as summarized in Section 2.2 below. It is noted that only 71 of the proposed wind turbine generators are expected to be installed within Livingston County.

1.3 Shadow Flicker Overview

Shadow flicker occurs when wind turbine blades pass in front of the sun to create recurring shadows on an object. Such shadows occur only under very specific conditions, including sun position, wind direction, time of day, and other similar factors.

The intensity of shadow flicker varies significantly with distance, and as separation between a turbine and receptor increases, shadow flicker intensity correspondingly diminishes. Shadow flicker intensity for distances greater than 10 rotor diameters is generally considered imperceptible. At such distances, shadow flicker most commonly occurs at sunrise or sunset, when cast shadows are sufficiently long.

1.4 Applicable Regulations

Shadow flicker impacts are not currently regulated in applicable federal or state law. However, Section 56.619.E of the Livingston County Ordinance states the following:

Section 56.619.E: Shadow flicker shall not affect an occupied building or non-participating residence in excess of 30 hours per year under planned operating conditions. Planned operating conditions is defined as those conditions that would exist if the sun were to shine every day of the year with no cloud cover.

The Project is seeking a variance to model the shadow flicker impacts from estimated sunshine probability instead of planned operating conditions. As such, this report identifies shadow flicker durations for receptors that may experience flicker in excess of 30 hours per year under estimated sunshine conditions.

1.5 Site Visit

Burns & McDonnell did not visit the Project Site as part of this Study. The contents of this evaluation are based exclusively upon desktop analysis by Burns & McDonnell.

2.0 Modeling Parameters and Inputs

2.1 Modeling Overview

Shadow flicker was modeled for the Project Site using WindPRO, an industry-leading software package for the design and planning of wind energy projects. This package models the sun's path with respect to every turbine location during every minute over a complete year. Any shadow flicker caused by each turbine is then aggregated for each receptor for the entire year.

The following sections are summaries of the inputs utilized in the WindPRO model for this Study.

2.2 Wind Turbines

The Project will include up to 137 wind turbines when constructed. A summary of the turbine model and its respective dimensions that was modeled as part of this Study is included in Table 2-1.

Table 2-1: Turbine Model Dimensions

Turbine Model	Hub Height [m]	Rotor Diameter [m]	County	Quantity
V163-4.5	113.0	163	Livingston Kankakee	71 66

Shadow flicker intensity is partially dependent upon the distance from a receptor to the turbine causing the shadow. The client-provided coordinates of each wind turbine are presented in Appendix A and the location of each wind turbine is presented graphically in Appendix D.

2.3 Receptors

A quantity of 1,177 receptors were modeled at the Project Site, although only the 287 receptors located in Livingston County are evaluated in this report. The client-provided coordinates of each receptor are presented in Appendix C and the location of each receptor is presented graphically in Appendix D. Burns & McDonnell did not provide an independent verification of the location or occupied status of these receptors.

Each receptor was modeled in “green house” mode within the WindPRO model. This approach provides a conservative estimate of the amount of time when shadow flicker could occur by modeling each receptor as having windows on all sides and effectively causing the home to be susceptible to flicker effects in all directions.

2.4 Terrain

The WindPRO model utilizes topography data to place turbines and receptors at the proper elevations. This information is also used by the model to consider any natural land features between a turbine and a receptor that may block shadows from being seen at a receptor.

Publicly-available terrain data was downloaded from the National Elevation Dataset, a product of the United States Geological Survey. The 10-meter resolution digital elevation model was exported at 10-foot intervals for use in the WindPRO model. Elevations were assigned by Burns & McDonnell to each turbine and each receptor using this data.

2.5 Obstacles

Obstacles located between a receptor and a turbine, such as trees or buildings, may significantly reduce or eliminate the duration and/or intensity of shadow flicker. However, to provide the most conservative estimate of the amount of time when shadow flicker could occur, no attempt was made to model the presence of potential obstacles.

2.6 Turbine Operation

Shadow flicker is contingent upon the movement of the turbine blades. Shadow flicker can only occur when the turbine is in operation (i.e., when the turbine blades are rotating). Moreover, shadow flicker is generally most notable when a turbine is facing a receptor, as this results in the widest-possible shadow being cast. To more accurately reflect the periods of operation of each Project wind turbine, on-site hub-height wind data was provided by Illinois Generation LLC and used to indicate the periods when the turbines are inactive due to wind speeds below the turbine cut-in speed or above the turbine cut-out speed, at which time the turbine rotor is not in motion and no shadow flicker will occur.

Project Site-specific wind data was also utilized to model the actual orientation of the turbines relative to each receptor. The client-provided wind data includes data collected by an on-site meteorological mast, as shown in Appendix B.

Power curves for the proposed turbines were provided by Illinois Generation LLC. These power curves were added to the WindPRO model to more accurately reflect the turbine's operational characteristics.

2.7 Flicker Relevance

At distances beyond 10 rotor diameters, shadow flicker effects are generally considered low, as shadows diffuse and become imperceptible. Thus, a distance equal to 10 times the rotor diameter of each turbine (i.e., 1,630 meters) was modeled as the maximum distance at which shadow flicker was considered relevant; receptors greater than this distance from a given turbine were not evaluated. The proximity of this buffer relative to each receptor is presented graphically in Appendix D.

2.8 Sun Angle

The sun's path with respect to each turbine location is calculated by the WindPRO model to determine the cast shadow paths during every minute over a complete year. However, at very low sun angles, the light must pass through more atmosphere and becomes too diffused to form a coherent shadow. Thus, a value of three (3) degrees was utilized for the height at which the sun would not cause noticeable flicker.

2.9 Environment

Shadow flicker is only caused when the sun is shining. Sunshine probability data was obtained by Burns & McDonnell, as shown in Appendix B. This data represents the percentage of hours each month that the sun is expected to be shining during daylight hours, with consideration given for cloud cover, rainy days, fog, or other similar occurrences that may diminish the potential occurrence or severity of shadow flicker.

3.0 Results

Using the inputs and parameters defined in Section 2.0, the WindPRO model was used to calculate shadow flicker for the identified receptors at the Project Site. Table 3-1 presents a summary of these results, while detailed tables are included within Appendix C. Additionally, maps are provided in Appendix D that illustrate the shadow flicker vectors (in hours per year) caused by each Project turbine.

Table 3-1: Summary of Results

Turbine Layout	No. of Turbines	No. of Receptors	No. of Participating Receptors, Flicker \geq 30 hr/yr	No. of Non-Participating Receptors, Flicker \geq 30 hr/yr
137 x V163-4.5	71	289	5	19

The following is a set of key observations from the results of the Study:

- With the current layout, 24 out of the 289 known receptors in Livingston County exceed 30 hours per year of shadow flicker. Five receptors are participating residences, and 19 of the receptors are non-participating residences. Refer to Appendix C for a complete listing of results.
- With the current layout, one of the 31 known receptors in Grundy County exceeds 30 hours per year of shadow flicker. The receptor is non-participating. Refer to Appendix C for a complete listing of results.
- For the layout analyzed within this report, there are no Livingston County receptors modeled to have more than 30 hours per year of shadow flicker that are impacted by a wind turbine located in Kankakee County.
- For the layout analyzed within this report, there are no Kankakee County receptors modeled to have more than 30 hours per year of shadow flicker that are impacted by a wind turbine located in Livingston County. A Shadow Flicker Analysis report for Kankakee residences will be issued to Kankakee County for their permit process.
- The majority of observed shadow flicker on each receptor occurs during early morning and/or late afternoon and evening hours, as shown in Appendix E.
- The Study was performed using a conservative modeling approach with Project Site-specific conditions. For example, the Study modeled each receptor as a “green house”, meaning each receptor was modeled as having windows on all sides and effectively causing the home to be susceptible to flicker effects in all directions. Further, the Project Site was modeled as if no obstacles were present, including trees or buildings, which may significantly reduce or eliminate the duration and/or intensity of shadow flicker at a receptor. Due to the conservative approach of the Study, the actual duration and intensity of shadow flicker experienced at each receptor is expected to be less than those reported in the Study.

- Notwithstanding any shadow flicker which may occur at the Project Site, mitigation techniques will be utilized to reduce the shadow flicker on non-participating residences with more than 30 hours/year. Mitigation technique will include operational curtailment of nearby wind turbine(s) to reduce the shadow flicker on non-participating residences to below 30 hours per year.

APPENDIX A - WIND TURBINE COORDINATES

Table A-1: Wind Turbine Coordinates

Turbine Number	Easting [m]	Northing [m]	County	Wind Turbine Model
L2	381,361.00	4,544,257.00	Livingston	V163-4.5
L4	381,816.00	4,546,429.00	Livingston	V163-4.5
L5	382,070.00	4,544,279.00	Livingston	V163-4.5
L6	381,925.00	4,544,708.00	Livingston	V163-4.5
L9	382,125.04	4,547,319.23	Livingston	V163-4.5
L11	383,064.11	4,547,990.80	Livingston	V163-4.5
L13	383,451.89	4,548,337.22	Livingston	V163-4.5
L16	384,192.46	4,549,256.75	Livingston	V163-4.5
L17	384,386.92	4,547,995.63	Livingston	V163-4.5
L18	384,583.00	4,544,166.00	Livingston	V163-4.5
L20	385,102.17	4,550,784.87	Livingston	V163-4.5
L21	385,071.93	4,546,681.32	Livingston	V163-4.5
L24	385,327.49	4,551,792.47	Livingston	V163-4.5
L26	385,404.65	4,544,325.80	Livingston	V163-4.5
L27	385,810.09	4,550,621.79	Livingston	V163-4.5
L28	385,885.23	4,548,362.05	Livingston	V163-4.5
L29	385,853.98	4,545,095.91	Livingston	V163-4.5
L30	385,289.70	4,547,880.43	Livingston	V163-4.5
L31	386,221.46	4,551,805.79	Livingston	V163-4.5
L32	386,240.00	4,551,283.00	Livingston	V163-4.5
L33	386,290.00	4,549,180.00	Livingston	V163-4.5
L34	386,390.53	4,543,055.86	Livingston	V163-4.5
L35	386,549.82	4,548,830.46	Livingston	V163-4.5
L37	386,551.62	4,550,785.72	Livingston	V163-4.5
L38	386,431.80	4,545,114.01	Livingston	V163-4.5
L39	386,681.91	4,547,214.88	Livingston	V163-4.5
L40	386,667.22	4,547,668.61	Livingston	V163-4.5
L42	387,356.43	4,546,536.25	Livingston	V163-4.5
L43	387,102.25	4,549,887.51	Livingston	V163-4.5
L46	387,185.13	4,545,989.82	Livingston	V163-4.5
L47	387,424.00	4,551,680.00	Livingston	V163-4.5
L50	387,523.53	4,545,598.28	Livingston	V163-4.5
L56	387,898.68	4,549,880.06	Livingston	V163-4.5
L58	388,250.88	4,549,618.75	Livingston	V163-4.5
L60	388,312.34	4,546,468.55	Livingston	V163-4.5
L61	388,913.89	4,542,372.09	Livingston	V163-4.5
L62	389,166.24	4,544,737.58	Livingston	V163-4.5
L63	388,988.92	4,548,936.46	Livingston	V163-4.5
L64	389,090.61	4,542,919.34	Livingston	V163-4.5

Turbine Number	Easting [m]	Northing [m]	County	Wind Turbine Model
L65	389,017.00	4,549,550.00	Livingston	V163-4.5
L66	389,550.78	4,543,506.68	Livingston	V163-4.5
L68	389,205.93	4,547,553.94	Livingston	V163-4.5
L69	389,368.99	4,544,245.76	Livingston	V163-4.5
L70	389,753.95	4,549,130.87	Livingston	V163-4.5
L71	389,688.00	4,544,833.00	Livingston	V163-4.5
L73	390,552.29	4,543,981.09	Livingston	V163-4.5
L74	389,914.84	4,547,267.68	Livingston	V163-4.5
L76	390,763.00	4,545,123.00	Livingston	V163-4.5
L77	390,635.41	4,546,473.05	Livingston	V163-4.5
L79	390,915.04	4,544,352.12	Livingston	V163-4.5
L80	391,121.53	4,543,520.11	Livingston	V163-4.5
L81	391,171.72	4,547,434.46	Livingston	V163-4.5
L82	391,519.99	4,548,102.40	Livingston	V163-4.5
L86	391,573.53	4,544,332.95	Livingston	V163-4.5
L87	391,593.26	4,543,154.59	Livingston	V163-4.5
L89	392,285.00	4,544,337.00	Livingston	V163-4.5
L91	392,388.00	4,543,159.00	Livingston	V163-4.5
L95	393,610.18	4,547,569.27	Livingston	V163-4.5
L97	394,019.45	4,547,239.51	Livingston	V163-4.5
L98	394,441.00	4,544,333.00	Livingston	V163-4.5
L99	385,356.22	4,548,965.31	Livingston	V163-4.5
L104	387,524.09	4,547,973.19	Livingston	V163-4.5
L105	387,748.00	4,547,426.00	Livingston	V163-4.5
L106	388,010.71	4,548,251.03	Livingston	V163-4.5
L107	386,769.02	4,541,528.83	Livingston	V163-4.5
L109	382,048.05	4,543,185.86	Livingston	V163-4.5
L110	384,699.11	4,547,194.88	Livingston	V163-4.5
L111	385,285.02	4,548,361.90	Livingston	V163-4.5
L113	389,699.81	4,549,713.65	Livingston	V163-4.5
L120	381,666.69	4,545,849.66	Livingston	V163-4.5
L121	381,200.04	4,545,028.89	Livingston	V163-4.5
K3	395281.074	4549007.691	Kankakee	V-163-4.5
K6	395620.044	4545704.363	Kankakee	V-163-4.5
K7	395997.566	4545125.507	Kankakee	V-163-4.5
K8	396005.758	4551883.647	Kankakee	V-163-4.5
K9	396128.115	4544672.746	Kankakee	V-163-4.5
K11	396156.644	4551397.009	Kankakee	V-163-4.5
K12	396327.427	4549165.186	Kankakee	V-163-4.5
K13	396413.5193	4550737.04	Kankakee	V-163-4.5
K18	397718.909	4545992.763	Kankakee	V-163-4.5

Turbine Number	Easting [m]	Northing [m]	County	Wind Turbine Model
K20	397945.873	4544468.977	Kankakee	V-163-4.5
K23	398814.24	4552798.76	Kankakee	V-163-4.5
K24	398818.416	4550874.894	Kankakee	V-163-4.5
K28	399561.998	4553258	Kankakee	V-163-4.5
K29	399639.386	4554438.526	Kankakee	V-163-4.5
K32	400936.047	4552859.426	Kankakee	V-163-4.5
K34	401674.671	4552829.576	Kankakee	V-163-4.5
K36	402061.209	4549323.189	Kankakee	V-163-4.5
K38	402423.723	4548540.559	Kankakee	V-163-4.5
K42	403380.164	4552860.661	Kankakee	V-163-4.5
K43	403383.797	4543147.203	Kankakee	V-163-4.5
K46	403800.152	4546966.736	Kankakee	V-163-4.5
K47	404149.701	4546564.121	Kankakee	V-163-4.5
K48	404153.869	4542966.741	Kankakee	V-163-4.5
K50	404204	4549386	Kankakee	V-163-4.5
K51	404241	4543393	Kankakee	V-163-4.5
K54	405427.151	4542972.603	Kankakee	V-163-4.5
K55	405923.071	4551027.689	Kankakee	V-163-4.5
K56	406528.679	4549391.028	Kankakee	V-163-4.5
K57	407020	4549985	Kankakee	V-163-4.5
K60	408245.014	4549173.289	Kankakee	V-163-4.5
K61	408601.411	4551113.962	Kankakee	V-163-4.5
K62	408948.895	4549180.655	Kankakee	V-163-4.5
K66	410661.175	4551910.674	Kankakee	V-163-4.5
K70	412242.942	4546288.678	Kankakee	V-163-4.5
K73	413430.324	4545438.159	Kankakee	V-163-4.5
K74	413444.927	4546319.628	Kankakee	V-163-4.5
K77	413843.915	4548786.006	Kankakee	V-163-4.5
K78	413852.775	4547006.046	Kankakee	V-163-4.5
K79	413941.998	4548346	Kankakee	V-163-4.5
K81	415037.105	4548122.645	Kankakee	V-163-4.5
K82	395262.6349	4544802.185	Kankakee	V-163-4.5
K83	395306.8345	4544312.657	Kankakee	V-163-4.5
K84	396075.3508	4544051.372	Kankakee	V-163-4.5
K85	396078.0493	4543486.052	Kankakee	V-163-4.5
K86	396907.3069	4544421.172	Kankakee	V-163-4.5
K89	397991.9409	4553193.113	Kankakee	V-163-4.5
K90	399359.406	4547498.183	Kankakee	V-163-4.5
K91	401746.1834	4548438.867	Kankakee	V-163-4.5
K92	402684.941	4544536.735	Kankakee	V-163-4.5
K93	402801.0891	4552853.335	Kankakee	V-163-4.5

Turbine Number	Easting [m]	Northing [m]	County	Wind Turbine Model
K94	405277.613	4549798.946	Kankakee	V-163-4.5
K98	408943	4549625	Kankakee	V-163-4.5
K99	412148.9591	4551162.53	Kankakee	V-163-4.5
K101	413964.27	4547877.449	Kankakee	V-163-4.5
K107	403449.3151	4547864.506	Kankakee	V-163-4.5
K109	402505.7544	4546522.211	Kankakee	V-163-4.5
K110	402566.6017	4545836.393	Kankakee	V-163-4.5
K200	413349.686	4548769.322	Kankakee	V-163-4.5
K202	413355.363	4546847.651	Kankakee	V-163-4.5
K204	403450.341	4546259.638	Kankakee	V-163-4.5
K205	413273.159	4548044.53	Kankakee	V-163-4.5
K206	395502.525	4546400.533	Kankakee	V-163-4.5
K500	398791.958	4547751.65	Kankakee	V-163-4.5
K501	404122.6871	4543732.634	Kankakee	V-163-4.5
K502	395701.493	4551330.357	Kankakee	V-163-4.5
K503	402613.3143	4548066.687	Kankakee	V-163-4.5

Notes:

[1] Coordinates presented in UTM NAD83 Zone 16N (meters)

[2] Coordinates provided by Illinois Generation LLC via "HP_K3_LO6ROOBA02_V163-4.5_66WTG_with_PMETs_20240109.shp" and "HP_Livingston_L12ROOBA06_71WTG_with_PMTs.shp" on January 11, 2024

APPENDIX B - MODELING INPUT

Figure B-1: Monthly Sunshine Probability Data for Herscher, Illinois

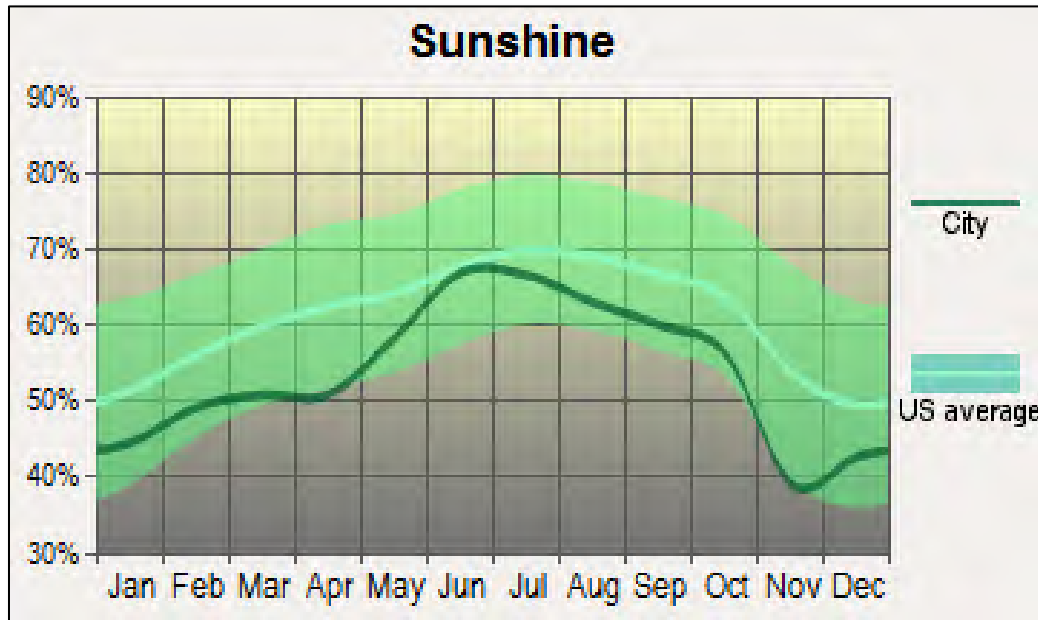


Table B-1: Sunshine Probability Data for Herscher, Illinois

Month	Estimated Sunshine Probability
January	45%
February	49%
March	51%
April	52%
May	59%
June	68%
July	66%
August	63%
September	60%
October	56%
November	40%
December	43%

Notes:

[1] Data source: <http://www.city-data.com/city/Herscher-Illinois.html>

[2] Data location: Herscher, Illinois

[3] Data in Figure estimated by Burns & McDonnell from source data in Figure B-1

APPENDIX C - FLICKER RESULTS BY RECEPTOR

Table C-1: Flicker Results by Receptor

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-001	380,314	4,545,525	Non-Participating	Livingston	12.40
REC-002	380,545	4,544,359	Non-Participating	Livingston	16.25
REC-003	380,705	4,547,583	Non-Participating	Livingston	2.80
REC-004	380,705	4,546,736	Non-Participating	Livingston	13.52
REC-005	380,718	4,546,973	Non-Participating	Livingston	8.87
REC-006	380,721	4,545,199	Non-Participating	Livingston	30.05
REC-007	380,787	4,548,011	Non-Participating	Livingston	2.88
REC-008	380,738	4,544,529	Non-Participating	Livingston	26.20
REC-009	380,715	4,542,026	Non-Participating	Livingston	0.00
REC-010	380,808	4,544,757	Non-Participating	Livingston	26.65
REC-011	380,902	4,548,517	Non-Participating	Livingston	0.00
REC-012	380,830	4,543,259	Non-Participating	Livingston	4.53
REC-013	380,967	4,541,639	Non-Participating	Livingston	0.00
REC-014	381,011	4,542,841	Non-Participating	Livingston	12.43
REC-015	381,015	4,542,792	Non-Participating	Livingston	17.38
REC-016	381,105	4,547,011	Non-Participating	Livingston	24.83
REC-017	381,178	4,545,956	Participating	Livingston	29.50
REC-018	381,318	4,540,451	Non-Participating	Livingston	0.00
REC-019	381,625	4,546,986	Non-Participating	Livingston	0.00
REC-020	381,605	4,543,611	Non-Participating	Livingston	23.67
REC-021	381,719	4,548,523	Non-Participating	Livingston	3.13
REC-022	381,660	4,543,617	Non-Participating	Livingston	21.27
REC-023	381,752	4,543,606	Non-Participating	Livingston	18.23
REC-024	381,946	4,542,135	Non-Participating	Livingston	0.00
REC-025	381,998	4,545,282	Non-Participating	Livingston	11.10
REC-026	381,941	4,540,448	Non-Participating	Livingston	0.00
REC-027	382,078	4,543,763	No Residential Structure	Livingston	0.00
REC-028	382,184	4,546,036	Participating	Livingston	26.00
REC-029	382,348	4,551,947	Non-Participating	Livingston	0.00
REC-030	382,452	4,541,947	Non-Participating	Livingston	0.00
REC-031	382,665	4,548,537	Non-Participating	Livingston	15.03
REC-032	382,713	4,550,276	Non-Participating	Livingston	0.00
REC-033	382,890	4,550,140	Non-Participating	Livingston	4.57
REC-034	382,944	4,552,817	Non-Participating	Grundy	0.00
REC-035	382,851	4,544,716	Non-Participating	Livingston	22.90

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-036	383,013	4,551,947	Non-Participating	Livingston	0.00
REC-037	382,989	4,540,403	Non-Participating	Livingston	0.00
REC-038	383,209	4,552,030	Non-Participating	Grundy	0.00
REC-039	383,162	4,543,493	Non-Participating	Livingston	13.18
REC-040	383,187	4,542,160	Non-Participating	Livingston	0.00
REC-041	383,340	4,550,225	No Residential Structure	Livingston	0.00
REC-042	383,363	4,540,632	Non-Participating	Livingston	0.00
REC-043	383,498	4,545,392	Non-Participating	Livingston	0.00
REC-044	383,707	4,551,972	Non-Participating	Livingston	0.00
REC-045	383,808	4,552,042	Non-Participating	Grundy	2.33
REC-046	383,747	4,542,524	Non-Participating	Livingston	0.00
REC-047	383,787	4,541,660	Non-Participating	Livingston	0.00
REC-048	383,903	4,548,606	Participating	Livingston	48.35
REC-049	383,927	4,547,436	Non-Participating	Livingston	22.78
REC-050	383,985	4,550,756	Non-Participating	Livingston	5.87
REC-051	383,959	4,546,943	Non-Participating	Livingston	35.80
REC-052	384,023	4,550,261	Non-Participating	Livingston	10.68
REC-053	384,080	4,548,493	Non-Participating	Livingston	44.55
REC-054	383,954	4,540,309	Non-Participating	Livingston	0.00
REC-055	384,054	4,544,572	Non-Participating	Livingston	28.37
REC-056	384,069	4,543,690	Non-Participating	Livingston	8.63
REC-057	384,071	4,541,725	Non-Participating	Livingston	0.00
REC-058	384,150	4,540,797	Non-Participating	Livingston	0.00
REC-059	384,369	4,552,050	Non-Participating	Grundy	7.20
REC-060	384,490	4,552,075	Non-Participating	Grundy	9.60
REC-061	384,568	4,552,521	Non-Participating	Grundy	4.58
REC-062	384,574	4,550,144	Non-Participating	Livingston	9.85
REC-063	384,598	4,548,702	Non-Participating	Livingston	51.82
REC-064	384,535	4,542,155	Non-Participating	Livingston	0.00
REC-065	384,615	4,545,527	Non-Participating	Livingston	3.95
REC-066	384,737	4,550,136	Non-Participating	Livingston	14.08
REC-067	384,802	4,550,139	Non-Participating	Livingston	12.38
REC-068	385,005	4,543,637	Non-Participating	Livingston	2.87
REC-069	385,342	4,543,785	Participating	Livingston	26.18
REC-070	385,514	4,551,256	Non-Participating	Livingston	35.47
REC-071	385,532	4,549,542	Non-Participating	Livingston	25.50
REC-072	385,550	4,549,430	Participating	Livingston	25.37

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-073	385,534	4,547,008	Non-Participating	Livingston	54.97
REC-074	385,567	4,545,682	Non-Participating	Livingston	10.35
REC-075	385,551	4,542,065	Non-Participating	Livingston	3.97
REC-076	385,658	4,547,470	Non-Participating	Livingston	30.35
REC-077	385,754	4,553,592	No Residential Structure	Grundy	0.00
REC-078	385,771	4,552,272	Non-Participating	Grundy	32.57
REC-079	385,705	4,542,027	Non-Participating	Livingston	5.38
REC-080	386,052	4,553,101	Non-Participating	Grundy	0.00
REC-081	385,872	4,540,467	Non-Participating	Livingston	0.00
REC-082	385,982	4,543,639	Non-Participating	Livingston	4.82
REC-083	386,116	4,550,283	Non-Participating	Livingston	20.53
REC-084	386,096	4,543,783	Non-Participating	Livingston	2.95
REC-085	386,629	4,551,956	Participating	Livingston	54.45
REC-086	386,547	4,542,052	Non-Participating	Livingston	0.00
REC-087	386,731	4,550,247	Participating	Livingston	58.27
REC-088	386,877	4,551,473	Non-Participating	Livingston	85.42
REC-089	386,893	4,551,398	Non-Participating	Livingston	48.95
REC-090	386,863	4,548,278	Participating	Livingston	31.72
REC-091	386,929	4,548,326	Non-Participating	Livingston	31.33
REC-092	386,909	4,544,222	Non-Participating	Livingston	2.65
REC-093	386,932	4,544,178	Participating	Livingston	2.58
REC-094	386,929	4,542,224	Non-Participating	Livingston	0.00
REC-095	387,116	4,552,284	Non-Participating	Grundy	8.33
REC-096	386,972	4,540,848	Non-Participating	Livingston	0.00
REC-097	387,268	4,553,649	Non-Participating	Grundy	0.00
REC-098	387,166	4,546,937	Non-Participating	Livingston	35.82
REC-099	387,143	4,540,688	Non-Participating	Livingston	0.00
REC-100	387,478	4,548,542	Non-Participating	Livingston	48.80
REC-101	387,708	4,553,672	Non-Participating	Grundy	0.00
REC-102	387,697	4,548,731	Non-Participating	Livingston	21.98
REC-103	387,779	4,553,311	Non-Participating	Grundy	0.00
REC-104	387,672	4,543,815	Non-Participating	Livingston	4.07
REC-105	387,811	4,543,802	Non-Participating	Livingston	10.80
REC-106	387,982	4,541,563	Non-Participating	Livingston	4.57
REC-107	388,025	4,543,787	Non-Participating	Livingston	13.43
REC-108	388,068	4,540,421	Non-Participating	Livingston	0.00
REC-109	388,392	4,550,971	Non-Participating	Livingston	0.00

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-110	388,491	4,551,296	Non-Participating	Livingston	10.45
REC-111	388,496	4,551,128	Non-Participating	Livingston	11.08
REC-112	388,501	4,551,216	Non-Participating	Livingston	15.50
REC-113	388,511	4,550,982	Non-Participating	Livingston	0.03
REC-114	388,478	4,547,761	Non-Participating	Livingston	36.35
REC-115	388,517	4,543,707	Participating	Livingston	6.20
REC-116	388,643	4,550,154	Non-Participating	Livingston	22.52
REC-117	388,629	4,547,270	Non-Participating	Livingston	40.37
REC-118	388,627	4,544,239	Non-Participating	Livingston	27.02
REC-119	388,669	4,540,179	Non-Participating	Livingston	0.00
REC-120	388,858	4,548,562	Participating	Livingston	10.57
REC-121	389,299	4,553,283	Non-Participating	Grundy	0.00
REC-122	389,384	4,548,701	Non-Participating	Livingston	17.63
REC-123	389,322	4,540,309	Non-Participating	Livingston	0.00
REC-124	389,531	4,546,942	Non-Participating	Livingston	9.17
REC-125	389,701	4,542,165	Non-Participating	Livingston	17.60
REC-126	389,853	4,545,411	Participating	Livingston	11.62
REC-127	390,040	4,551,782	Non-Participating	Livingston	0.00
REC-128	390,028	4,550,799	Non-Participating	Livingston	0.00
REC-129	390,123	4,551,460	Non-Participating	Livingston	0.00
REC-130	390,120	4,551,180	Non-Participating	Livingston	0.00
REC-131	390,140	4,549,605	Non-Participating	Livingston	87.30
REC-132	390,202	4,553,054	Non-Participating	Grundy	0.00
REC-133	390,072	4,544,182	Non-Participating	Livingston	70.75
REC-134	390,132	4,545,949	Non-Participating	Livingston	0.00
REC-135	390,187	4,546,537	Non-Participating	Livingston	37.13
REC-136	390,299	4,544,451	Non-Participating	Livingston	44.40
REC-137	390,460	4,550,162	Non-Participating	Livingston	15.38
REC-138	390,491	4,550,248	Non-Participating	Livingston	13.58
REC-139	390,538	4,548,633	Non-Participating	Livingston	10.68
REC-140	390,427	4,540,461	Non-Participating	Livingston	0.00
REC-141	390,567	4,542,089	Non-Participating	Livingston	0.00
REC-142	390,807	4,550,269	Non-Participating	Livingston	4.95
REC-143	390,814	4,550,185	Non-Participating	Livingston	5.08
REC-144	390,880	4,550,267	Non-Participating	Livingston	4.28
REC-145	390,928	4,551,251	Non-Participating	Livingston	0.00
REC-146	390,932	4,550,601	Non-Participating	Livingston	5.32

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-147	391,001	4,553,640	Non-Participating	Grundy	0.00
REC-148	391,042	4,552,185	Non-Participating	Grundy	0.00
REC-149	391,022	4,548,644	Non-Participating	Livingston	17.55
REC-150	391,363	4,545,385	Non-Participating	Livingston	19.10
REC-151	391,391	4,546,901	Non-Participating	Livingston	15.55
REC-152	391,387	4,542,097	Non-Participating	Livingston	0.00
REC-153	391,527	4,545,328	Non-Participating	Livingston	12.08
REC-154	391,539	4,545,502	Non-Participating	Livingston	11.27
REC-155	391,683	4,551,707	Non-Participating	Livingston	0.00
REC-156	391,590	4,545,337	Non-Participating	Livingston	10.18
REC-157	391,523	4,540,540	Non-Participating	Livingston	0.00
REC-158	391,696	4,551,616	Non-Participating	Livingston	0.00
REC-159	391,664	4,545,331	Non-Participating	Livingston	8.48
REC-160	391,734	4,547,464	No Residential Structure	Livingston	25.30
REC-161	391,754	4,545,419	Non-Participating	Livingston	6.82
REC-162	391,761	4,545,564	Non-Participating	Livingston	6.50
REC-163	391,766	4,545,613	No Residential Structure	Livingston	6.33
REC-164	391,691	4,540,485	Non-Participating	Livingston	0.00
REC-165	391,810	4,546,658	Non-Participating	Livingston	4.67
REC-166	391,812	4,545,560	Non-Participating	Livingston	5.88
REC-167	391,818	4,545,428	Non-Participating	Livingston	5.90
REC-168	391,828	4,545,725	Non-Participating	Livingston	6.32
REC-169	391,906	4,548,632	Non-Participating	Livingston	2.32
REC-170	391,926	4,545,398	Non-Participating	Livingston	4.65
REC-171	392,052	4,552,255	Non-Participating	Grundy	0.00
REC-172	391,968	4,545,387	Non-Participating	Livingston	4.27
REC-173	392,137	4,551,826	No Residential Structure	Livingston	0.00
REC-174	392,156	4,550,145	Non-Participating	Livingston	0.00
REC-175	392,166	4,550,827	Non-Participating	Livingston	0.00
REC-176	392,083	4,542,192	Non-Participating	Livingston	0.00
REC-177	392,314	4,540,492	Non-Participating	Livingston	0.00
REC-178	392,350	4,542,098	Non-Participating	Livingston	0.00
REC-179	392,468	4,548,637	Non-Participating	Livingston	7.53
REC-180	392,612	4,553,811	No Residential Structure	Grundy	0.00
REC-181	392,655	4,553,751	Non-Participating	Grundy	0.00
REC-182	392,833	4,550,251	Non-Participating	Livingston	0.00
REC-183	392,875	4,550,253	Non-Participating	Livingston	0.00

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-184	392,943	4,553,746	Non-Participating	Grundy	0.00
REC-185	393,090	4,546,953	Non-Participating	Livingston	15.40
REC-186	393,222	4,550,039	Non-Participating	Livingston	0.00
REC-187	393,307	4,553,825	Non-Participating	Grundy	0.00
REC-188	393,196	4,545,399	Non-Participating	Livingston	0.00
REC-189	393,344	4,553,453	Non-Participating	Grundy	0.00
REC-190	393,341	4,552,948	Non-Participating	Grundy	0.00
REC-191	393,370	4,550,578	Non-Participating	Livingston	0.00
REC-192	393,390	4,550,250	Non-Participating	Livingston	0.00
REC-193	393,409	4,548,540	Non-Participating	Livingston	0.00
REC-194	393,401	4,547,108	Participating	Livingston	35.82
REC-195	393,428	4,547,191	Non-Participating	Livingston	27.25
REC-196	393,435	4,545,498	Non-Participating	Livingston	0.00
REC-197	393,502	4,549,748	Non-Participating	Livingston	0.00
REC-198	393,441	4,544,971	Non-Participating	Livingston	11.75
REC-199	393,411	4,540,687	Non-Participating	Livingston	0.00
REC-200	393,477	4,542,520	Non-Participating	Livingston	3.95
REC-201	393,967	4,541,943	Non-Participating	Livingston	0.00
REC-202	394,207	4,553,832	Non-Participating	Grundy	0.00
REC-203	394,223	4,553,762	Non-Participating	Grundy	0.00
REC-204	394,239	4,553,014	Non-Participating	Grundy	0.00
REC-205	394,183	4,540,472	Non-Participating	Livingston	0.00
REC-206	394,344	4,550,182	Non-Participating	Livingston	0.00
REC-207	394,209	4,540,549	Non-Participating	Livingston	0.00
REC-208	394,516	4,552,073	Non-Participating	Livingston	7.08
REC-209	394,666	4,550,256	Non-Participating	Livingston	0.00
REC-210	394,812	4,548,569	Non-Participating	Livingston	5.50
REC-211	394,820	4,543,861	Participating	Livingston	8.72
REC-213	394,971	4,546,488	Participating	Livingston	25.98
REC-214	394,968	4,543,543	Non-Participating	Livingston	18.83
REC-215	394,979	4,540,826	Non-Participating	Livingston	0.00
REC-219	395,670	4,554,260	Non-Participating	Grundy	0.00
REC-221	395,686	4,553,881	Non-Participating	Grundy	0.00
REC-223	395,775	4,552,943	Non-Participating	Grundy	0.00
REC-773	381,484	4,550,160	Non-Participating	Livingston	0.00
REC-774	388,524	4,550,278	Non-Participating	Livingston	27.73
REC-775	391,933	4,545,324	Non-Participating	Livingston	4.67

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-776	384,594	4,545,510	Non-Participating	Livingston	3.75
REC-777	380,008	4,545,854	Non-Participating	Livingston	5.72
REC-778	380,710	4,544,705	Non-Participating	Livingston	25.95
REC-779	387,229	4,543,822	Non-Participating	Livingston	2.35
REC-780	379,985	4,542,154	Non-Participating	Livingston	0.00
REC-781	380,566	4,540,422	Non-Participating	Livingston	0.00
REC-782	382,449	4,542,699	Non-Participating	Livingston	0.00
REC-796	395,717	4,555,321	Non-Participating	Grundy	0.00
REC-876	390,073	4,542,691	Non-Participating	Livingston	17.55
REC-878	388,540	4,548,848	Non-Participating	Livingston	70.60
REC-879	390,201	4,542,740	Non-Participating	Livingston	14.37
REC-880	390,200	4,542,721	Non-Participating	Livingston	14.68
REC-881	390,254	4,542,656	Non-Participating	Livingston	15.65
REC-882	390,196	4,542,632	Non-Participating	Livingston	16.57
REC-883	390,253	4,542,587	Non-Participating	Livingston	19.93
REC-884	390,252	4,542,555	Non-Participating	Livingston	20.58
REC-885	390,194	4,542,550	Non-Participating	Livingston	21.57
REC-886	390,134	4,542,556	Non-Participating	Livingston	20.80
REC-887	390,115	4,542,551	Non-Participating	Livingston	21.63
REC-888	390,087	4,542,552	Non-Participating	Livingston	22.87
REC-889	390,047	4,542,496	Non-Participating	Livingston	23.65
REC-890	390,252	4,542,499	Non-Participating	Livingston	19.03
REC-891	390,260	4,542,445	Non-Participating	Livingston	17.07
REC-892	390,199	4,542,447	Non-Participating	Livingston	23.53
REC-893	390,185	4,542,393	Non-Participating	Livingston	20.53
REC-894	390,173	4,542,439	Non-Participating	Livingston	24.93
REC-895	390,157	4,542,396	Non-Participating	Livingston	21.27
REC-896	390,136	4,542,395	Non-Participating	Livingston	16.95
REC-897	390,027	4,542,385	Non-Participating	Livingston	12.43
REC-898	390,255	4,542,367	Non-Participating	Livingston	16.38
REC-899	390,254	4,542,341	Non-Participating	Livingston	14.83
REC-900	390,264	4,542,314	Non-Participating	Livingston	12.97
REC-901	390,204	4,542,337	Non-Participating	Livingston	13.73
REC-902	390,113	4,542,331	Non-Participating	Livingston	10.37
REC-903	390,121	4,542,288	Non-Participating	Livingston	6.92
REC-904	390,055	4,542,393	Non-Participating	Livingston	14.50
REC-905	389,988	4,542,329	Non-Participating	Livingston	6.28

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-906	389,953	4,542,276	Non-Participating	Livingston	7.03
REC-907	389,981	4,542,273	Non-Participating	Livingston	6.60
REC-908	390,012	4,542,286	Non-Participating	Livingston	6.05
REC-909	390,057	4,542,284	Non-Participating	Livingston	5.48
REC-910	390,055	4,542,254	Non-Participating	Livingston	5.60
REC-911	390,067	4,542,236	Non-Participating	Livingston	5.52
REC-912	390,065	4,542,226	Non-Participating	Livingston	5.55
REC-913	390,111	4,542,213	Non-Participating	Livingston	5.03
REC-914	390,119	4,542,232	Non-Participating	Livingston	4.92
REC-915	390,119	4,542,265	Non-Participating	Livingston	5.27
REC-916	390,142	4,542,290	Non-Participating	Livingston	7.75
REC-917	390,168	4,542,289	Non-Participating	Livingston	8.55
REC-918	390,184	4,542,289	Non-Participating	Livingston	9.07
REC-919	390,208	4,542,289	Non-Participating	Livingston	9.73
REC-920	390,203	4,542,246	Non-Participating	Livingston	6.42
REC-921	390,199	4,542,213	Non-Participating	Livingston	4.42
REC-922	390,214	4,542,195	Non-Participating	Livingston	4.08
REC-923	390,203	4,542,160	Non-Participating	Livingston	4.22
REC-924	390,178	4,542,153	Non-Participating	Livingston	4.48
REC-925	390,119	4,542,181	Non-Participating	Livingston	5.02
REC-926	390,118	4,542,149	Non-Participating	Livingston	5.08
REC-927	390,065	4,542,150	Non-Participating	Livingston	5.78
REC-928	390,062	4,542,185	Non-Participating	Livingston	5.72
REC-929	389,949	4,542,155	Non-Participating	Livingston	7.82
REC-930	389,991	4,542,153	Non-Participating	Livingston	6.98
REC-931	390,014	4,542,152	Non-Participating	Livingston	6.57
REC-932	390,030	4,542,040	Non-Participating	Livingston	7.48
REC-933	390,067	4,542,051	Non-Participating	Livingston	6.63
REC-934	390,139	4,542,040	Non-Participating	Livingston	5.53
REC-935	390,163	4,542,038	Non-Participating	Livingston	5.18
REC-936	390,192	4,542,041	Non-Participating	Livingston	4.78
REC-937	390,204	4,541,995	Non-Participating	Livingston	4.95
REC-938	390,176	4,541,997	Non-Participating	Livingston	5.32
REC-939	390,143	4,541,996	Non-Participating	Livingston	5.87
REC-940	390,115	4,541,996	Non-Participating	Livingston	6.37
REC-941	390,076	4,541,997	Non-Participating	Livingston	7.17
REC-942	390,038	4,541,993	Non-Participating	Livingston	8.15

Receptor Name	Easting [m]	Northing [m]	Participating Status	County	Flicker Duration [hours/year]
REC-943	390,011	4,541,993	Non-Participating	Livingston	8.98
REC-944	390,203	4,542,101	Non-Participating	Livingston	4.33
REC-945	390,160	4,542,104	Non-Participating	Livingston	4.85
REC-946	390,141	4,542,103	Non-Participating	Livingston	5.05
REC-947	390,073	4,542,104	Non-Participating	Livingston	5.98
REC-948	390,042	4,542,103	Non-Participating	Livingston	6.50
REC-952	390,060	4,542,339	Non-Participating	Livingston	9.15
REC-953	390,119	4,542,099	Non-Participating	Livingston	5.35
REC-954	390,201	4,542,471	Non-Participating	Livingston	22.18
REC-955	394,794	4,550,158	Non-Participating	Livingston	0.00
REC-956	394,857	4,550,196	Non-Participating	Livingston	0.00
REC-957	394,881	4,550,194	Non-Participating	Livingston	4.05
REC-1016	394,874	4,550,274	Non-Participating	Livingston	3.48
REC-1017	394,899	4,550,264	Non-Participating	Livingston	3.75
REC-1018	394,923	4,550,348	Non-Participating	Livingston	3.53
REC-1019	394,916	4,550,379	Non-Participating	Livingston	3.35
REC-1031	394,912	4,550,649	Non-Participating	Livingston	2.78
REC-1032	394,917	4,550,696	Non-Participating	Livingston	4.88
REC-1034	394,916	4,550,732	Non-Participating	Livingston	7.23
REC-1037	394,914	4,550,771	Non-Participating	Livingston	10.08
REC-1039	394,915	4,550,810	Non-Participating	Livingston	12.77
REC-1040	394,912	4,550,848	Non-Participating	Livingston	14.65
REC-1041	394,910	4,550,927	Non-Participating	Livingston	20.75
REC-1042	394,919	4,550,977	Non-Participating	Livingston	27.08
REC-1178	390,039	4,542,351	Community Building	Livingston	9.57
REC-1780	380,028	4,550,208	Community Building	Livingston	0.00

Notes:

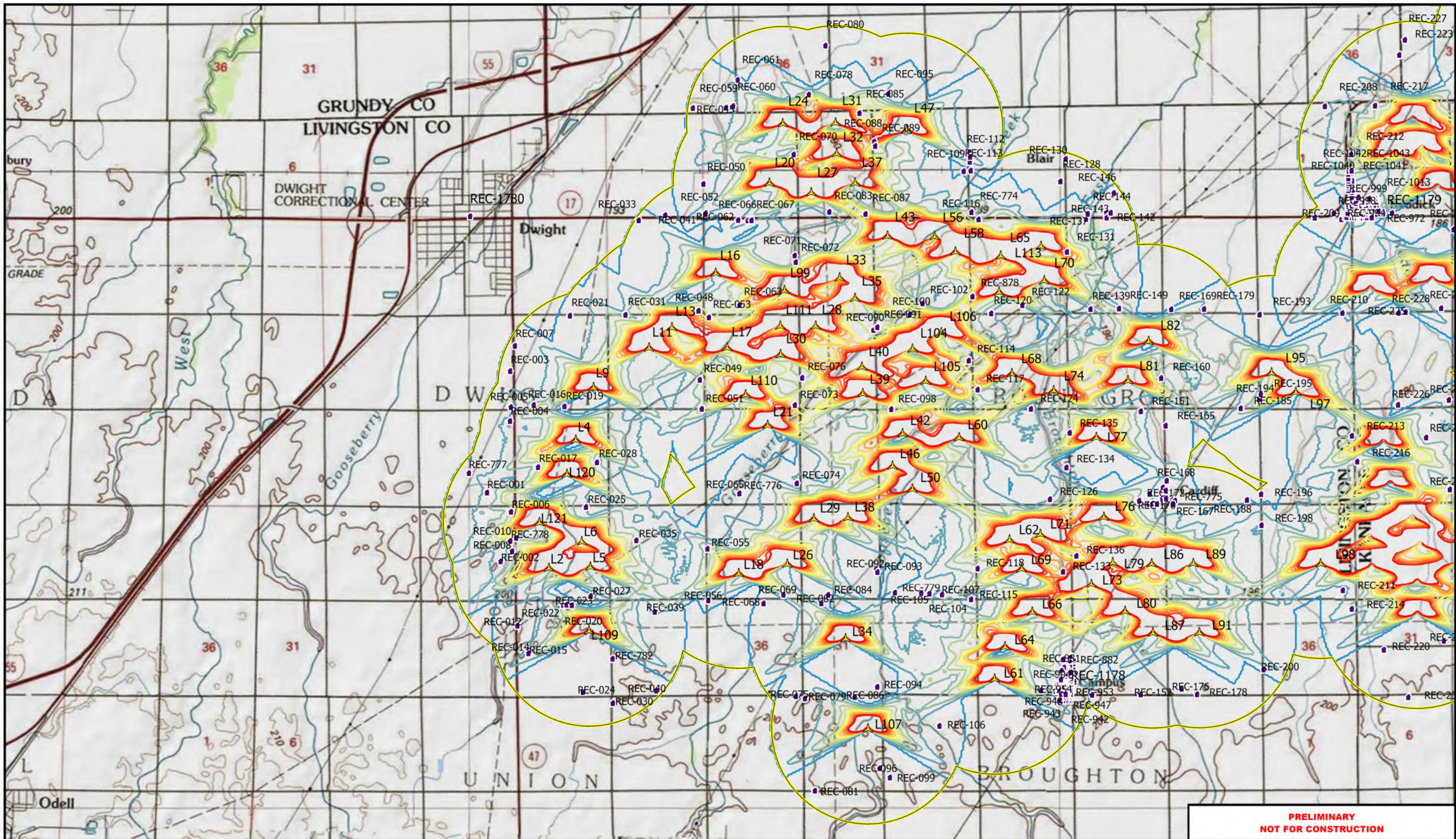
[1] Coordinates presented in UTM NAD83 Zone 16N (meters)

[2] Coordinates for REC-001 through REC-951 and REC-1778 through REC-1788 were provided by Illinois Generation LLC via "*HP_Wind_Residence_Survey.kmz*" on August 25, 2023. Coordinates for REC-952 through REC-1177 were identified by Burns & McDonnell using aerial imagery. Only the 289 known receptors located in Livingston County are included in Table C-1

[3] Participating status provided by Illinois Generation LLC via "*Copy of 20230821_Livingston_BaseALT_Parcels_091823.xlsx*" on September 18, 2023

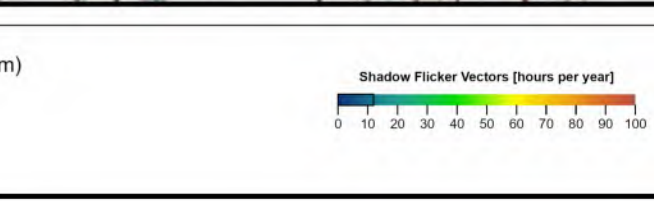
[4] Results based on turbine layout in Table A-2

APPENDIX D - SHADOW FLICKER DURATION MAP



LEGEND

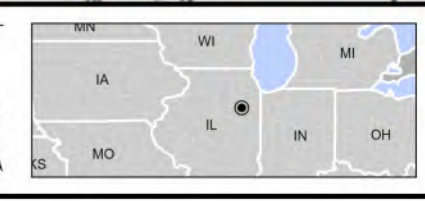
- Turbines
- Receptors
- Buffer (10 x RD, 1540m)



REFERENCE

0 1 Miles
0 1 Kilometers

North Arrow



**PRELIMINARY
NOT FOR CONSTRUCTION**

**Heritage Prairie Wind Project
Shadow Flicker Duration [Hr/Yr]
(Estimated Sunshine Condition)**

LOCATION: Livingston and Kankakee Counties, Illinois	
CLIENT: Illinois Generation LLC	
PROJ. NO.: 132138	
CREATED: 2/20/2024	www.burnsmcd.com

APPENDIX E - SHADOW FLICKER CALENDAR

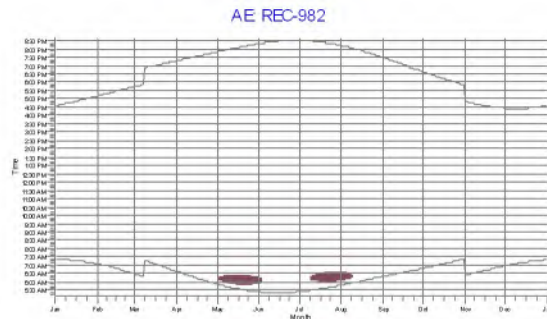
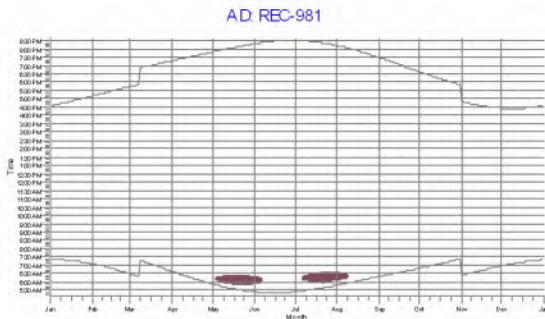
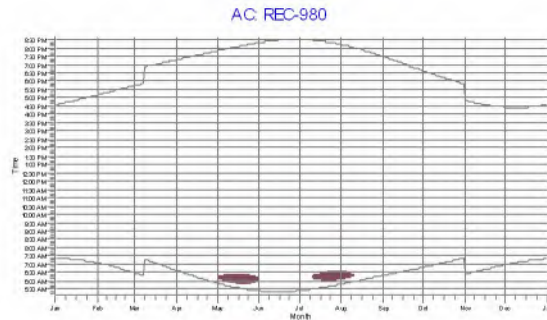
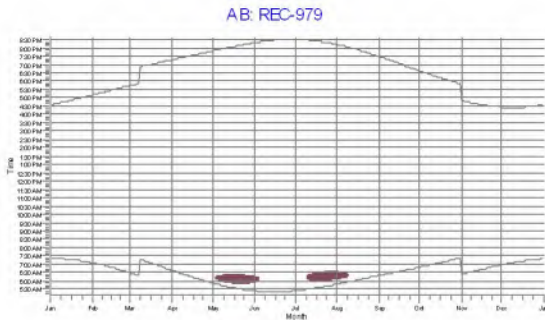
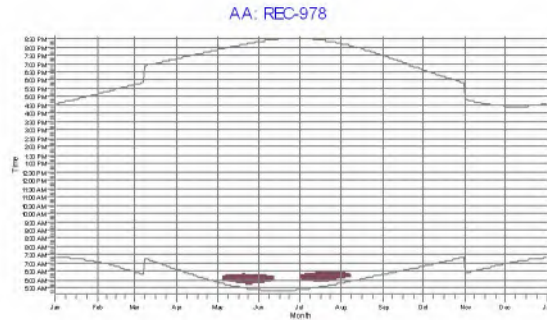
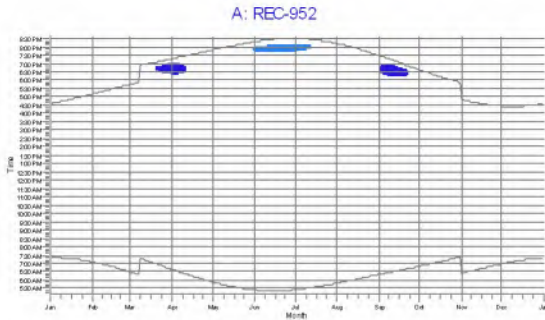
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
Burns & McDonnell has relied upon information provided by third-party sources to complete this study. While there is no reason to believe that the information provided is inaccurate or incomplete in any material respect, Burns & McDonnell has not independently verified such information and cannot guarantee or warranty its accuracy or completeness.

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Burns & McDonnell Engineering Company Inc.
9400 Ward Parkway
US-KANSAS CITY, MO 64114
(816) 333 9400
Anna Jordan / anna.jordan@1898andco.com
Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 79: K13

Project:
132138 - Pattern - Heritage Prairie Wind_v6

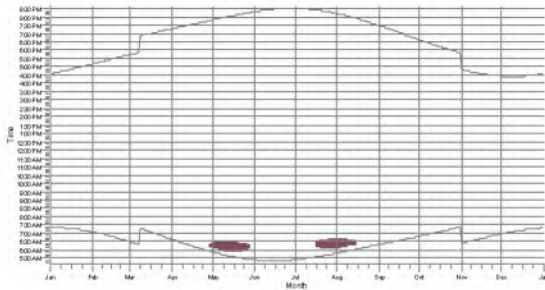
Description:
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1/30/2024 2:50 PM/3.0.654

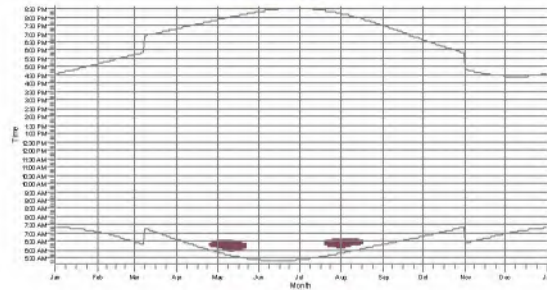
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

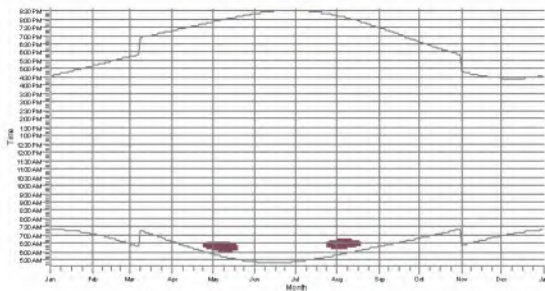
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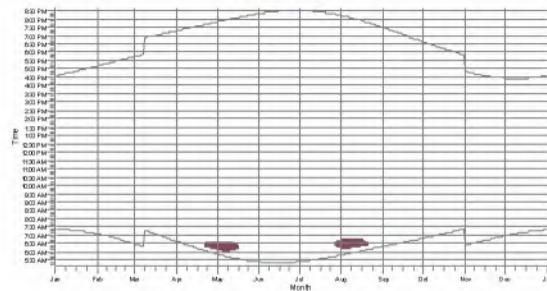
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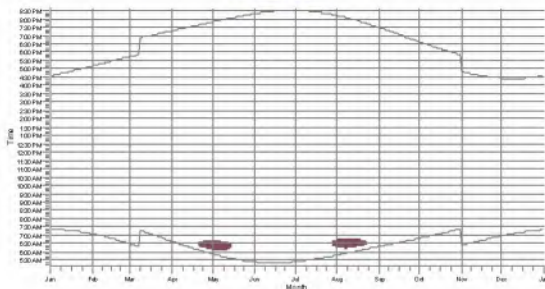
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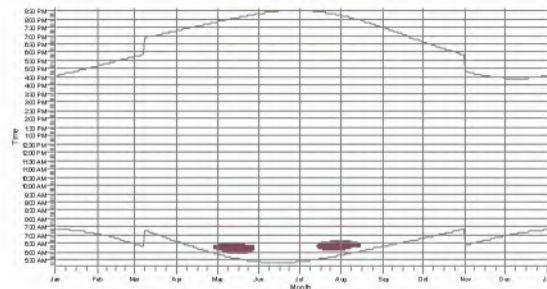
AI REC-986



AJ REC-987



AK REC-988



WTGs
79: K13

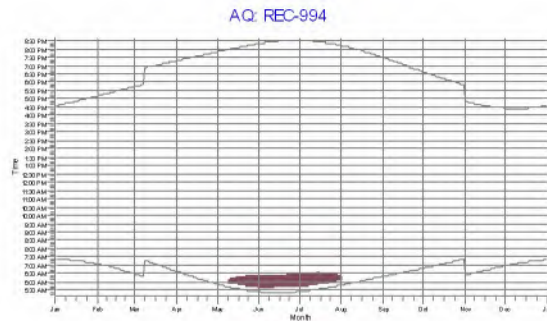
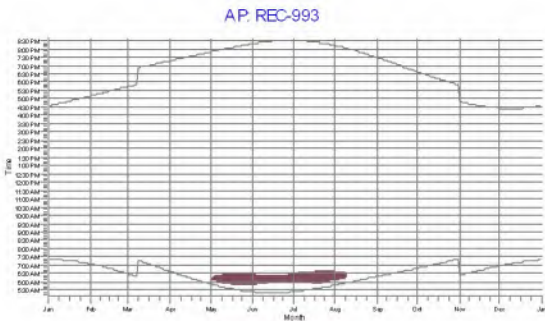
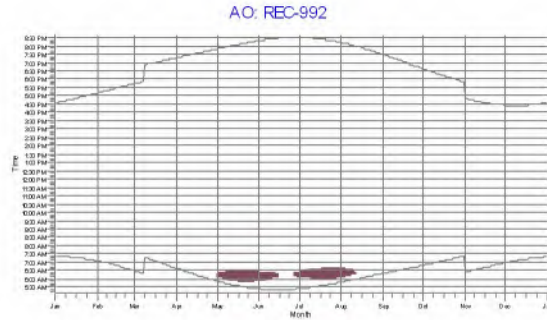
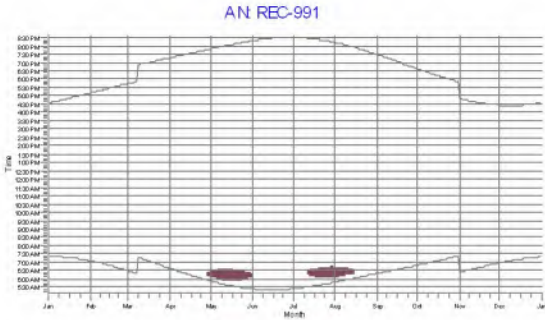
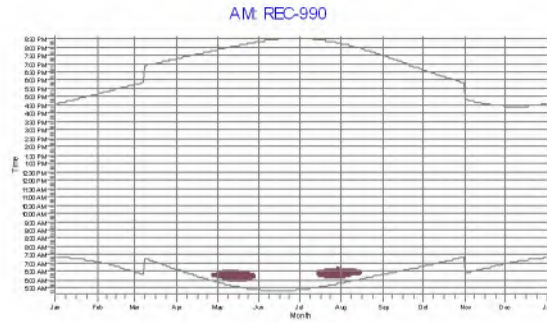
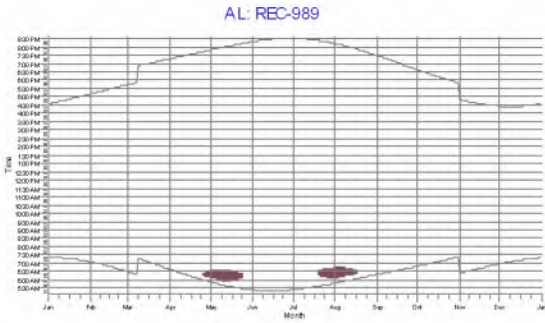
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

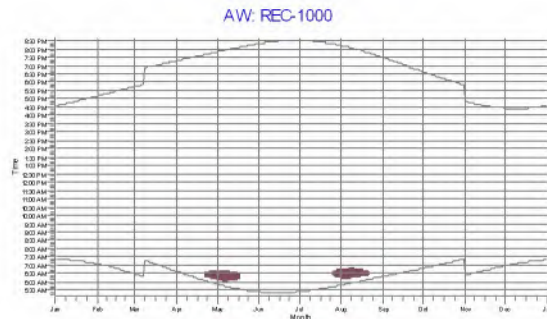
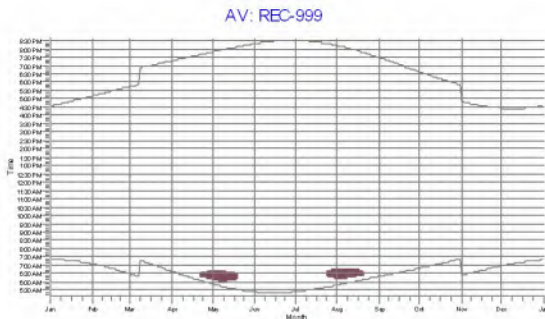
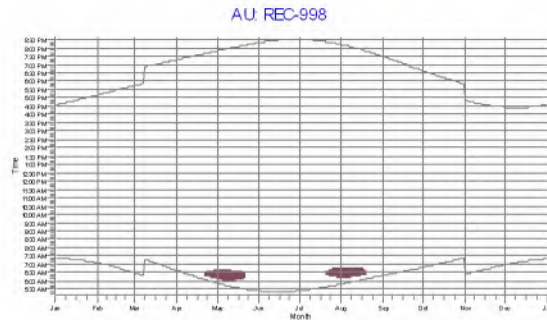
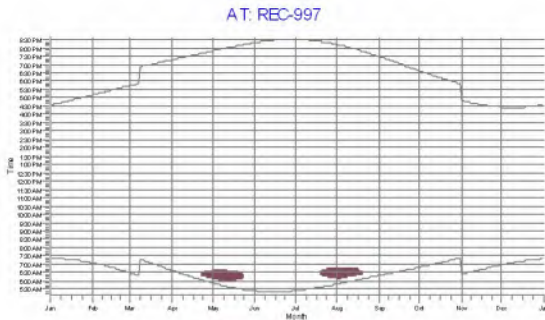
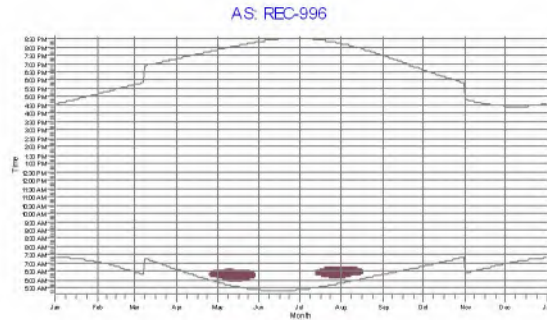
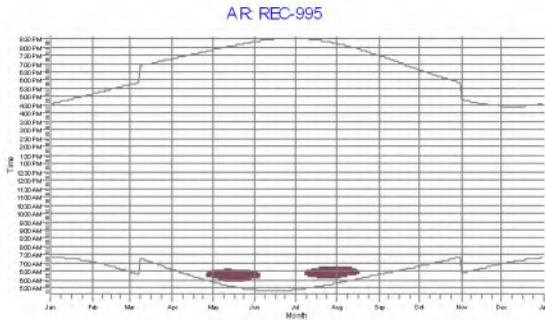
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

Project:
132138 - Pattern - Heritage Prairie Wind_v6

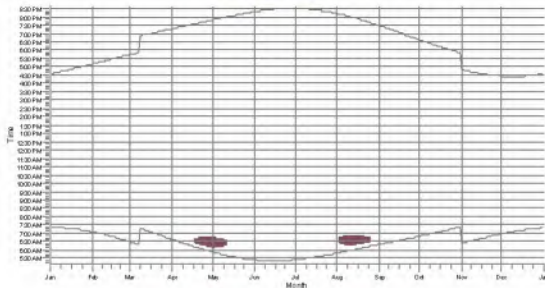
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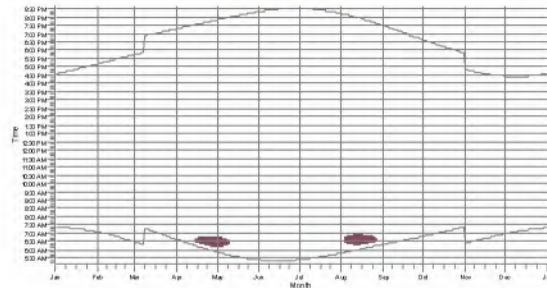
SHADOW - Calendar, graphical

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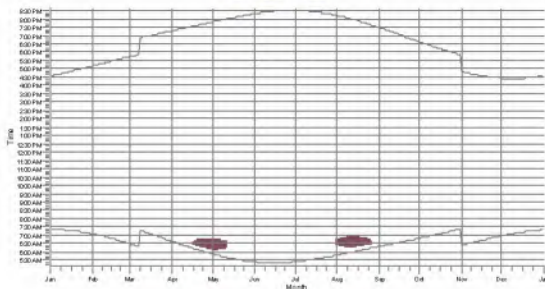
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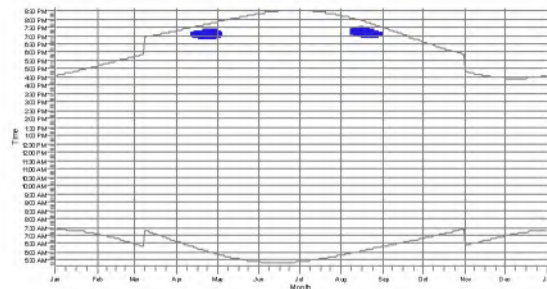
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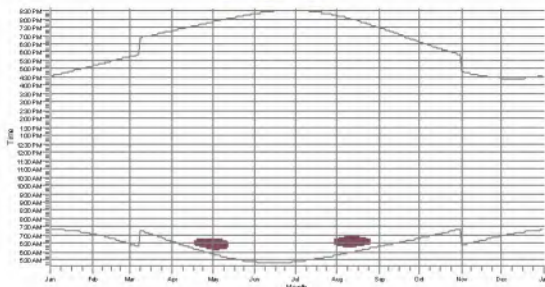
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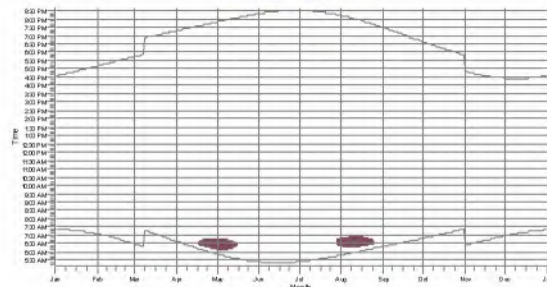
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BA: REC-1004



BB: REC-1005



WTGs

36: L61 79: K13

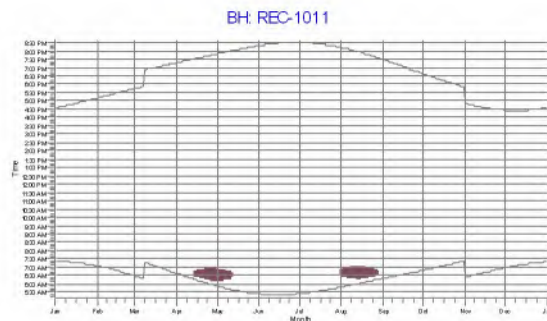
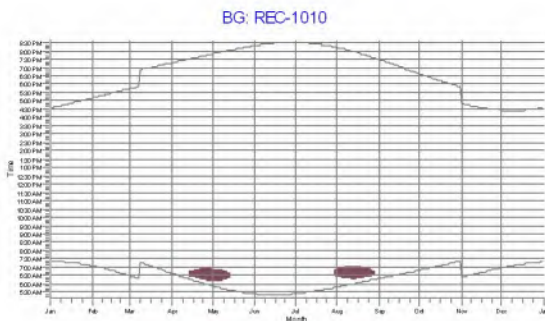
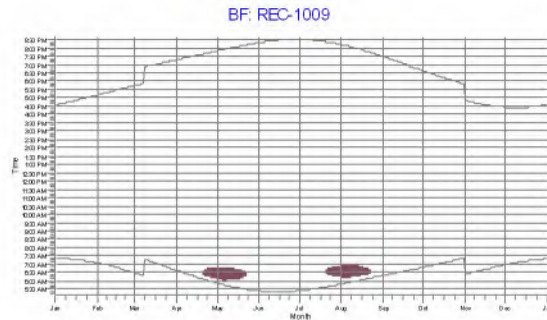
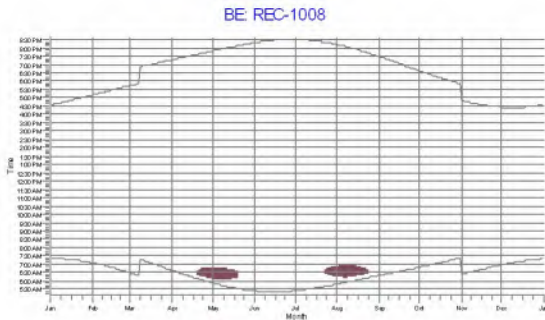
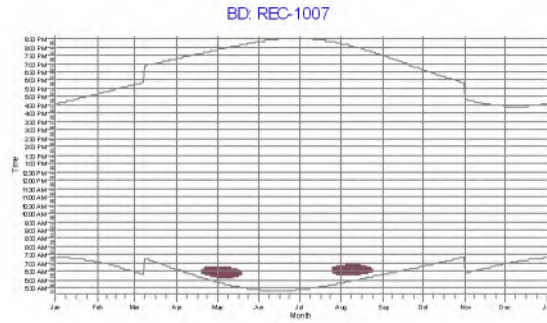
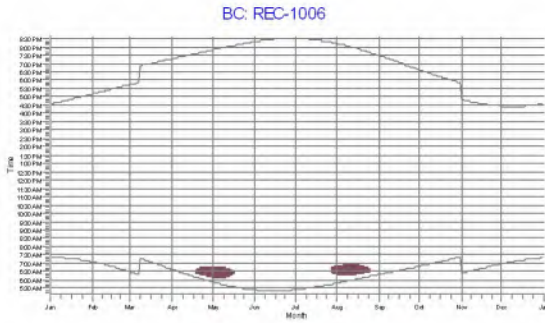
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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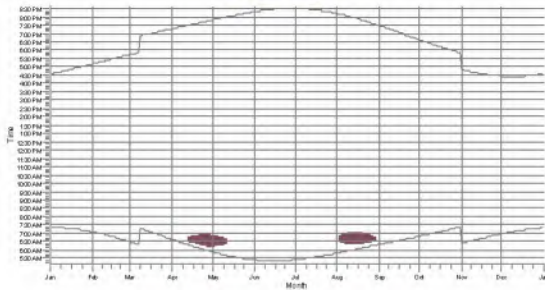
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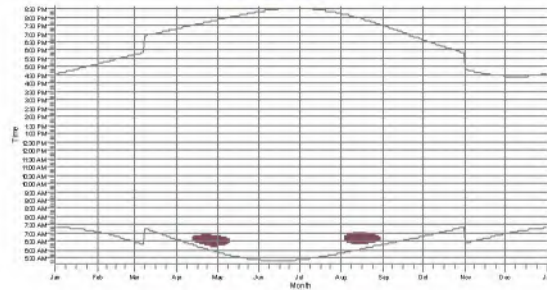
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

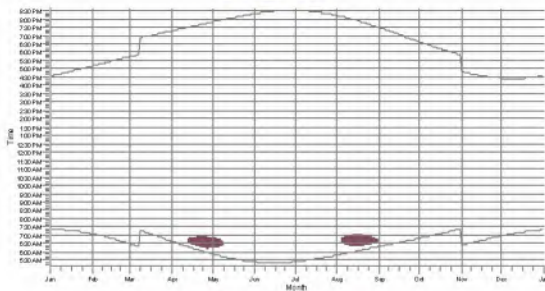
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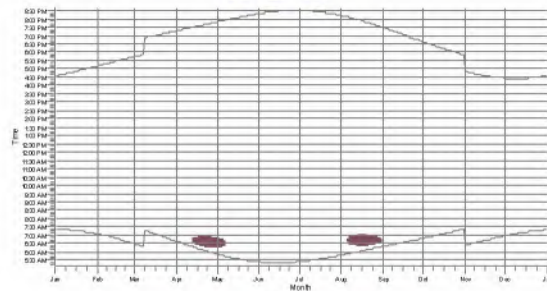
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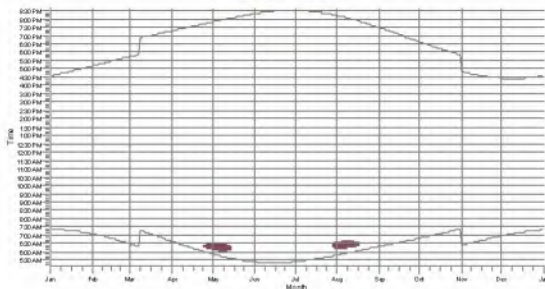
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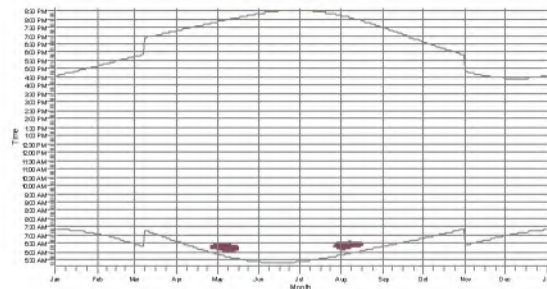
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BM: REC-1016



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WTGs

79: K13

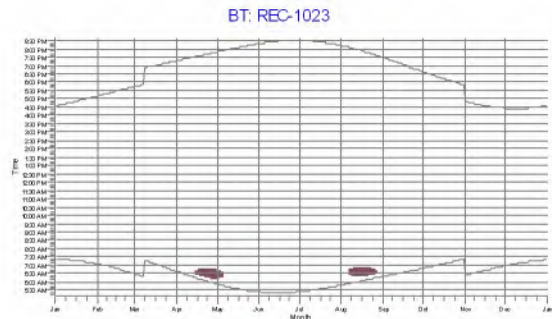
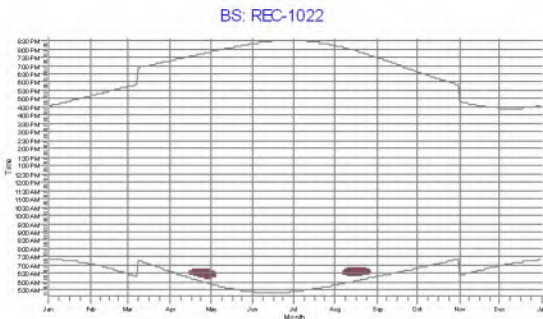
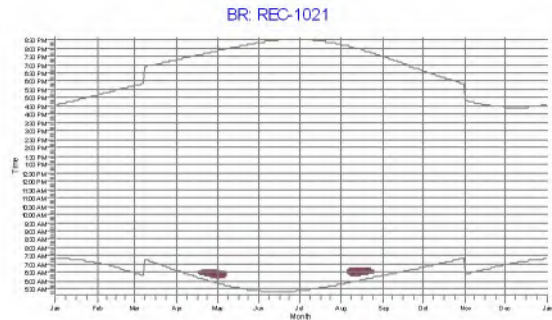
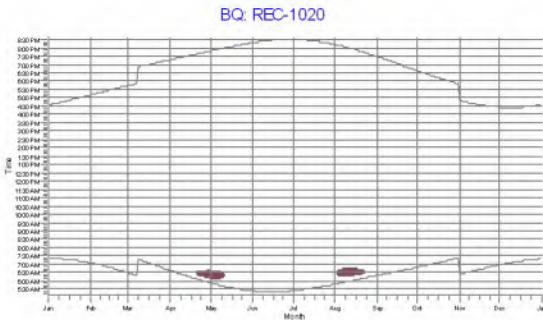
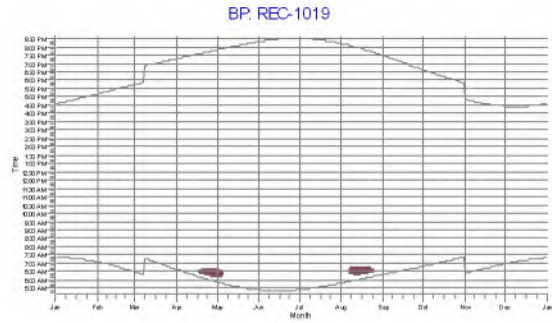
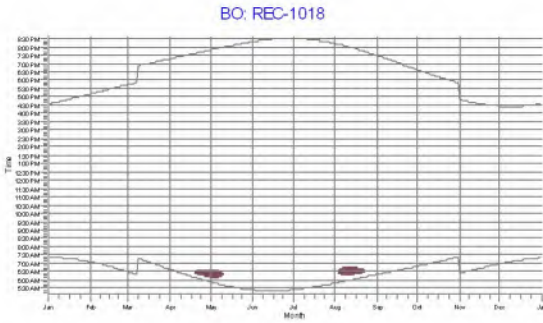
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

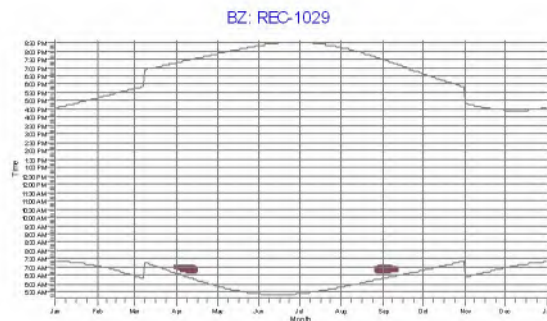
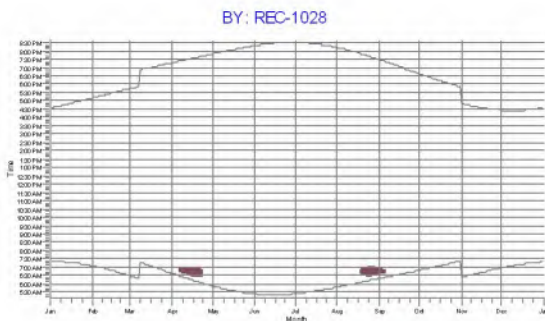
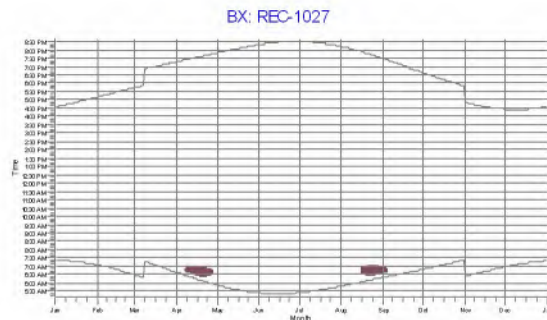
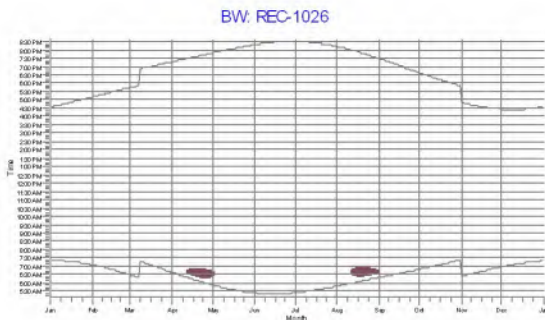
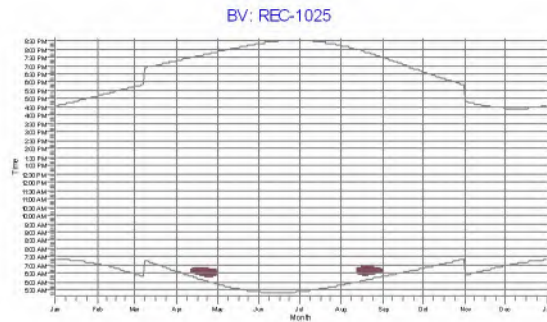
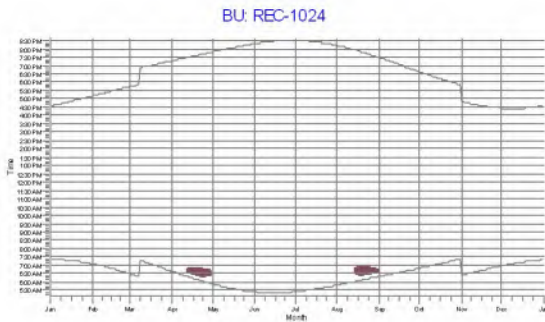
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

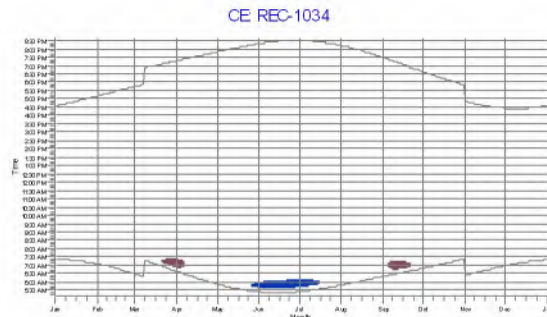
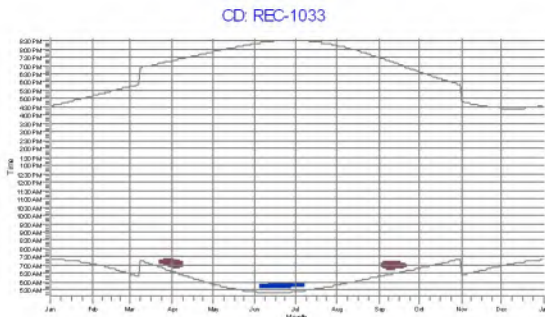
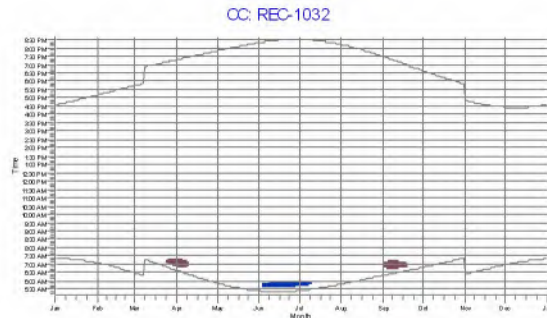
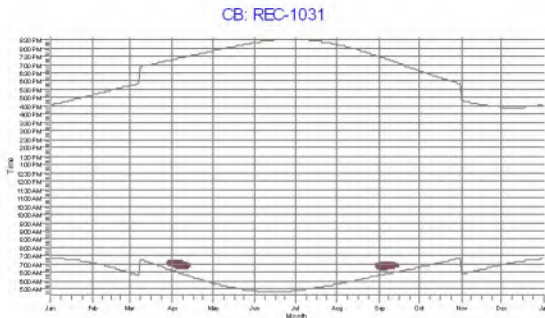
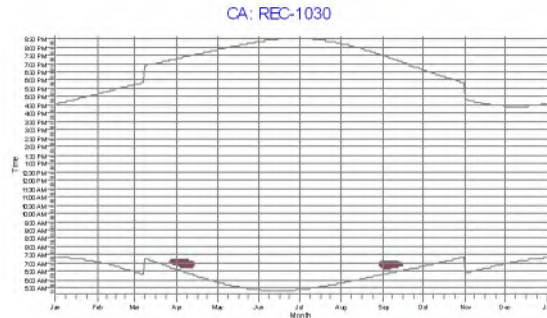
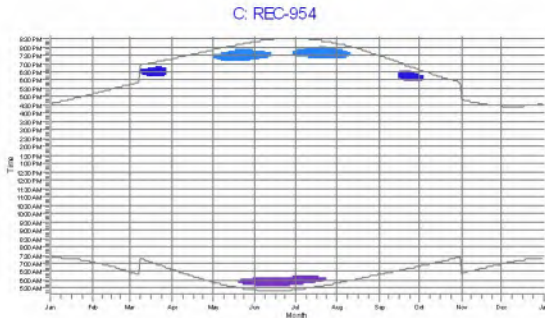
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 55: L87 77: K11 79: K13

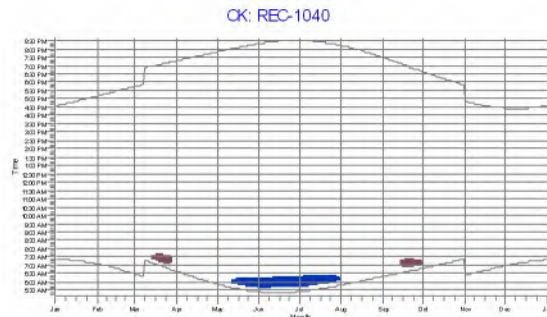
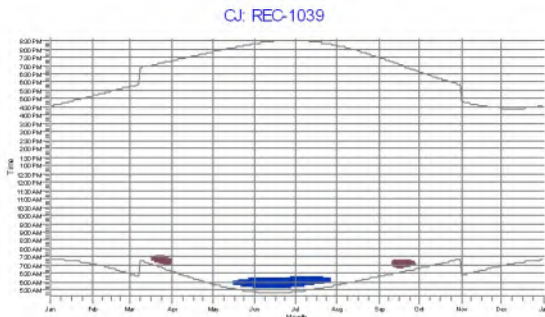
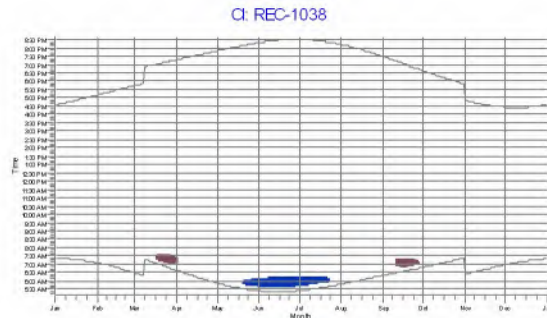
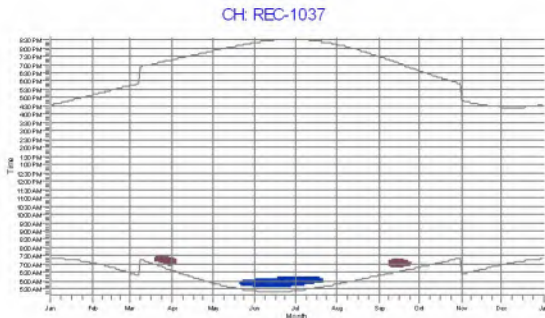
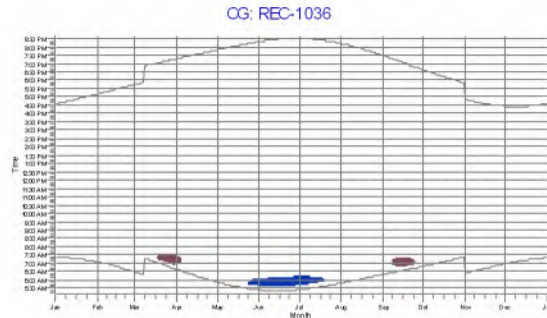
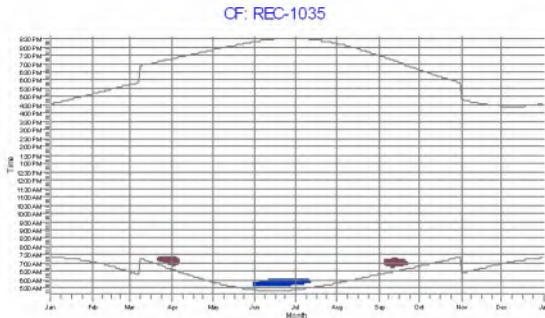
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

77: K11 79: K13

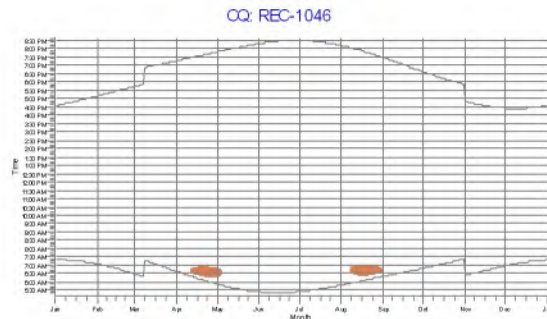
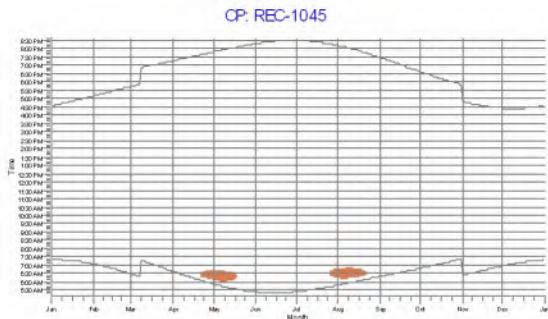
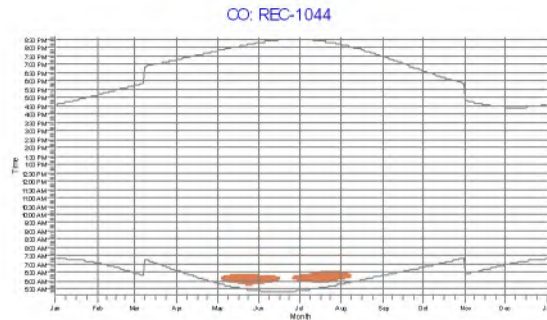
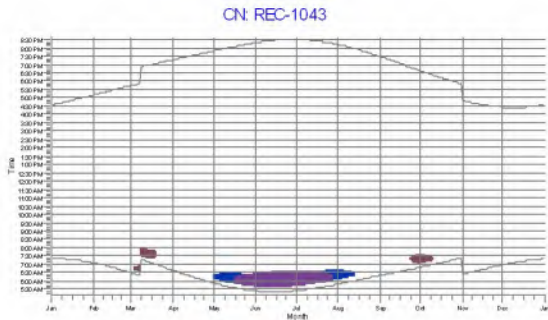
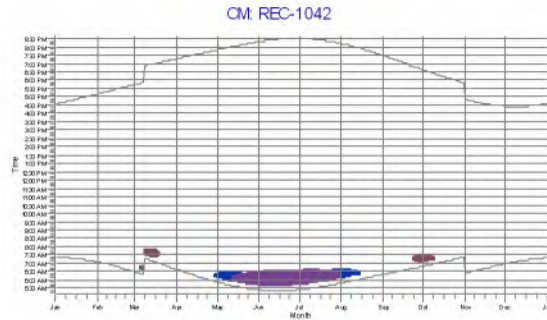
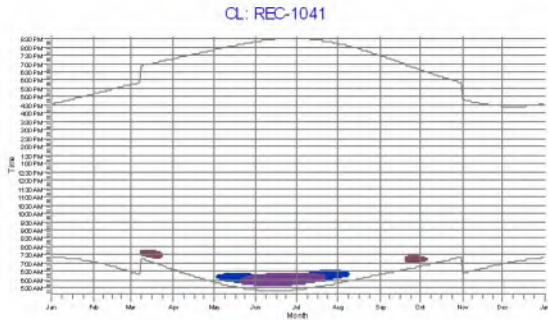
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

77: K11 79: K13 112: K92 130: K502

Project:
132138 - Pattern - Heritage Prairie Wind_v6

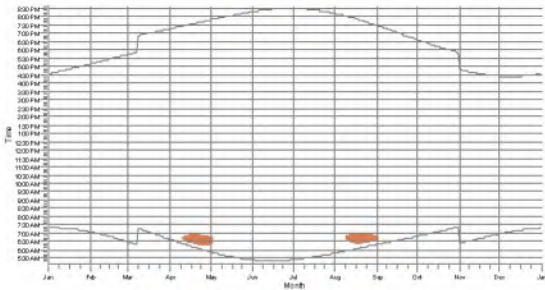
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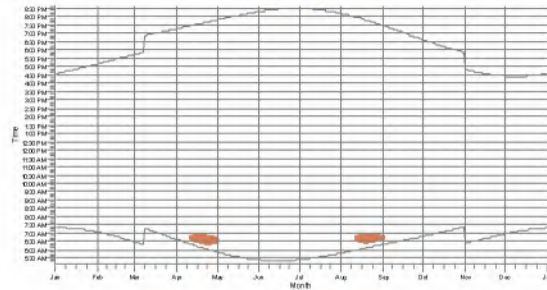
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

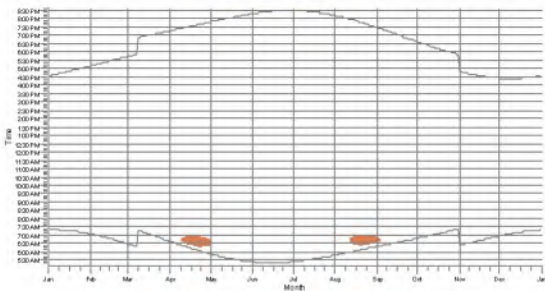
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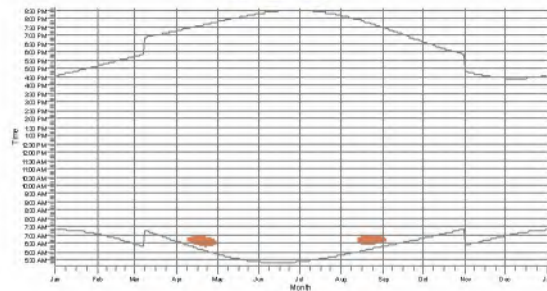
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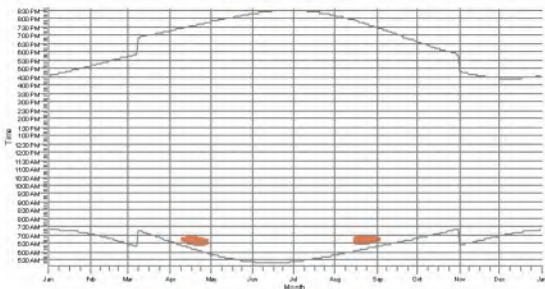
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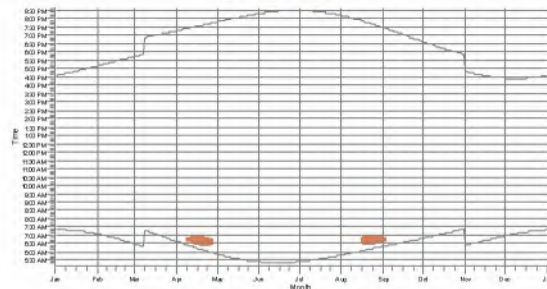
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WTGs

112: K92

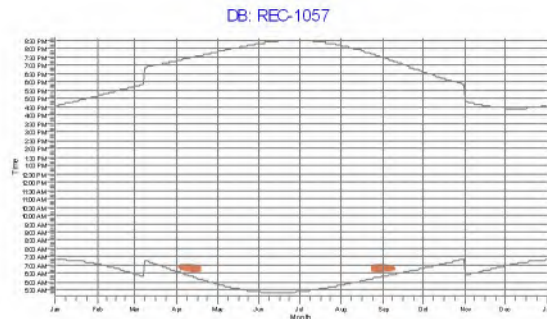
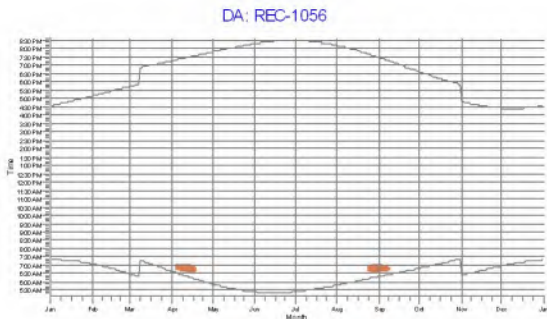
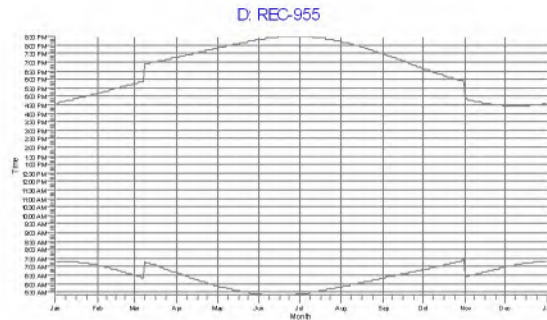
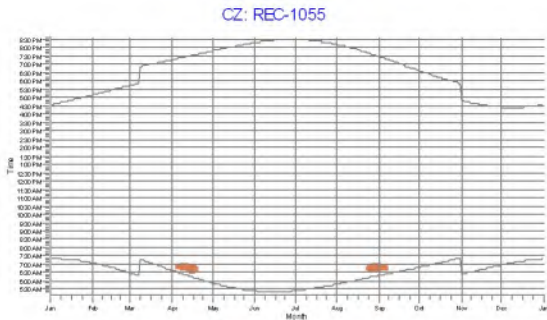
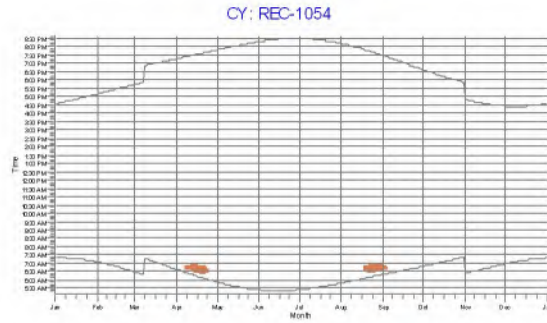
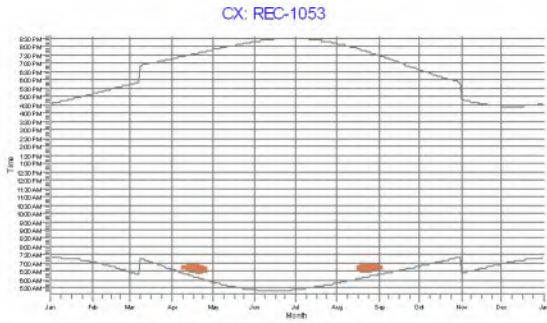
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

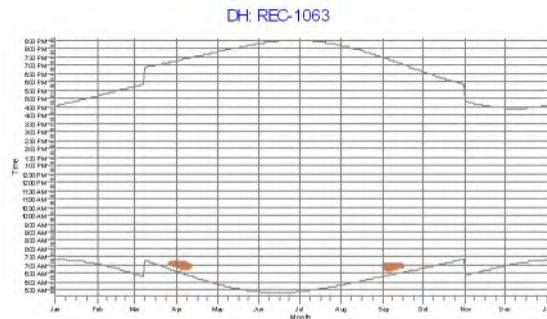
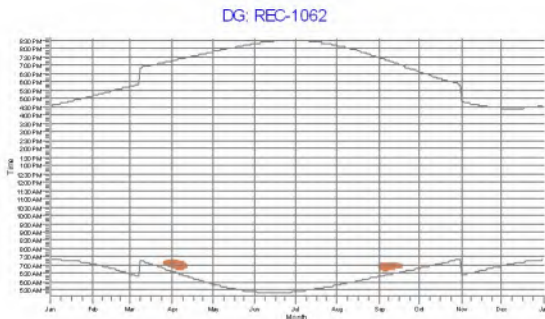
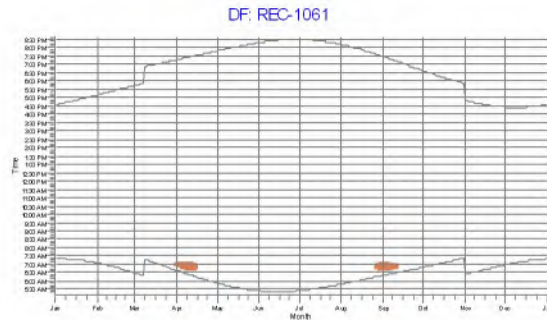
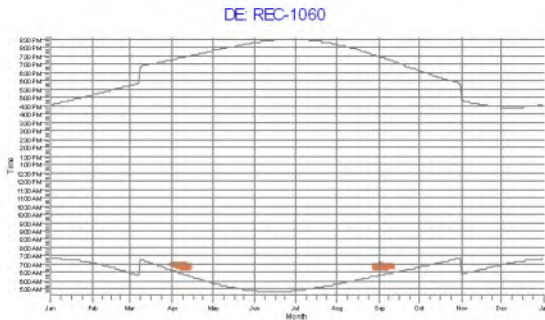
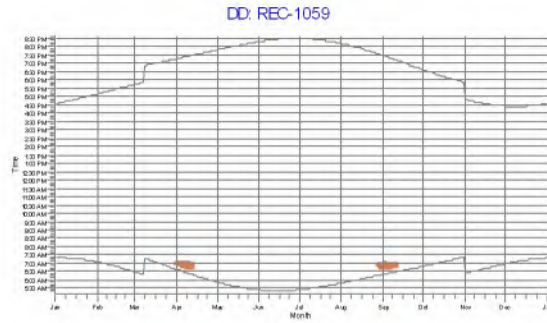
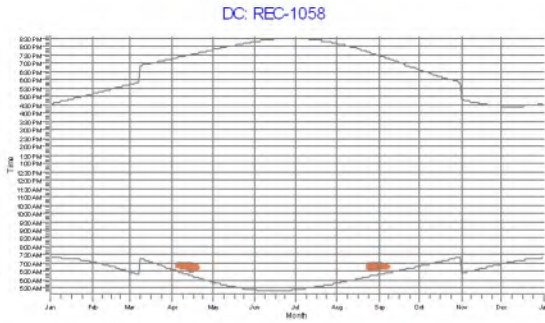
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

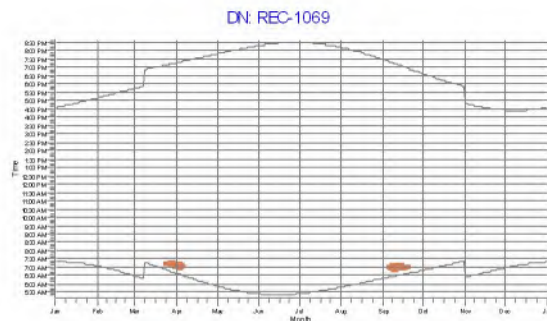
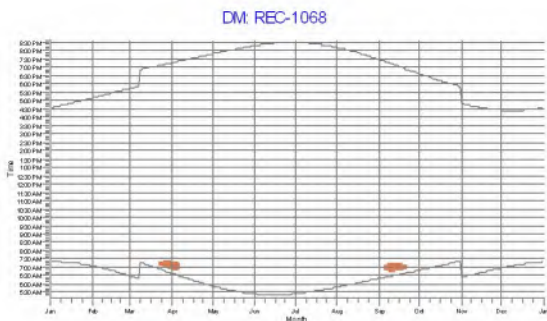
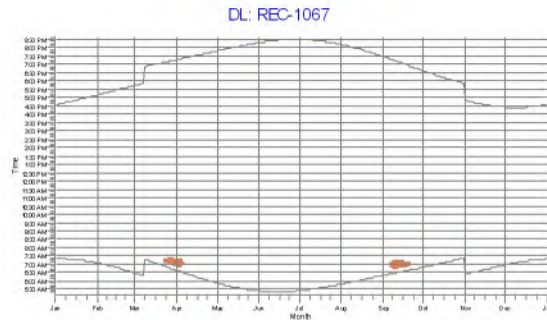
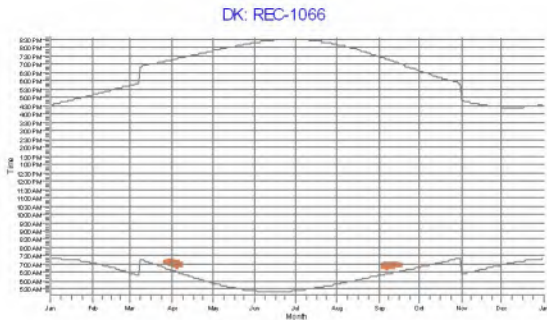
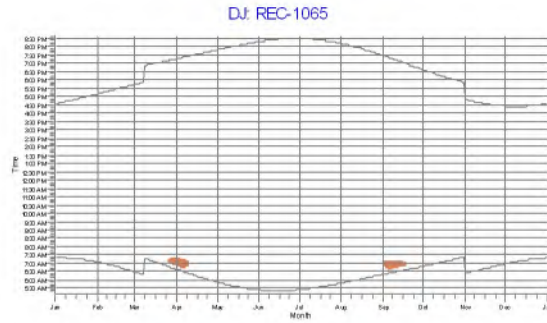
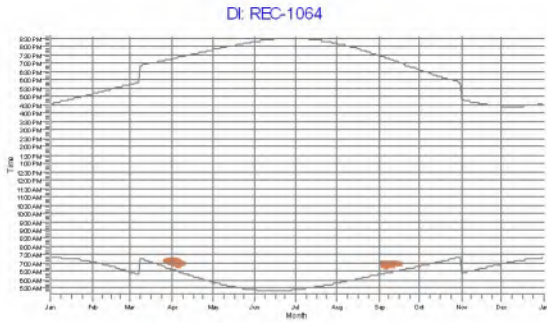
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WTGs
112: K92

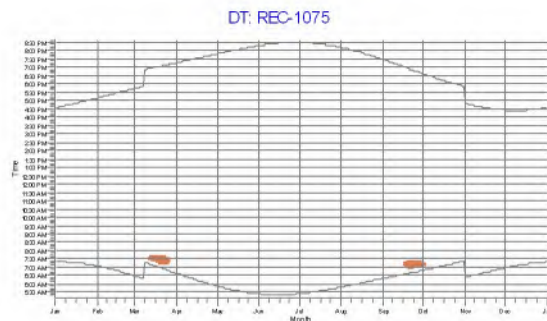
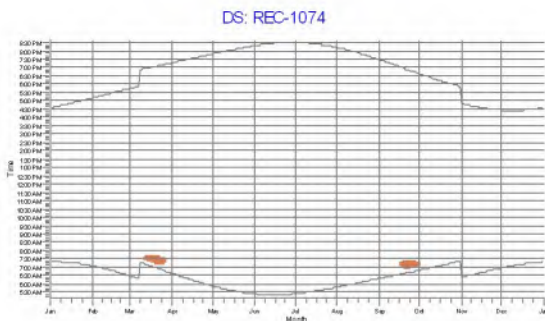
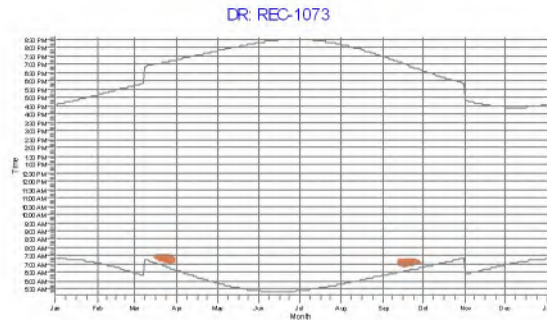
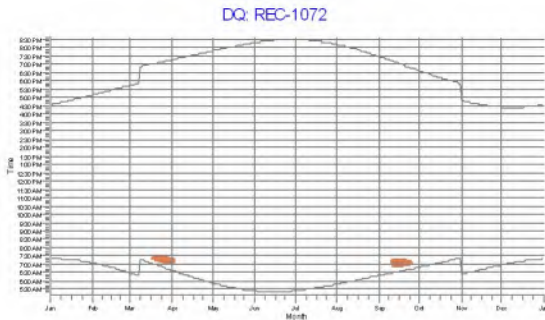
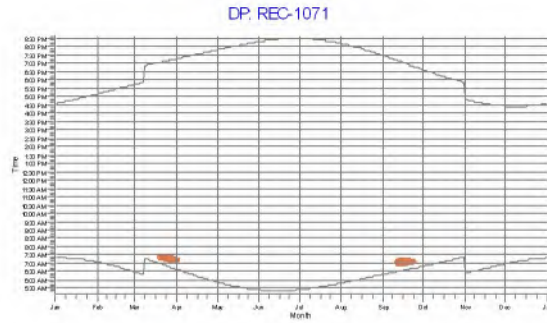
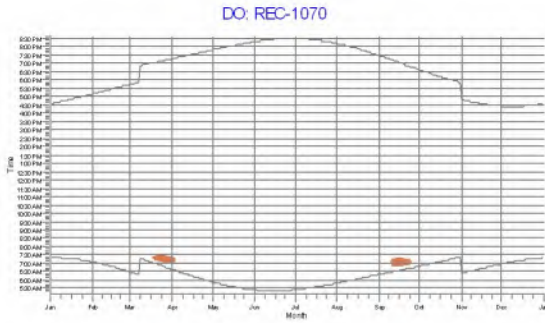
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

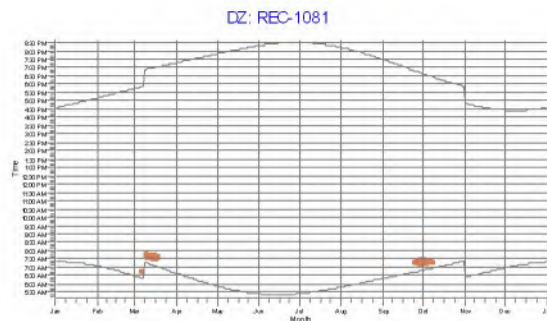
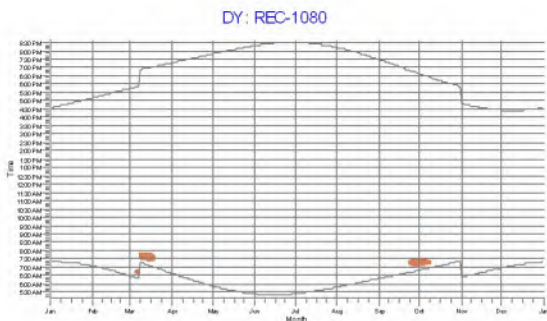
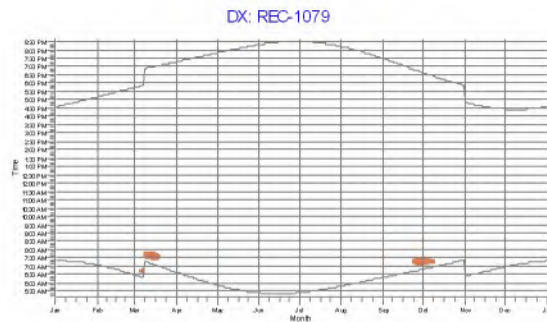
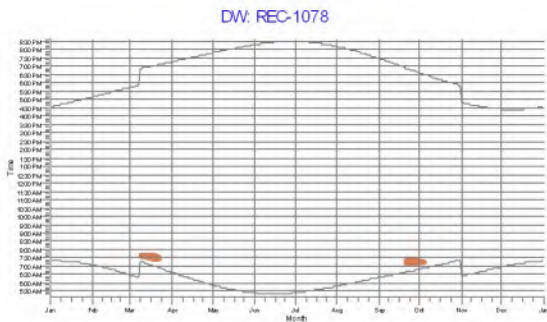
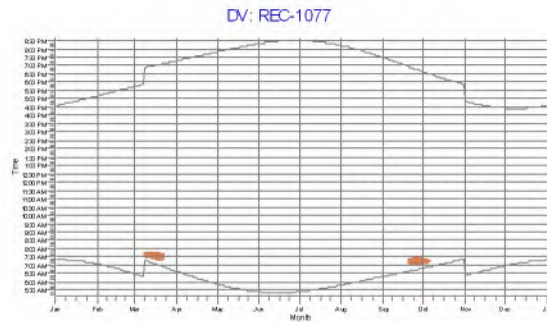
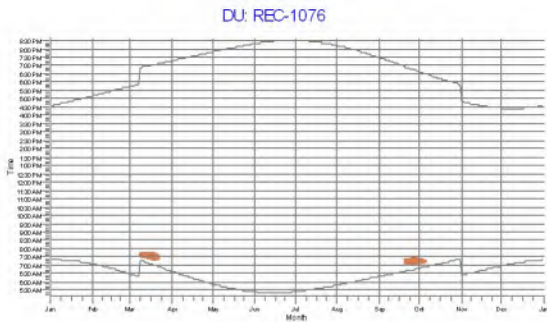
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SHADOW - Calendar, graphical

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WTGs
112: K92

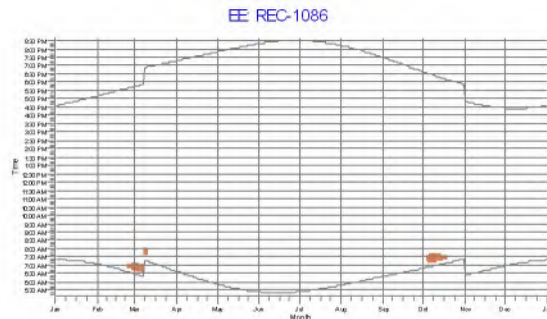
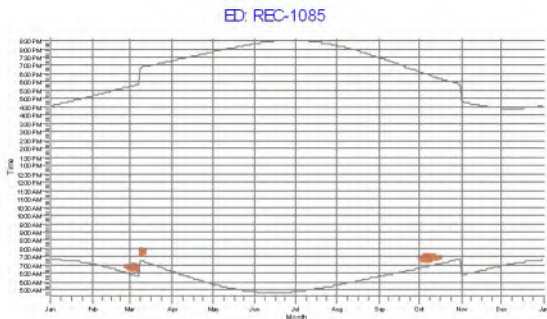
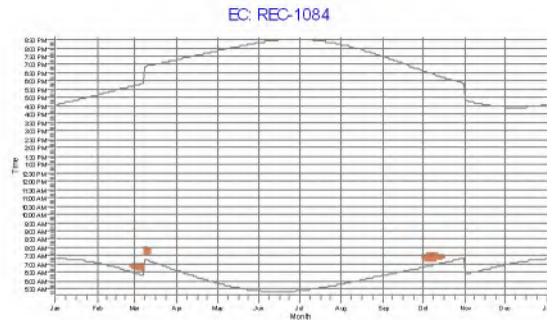
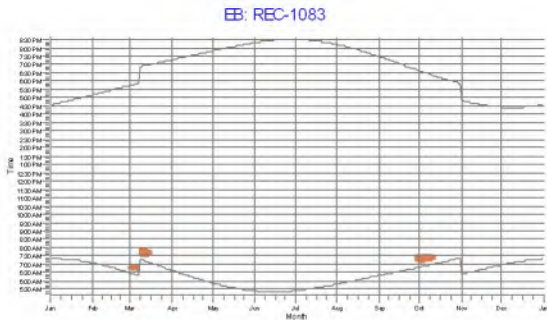
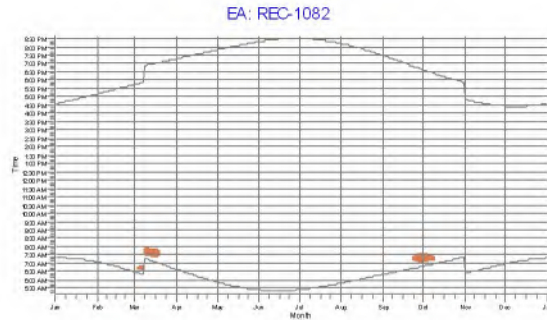
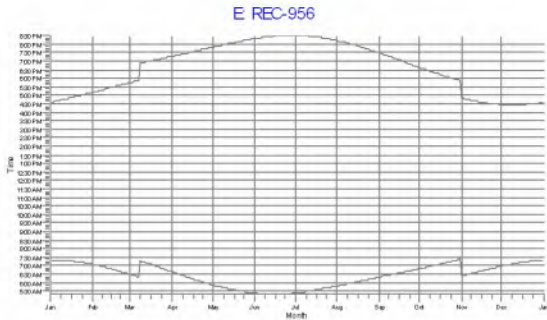
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
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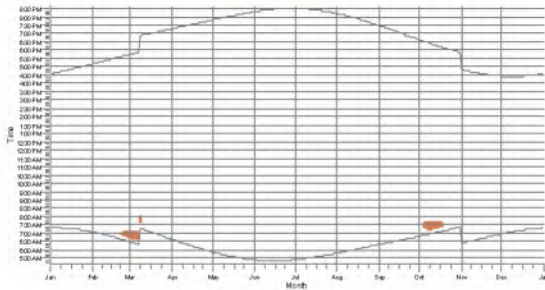
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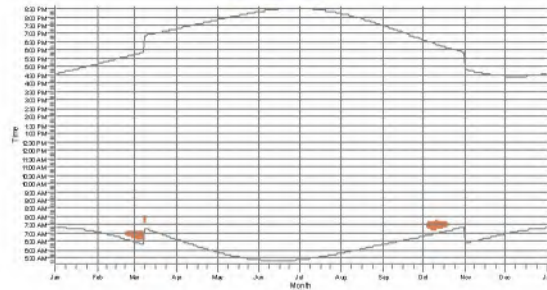
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

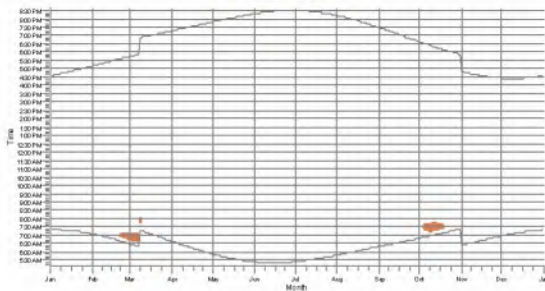
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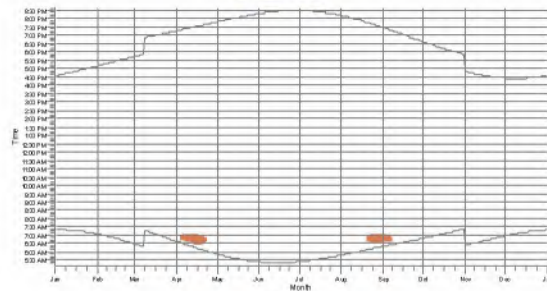
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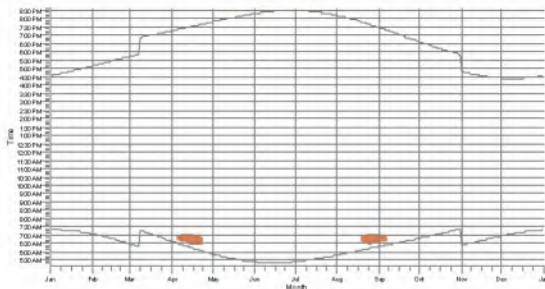
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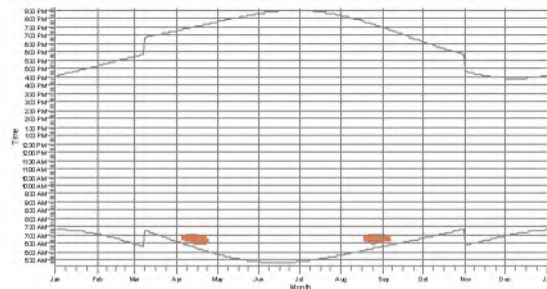
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EJ: REC-1091



EK: REC-1092



WTGs

112: K92

Project:
132138 - Pattern - Heritage Prairie Wind_v6

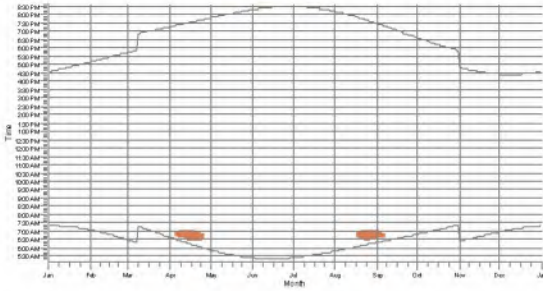
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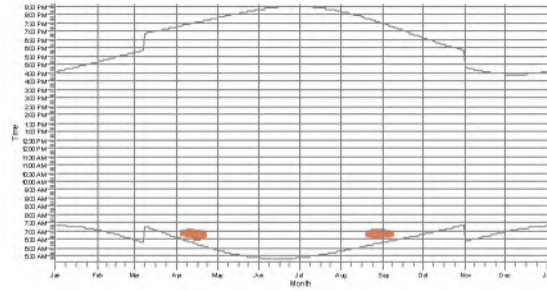
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

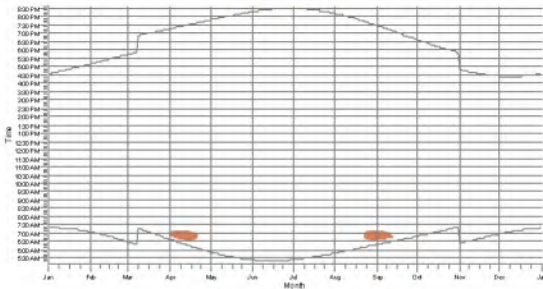
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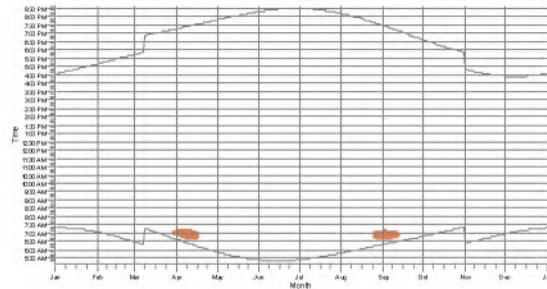
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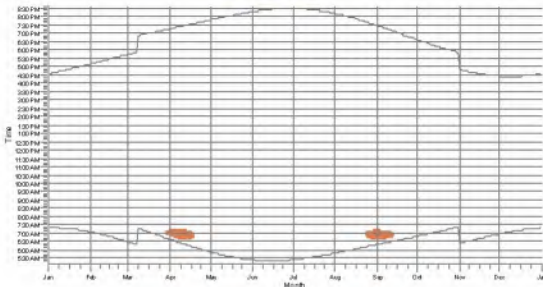
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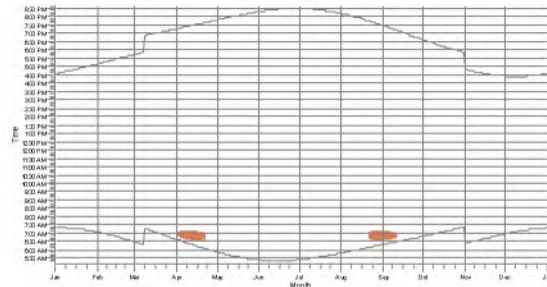
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EP REC-1097



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WTGs

112: K92

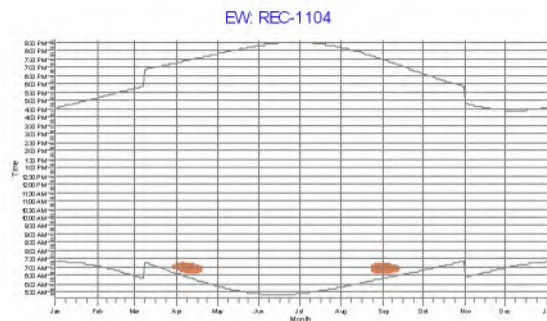
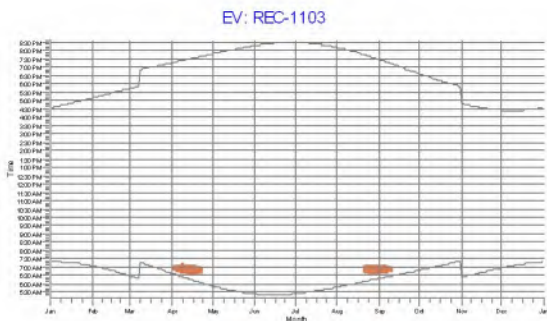
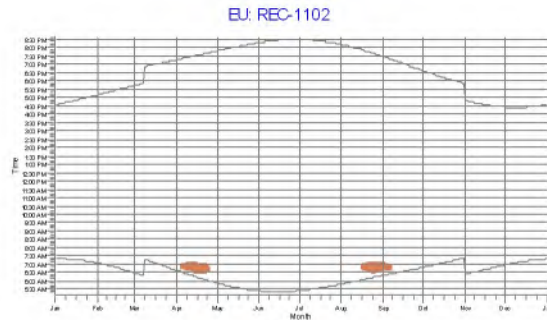
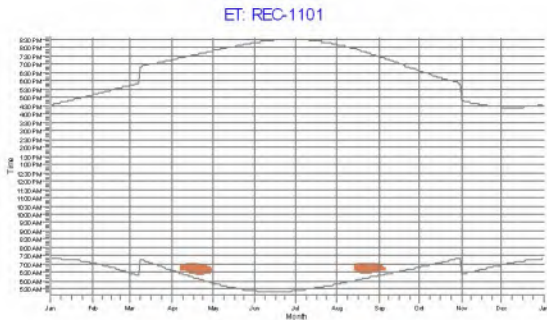
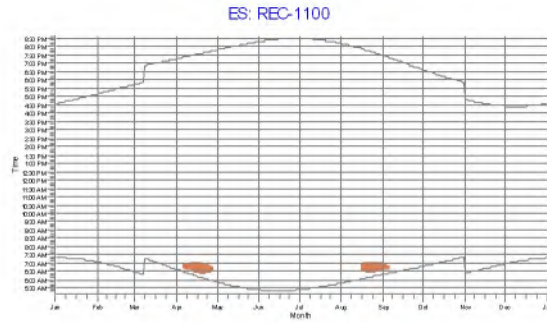
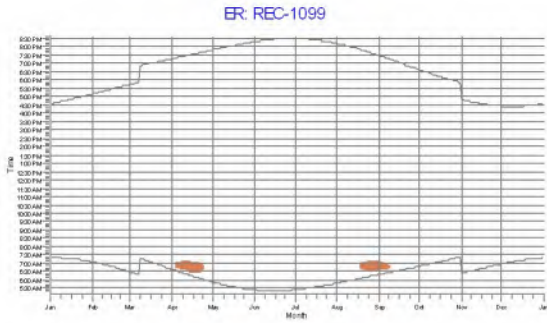
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

Project:
132138 - Pattern - Heritage Prairie Wind_v6

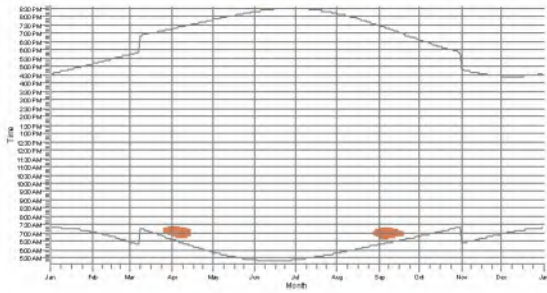
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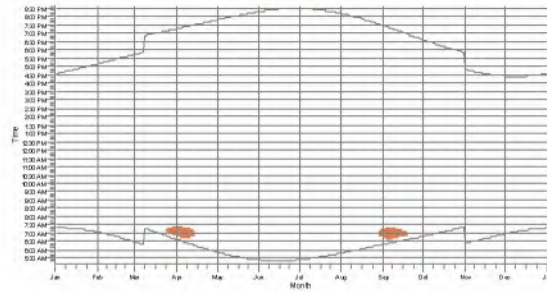
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

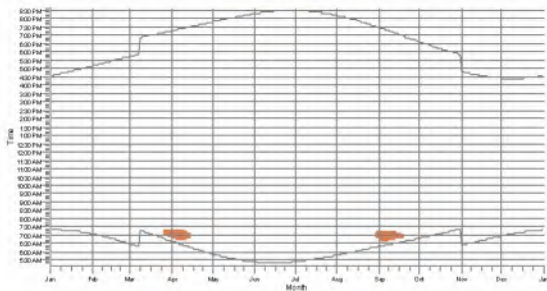
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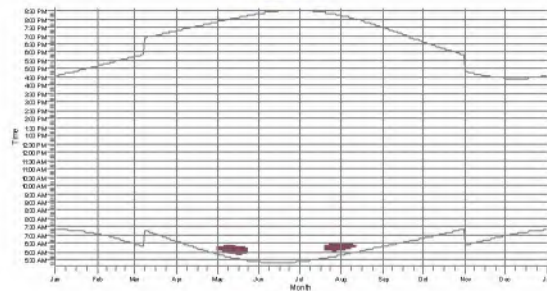
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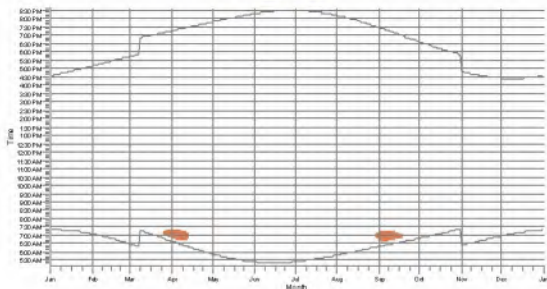
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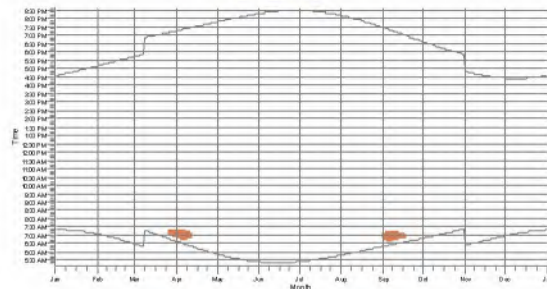
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FA: REC-1108



FB: REC-1109



WTGs

79: K13 112: K92

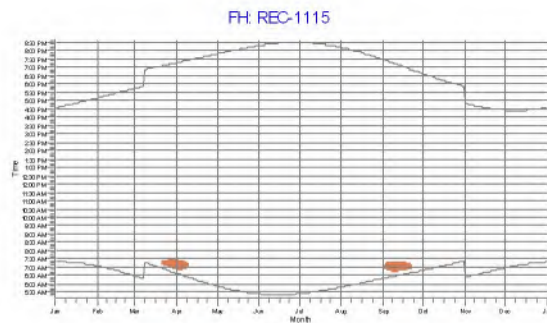
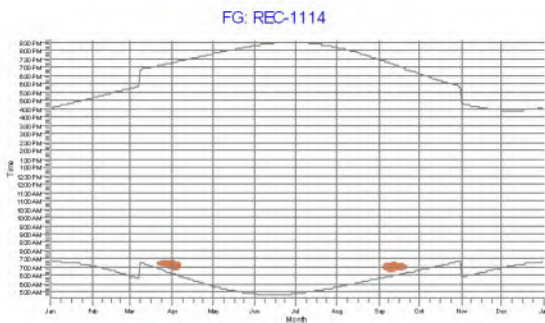
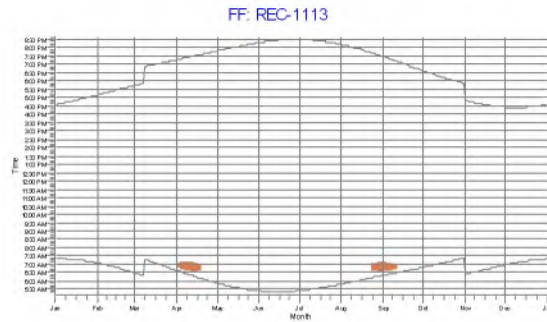
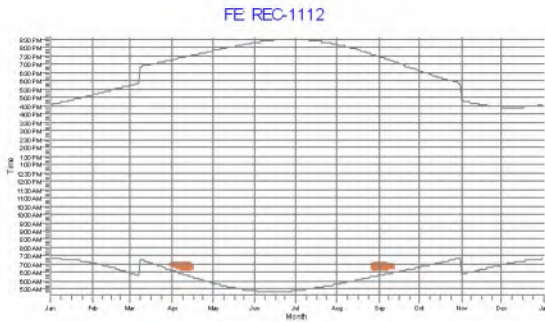
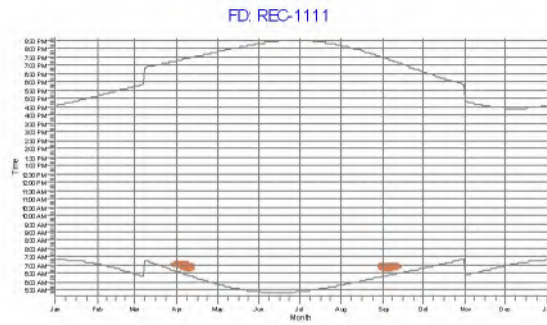
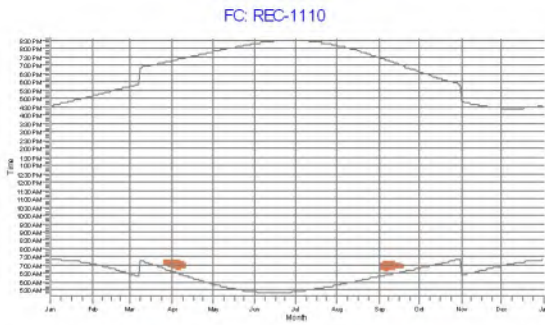
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



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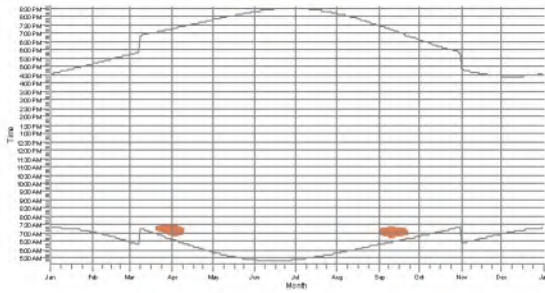
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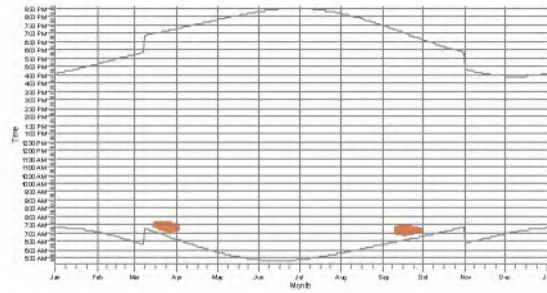
SHADOW - Calendar, graphical

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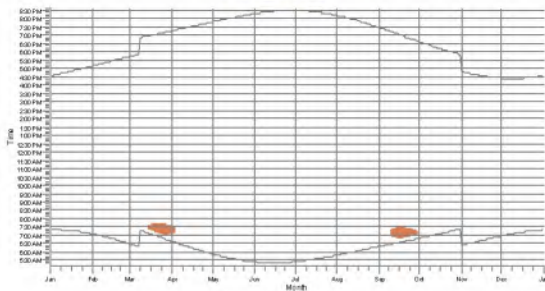
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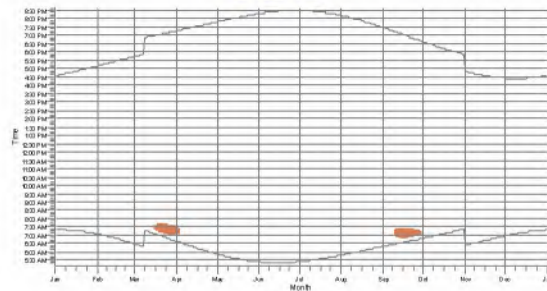
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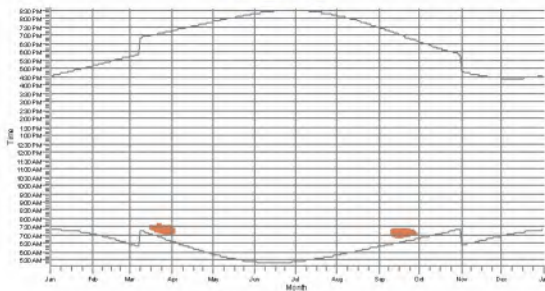
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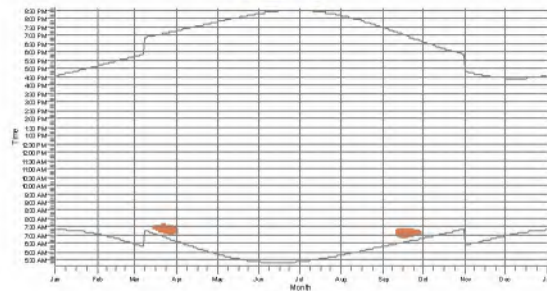
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WTGs

112: K92

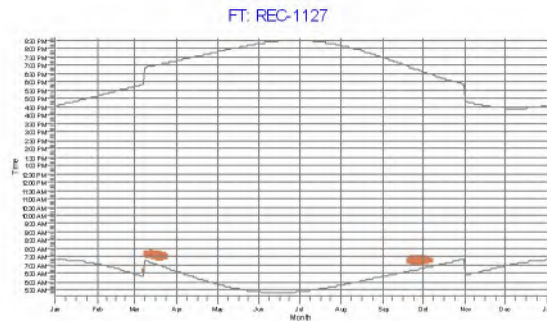
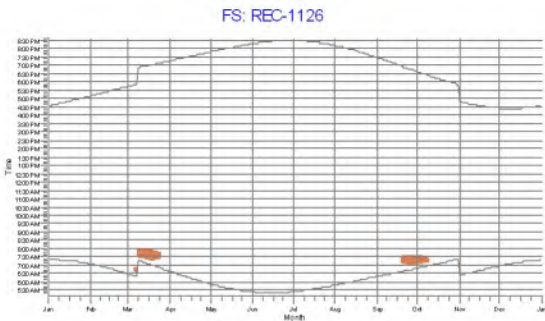
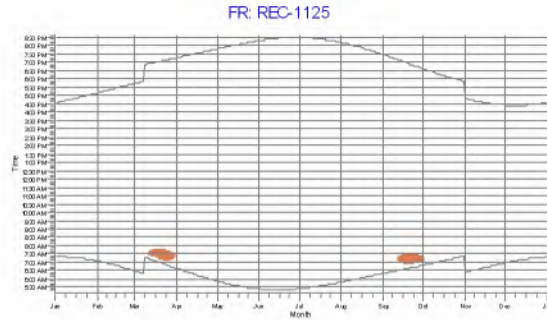
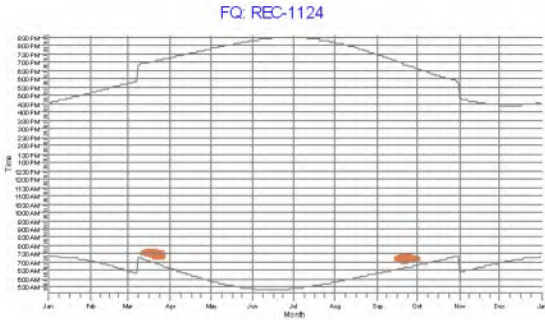
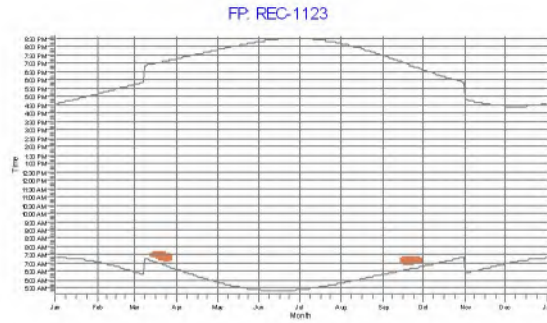
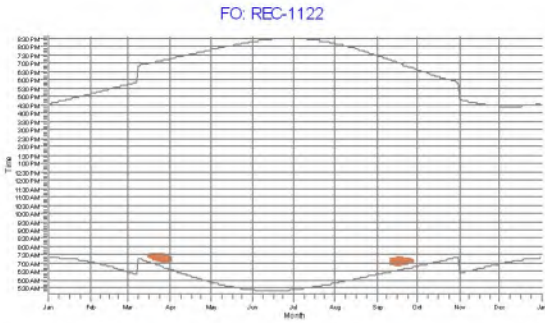
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

Project:
132138 - Pattern - Heritage Prairie Wind_v6

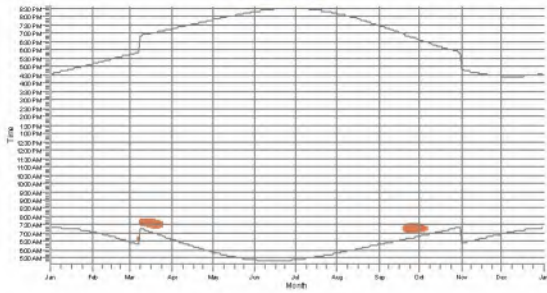
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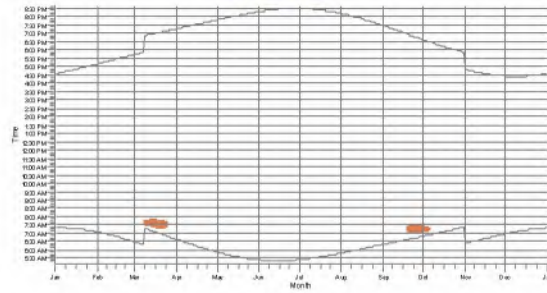
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

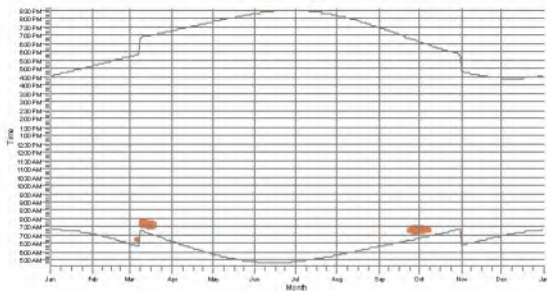
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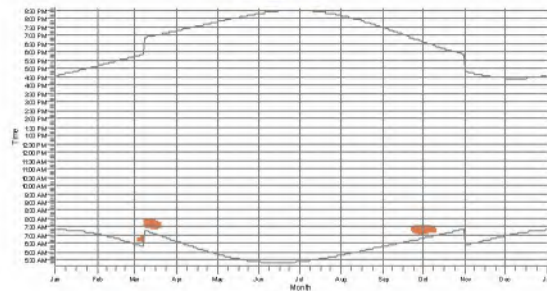
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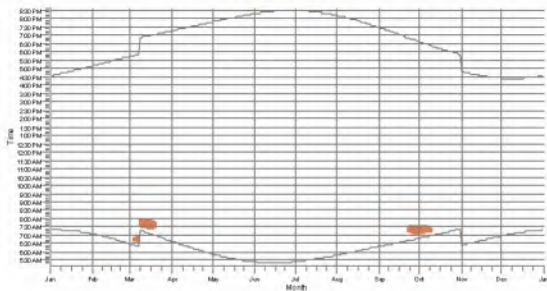
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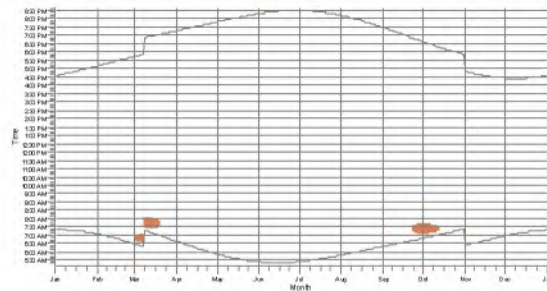
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WTGs

112: K92

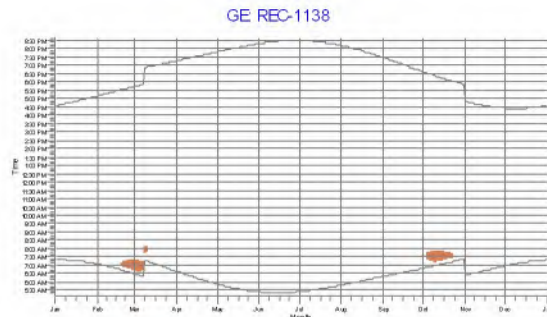
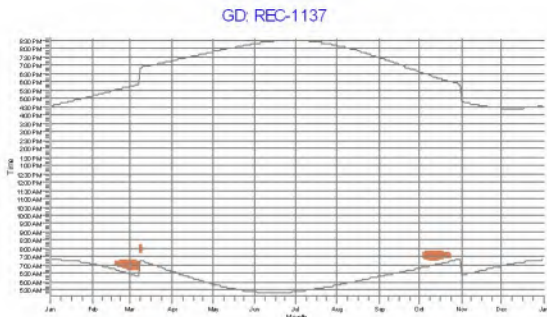
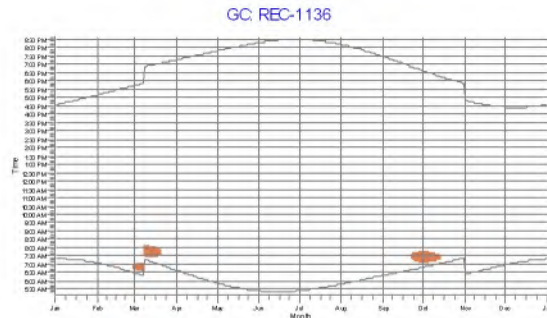
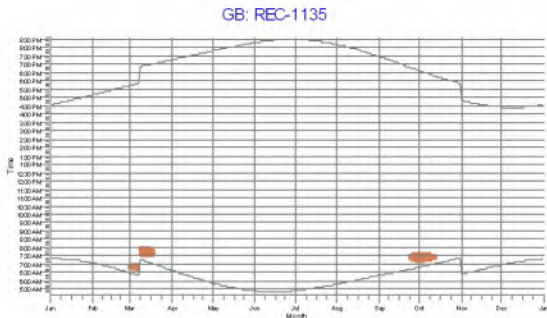
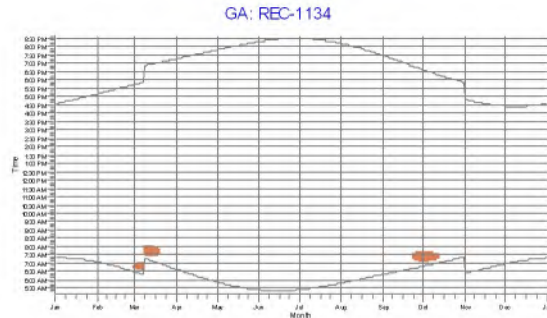
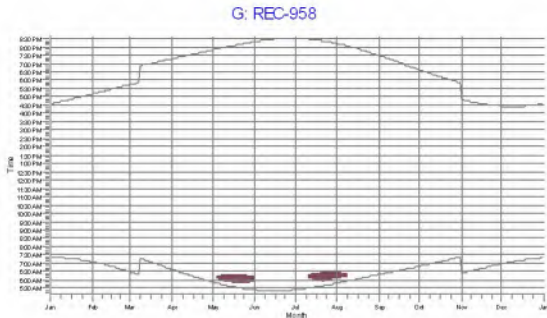
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13 112: K92

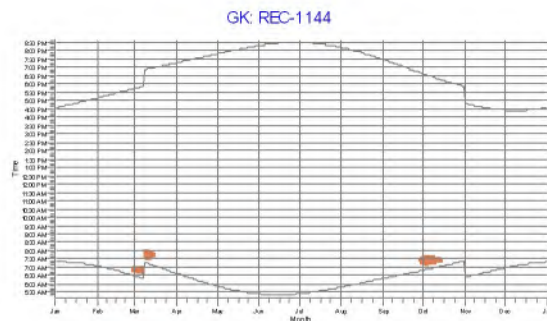
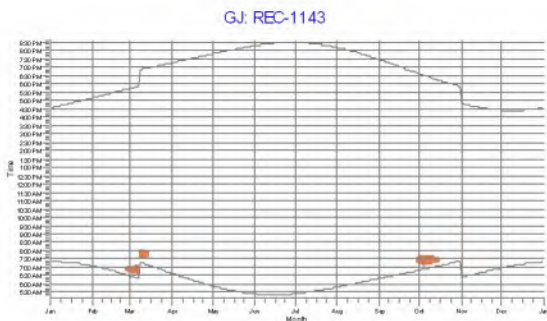
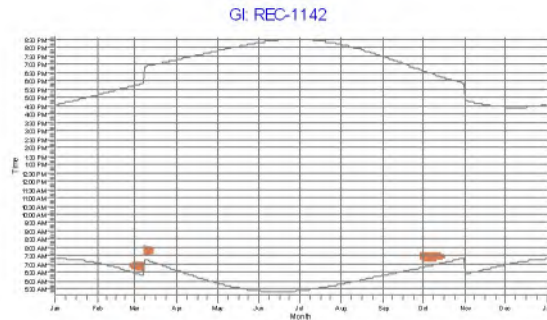
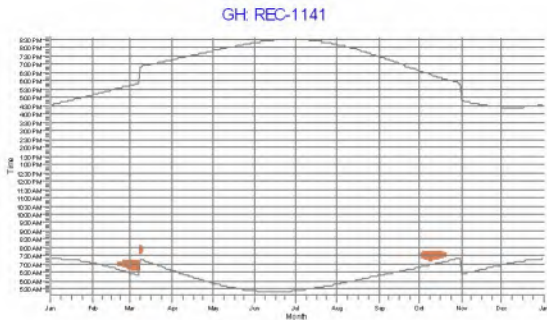
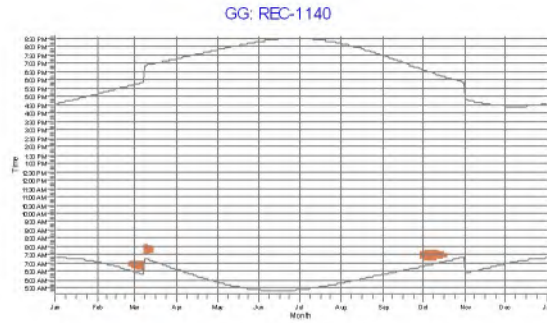
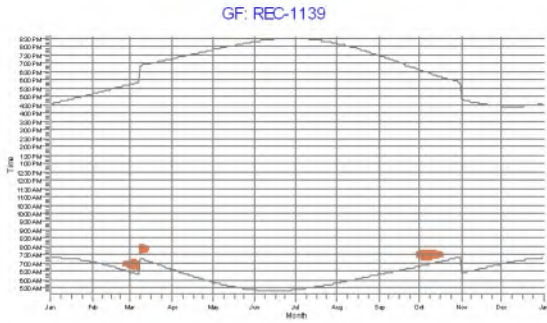
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
112: K92

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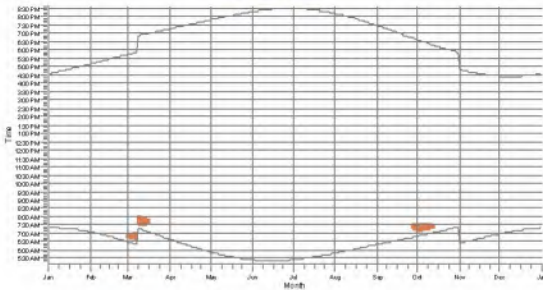
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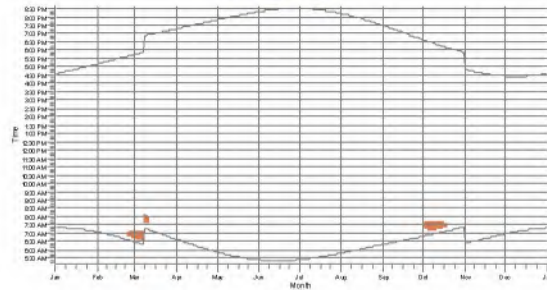
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

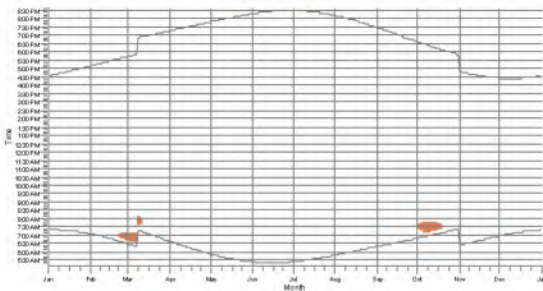
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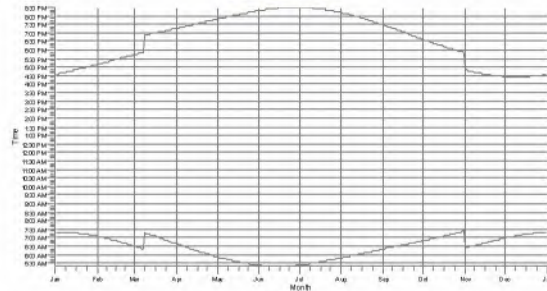
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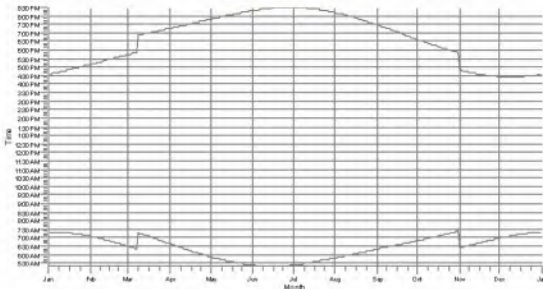
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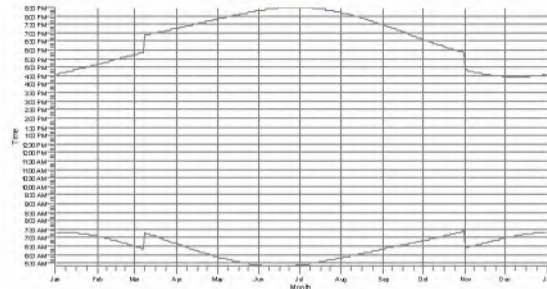
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GP REC-1149



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WTGs

112: K92

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

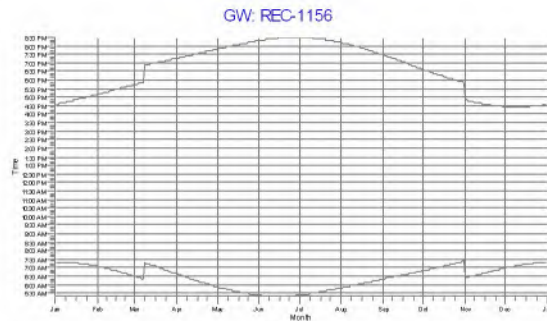
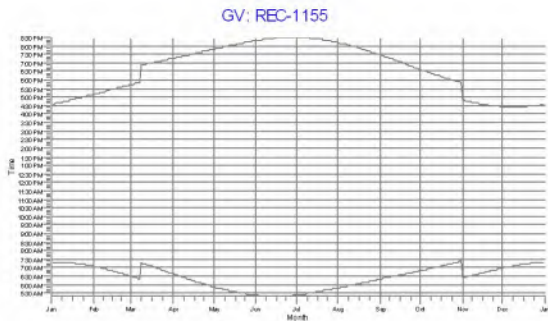
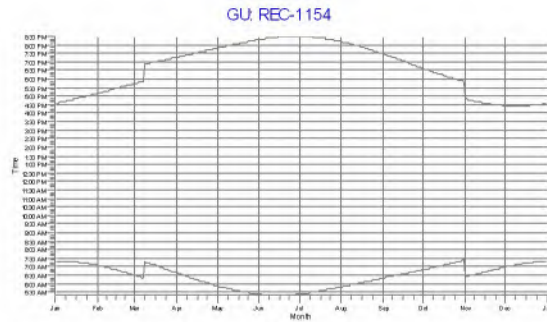
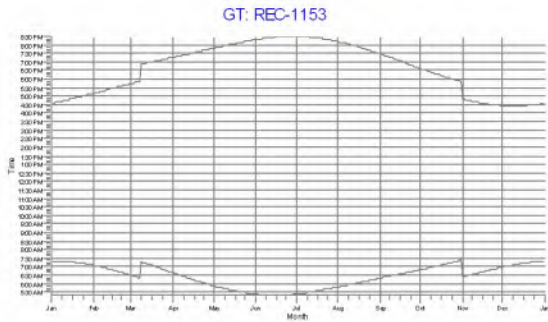
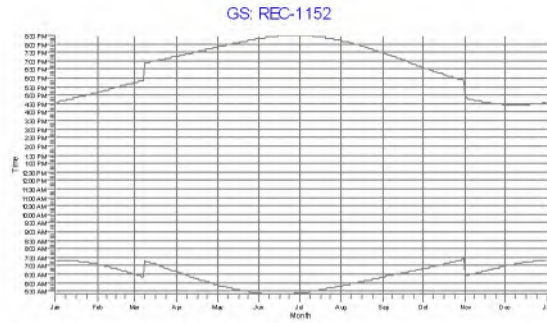
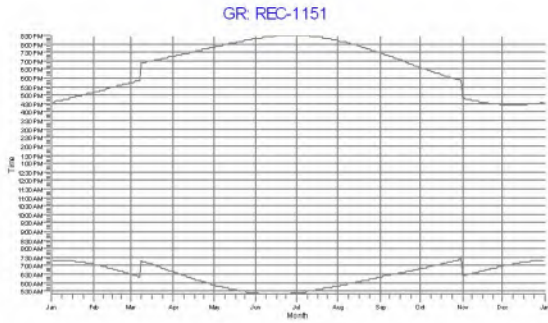
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

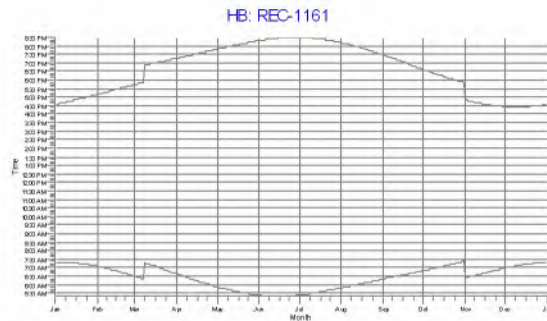
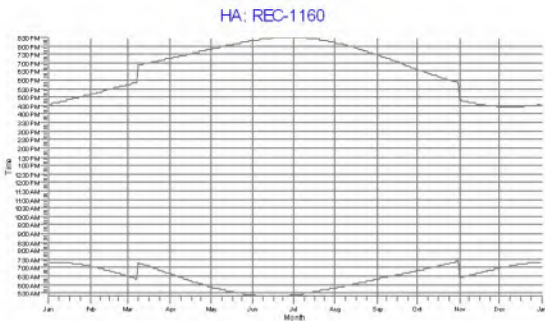
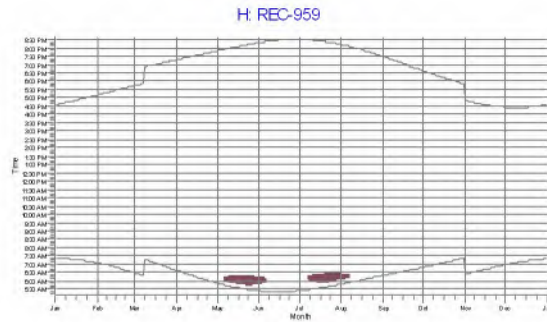
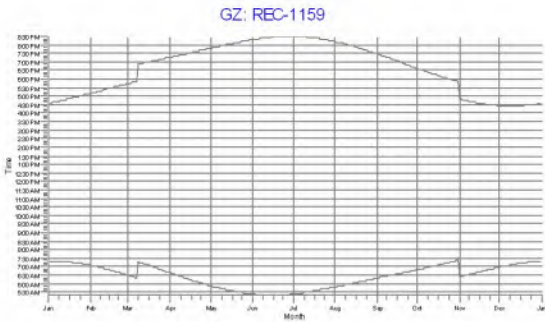
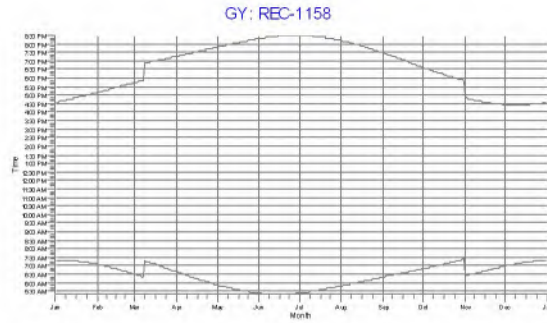
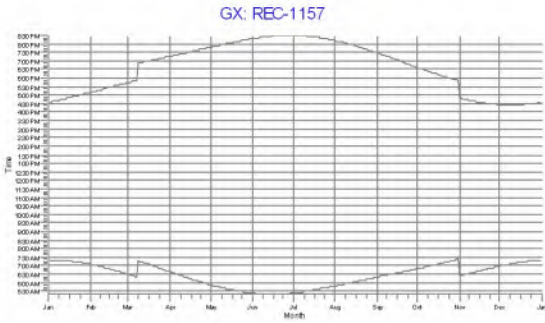
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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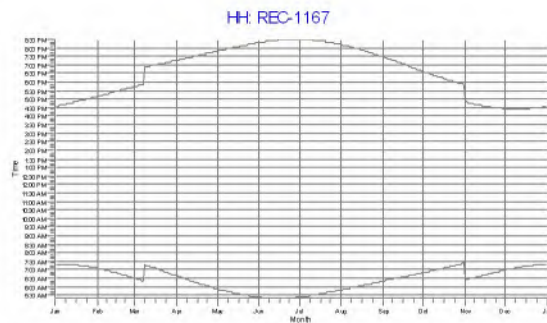
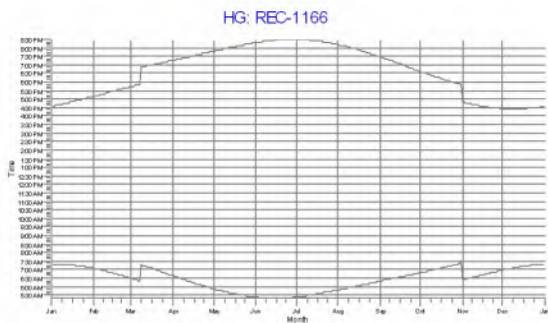
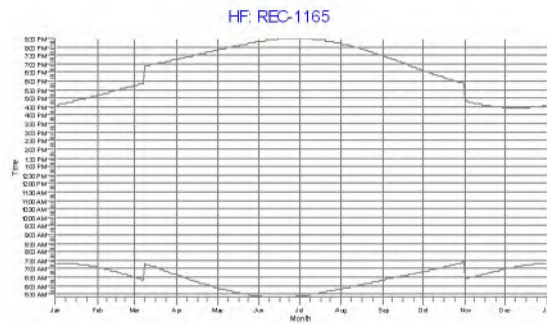
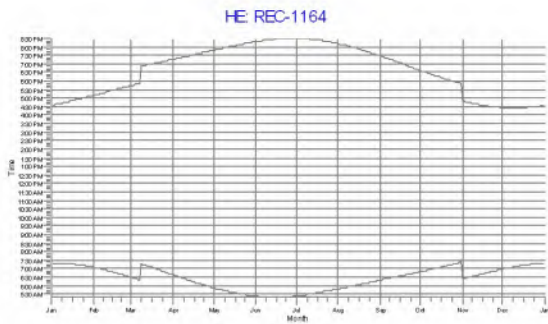
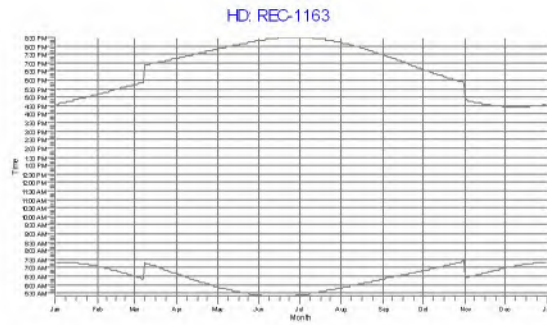
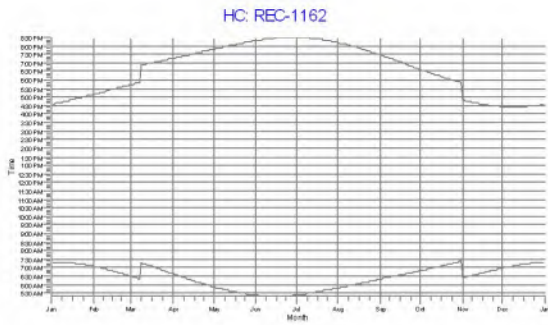
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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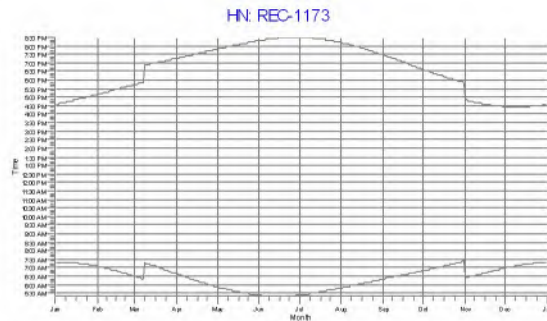
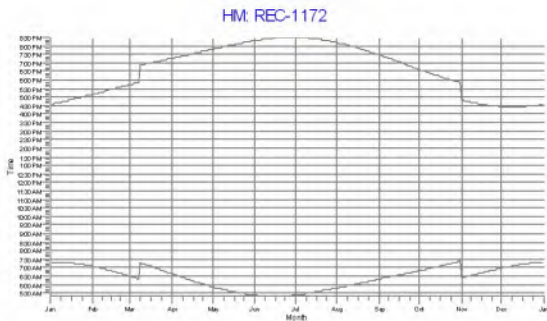
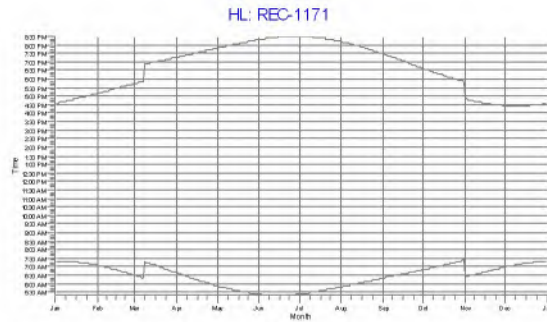
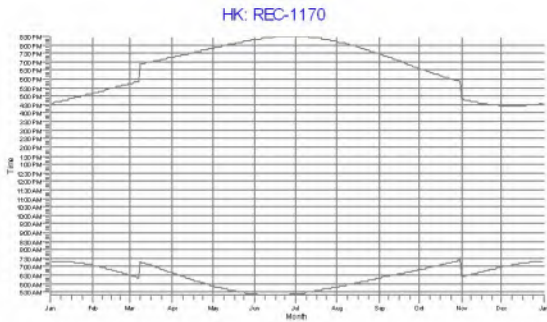
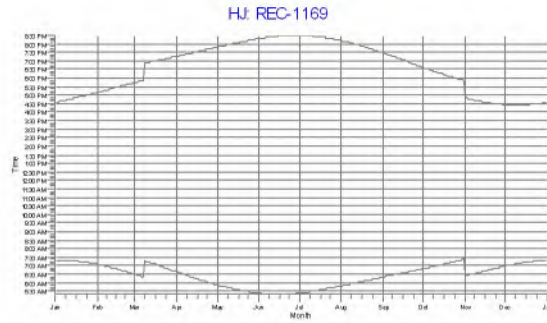
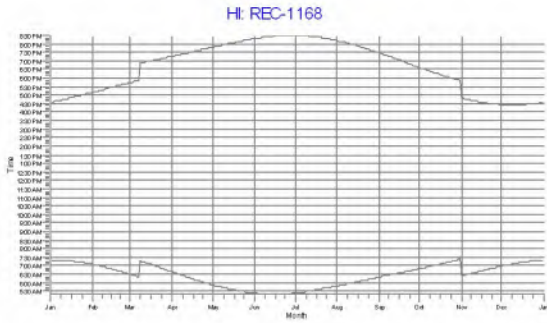
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

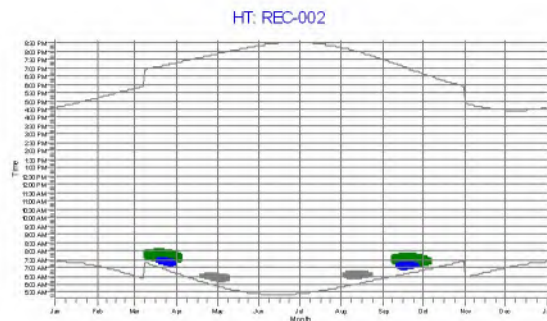
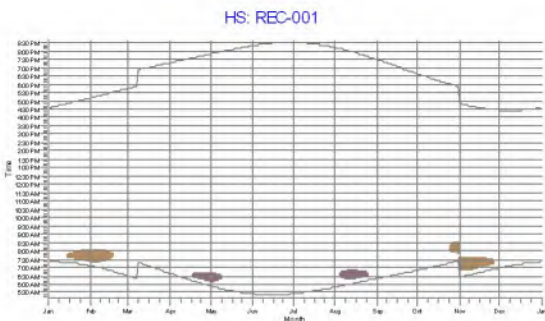
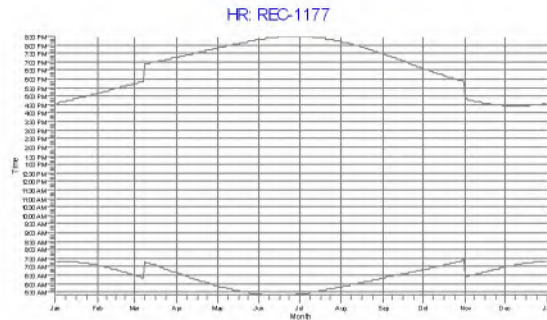
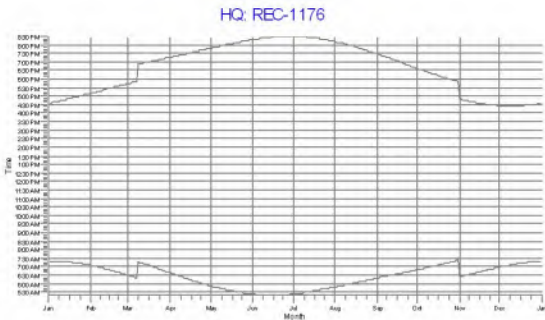
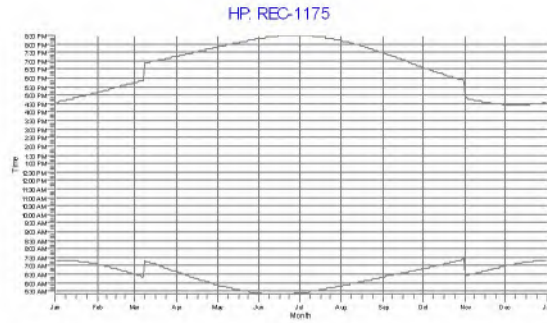
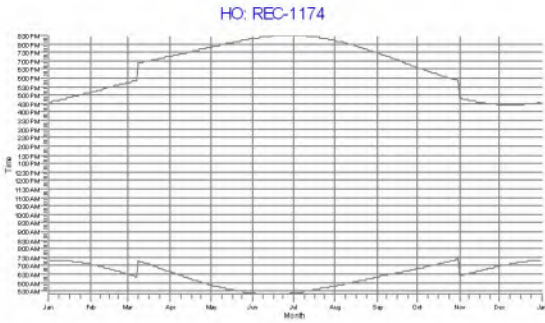
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 1: L2
 3: L5
 4: L6
 70: L120
 71: L121

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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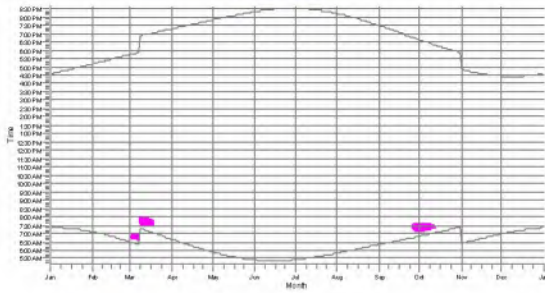
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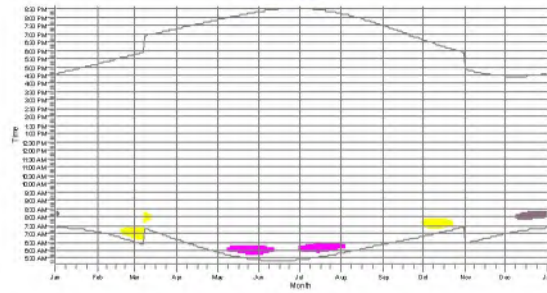
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

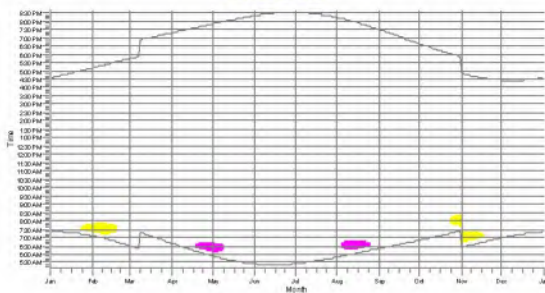
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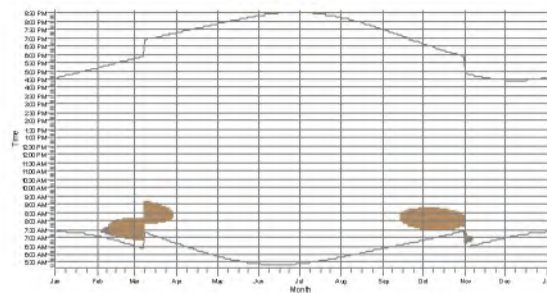
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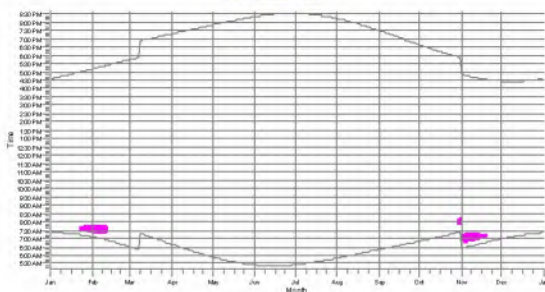
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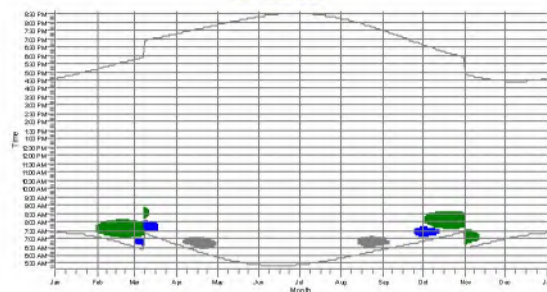
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HY: REC-007



HZ: REC-008



WTGs

■ 1: L2
 ■ 2: L4
 ■ 3: L5
 ■ 4: L6
 ■ 5: L9
 ■ 70: L120
 ■ 71: L121

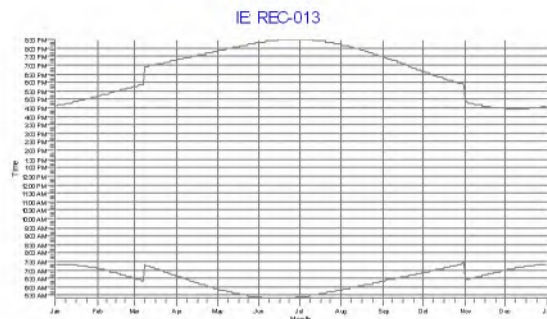
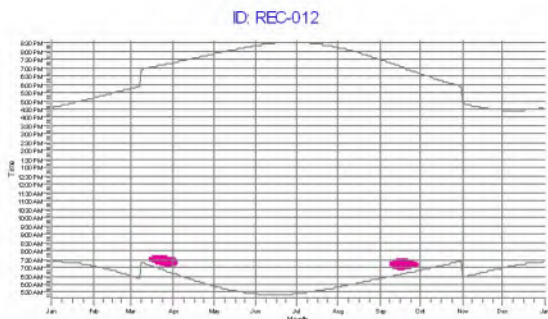
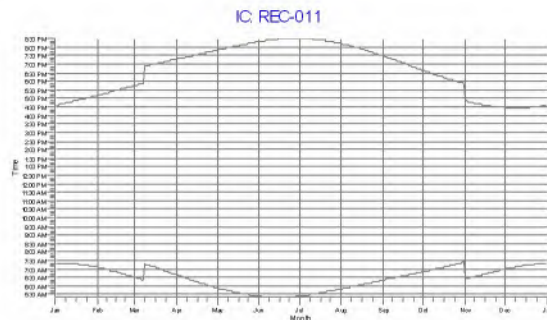
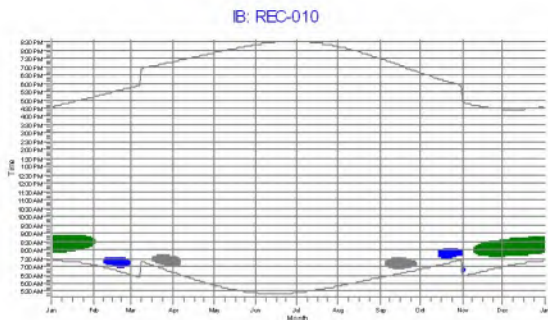
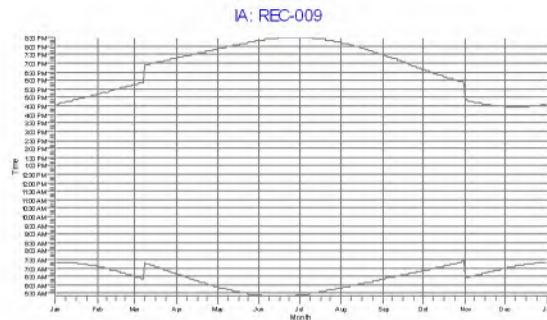
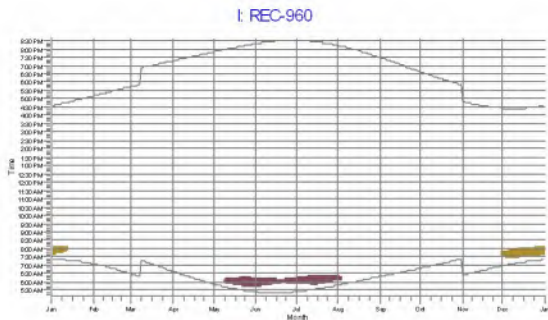
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 1: L2
 3: L5
 4: L6
 66: L109
 78: K12
 79: K13

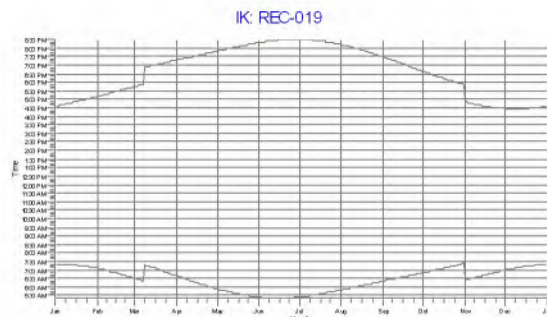
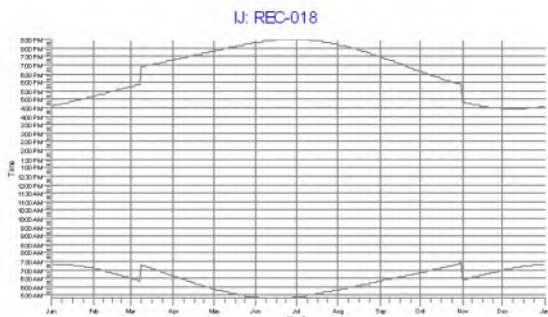
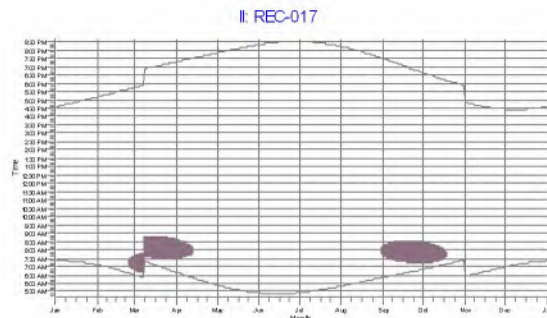
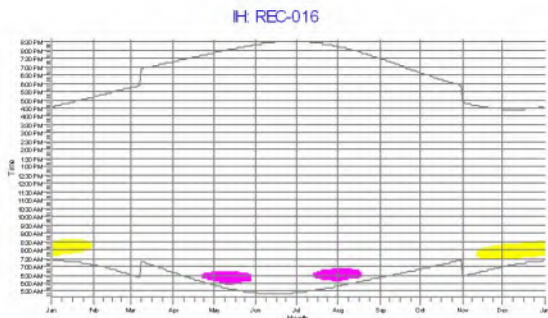
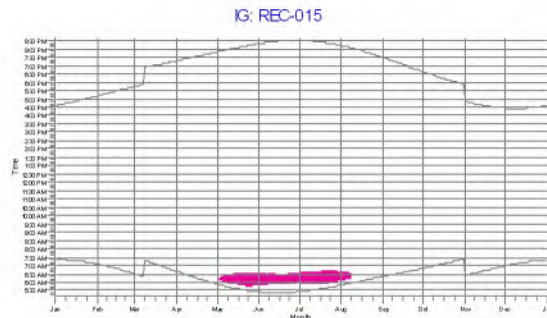
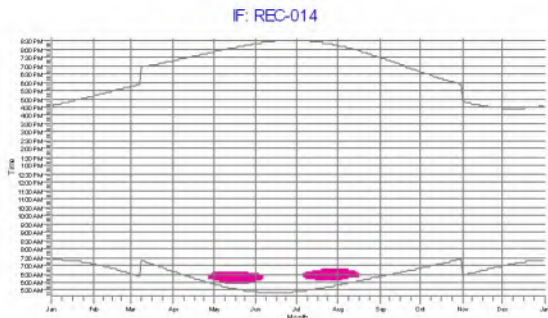
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

2: L4 5: L9 66: L109 70: L120

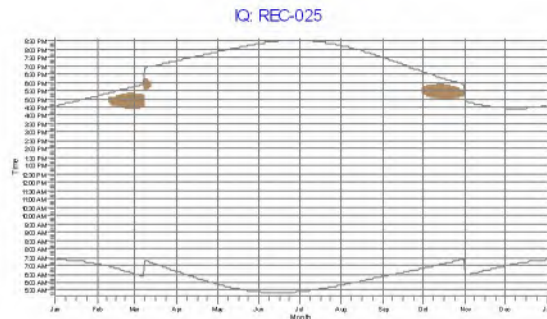
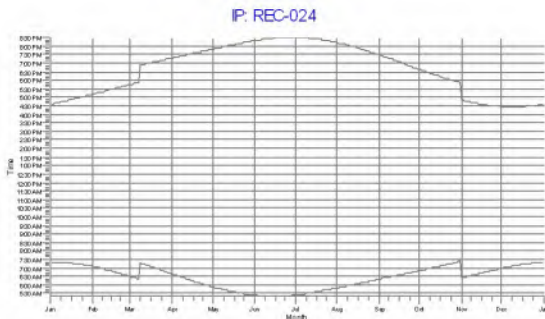
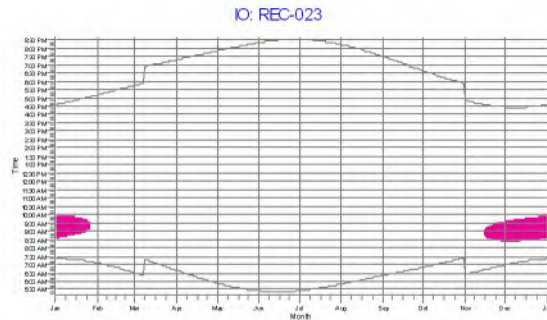
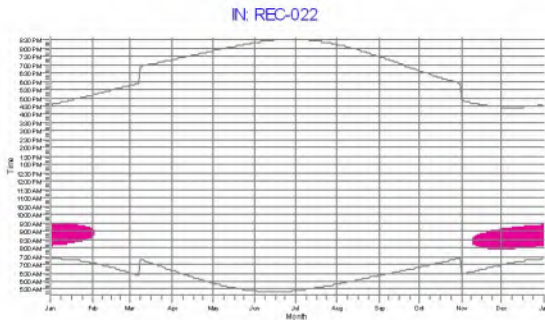
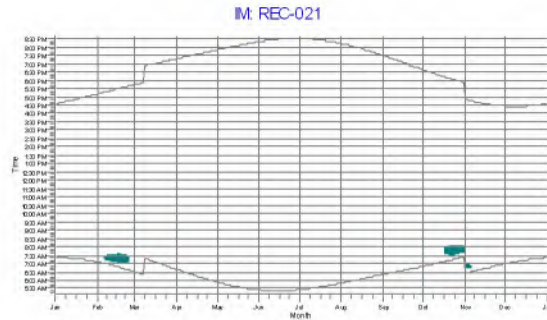
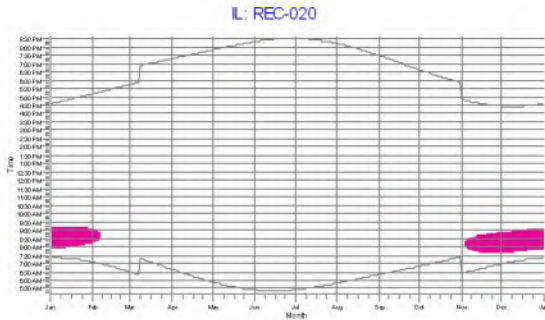
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

6: L11 66: L109 71: L121

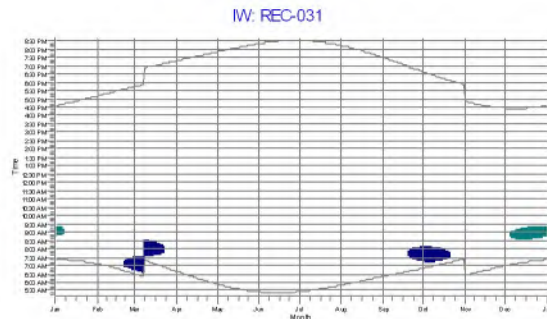
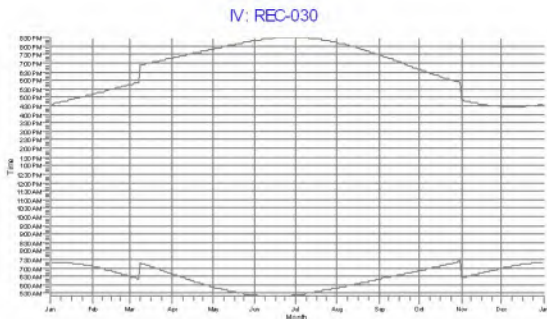
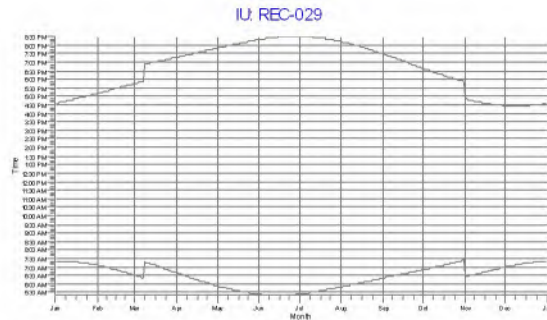
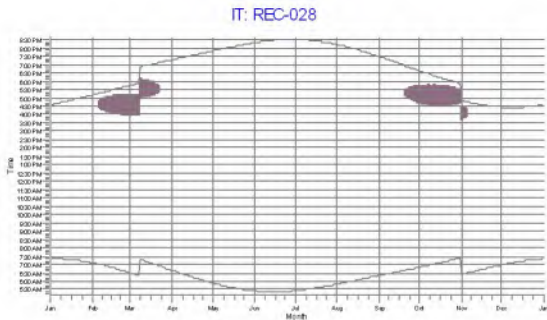
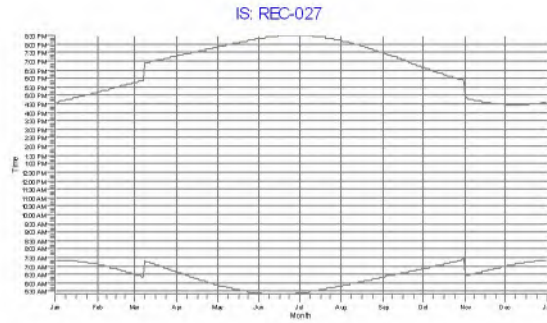
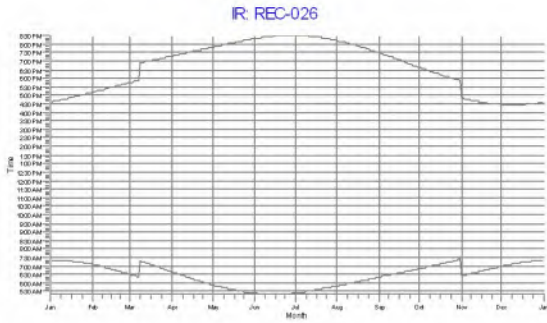
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SHADOW - Calendar, graphical

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WTGs

6: L11 7: L13 70: L120

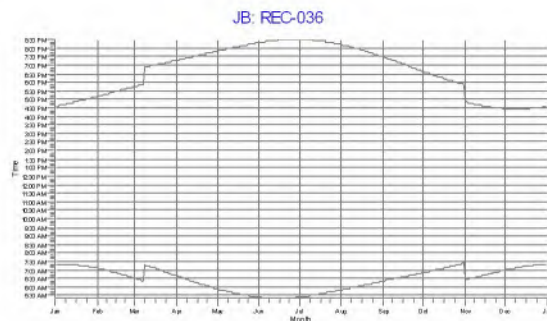
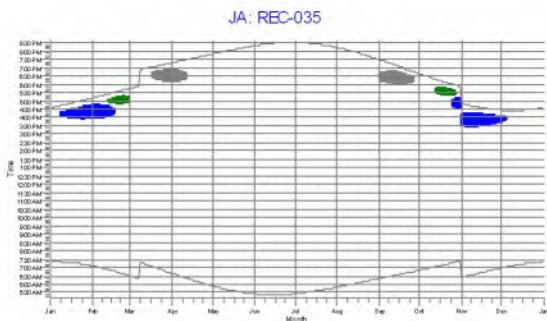
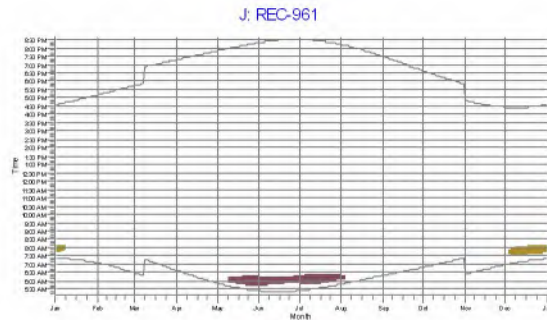
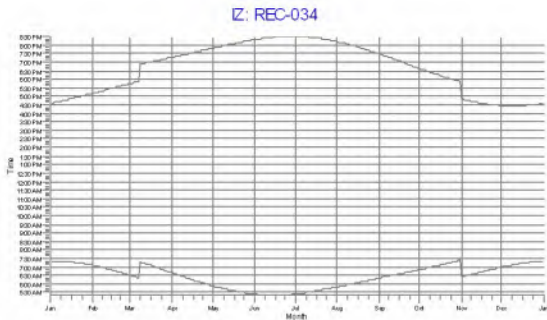
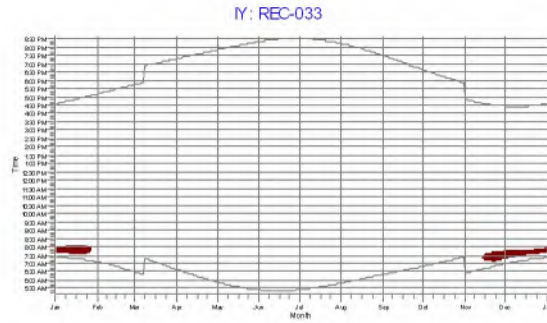
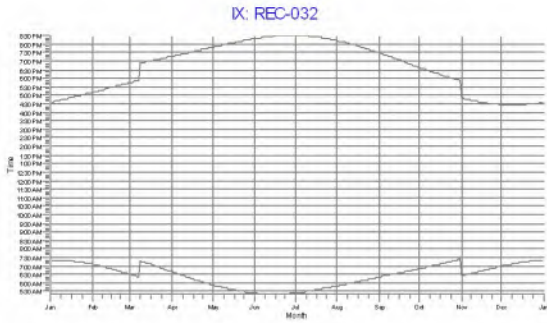
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 1: L2
■ 3: L5
■ 4: L6
■ 8: L16
■ 78: K12
■ 79: K13

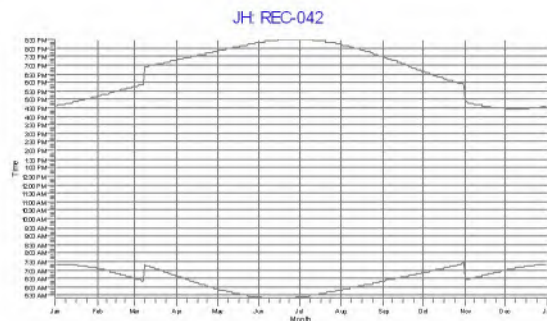
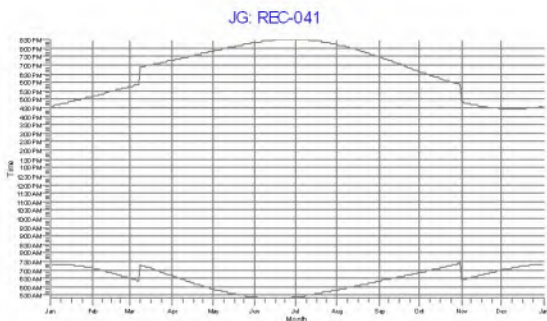
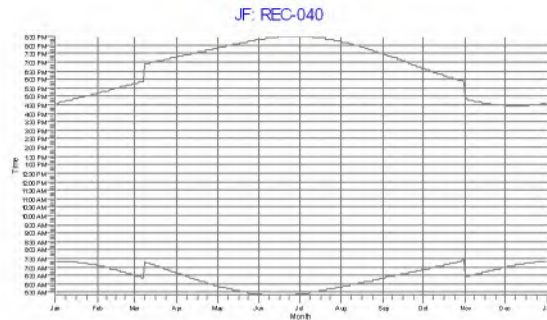
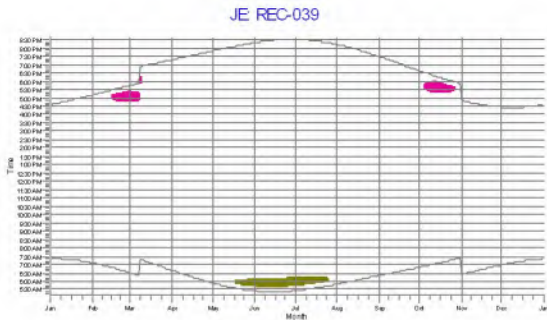
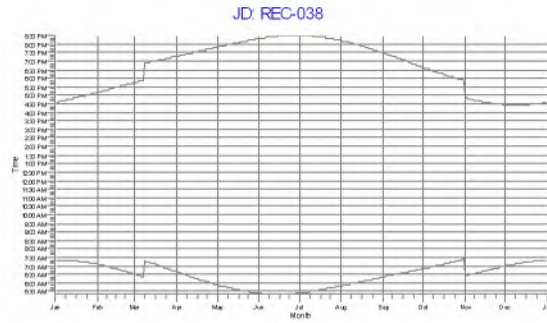
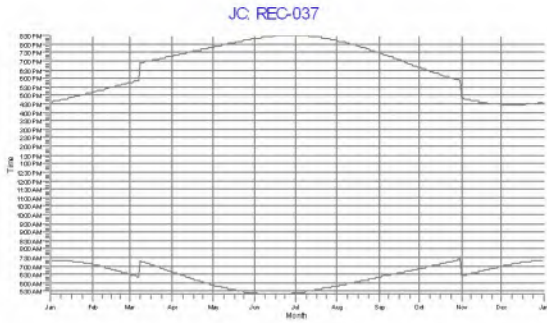
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

10: L18 66: L109

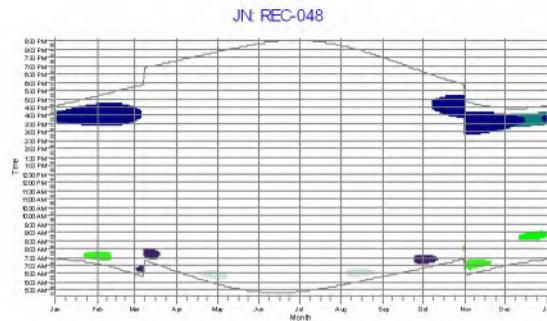
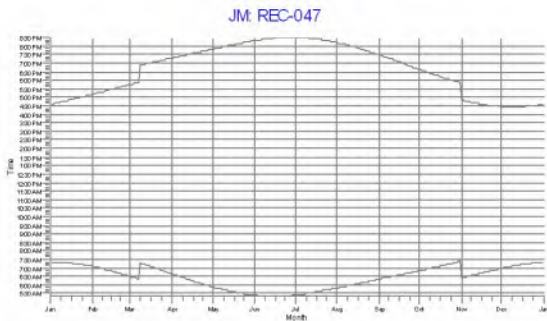
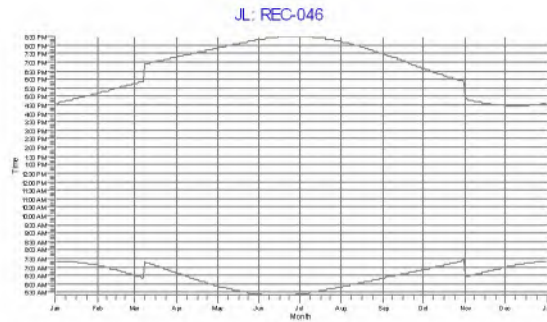
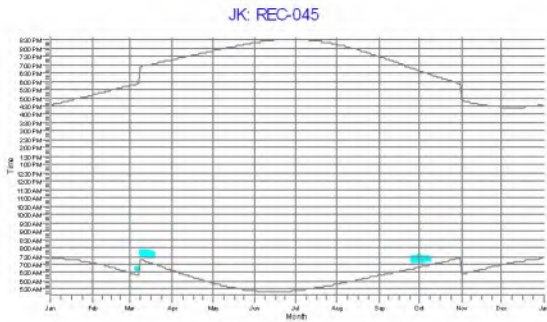
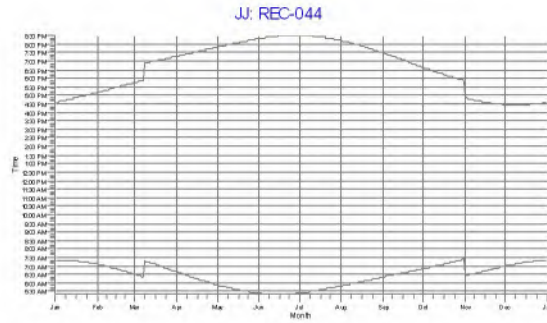
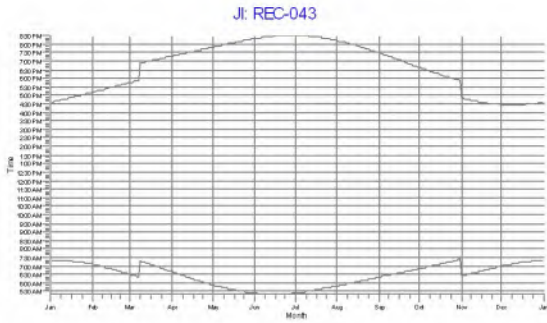
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

6: L11 7: L13 9: L17 13: L24 18: L30 61: L99 68: L111

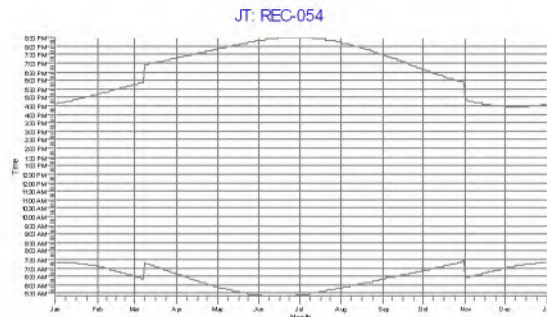
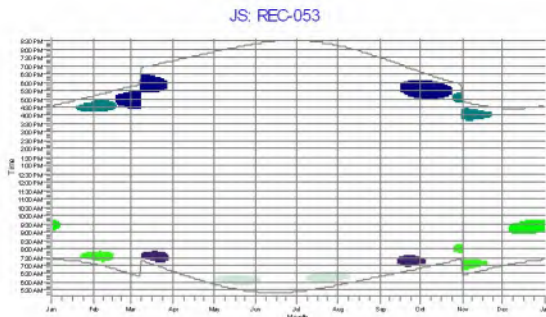
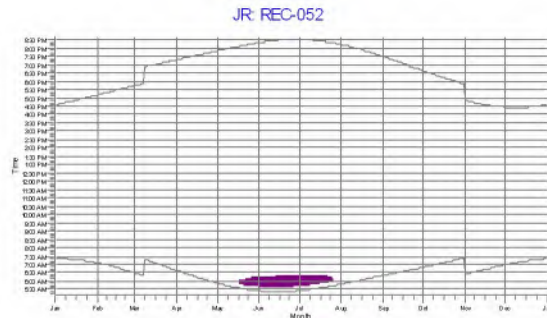
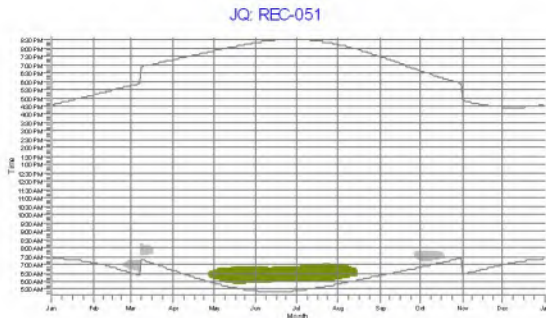
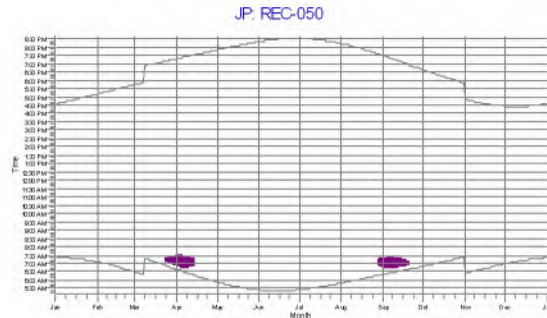
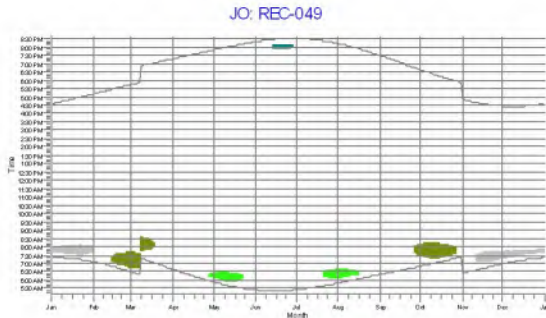
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs



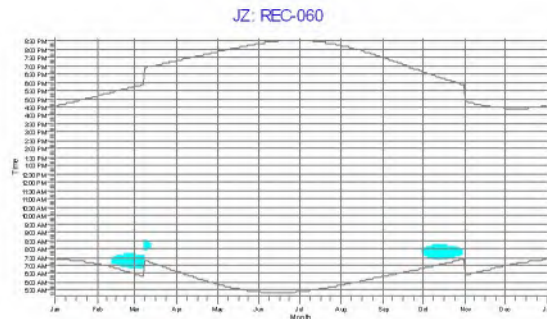
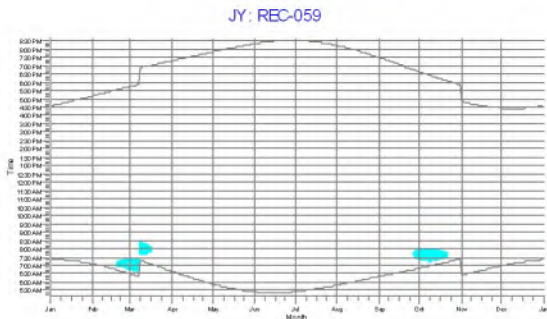
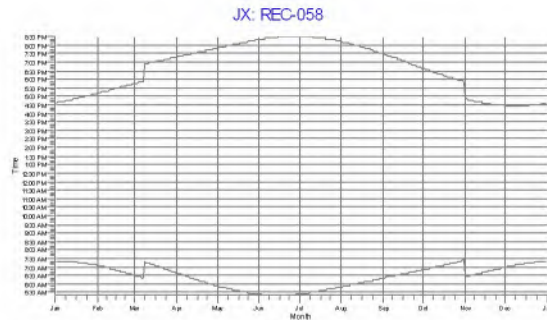
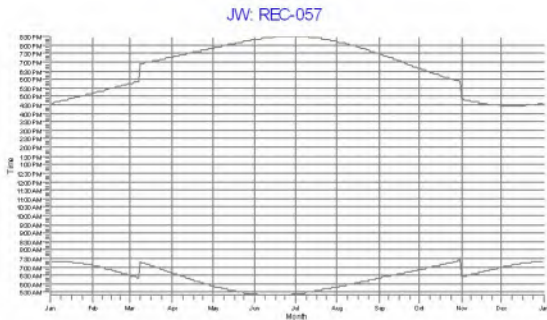
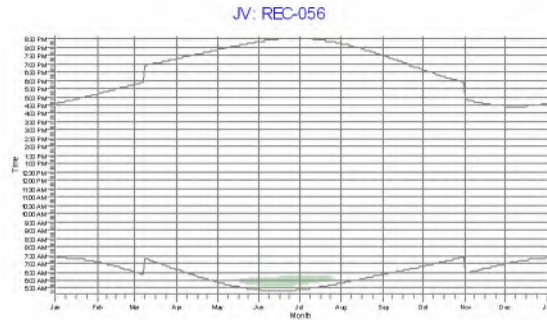
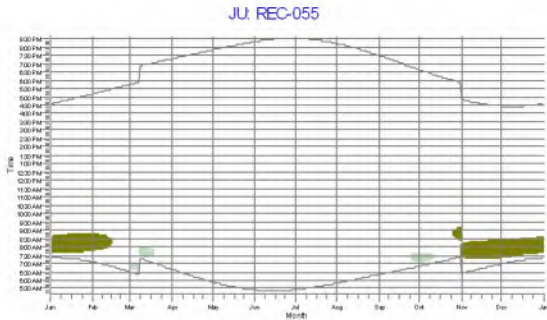
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 10: L18
 13: L24
 14: L26

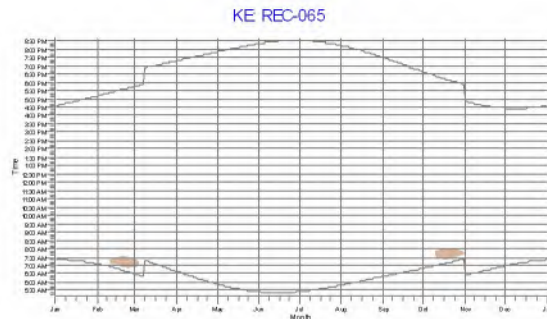
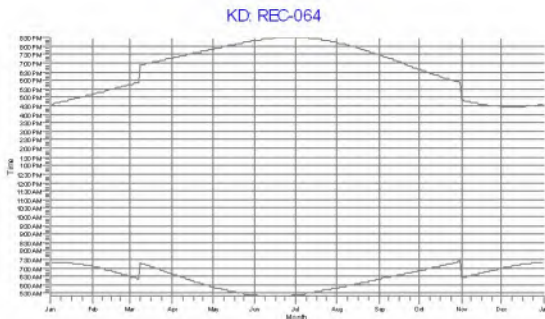
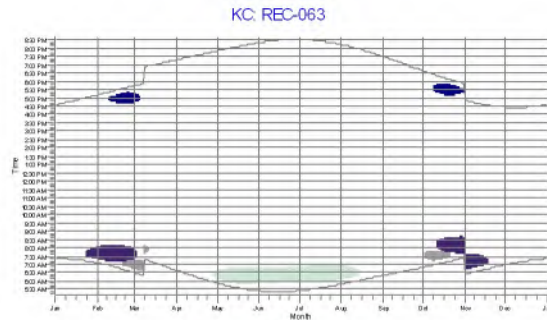
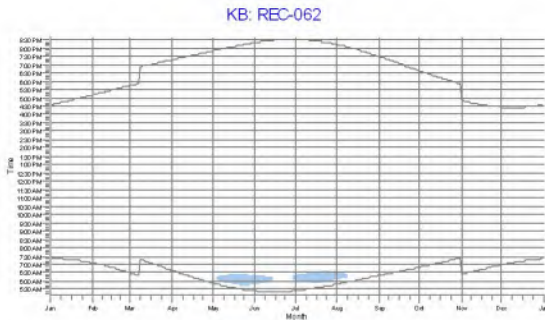
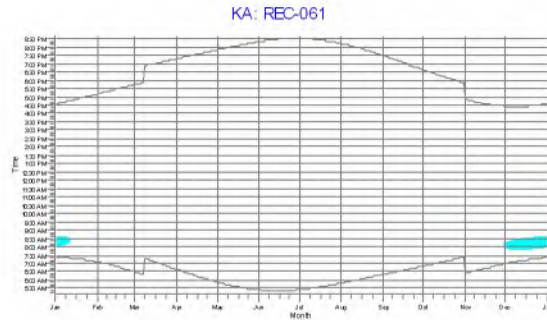
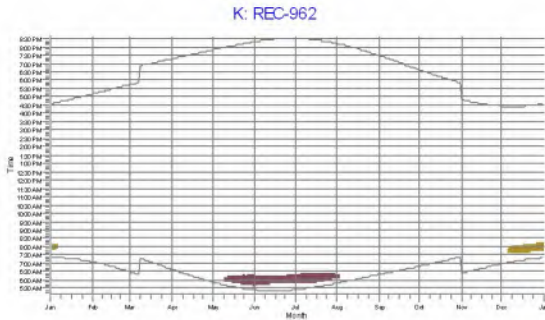
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

7: L13 13: L24 15: L27 16: L28 17: L29 61: L99 68: L111 78: K12 79: K13

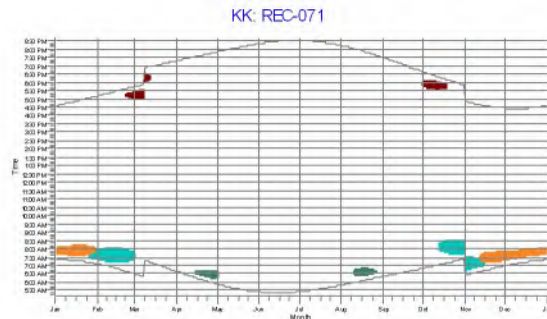
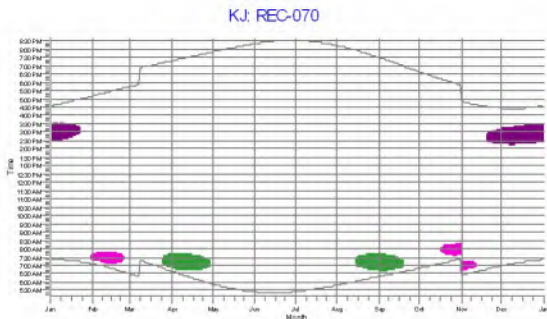
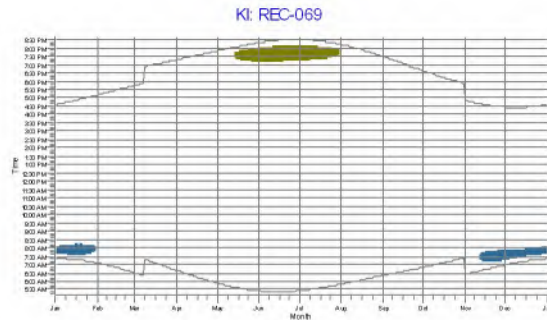
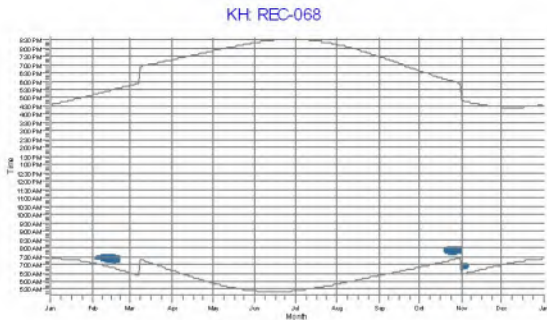
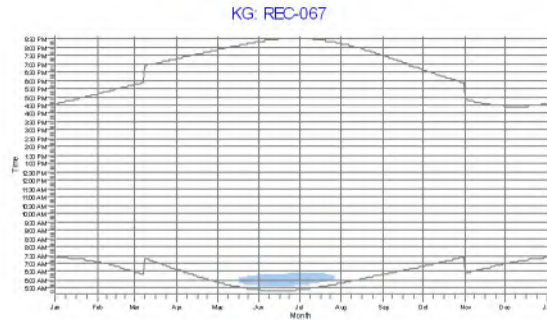
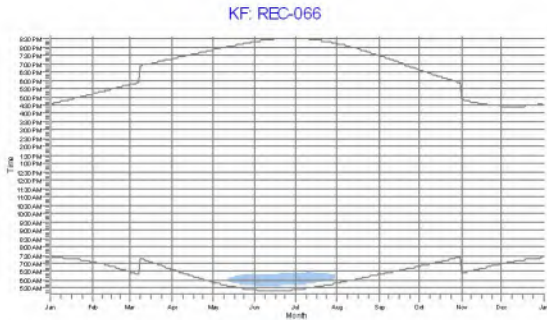
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

8: L16 10: L18 11: L20 15: L27 20: L32 21: L33 22: L34 23: L35 24: L37 29: L43

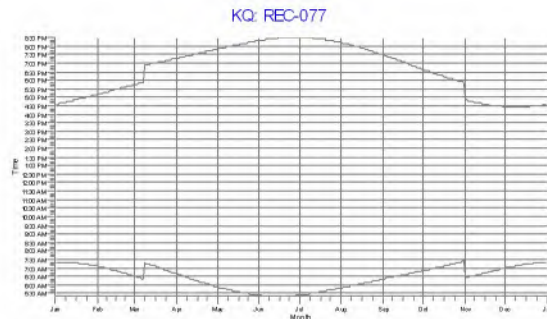
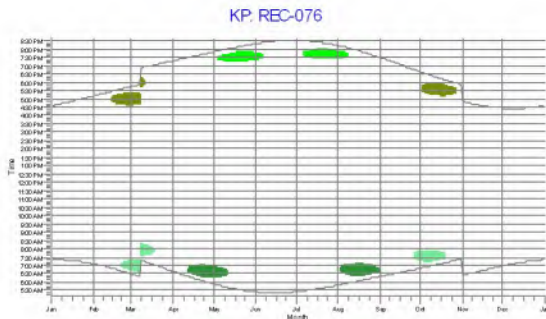
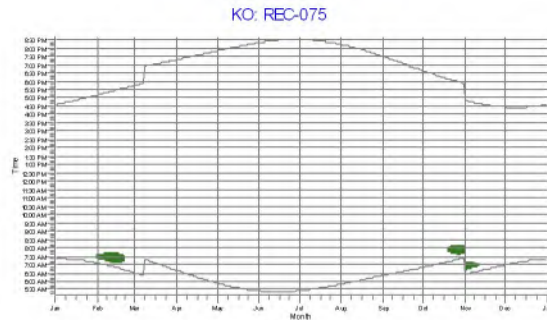
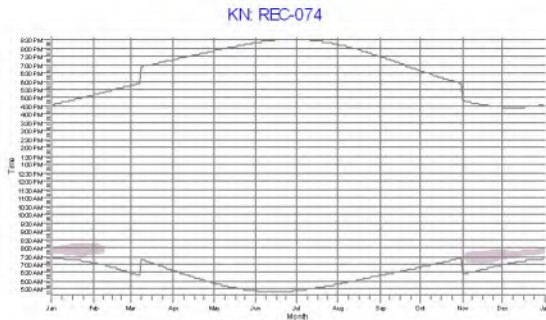
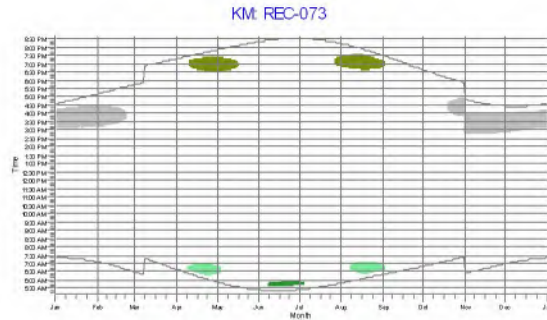
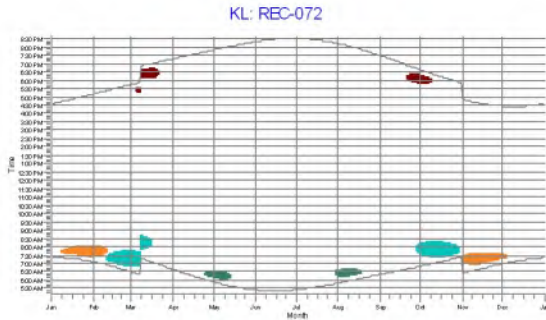
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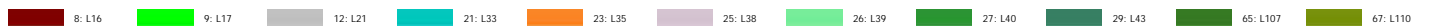
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs



Project:
132138 - Pattern - Heritage Prairie Wind_v6

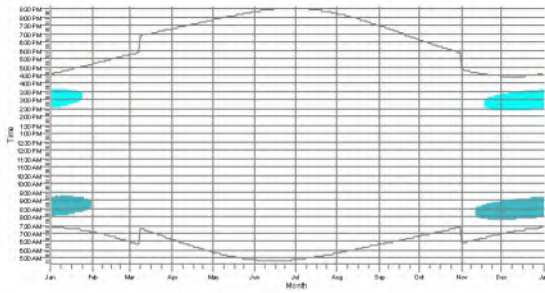
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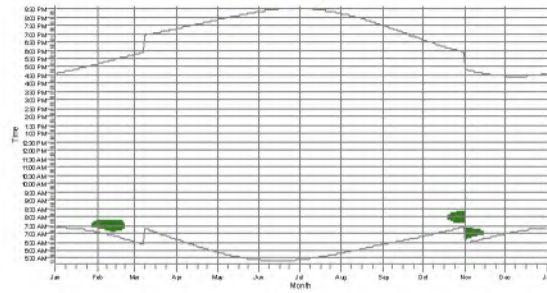
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

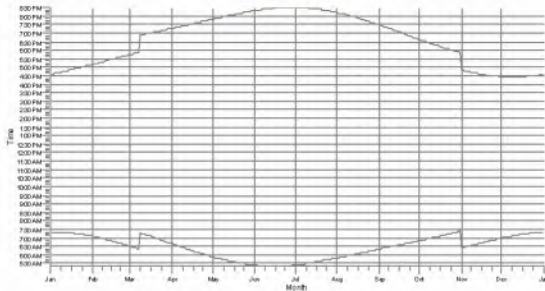
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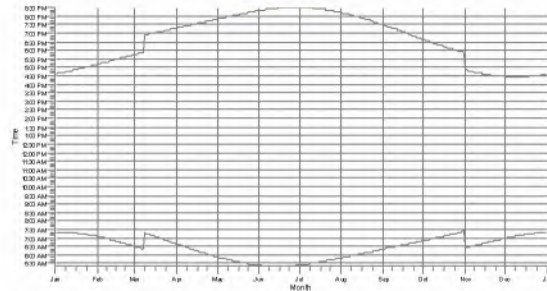
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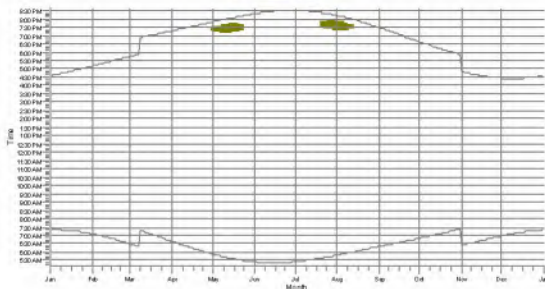
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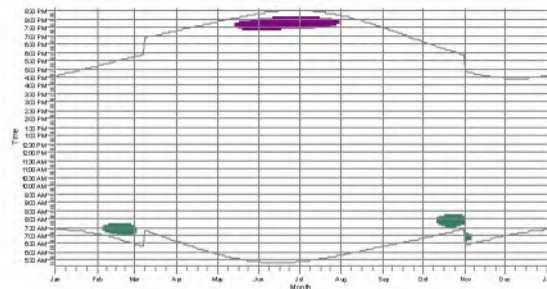
KU: REC-081



KV: REC-082



KW: REC-083



WTGs

10: L18 11: L20 13: L24 19: L31 29: L43 65: L107

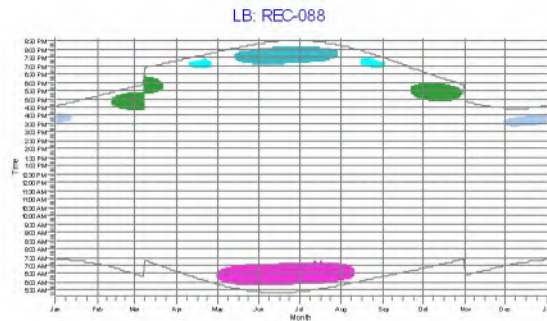
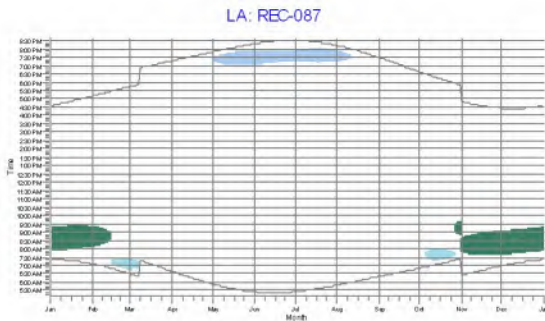
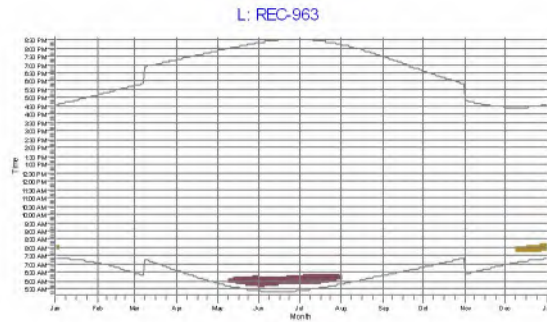
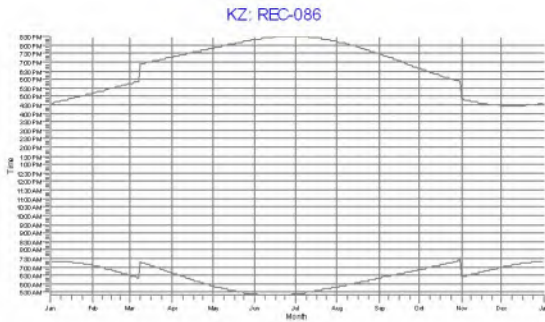
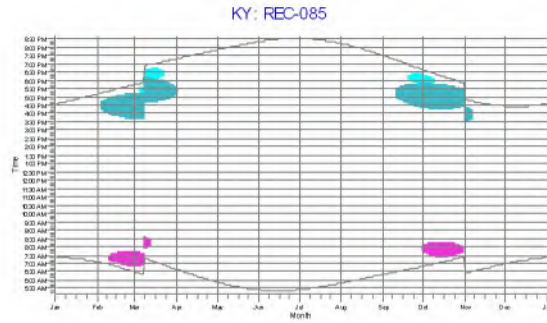
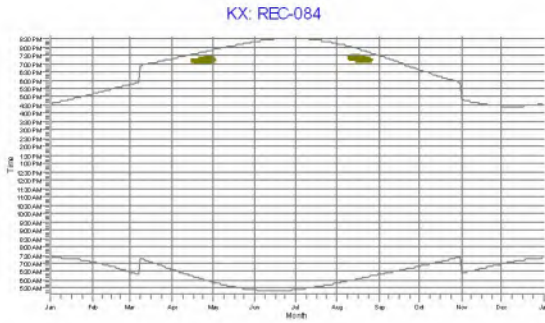
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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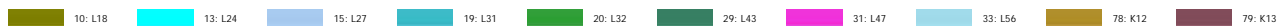
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs



Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

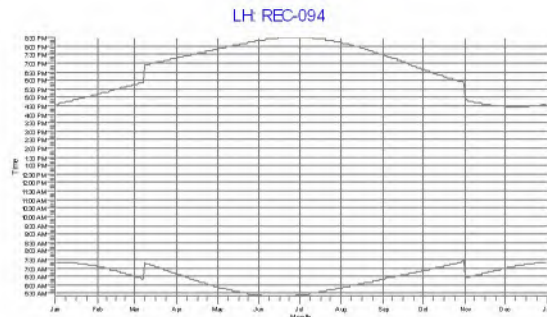
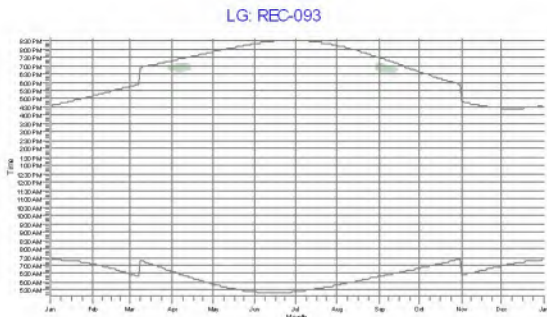
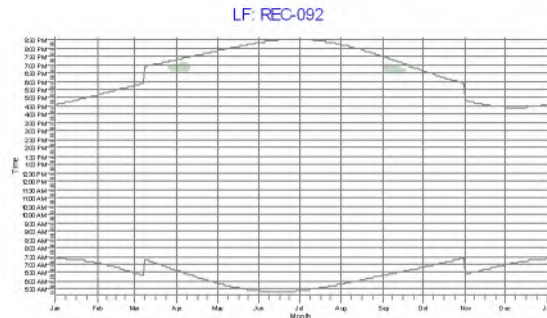
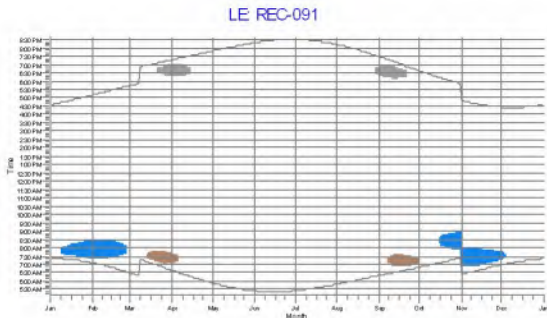
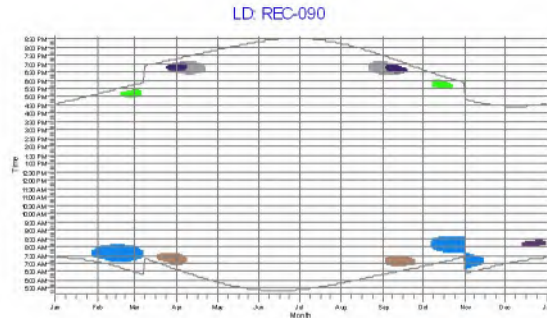
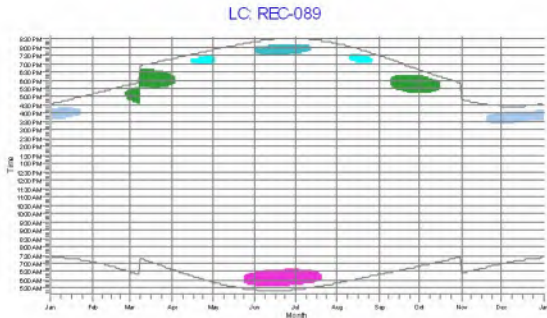
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

13: L24	15: L27	18: L30	20: L32	62: L104	64: L106
14: L26	16: L28	19: L31	31: L47	63: L105	68: L111

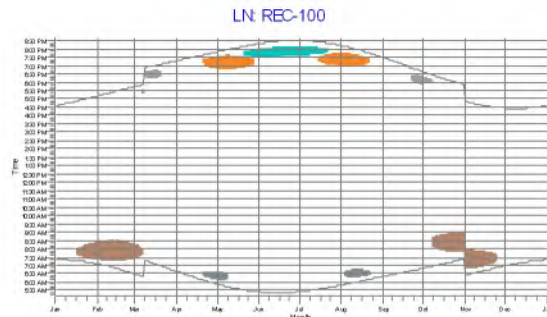
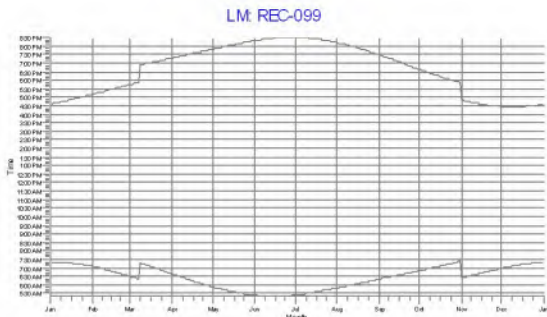
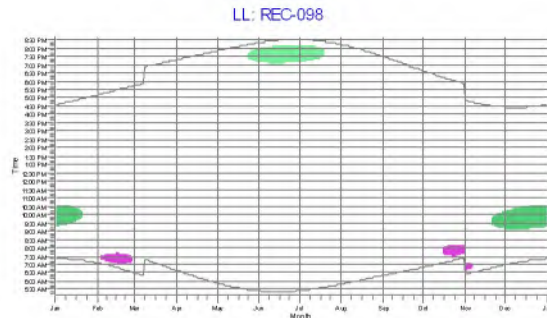
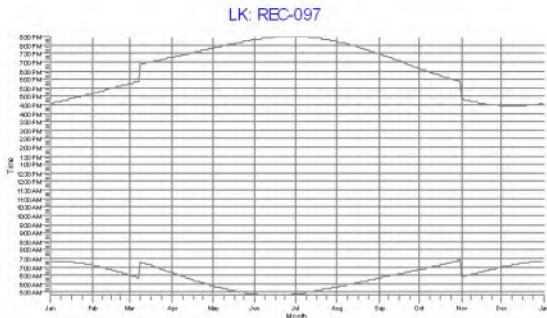
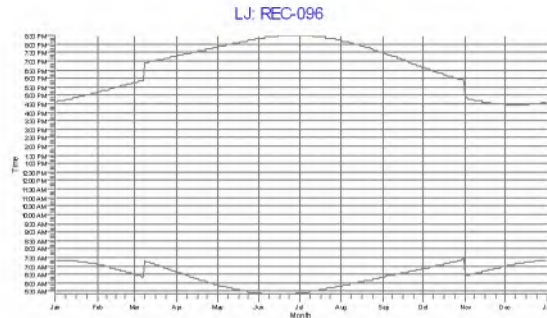
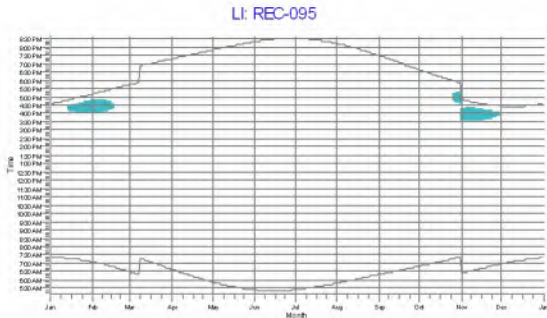
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs



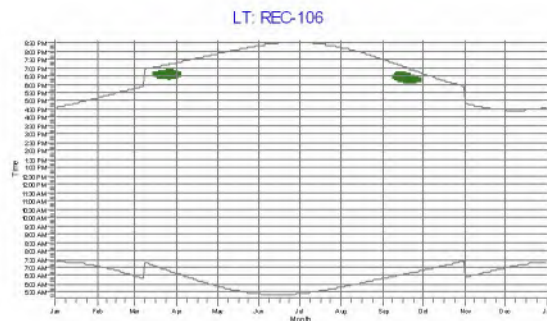
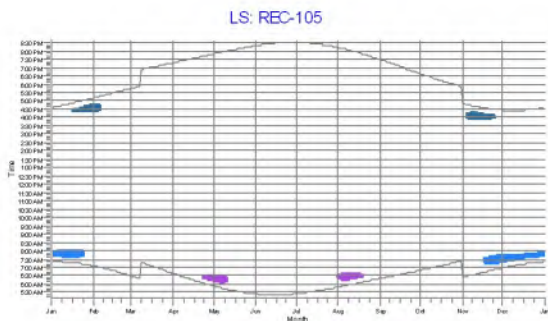
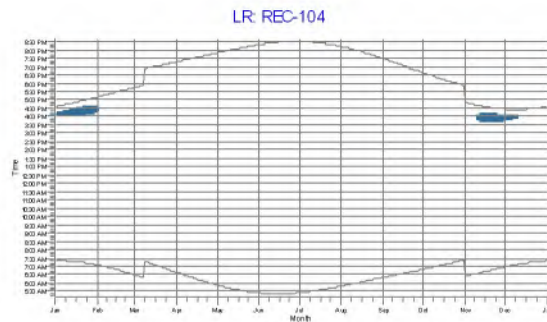
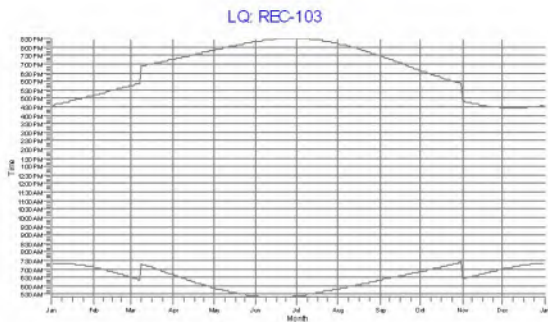
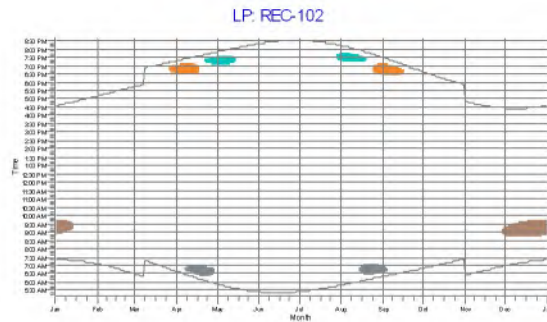
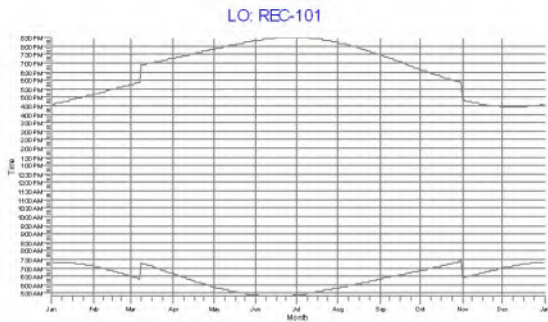
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

- 21: L33
- 22: L34
- 23: L35
- 38: L63
- 39: L64
- 43: L69
- 64: L106
- 65: L107

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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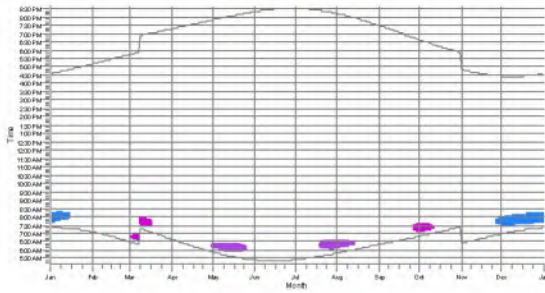
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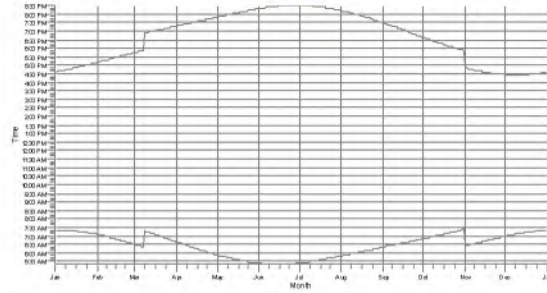
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

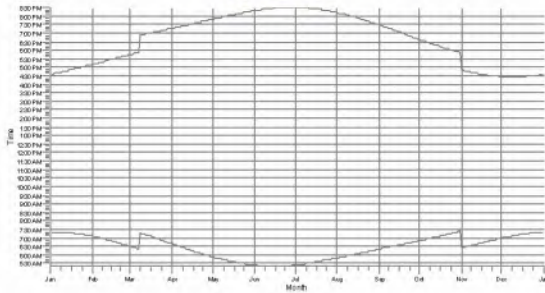
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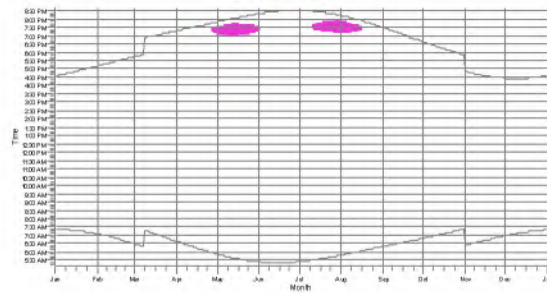
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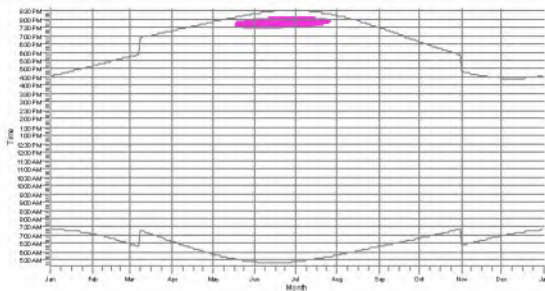
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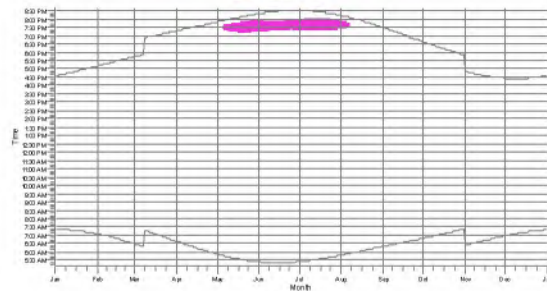
LX: REC-110



LY: REC-111



LZ: REC-112



WTGs

31: L47
 39: L64
 41: L66
 43: L69

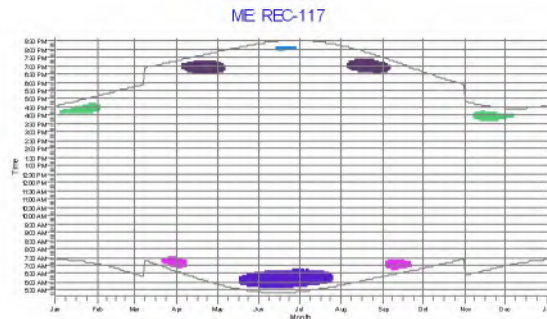
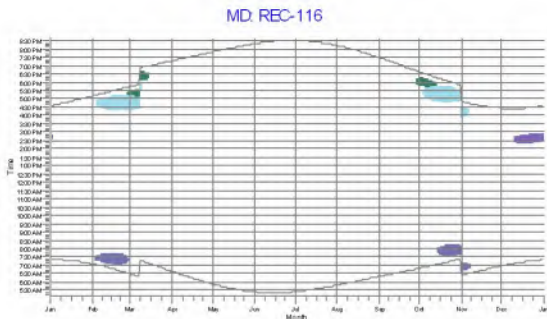
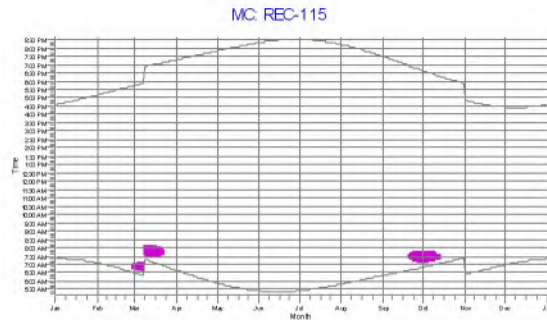
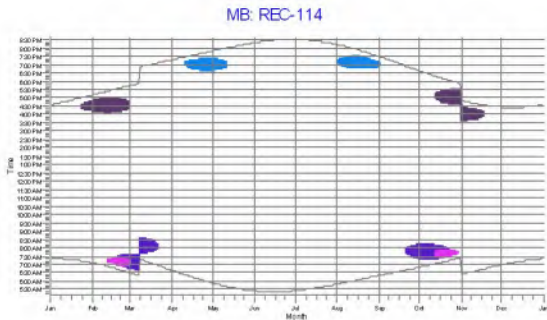
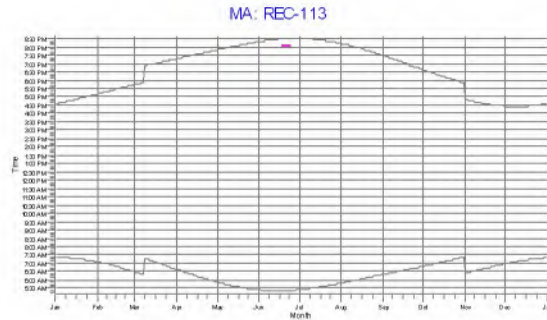
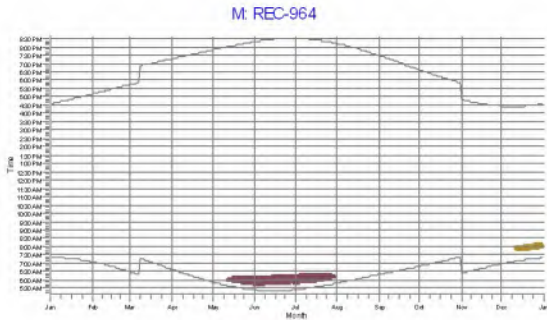
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

 28: L42	 31: L47	 34: L58	 42: L68	 62: L104	 69: L113	 79: K13
 29: L43	 33: L56	 41: L66	 47: L74	 63: L105	 78: K12	

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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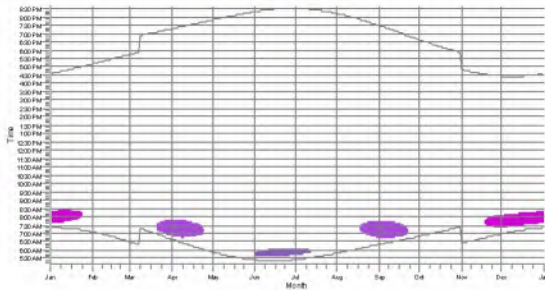
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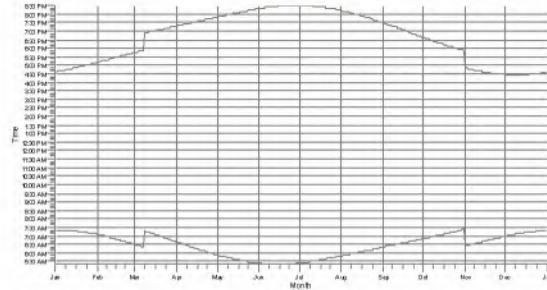
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

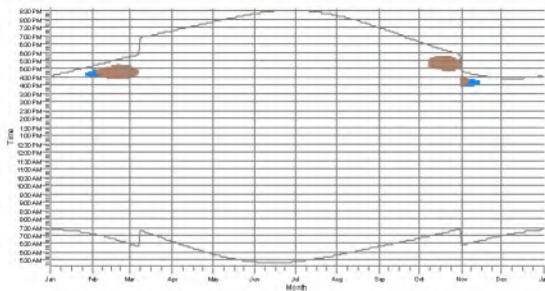
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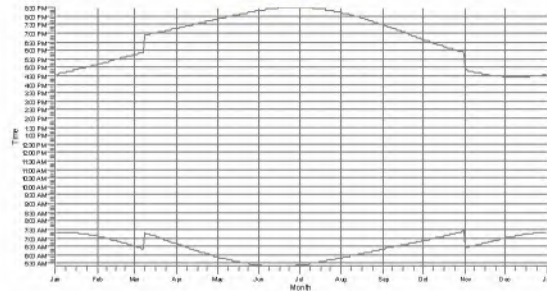
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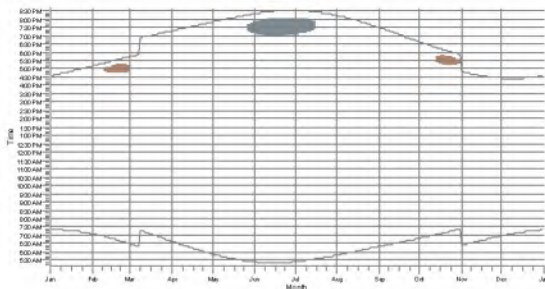
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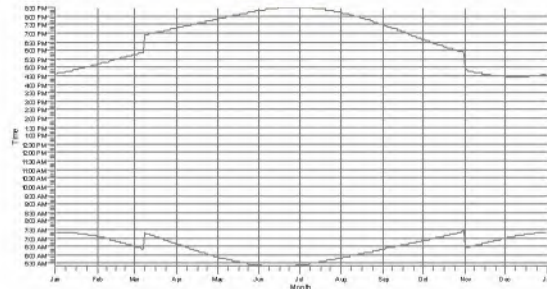
M REC-121



MJ REC-122



MK REC-123



WTGs



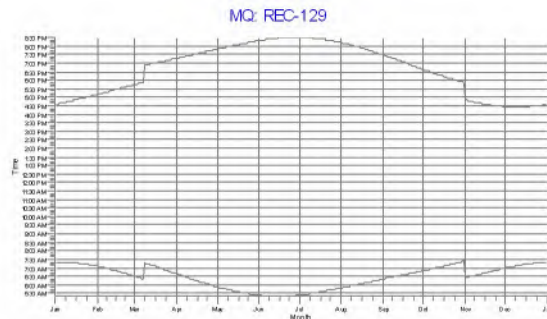
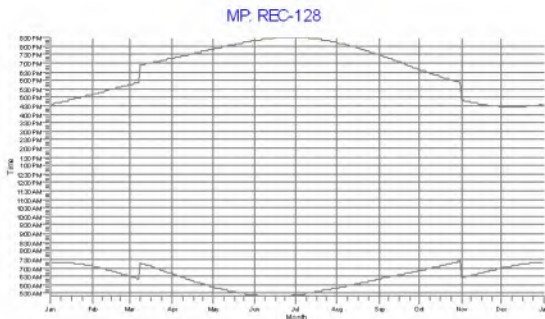
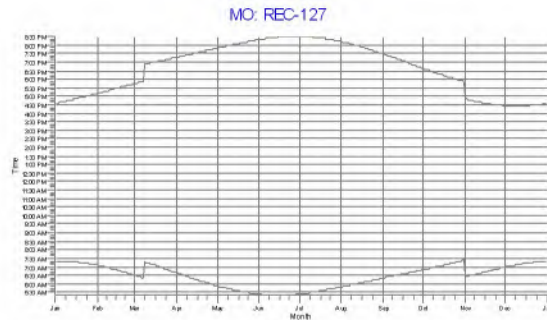
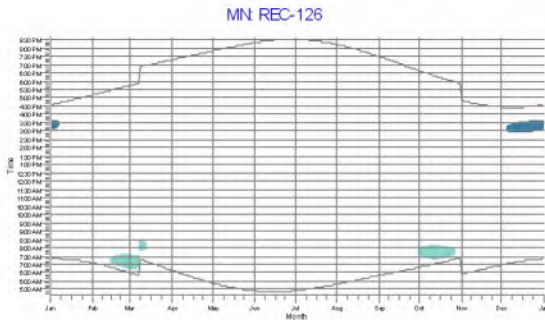
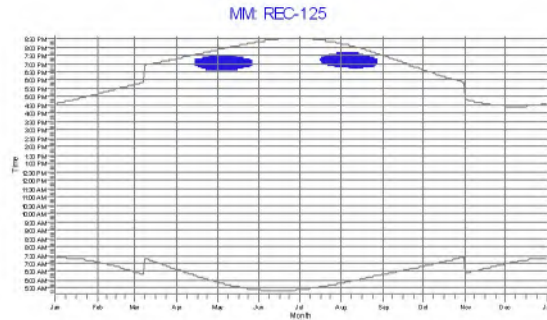
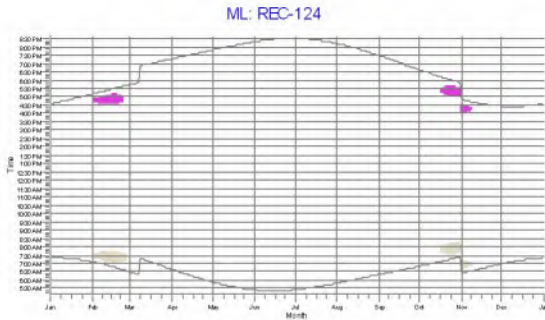
Project:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

35: L60 36: L61 37: L62 48: L76 49: L77

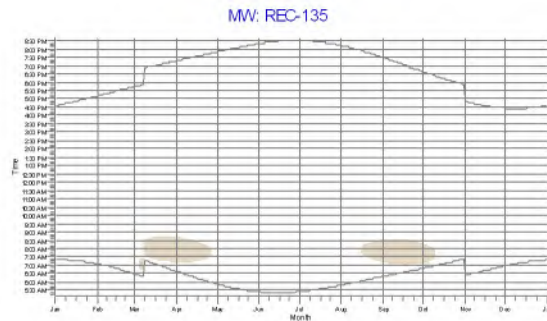
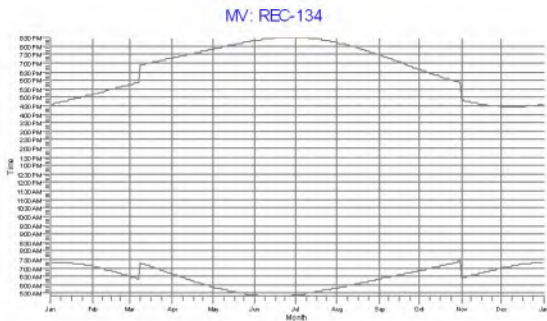
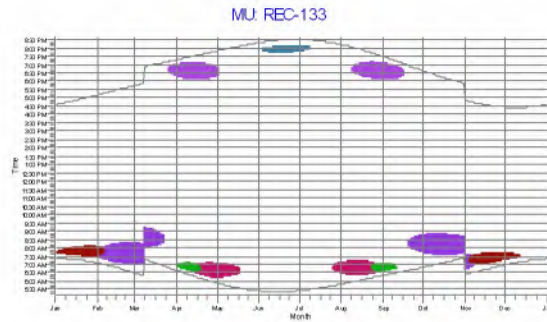
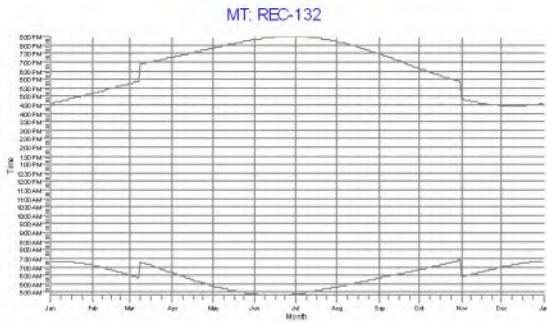
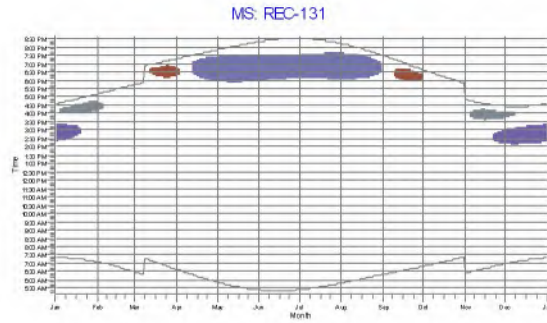
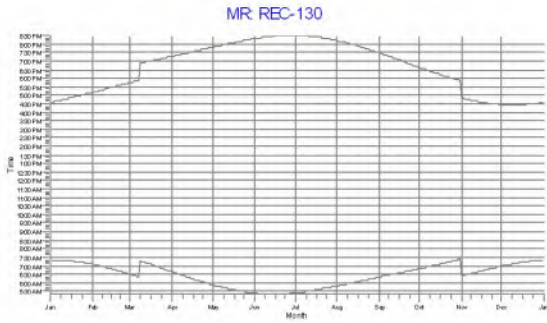
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

- 37: L62
- 38: L63
- 40: L65
- 43: L69
- 44: L70
- 46: L73
- 49: L77
- 50: L79
- 51: L80
- 54: L86
- 69: L113

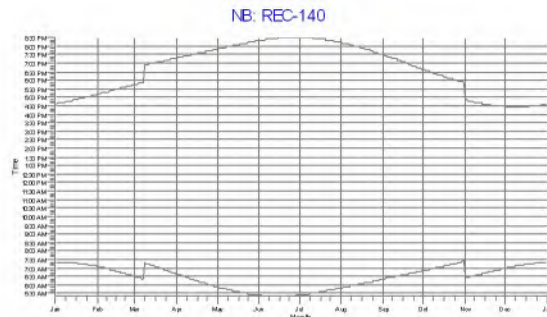
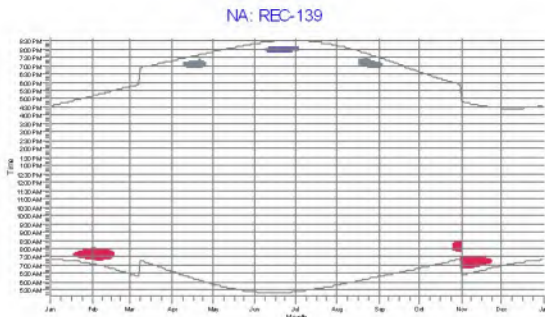
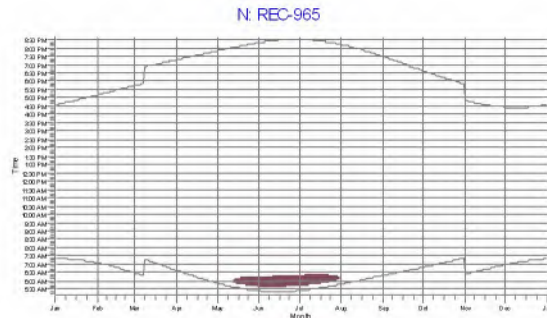
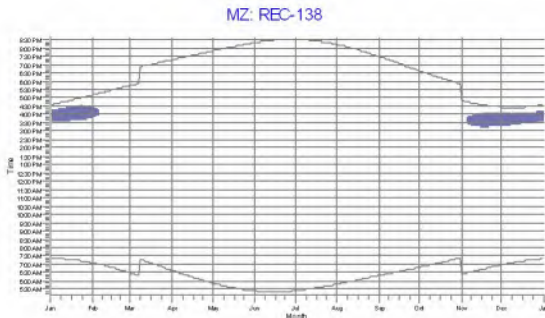
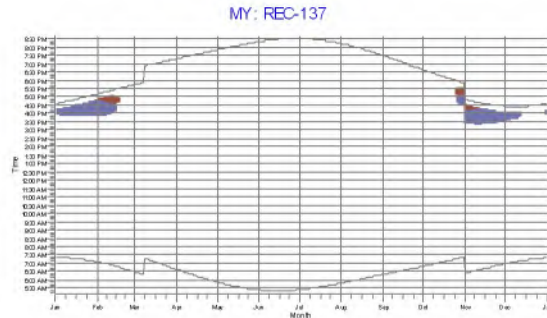
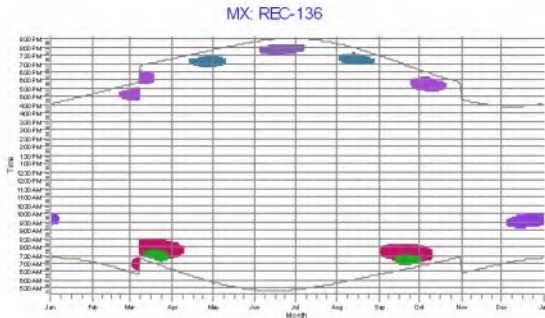
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SHADOW - Calendar, graphical

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WTGs

37: L62	40: L65	44: L70	46: L73	53: L82	69: L113
38: L63	43: L69	45: L71	50: L79	54: L86	79: K13

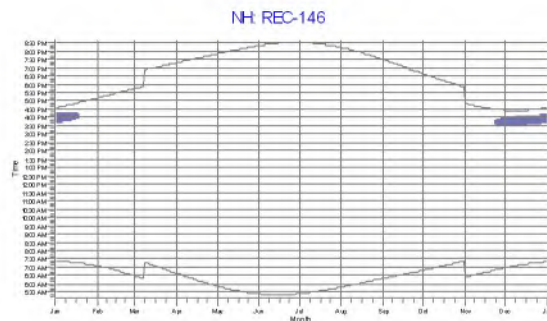
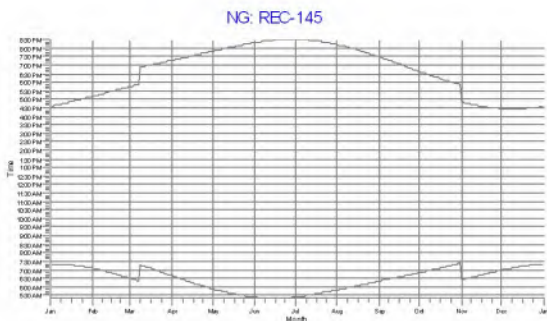
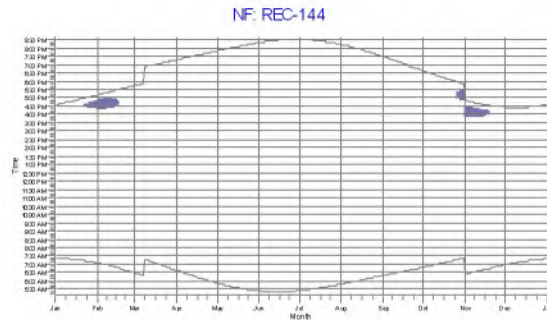
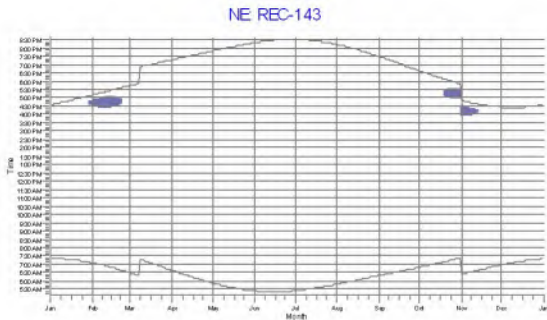
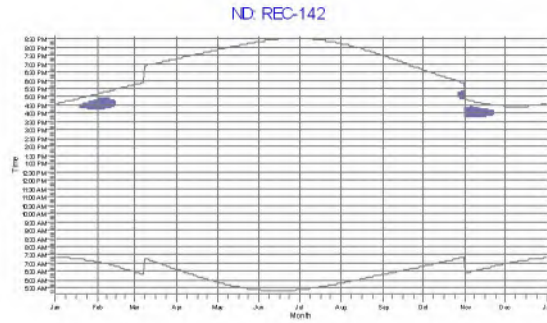
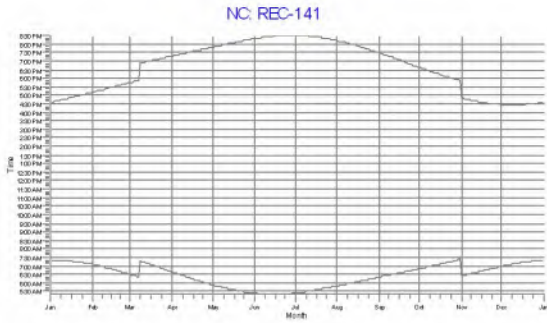
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
69: L113

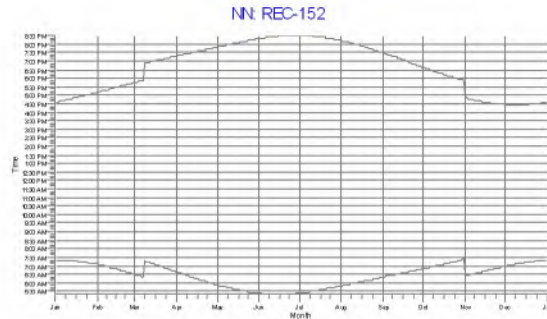
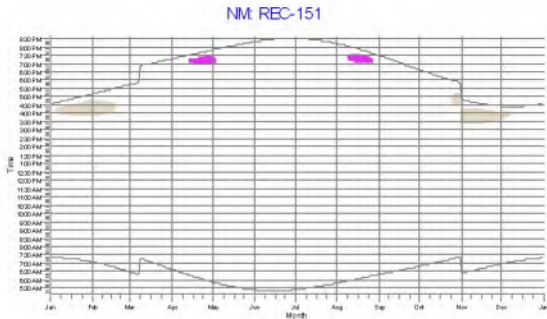
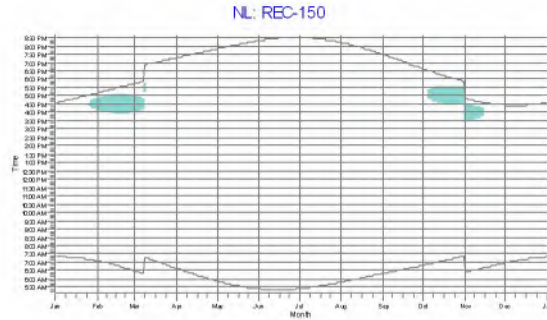
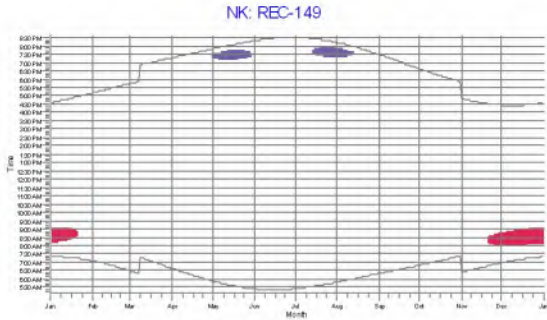
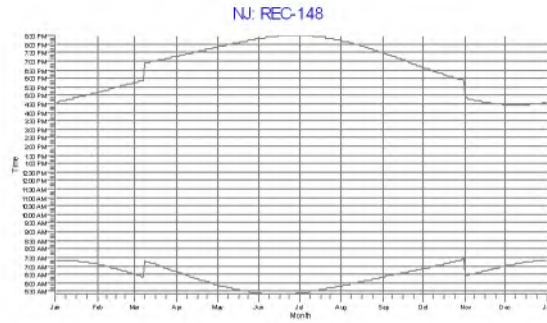
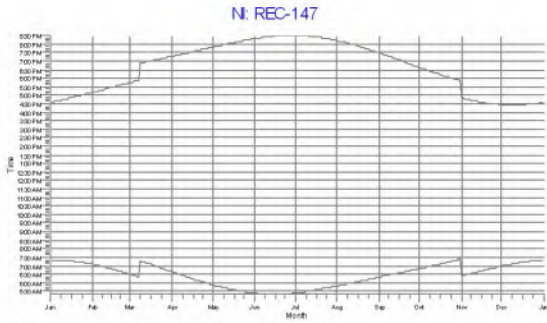
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

44: L70 47: L74 48: L76 49: L77 53: L82

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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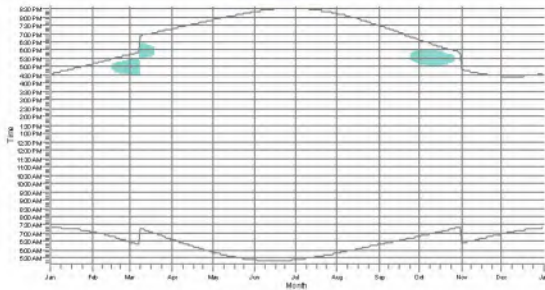
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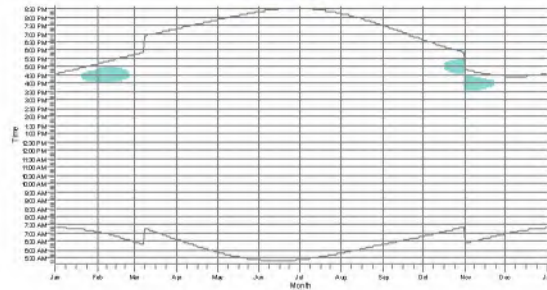
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

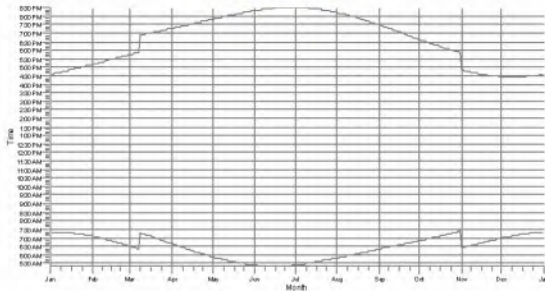
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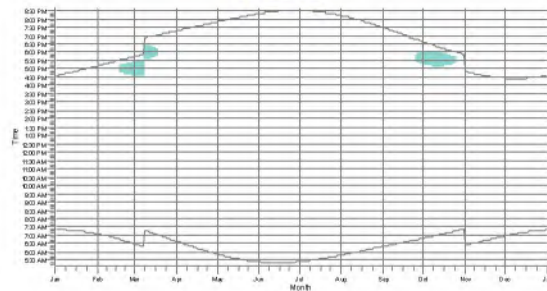
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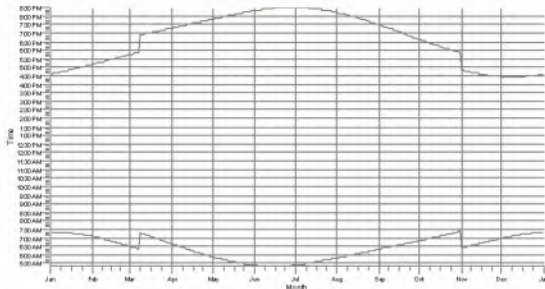
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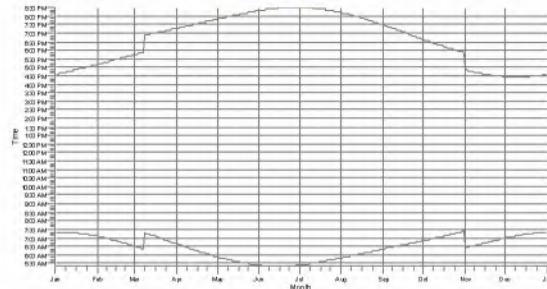
NR. REC-156



NS. REC-157



NT. REC-158



WTGs

48: L76

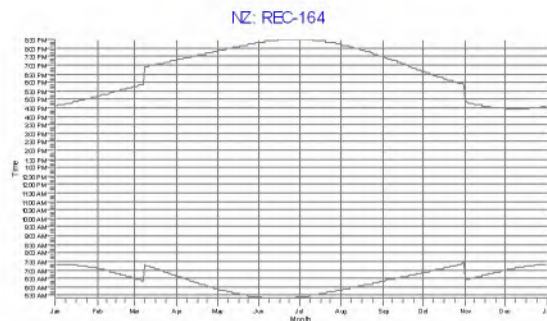
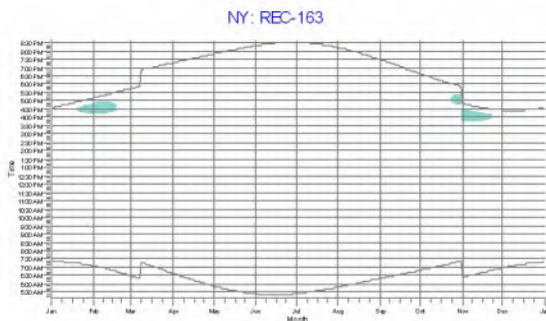
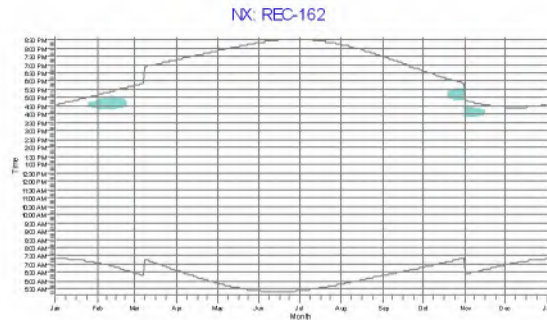
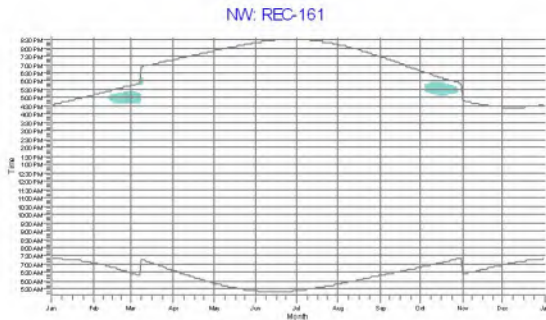
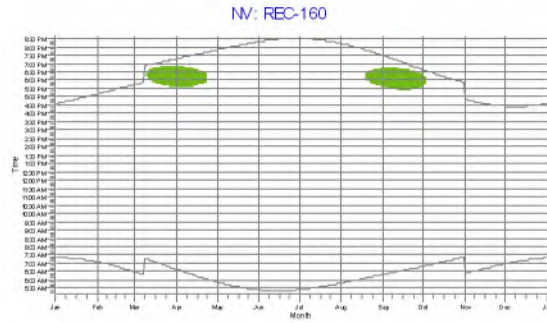
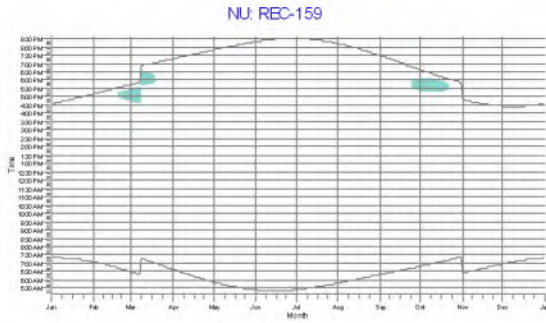
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

48: L76 52: L81

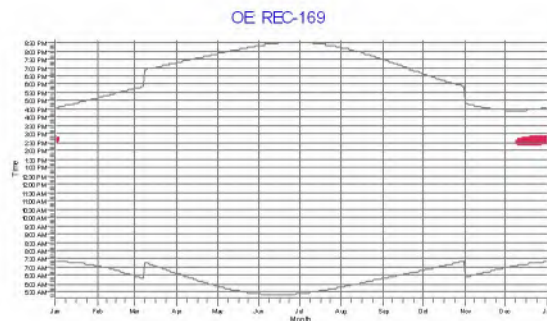
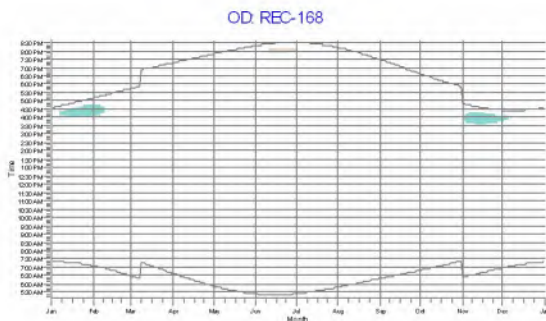
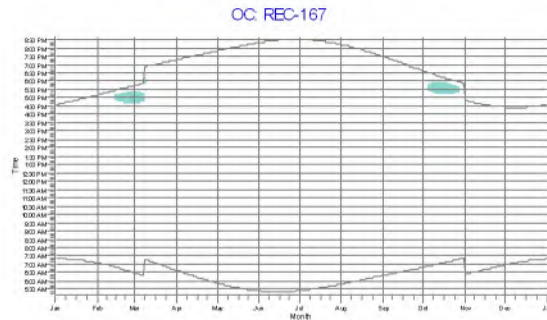
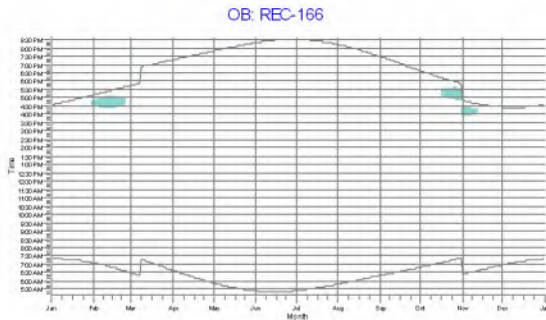
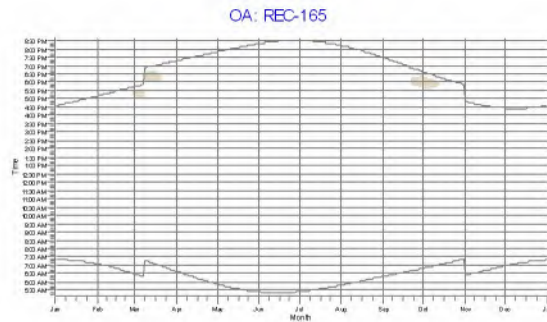
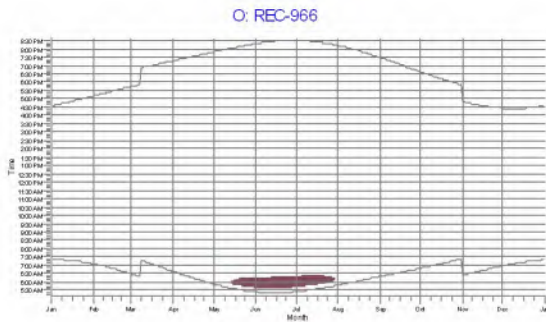
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

48: L76 49: L77 53: L82 79: K13

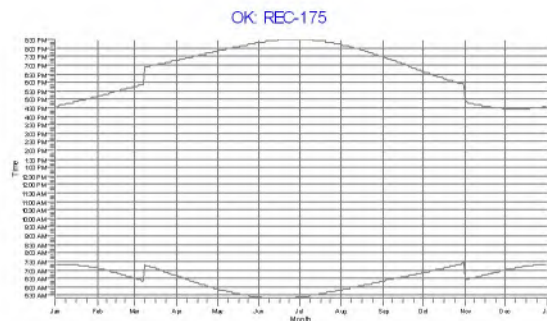
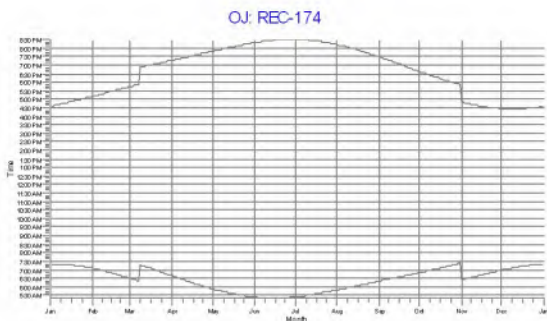
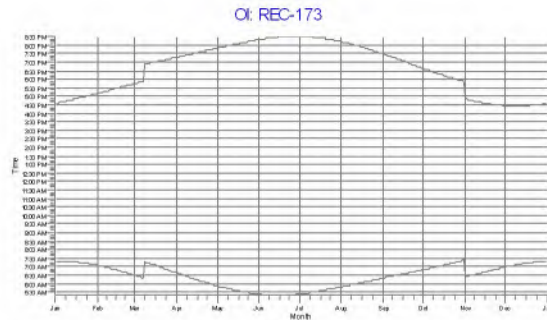
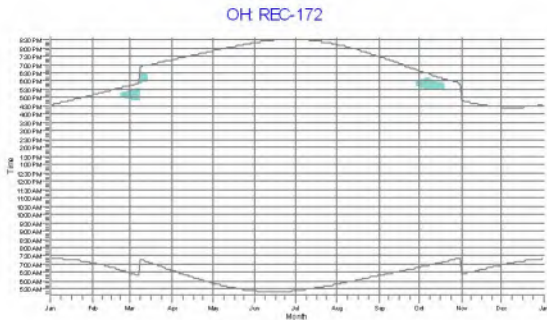
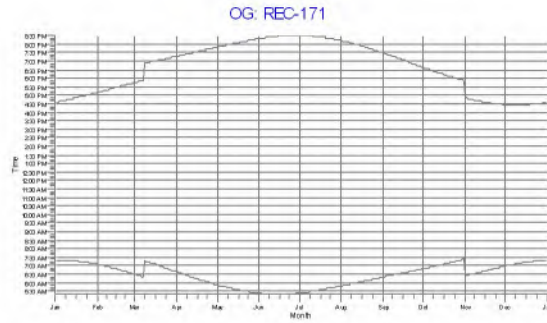
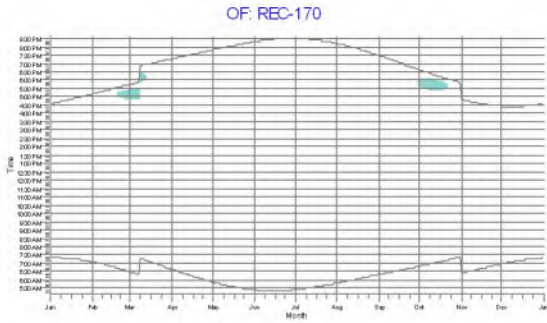
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
48: L76

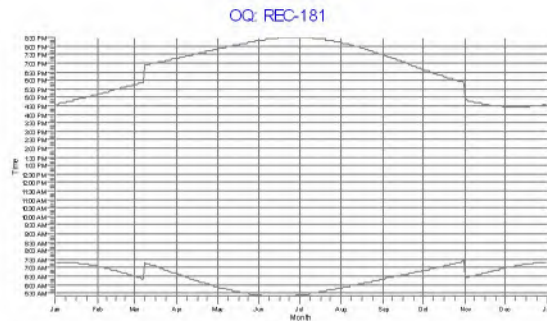
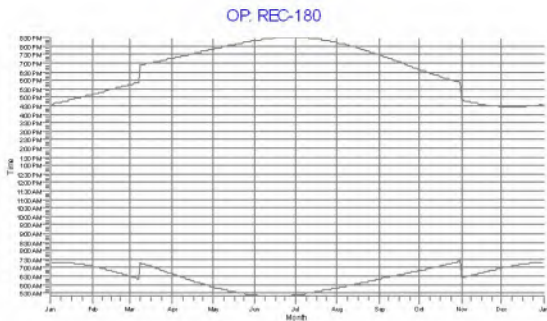
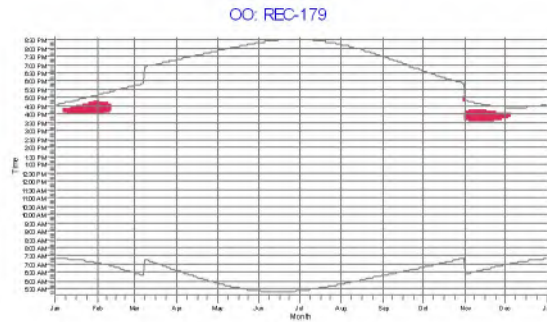
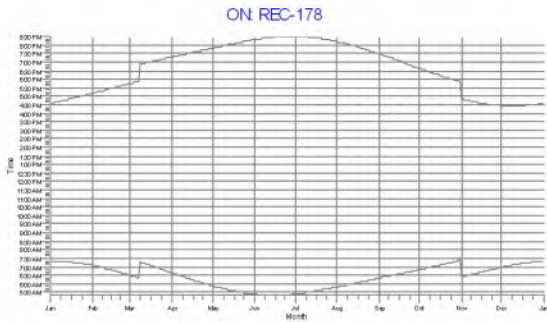
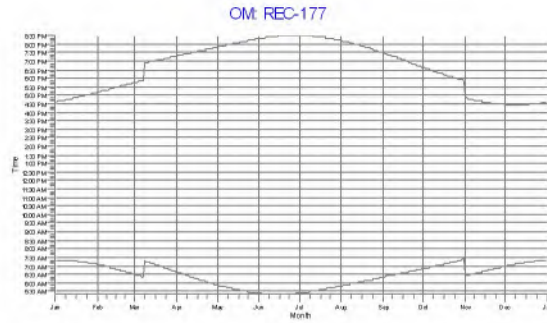
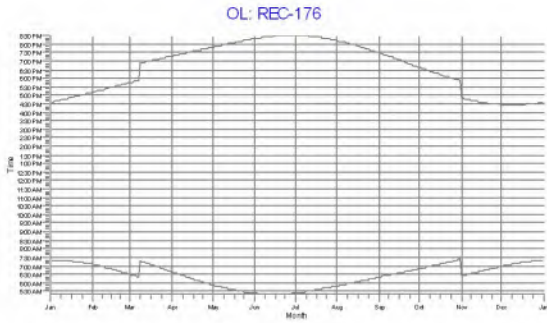
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
53: L82

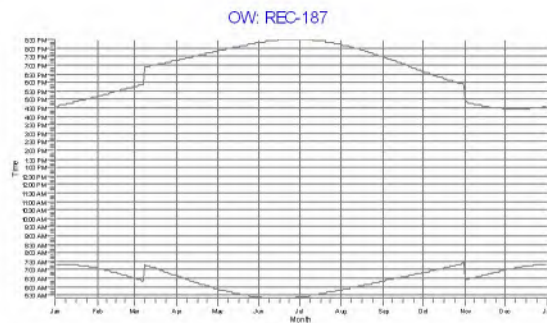
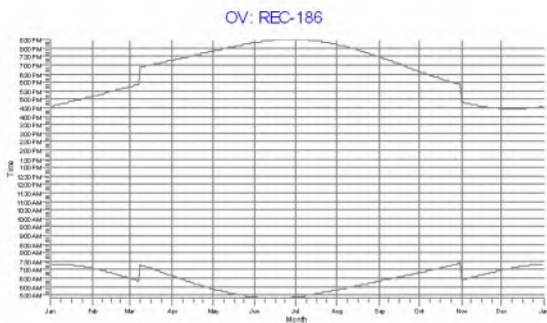
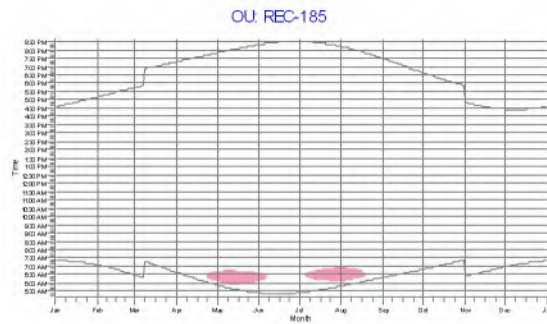
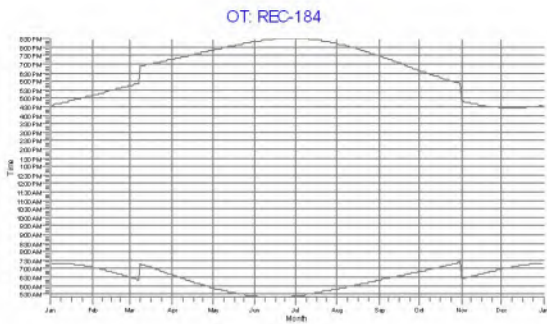
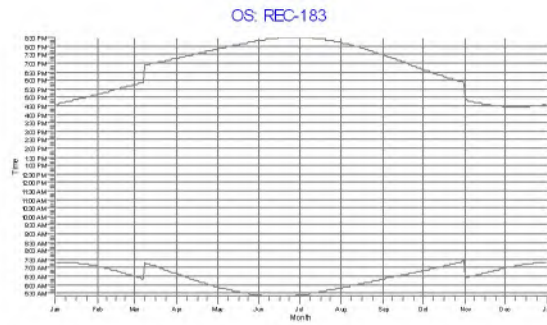
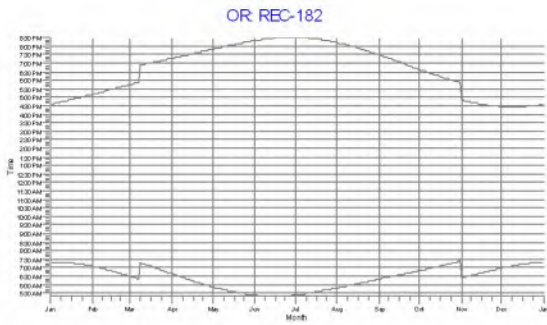
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
59: L97

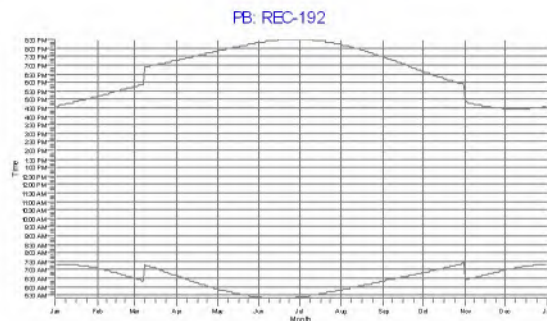
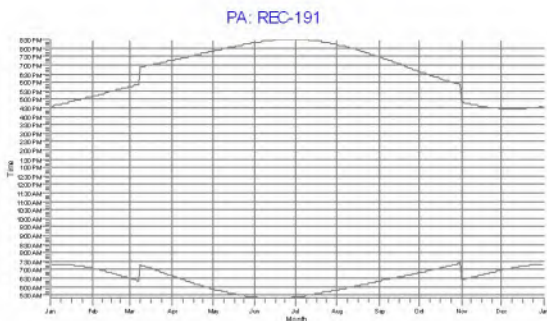
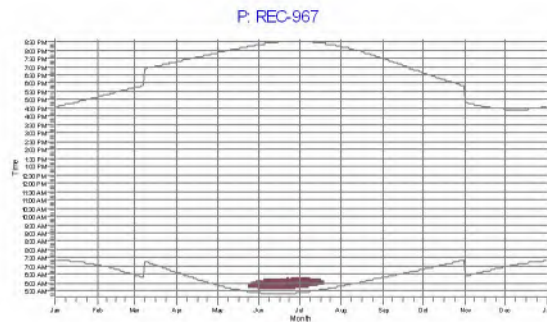
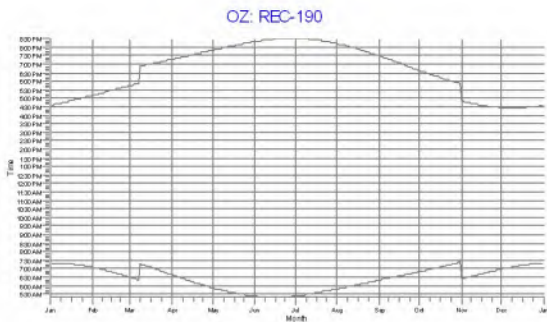
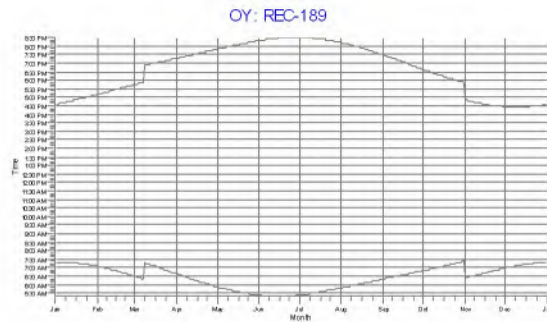
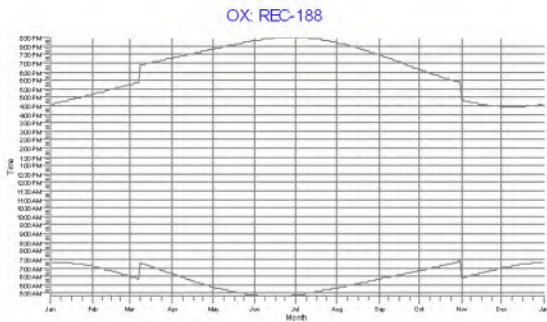
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

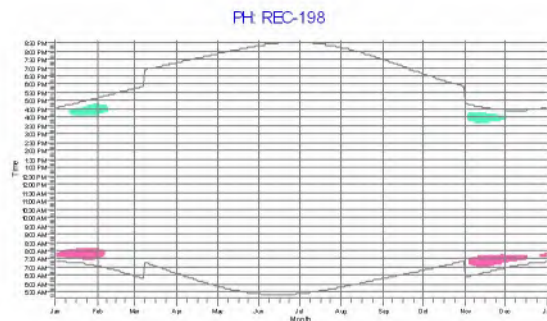
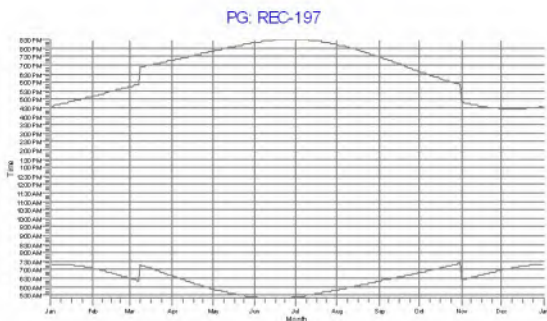
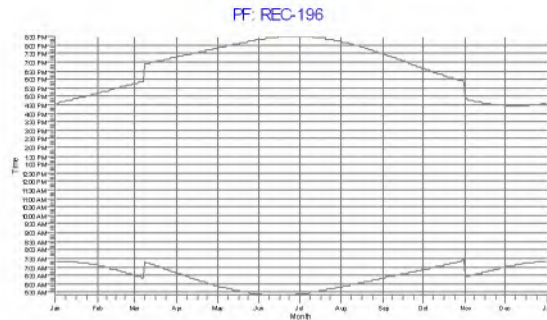
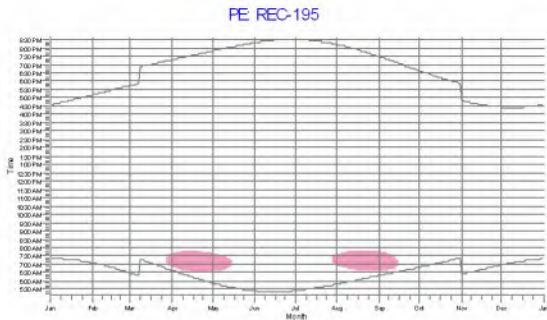
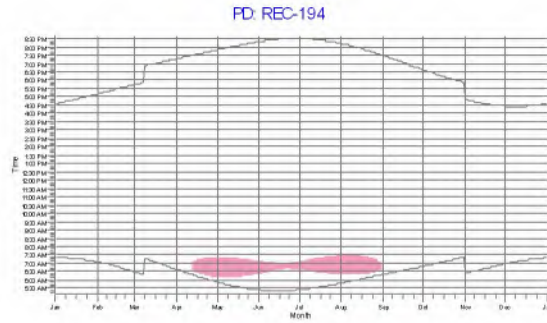
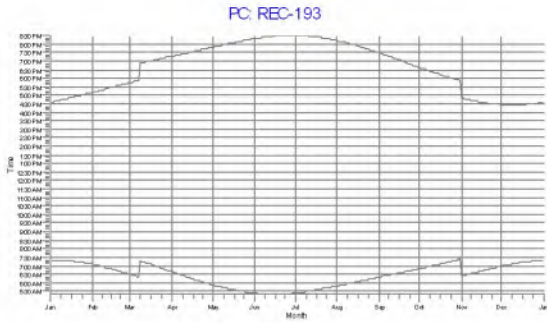
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

■ 56: L89
 ■ 59: L97
 ■ 60: L98

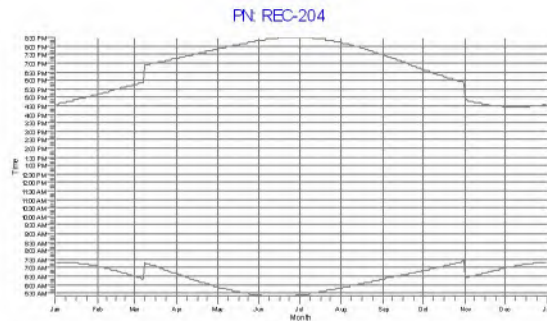
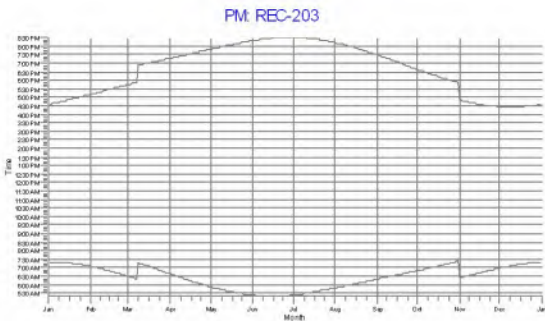
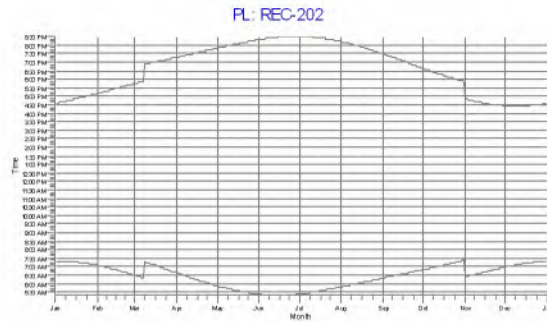
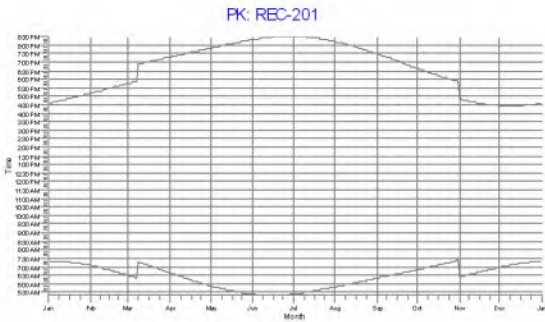
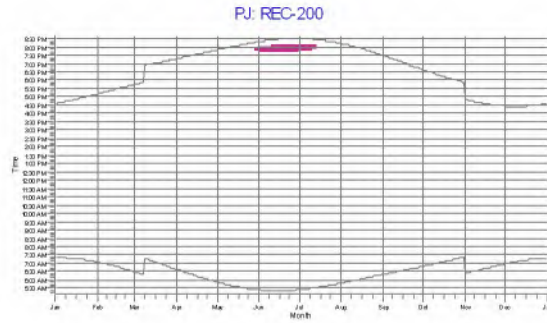
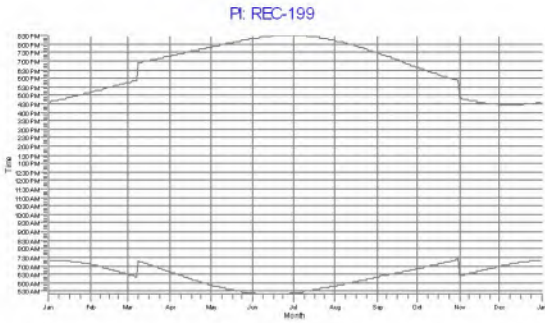
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
57: L91

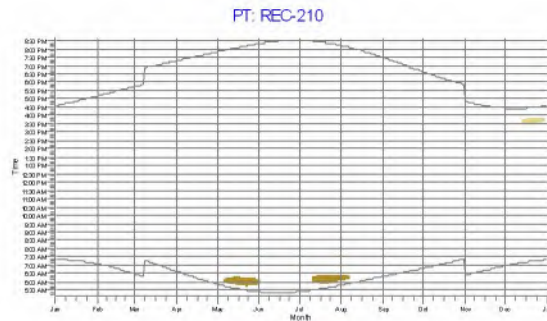
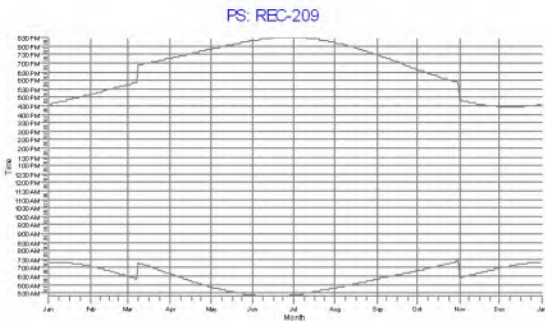
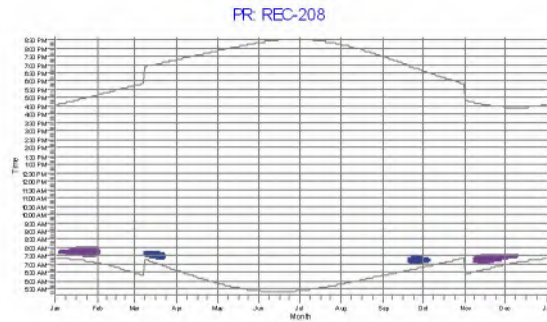
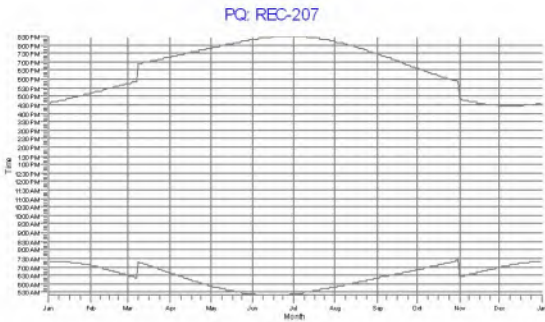
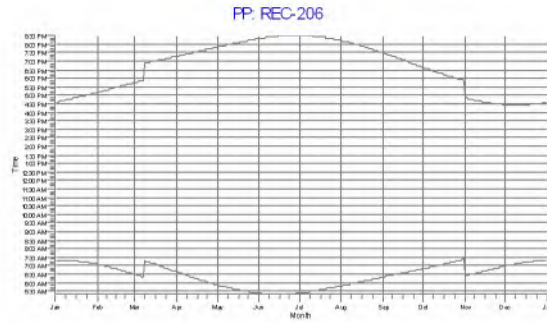
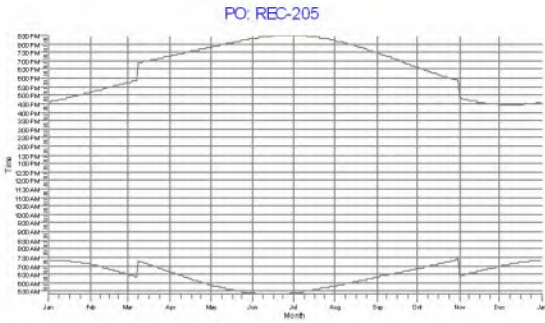
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

58: L95 75: K8 78: K12 130: K502

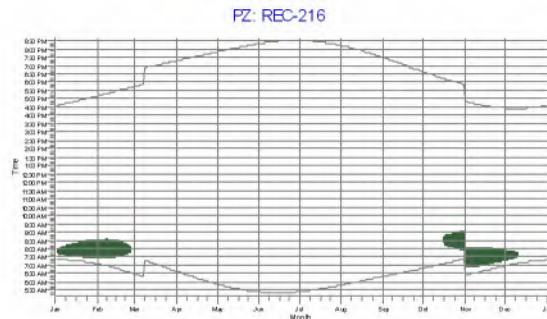
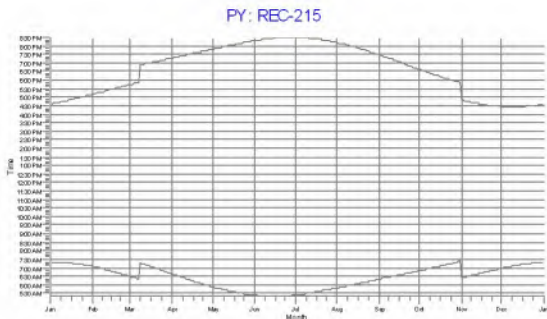
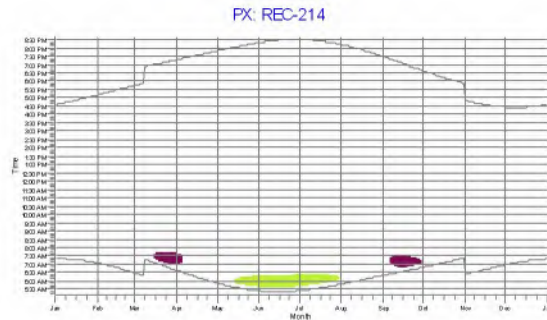
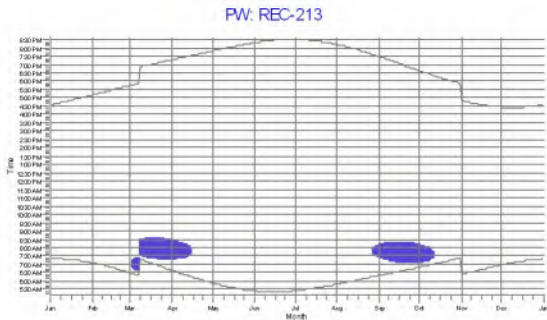
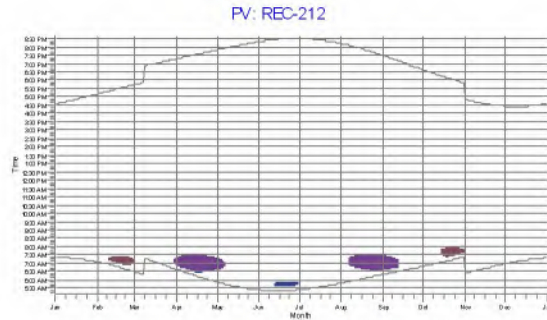
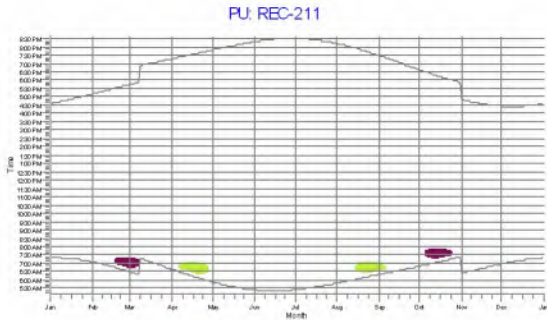
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

73: K6 75: K8 77: K11 79: K13 106: K84 107: K85 130: K502 136: K206

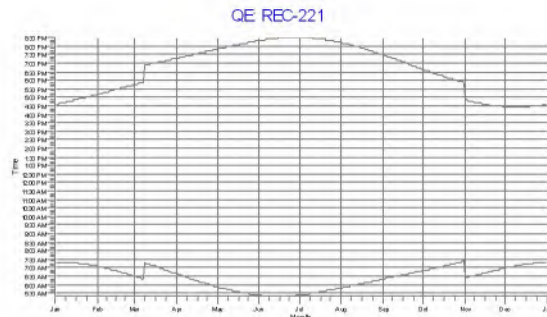
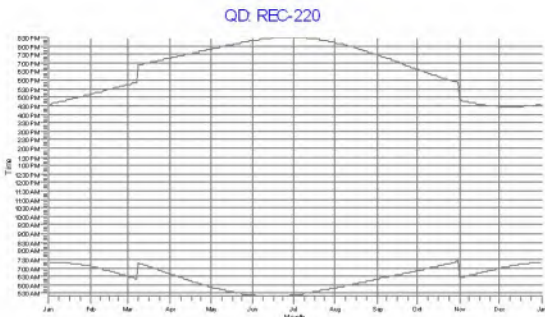
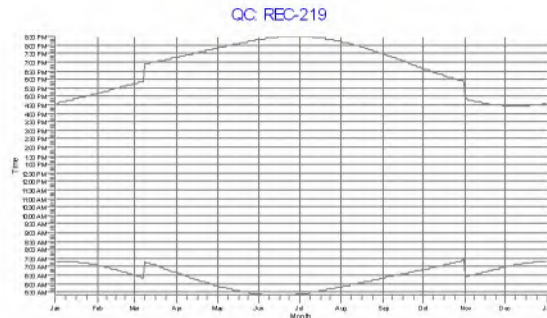
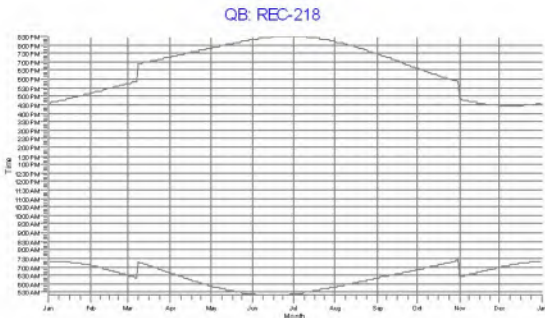
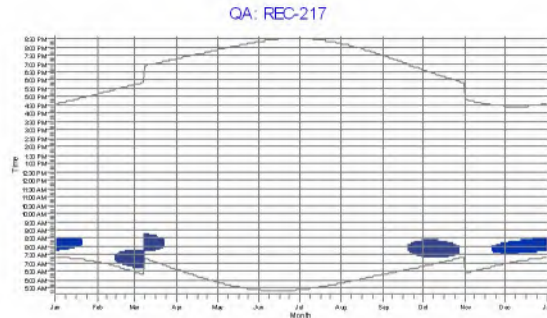
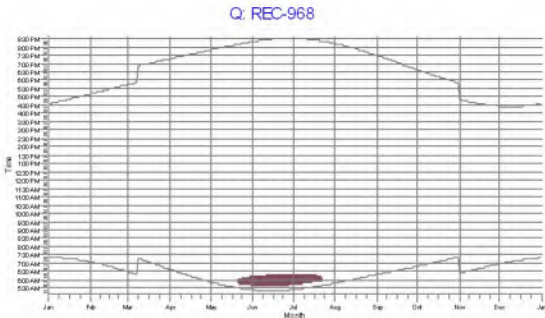
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

75: K8 77: K11 79: K13

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

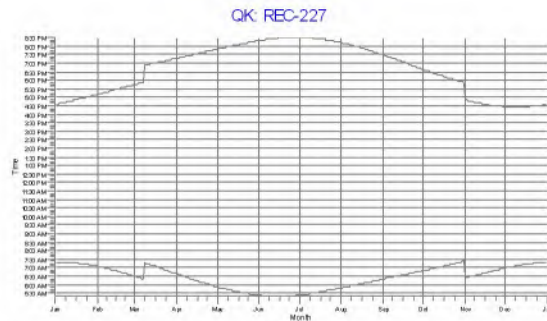
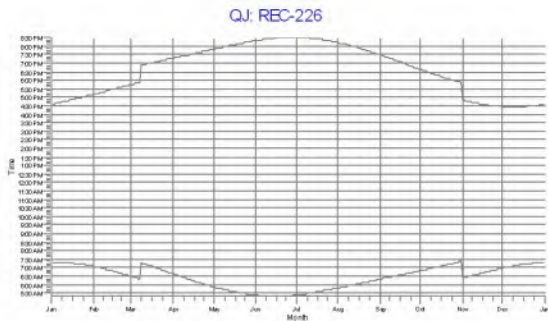
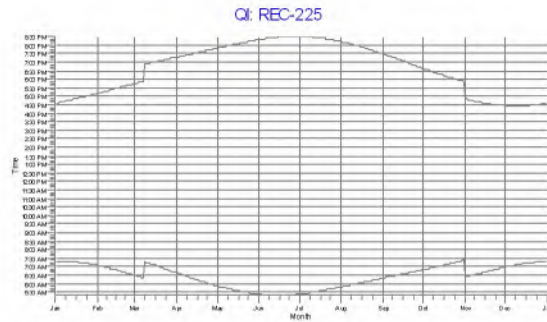
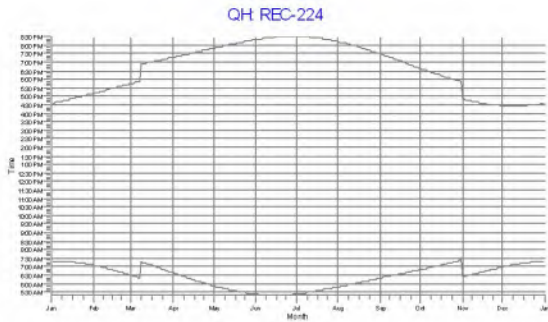
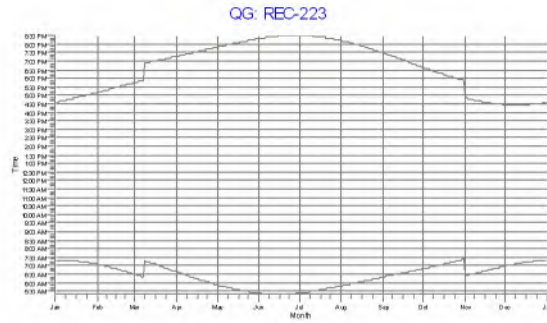
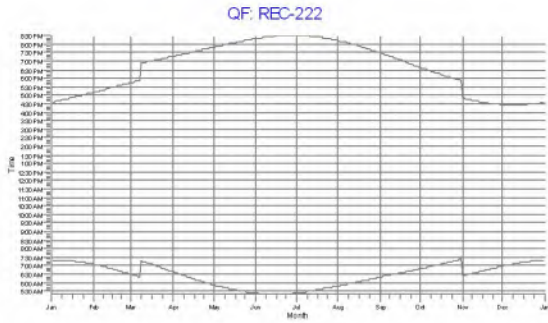
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

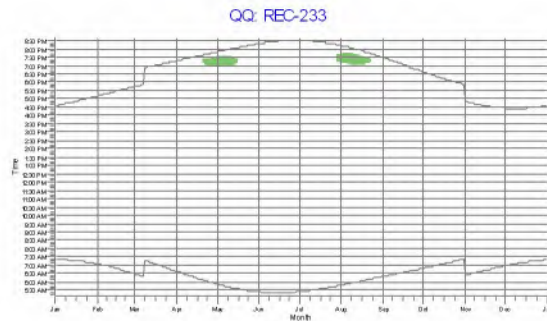
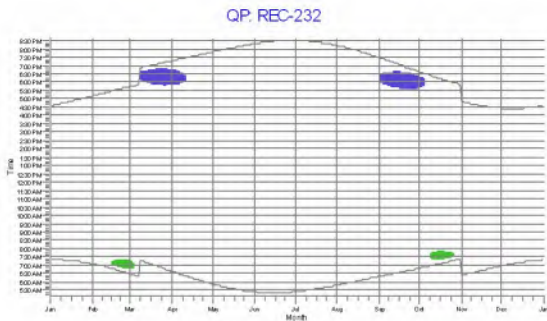
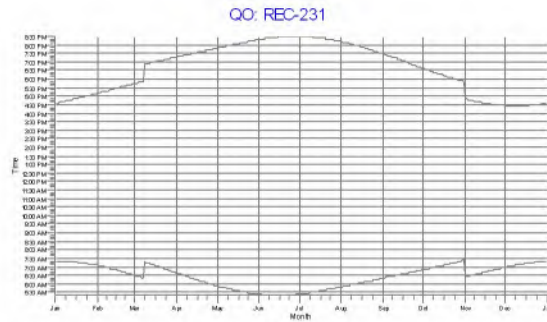
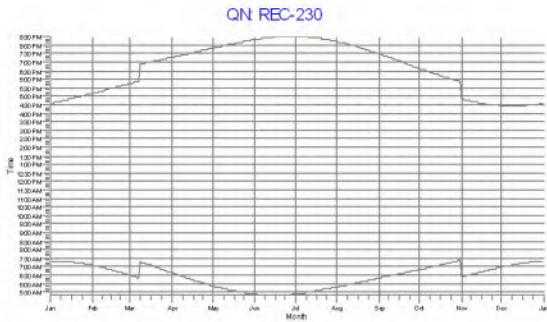
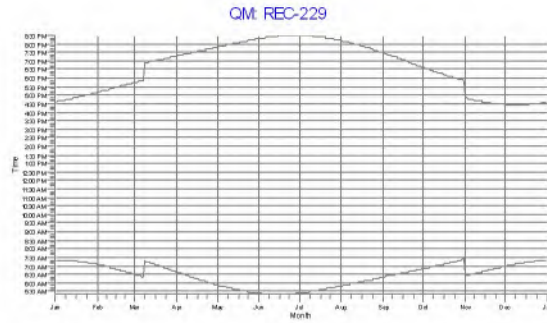
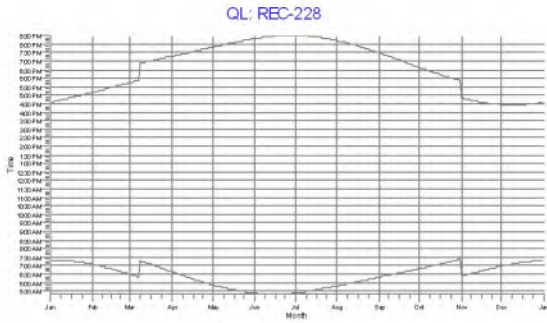
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

72: K3 131: K18 136: K206

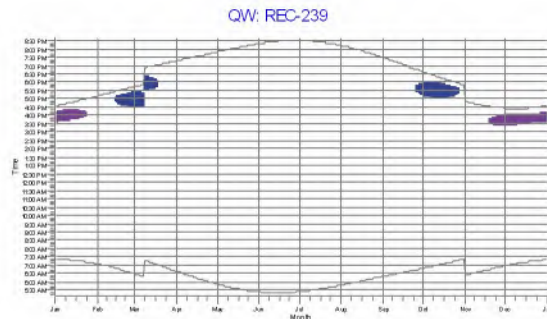
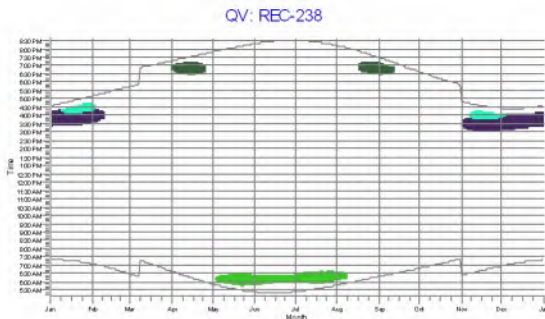
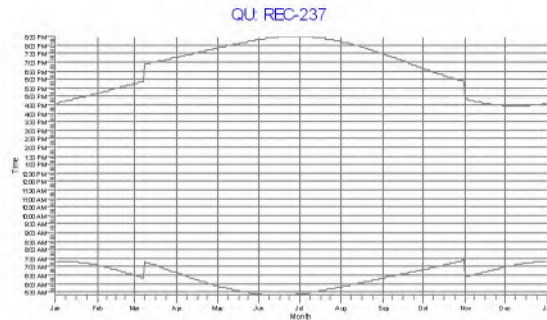
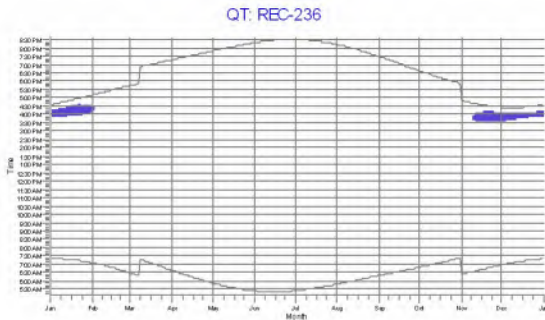
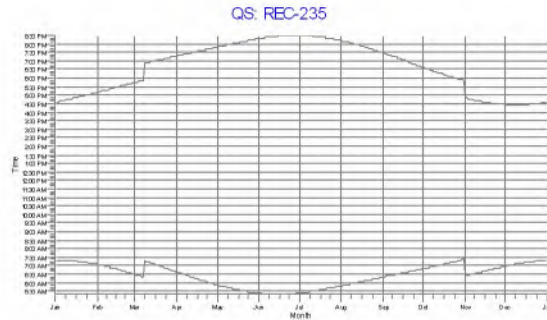
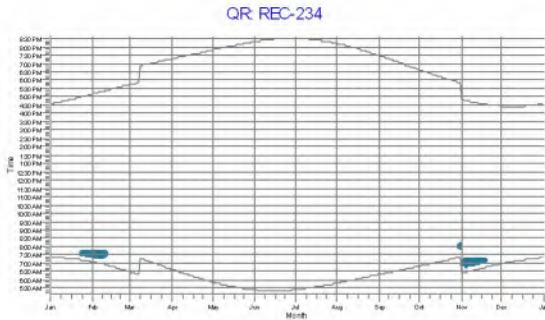
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

73: K6 74: K7 75: K8 104: K82 109: K89 130: K502 131: K18 136: K206

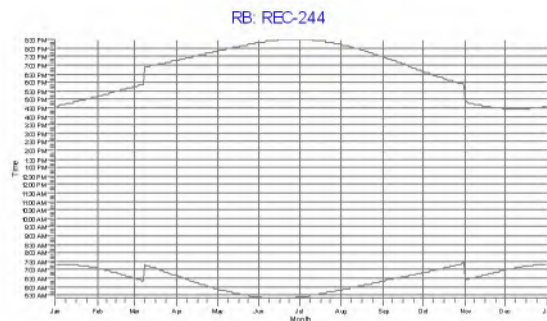
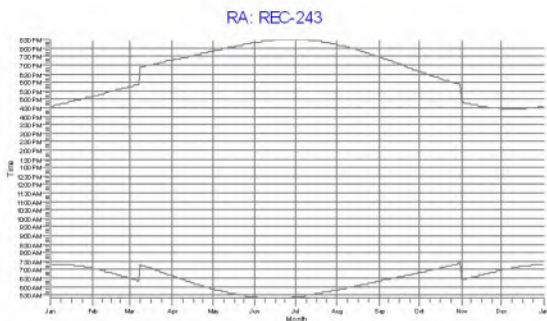
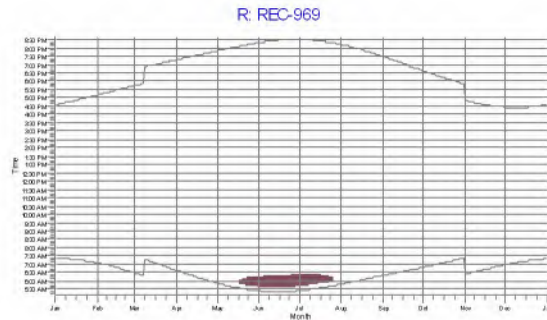
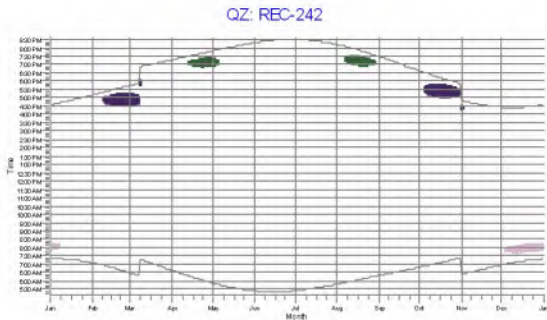
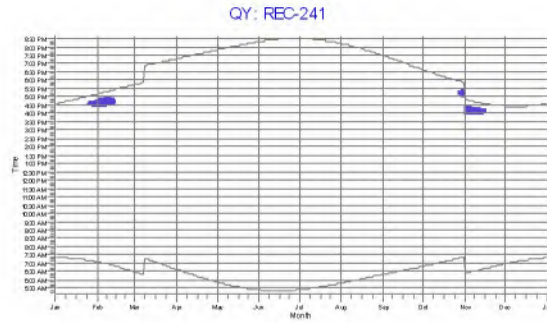
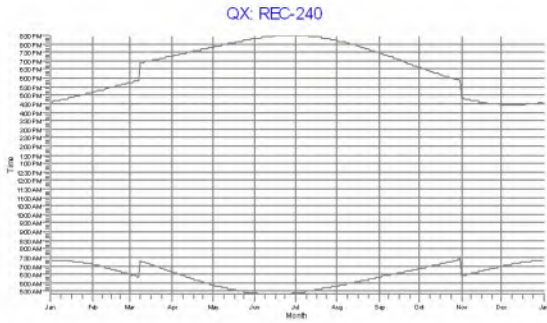
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

73: K6 74: K7 79: K13 80: K20 136: K206

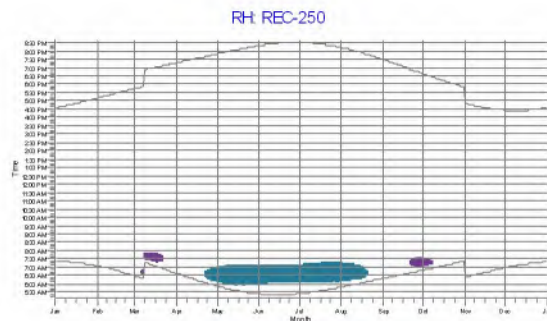
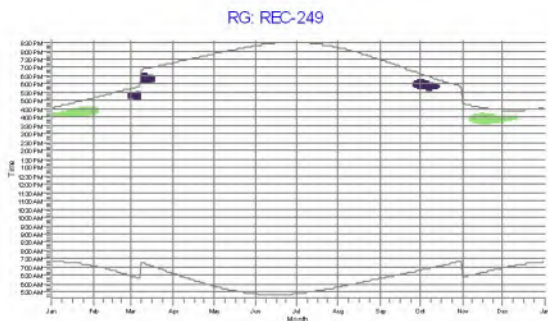
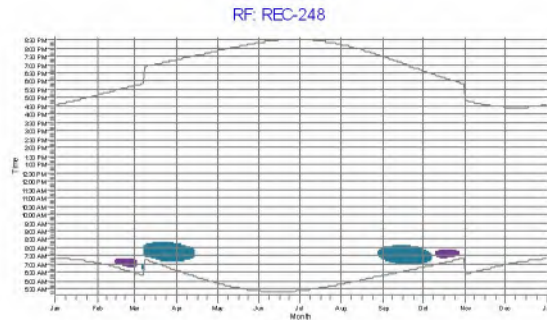
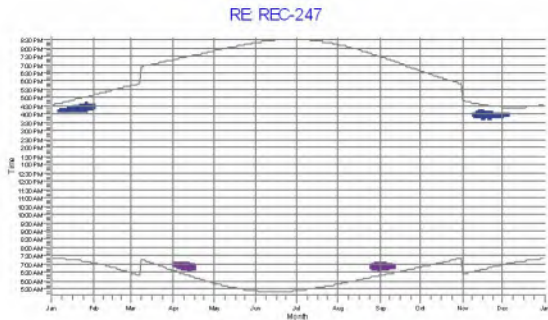
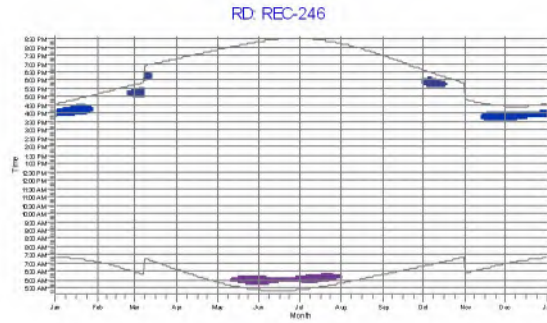
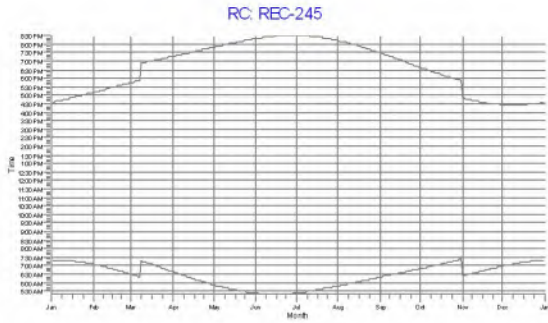
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

74: K7 75: K8 76: K9 77: K11 81: K23 109: K89

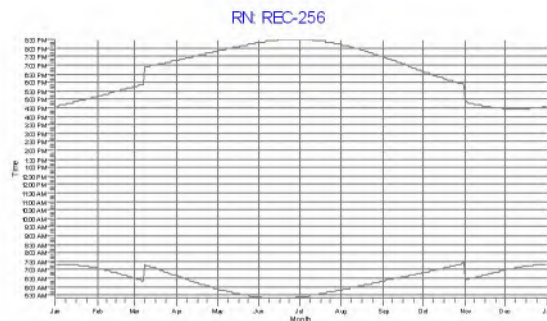
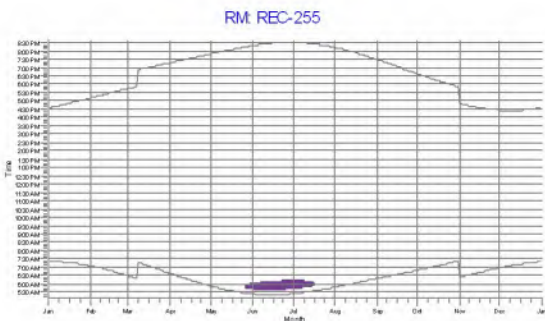
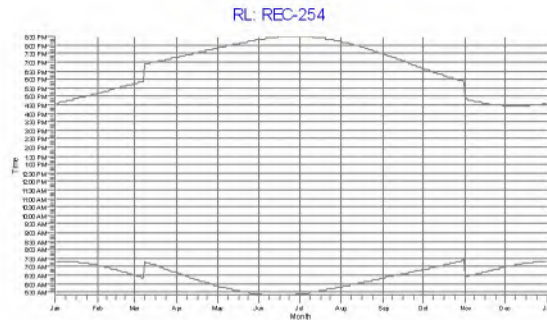
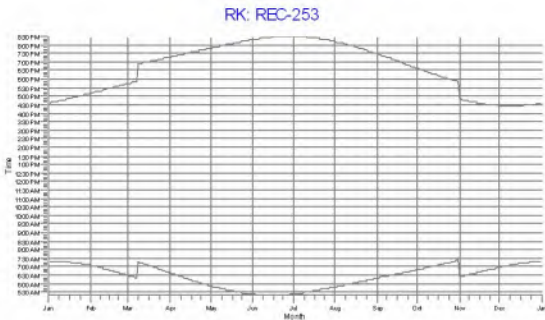
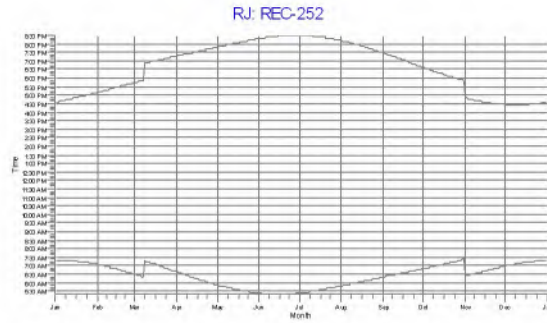
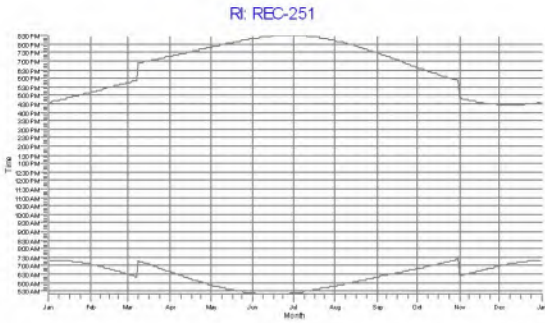
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
81: K23

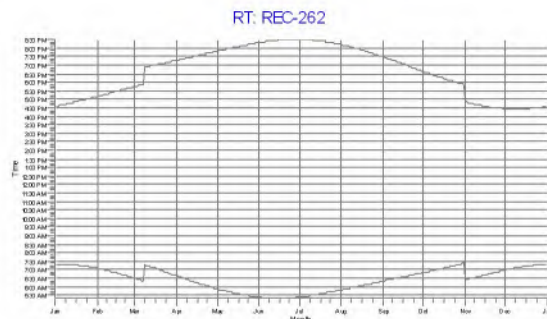
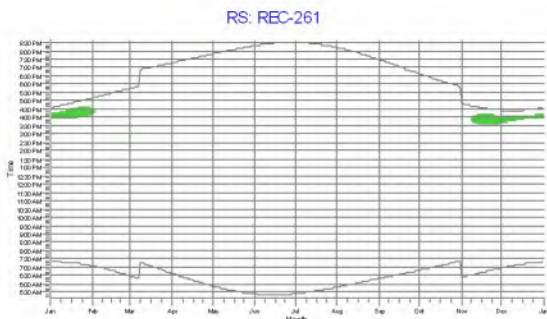
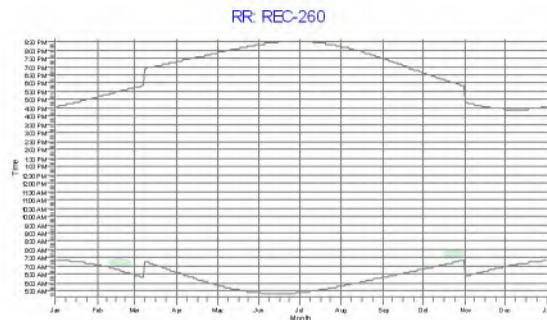
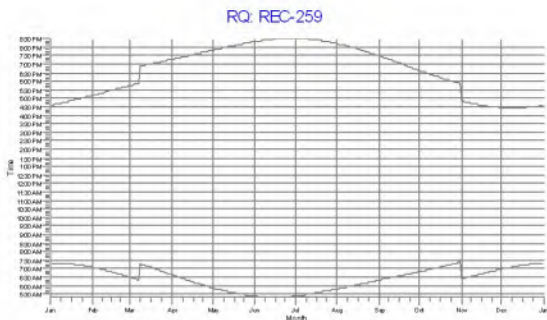
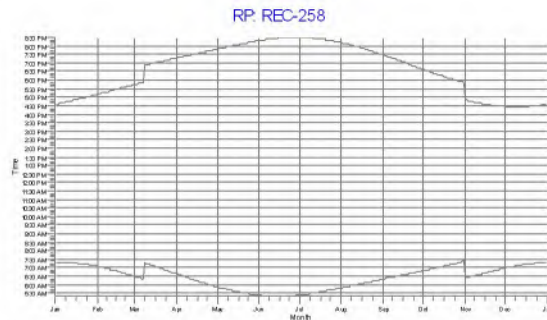
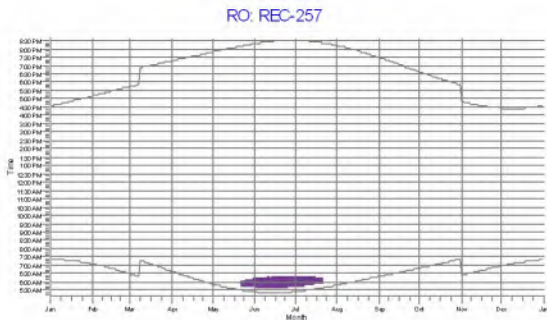
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 81: K23
 108: K86
 125: K28

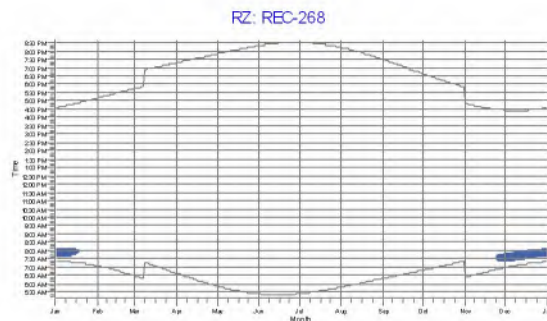
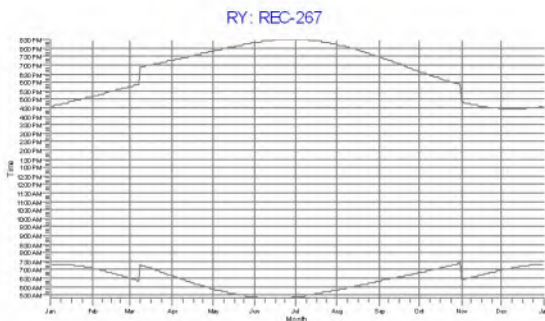
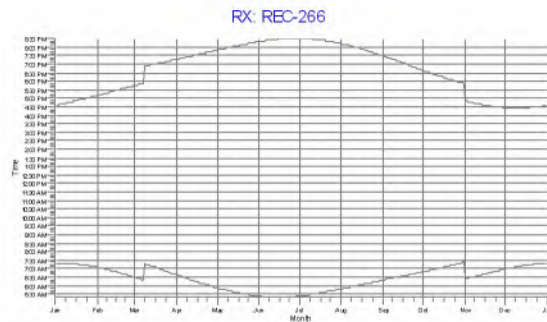
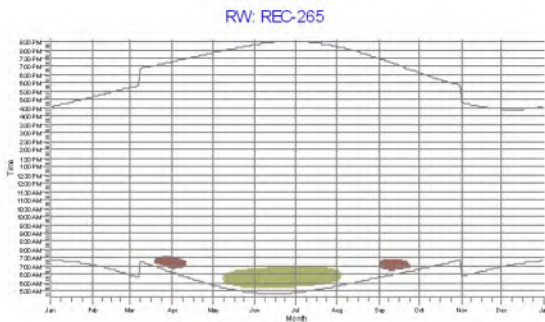
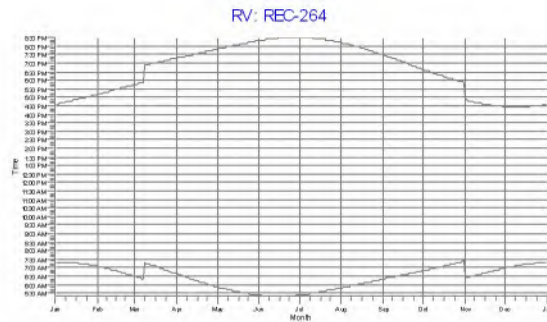
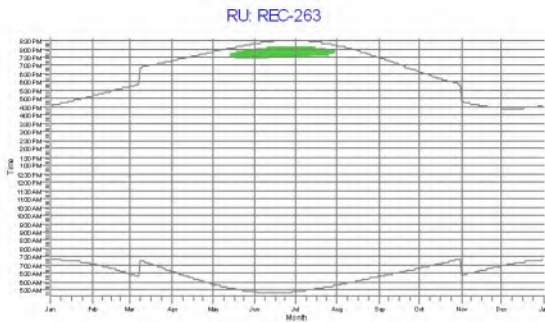
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

83: K29 108: K86 110: K90 129: K500

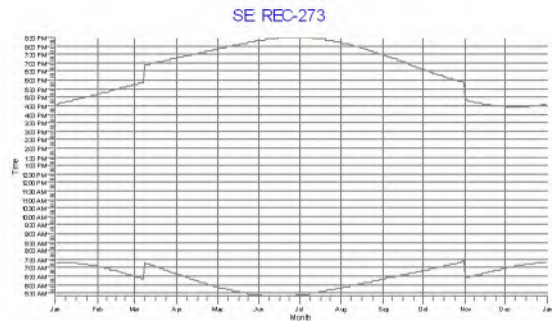
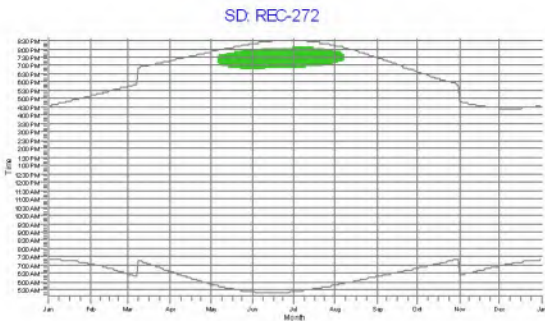
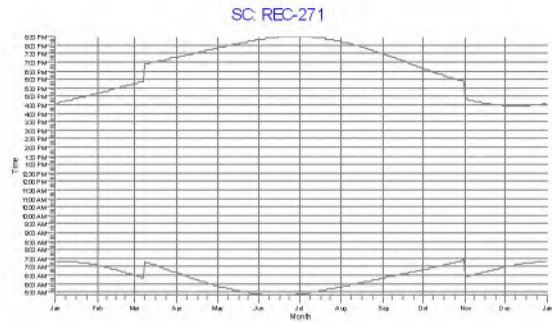
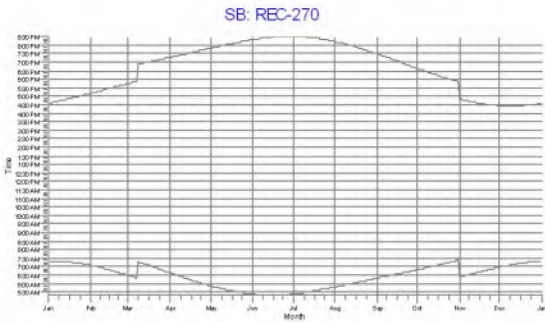
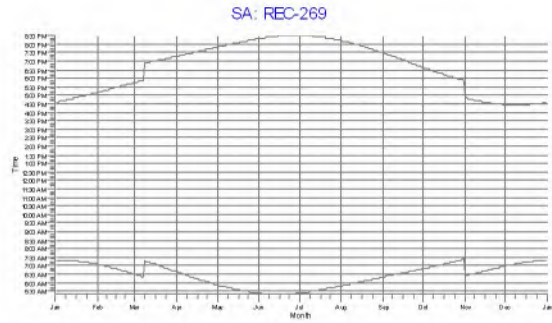
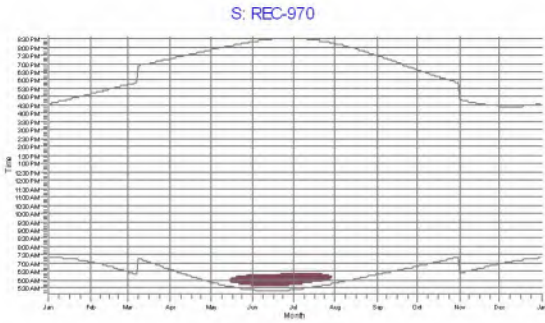
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13 131: K18

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

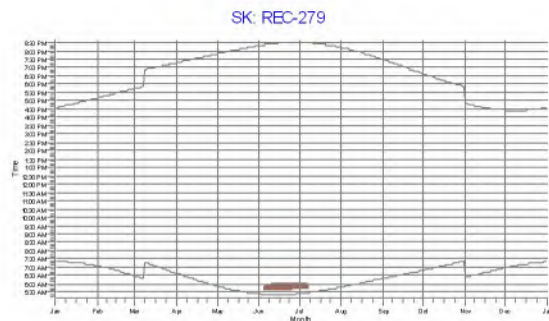
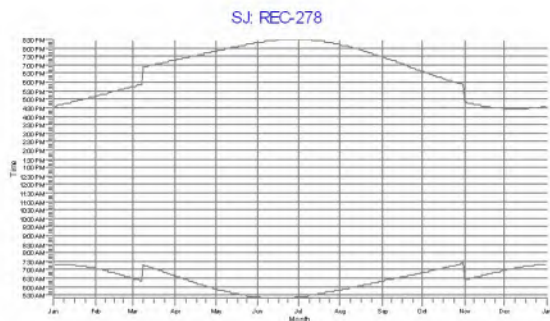
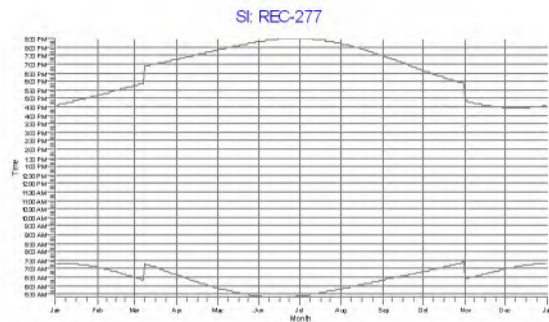
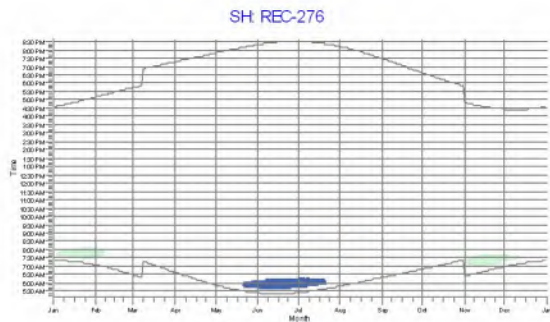
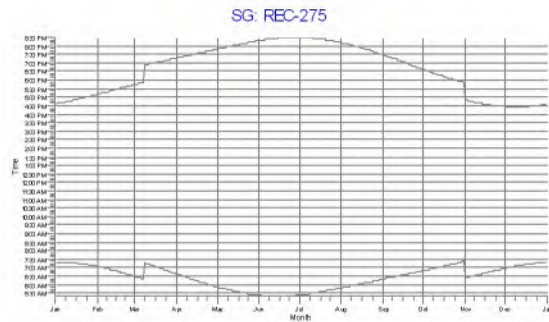
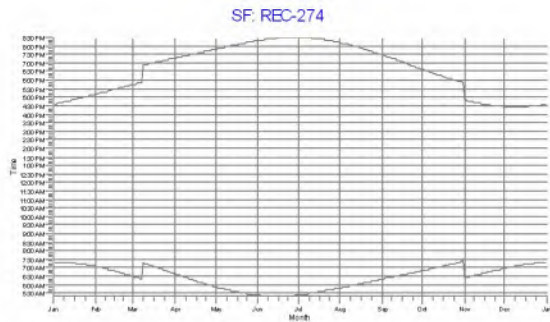
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

83: K29
 110: K90
 125: K28

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

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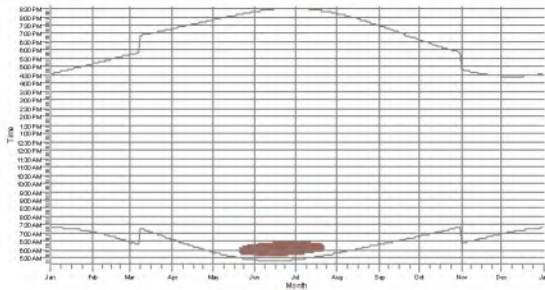
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Calculated:
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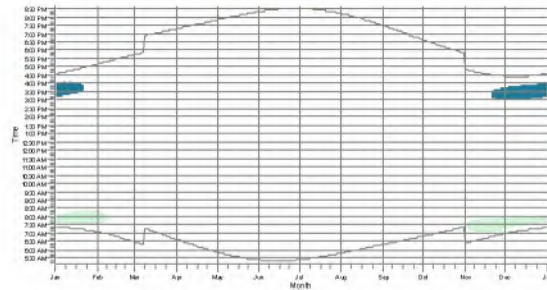
SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)

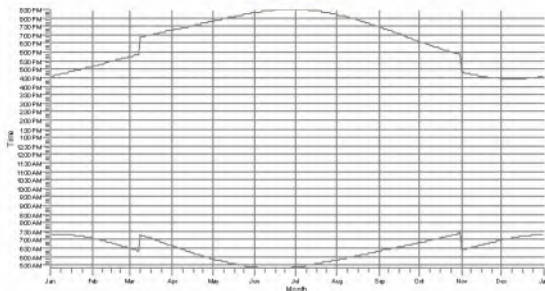
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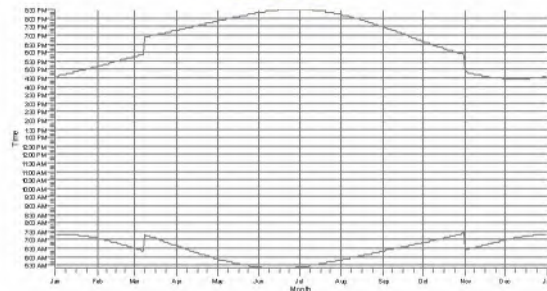
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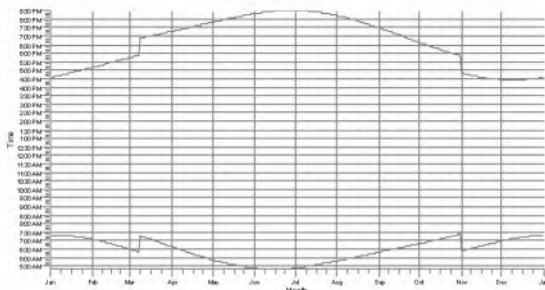
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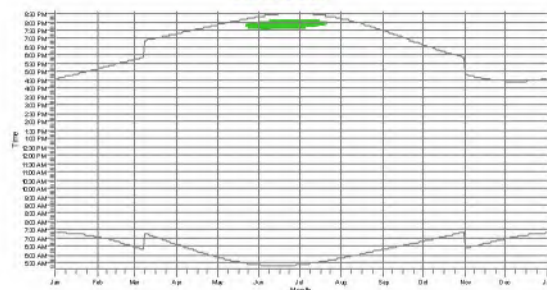
SO REC-283



SP REC-284



SQ REC-285



WTGs

109: K89
 110: K90
 125: K28
 131: K18

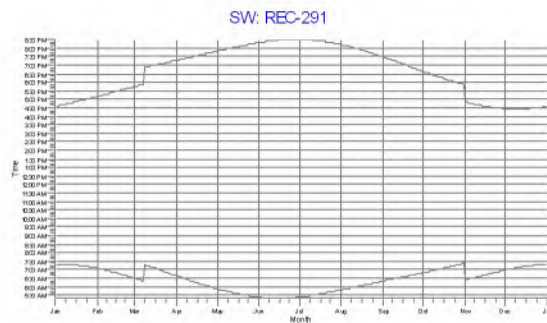
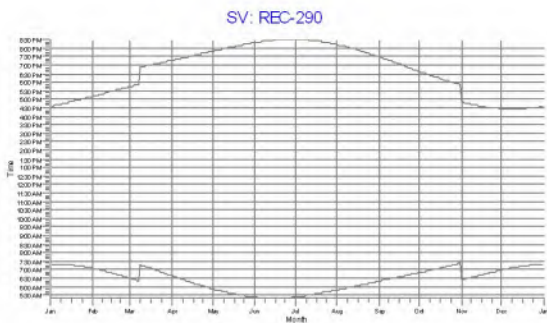
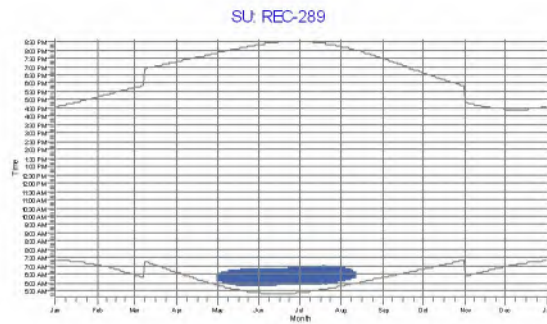
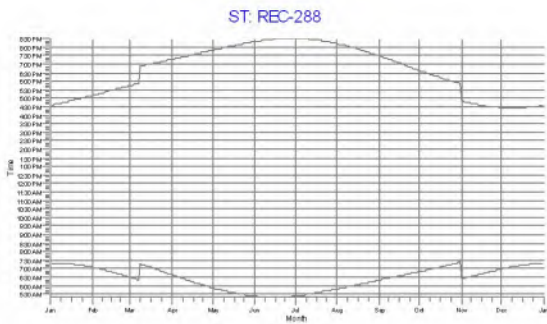
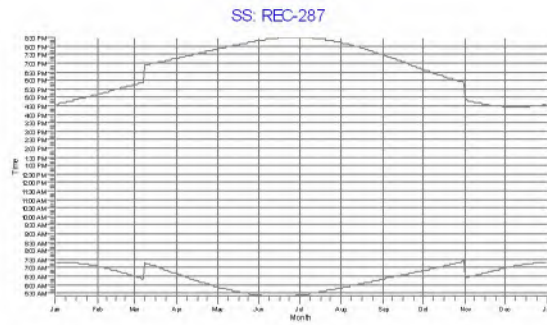
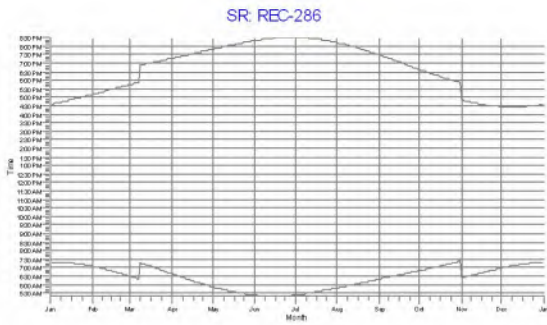
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
83: K29

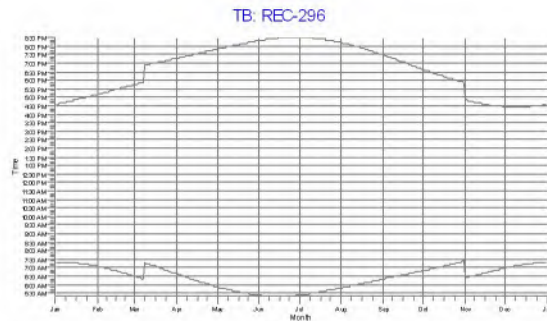
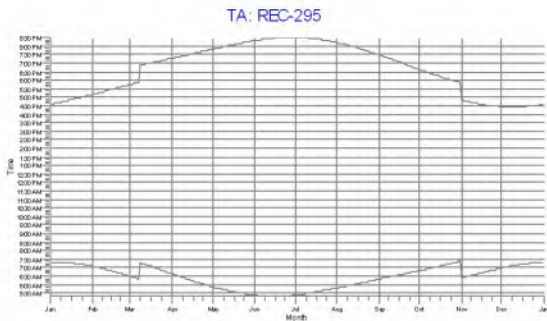
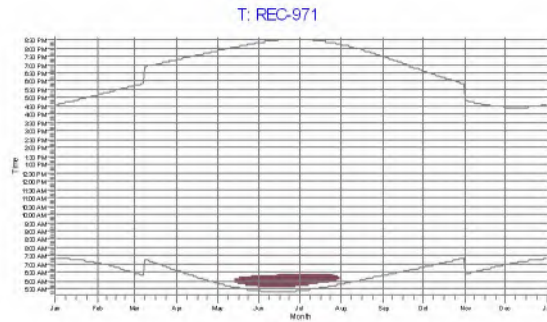
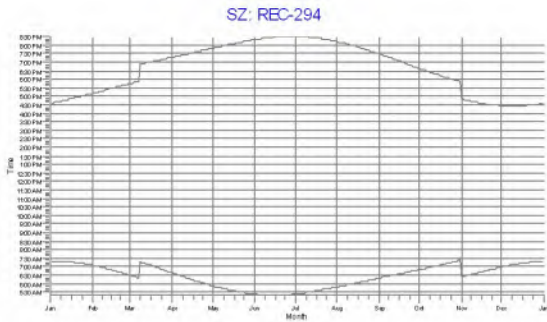
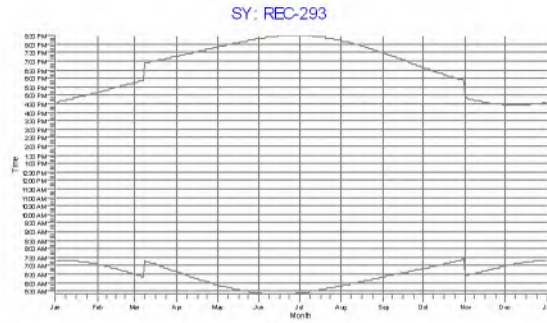
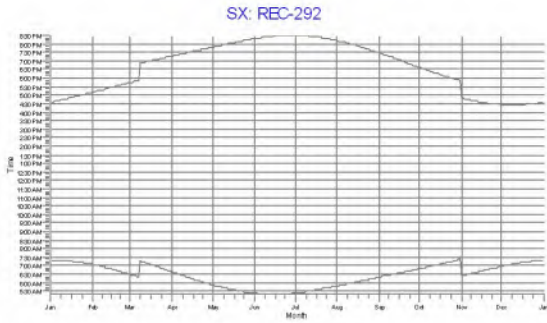
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

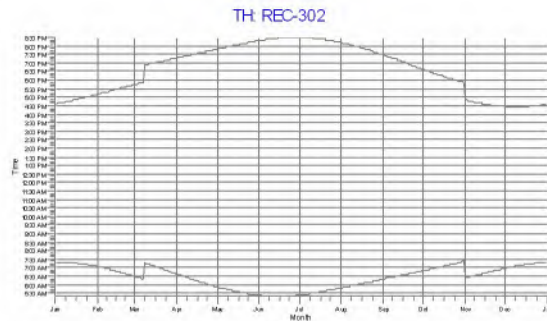
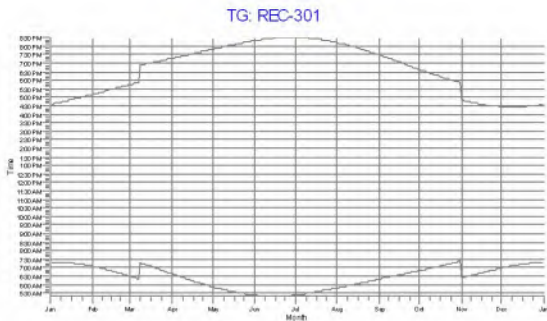
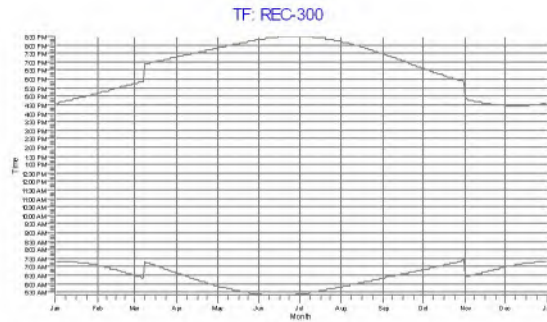
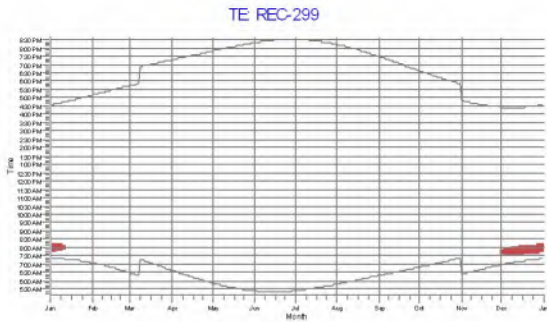
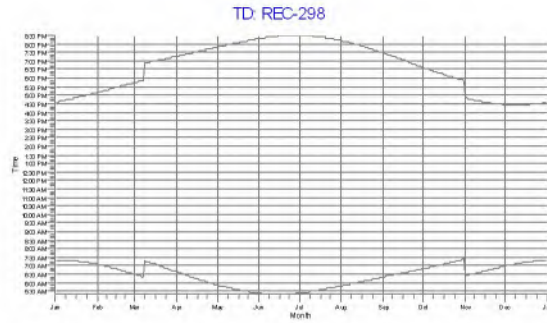
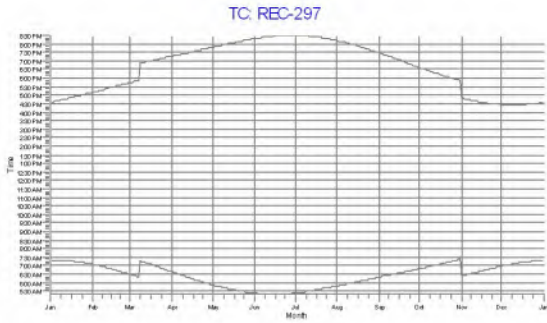
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

84: K32

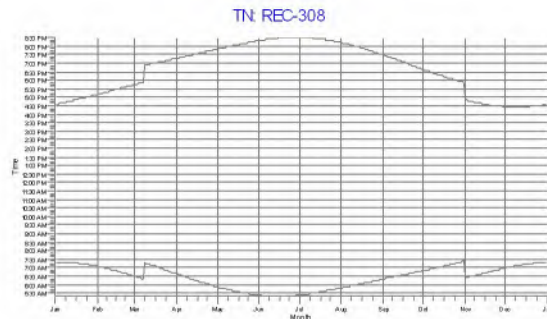
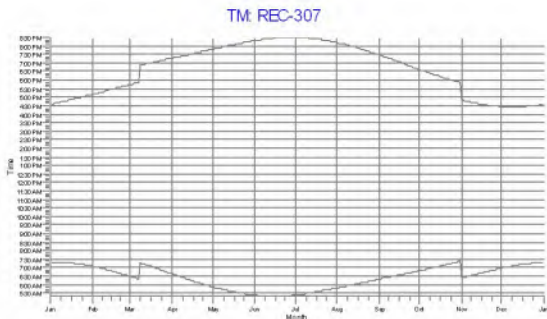
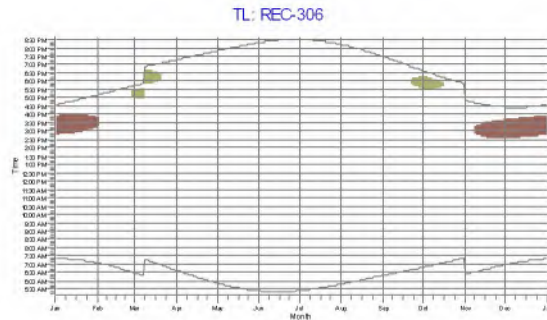
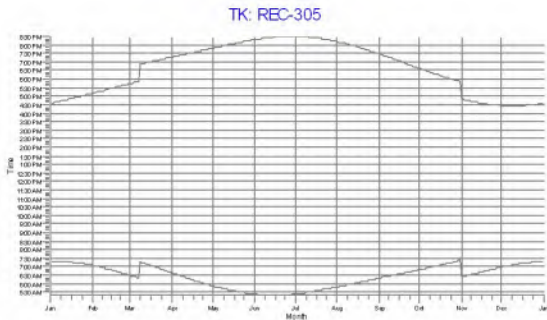
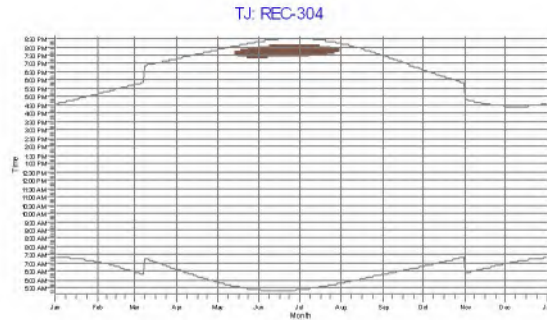
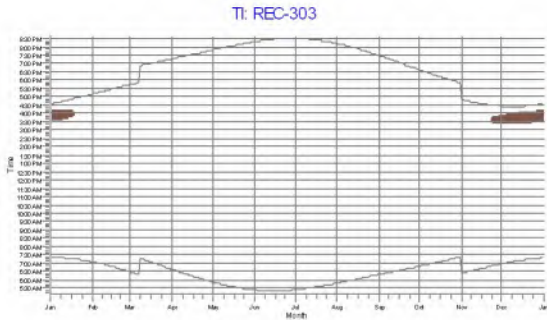
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

82: K24 110: K90 129: K500

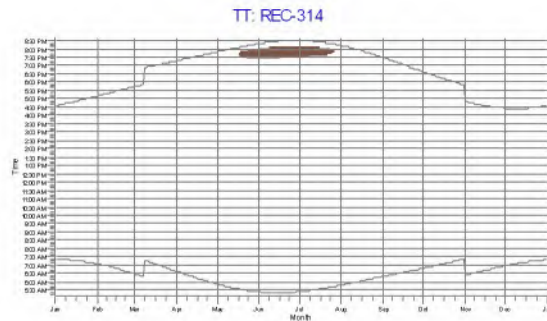
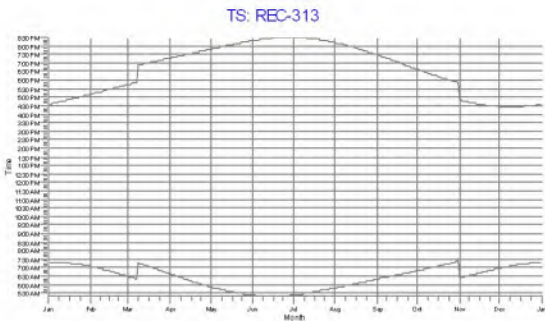
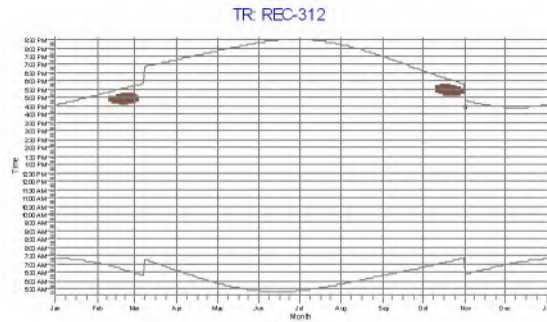
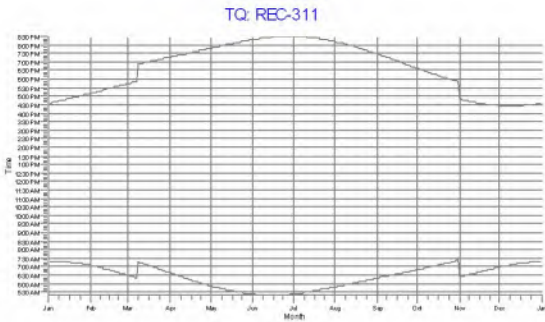
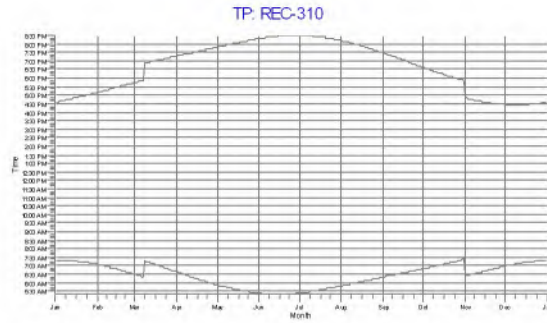
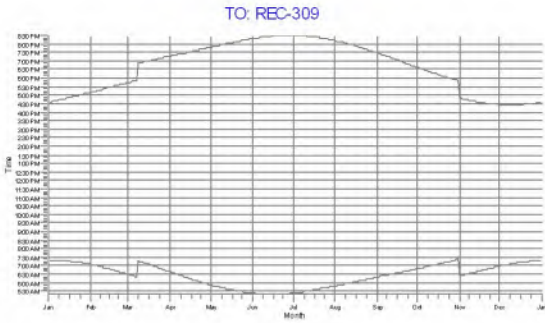
Project:
 132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 82: K24

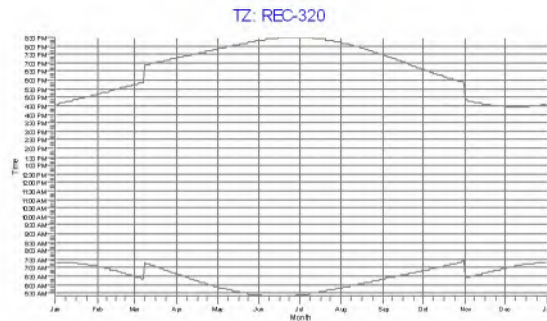
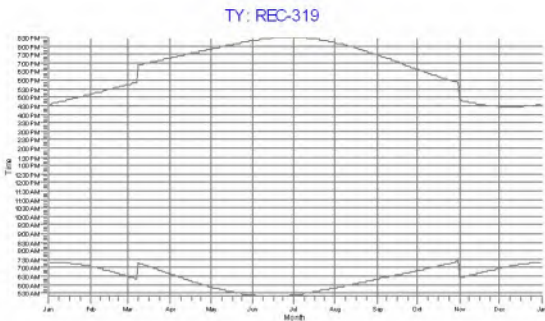
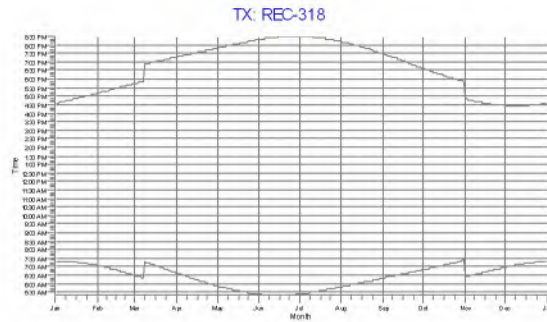
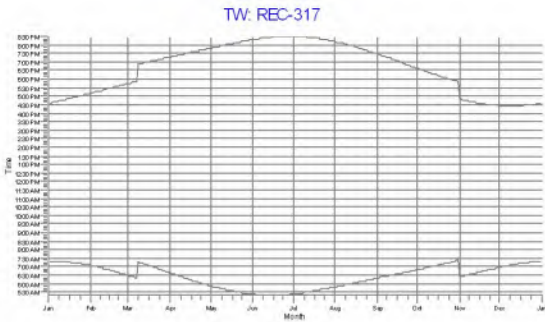
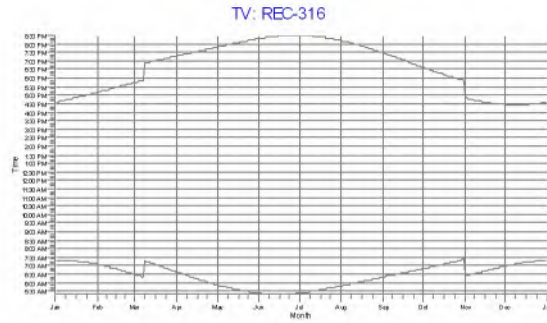
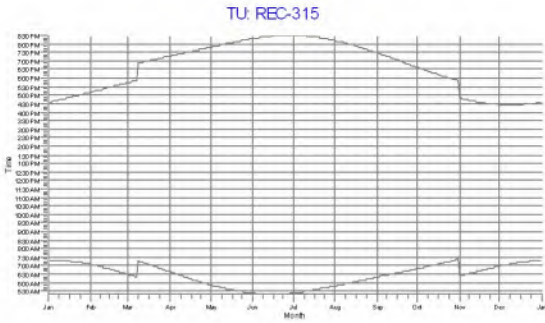
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

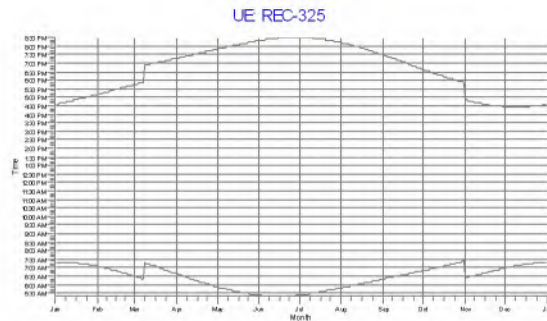
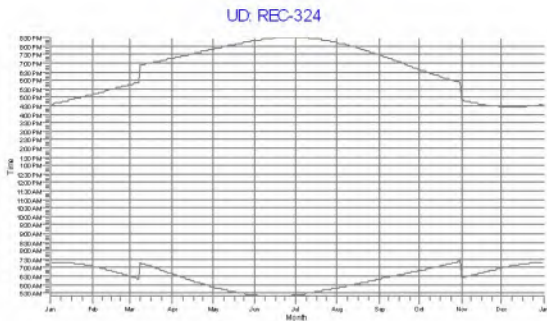
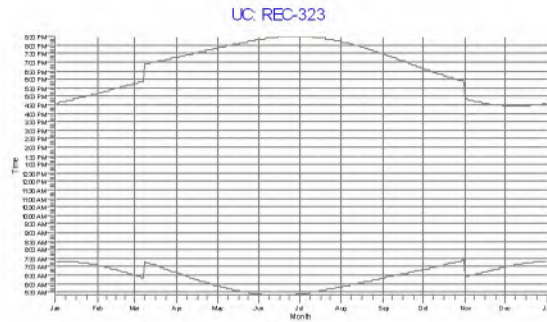
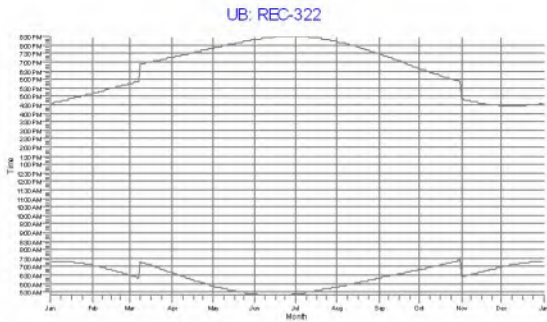
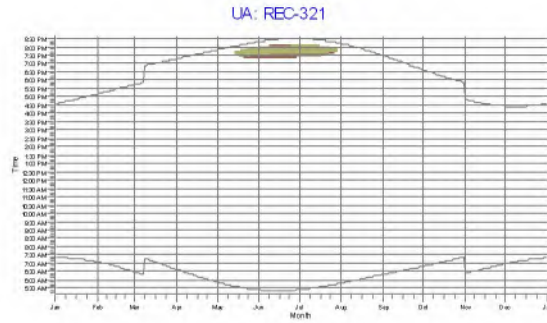
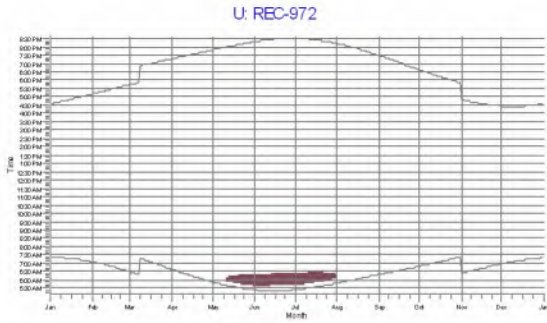
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

79: K13 110: K90 129: K500

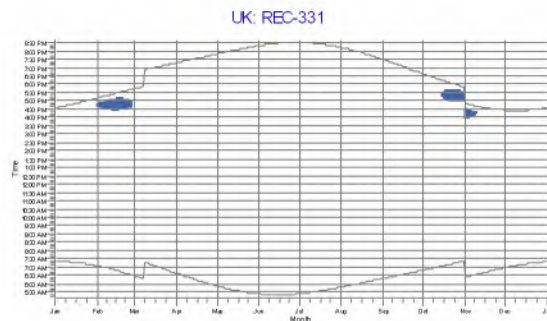
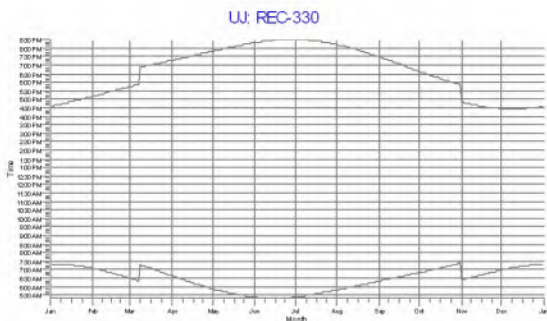
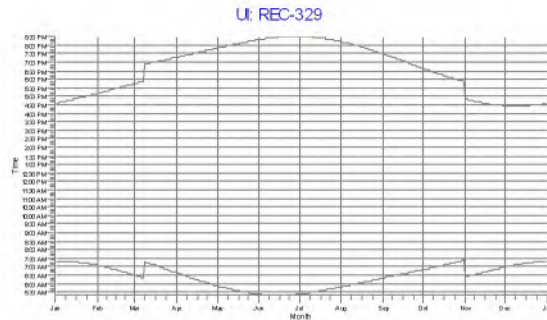
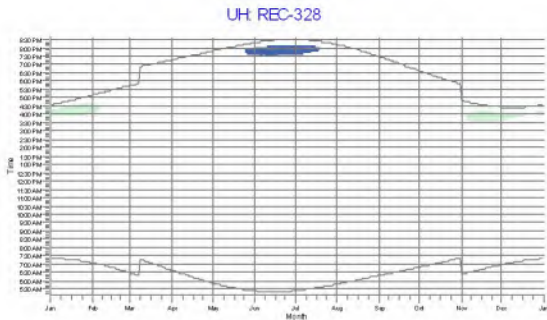
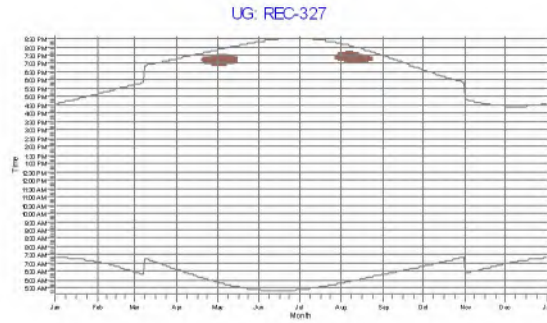
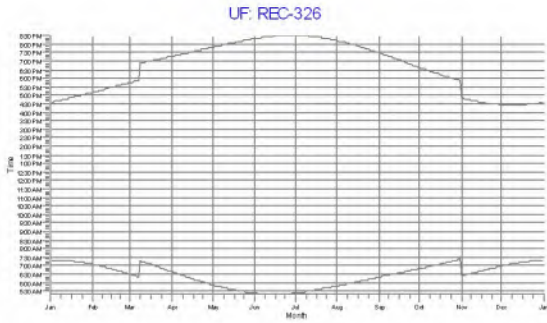
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

83: K29 110: K90 125: K28

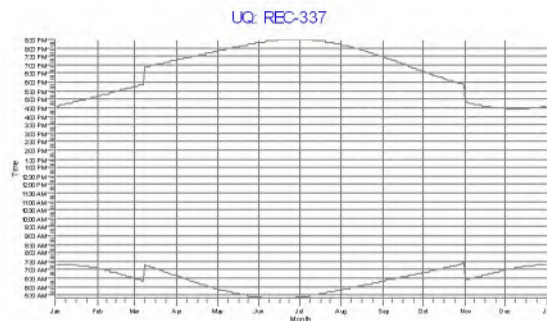
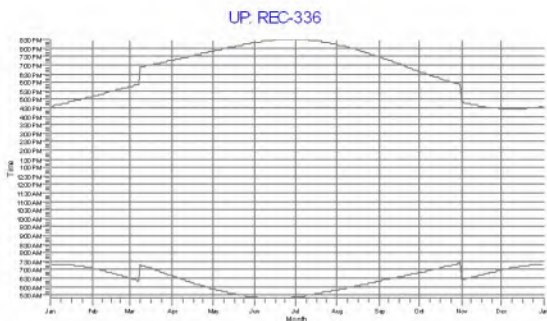
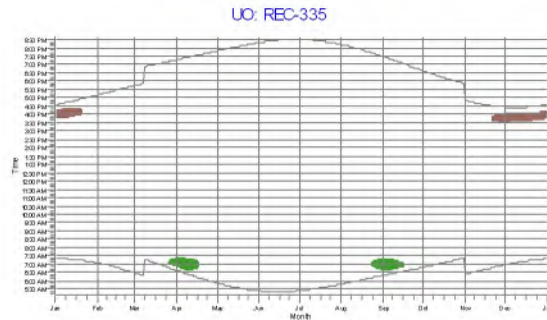
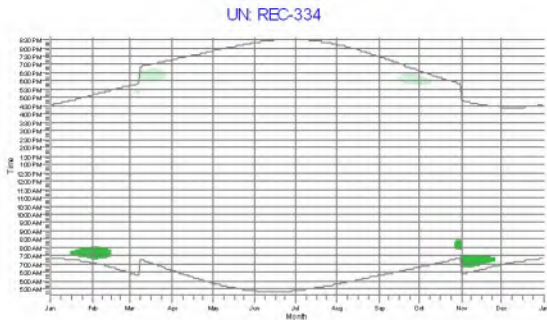
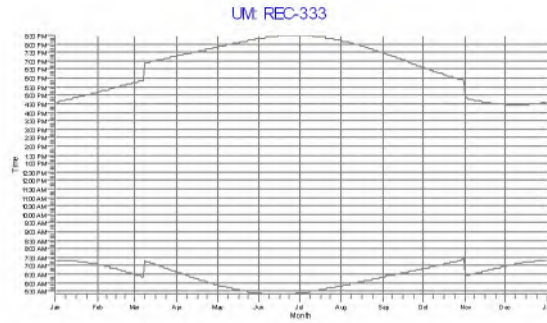
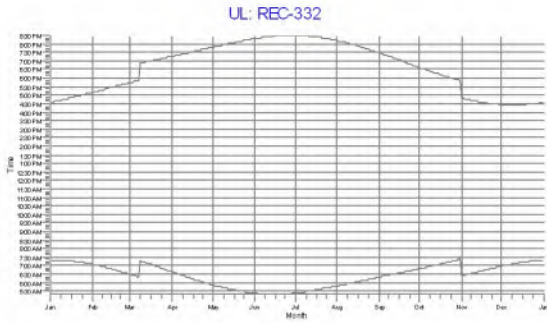
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 85: K34 ■ 110: K90 ■ 111: K91 ■ 125: K28

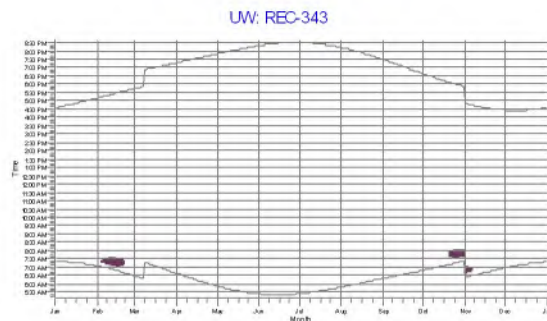
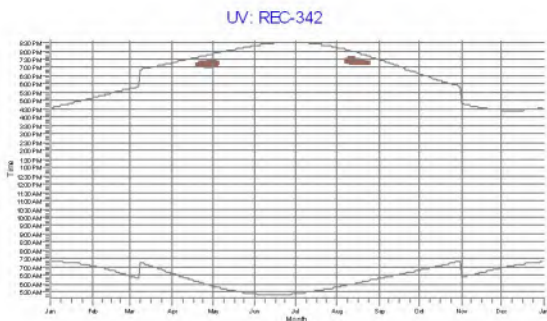
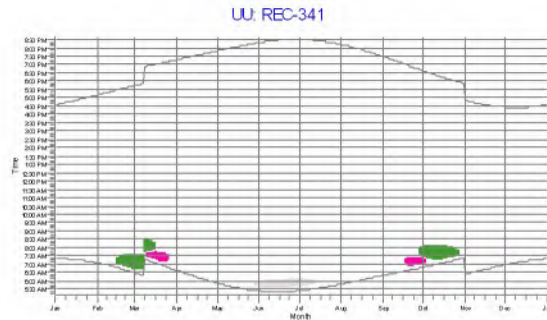
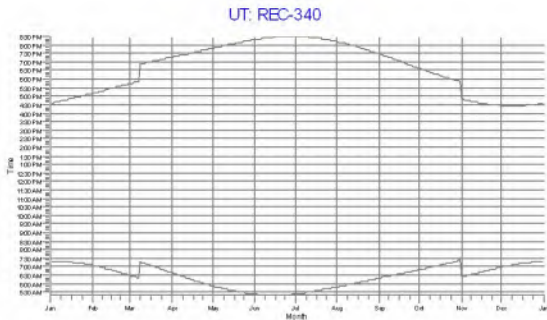
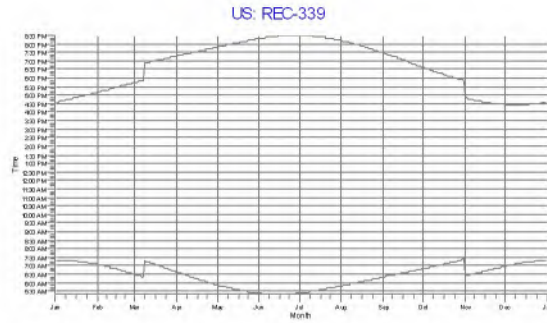
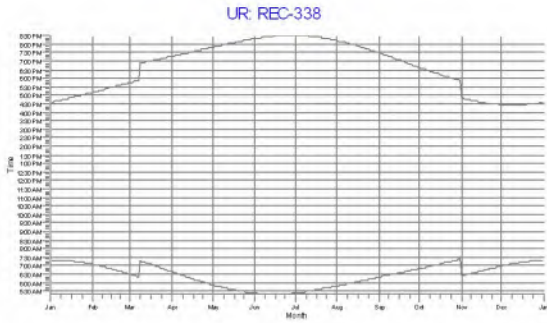
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

86: K36 110: K90 111: K91 126: K109 132: K38

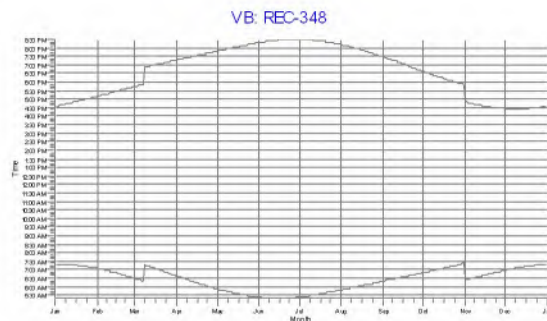
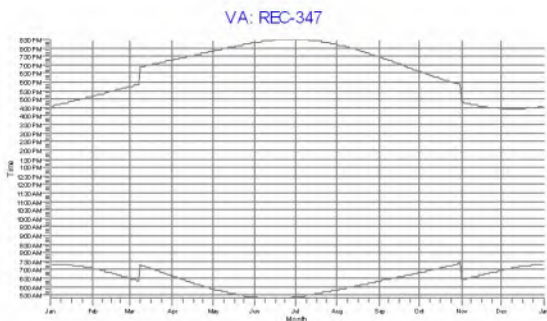
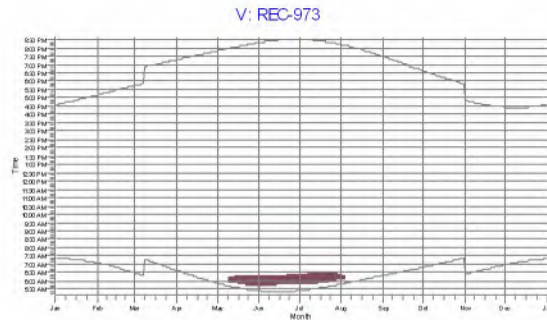
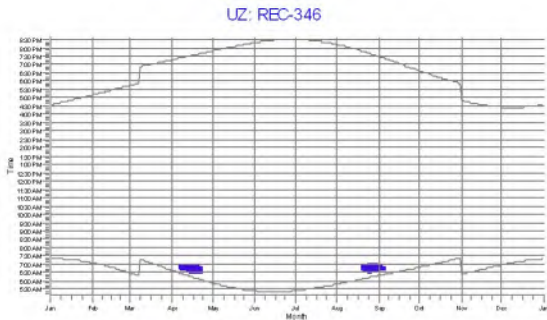
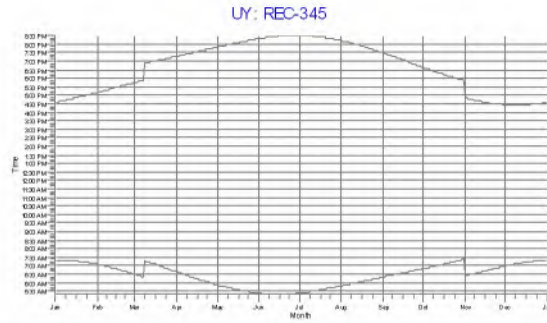
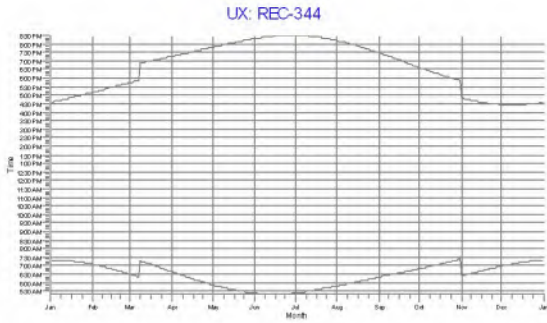
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
79: K13 127: K110

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

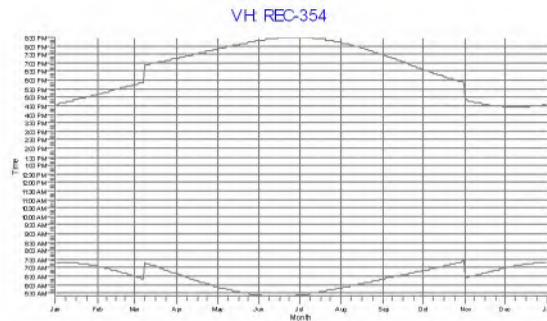
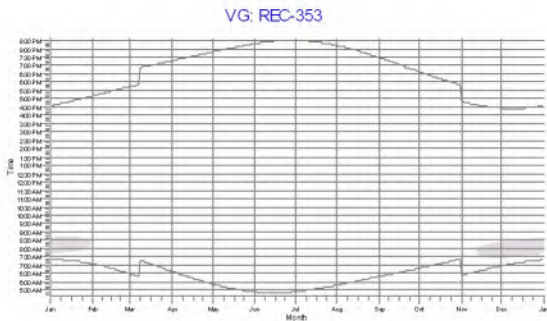
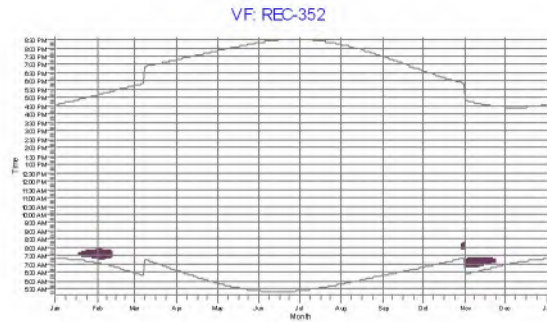
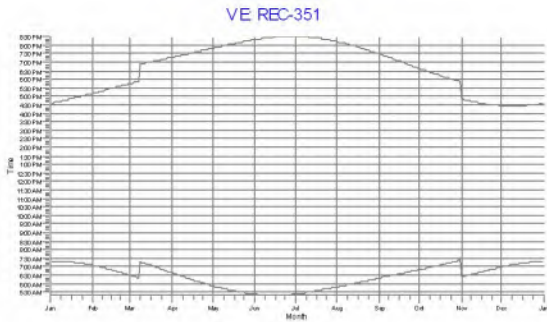
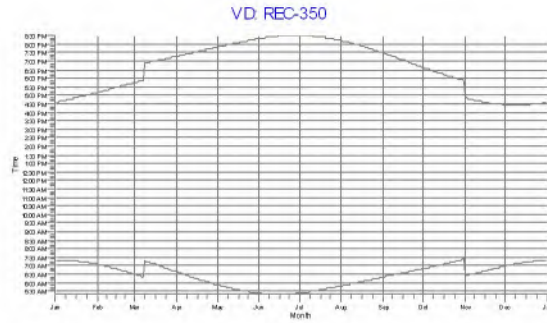
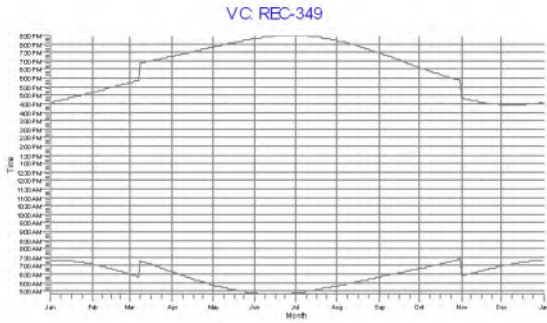
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

86: K36 126: K109

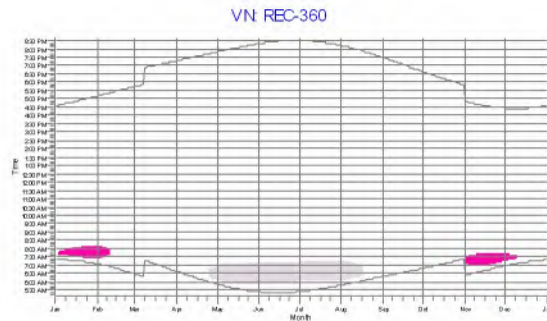
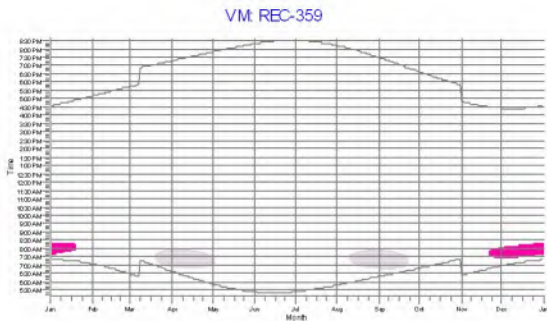
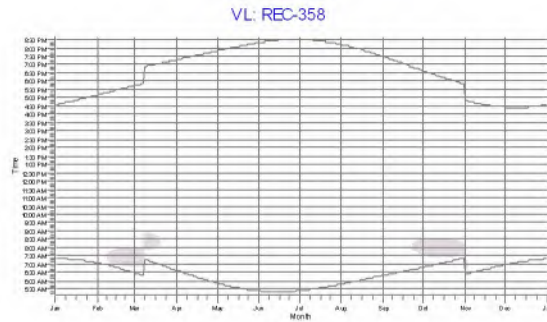
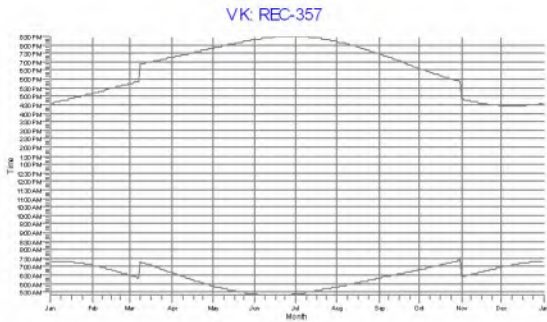
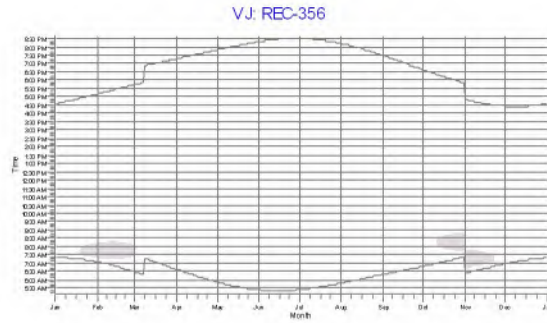
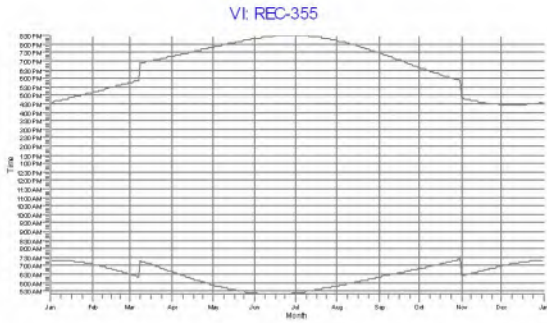
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

86: K36 132: K38

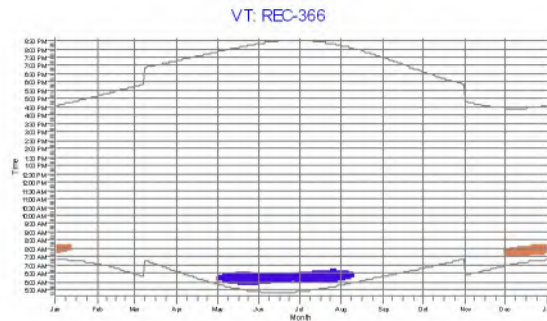
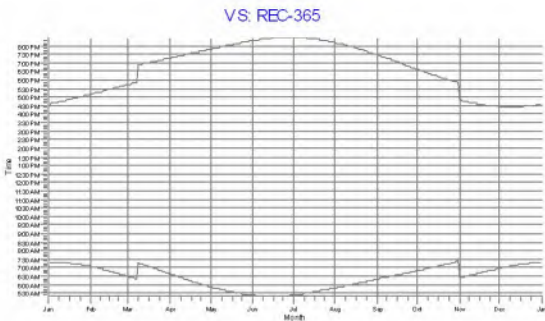
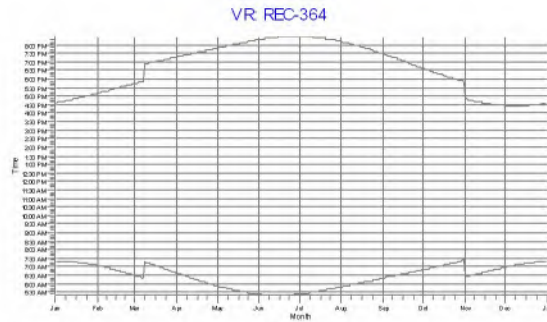
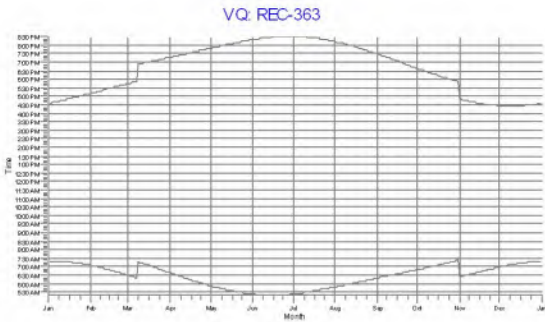
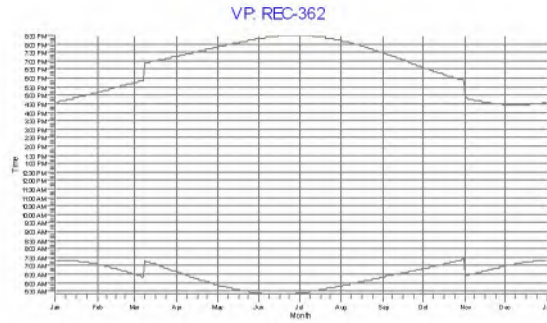
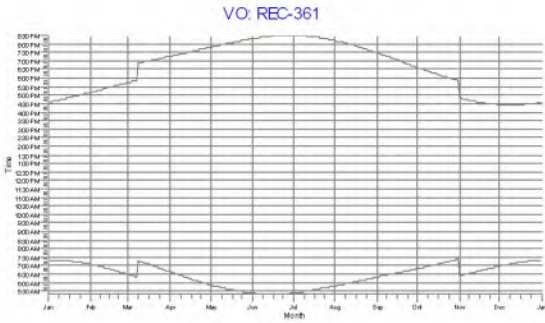
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 112: K92 ■ 127: K110

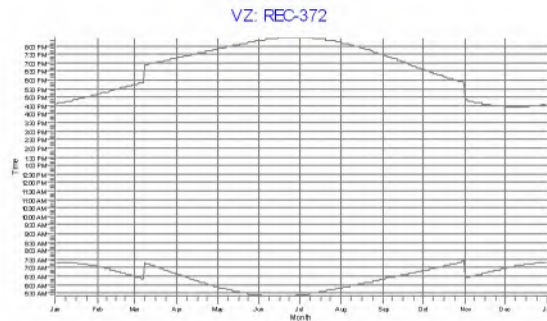
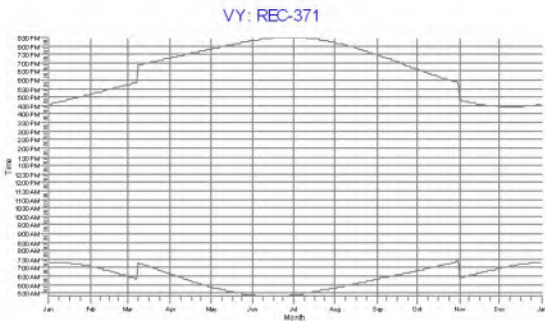
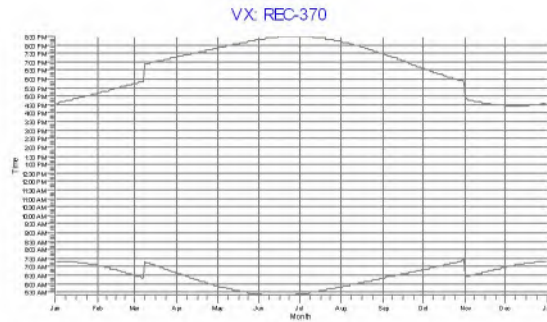
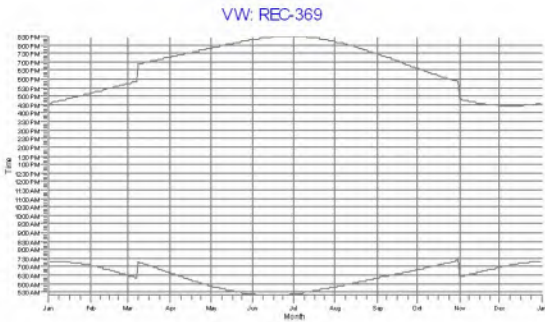
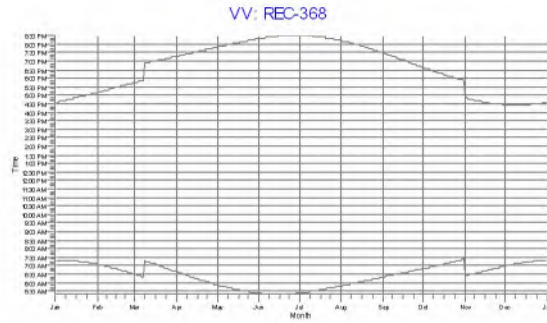
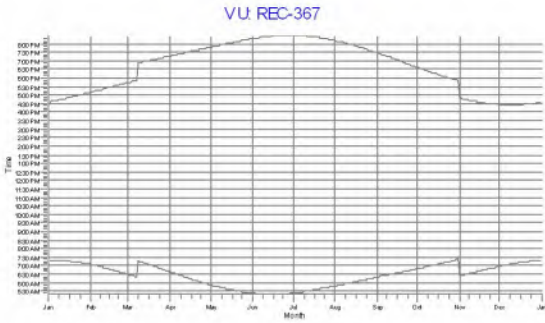
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

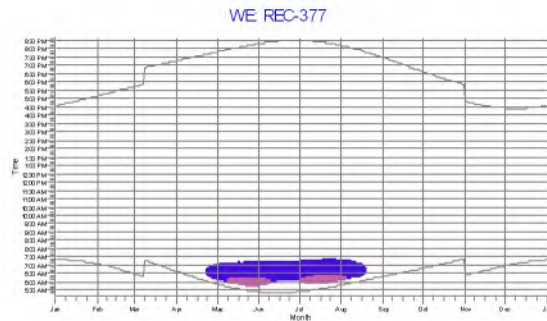
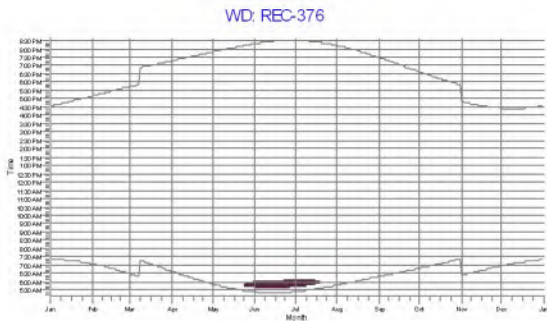
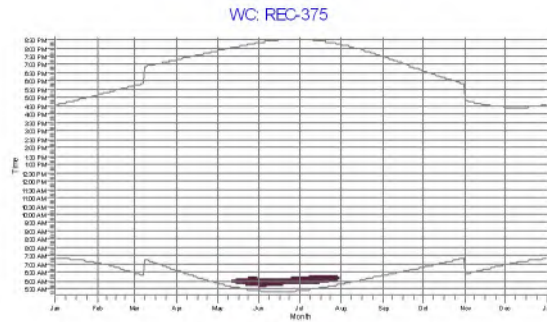
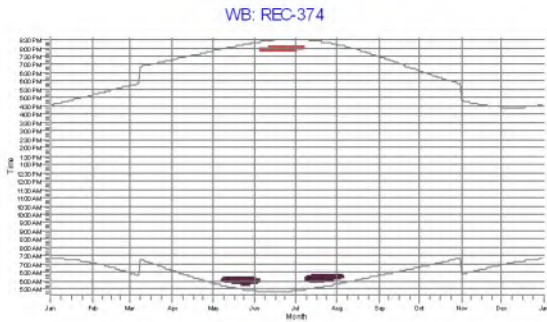
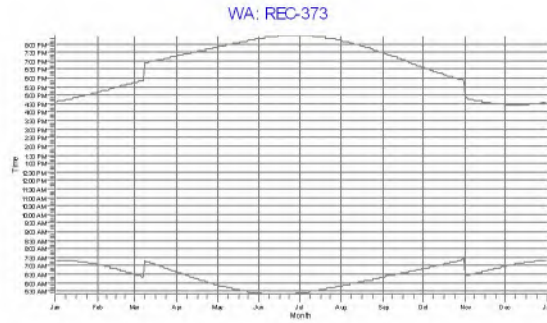
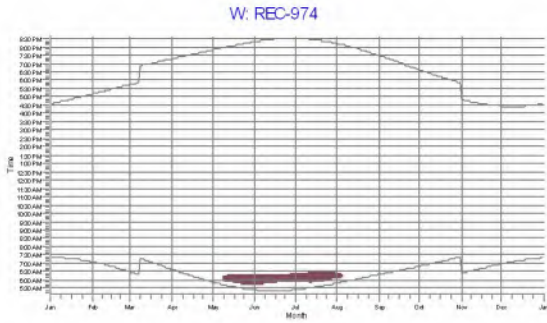
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

79: K13 84: K32 88: K42 127: K110 134: K204

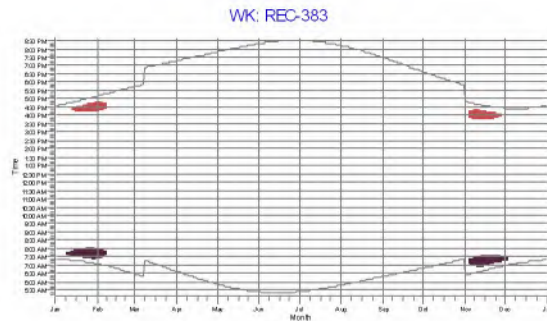
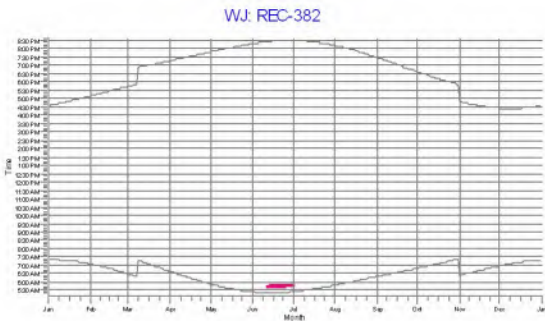
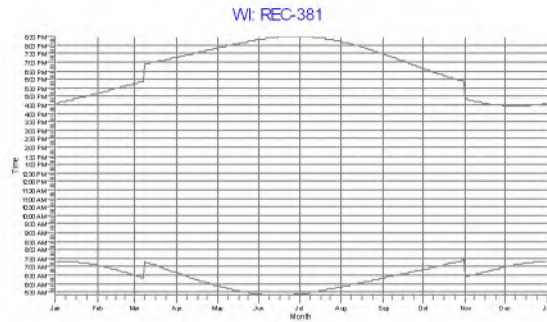
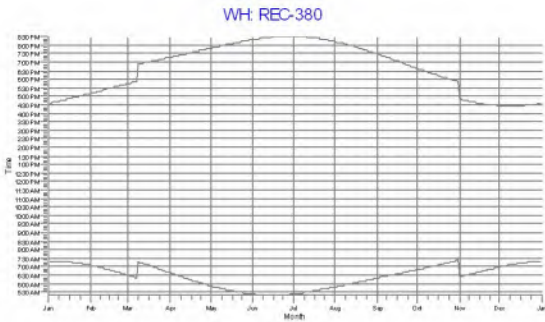
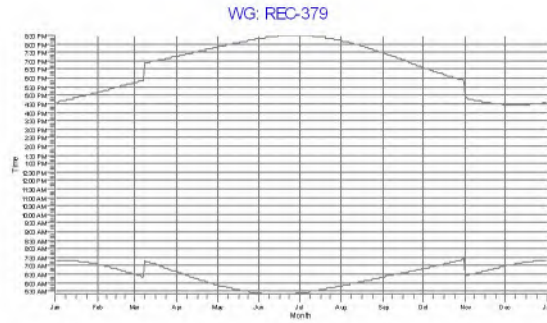
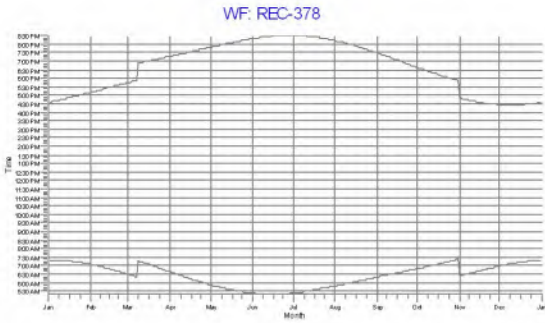
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 84: K32 ■ 88: K42 ■ 89: K43

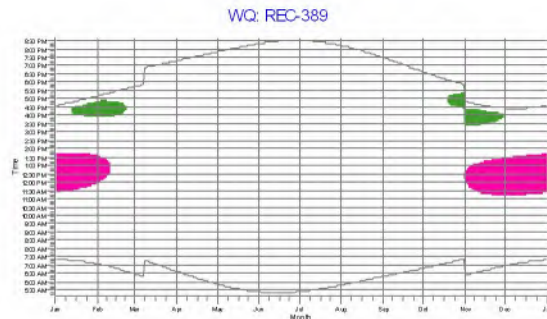
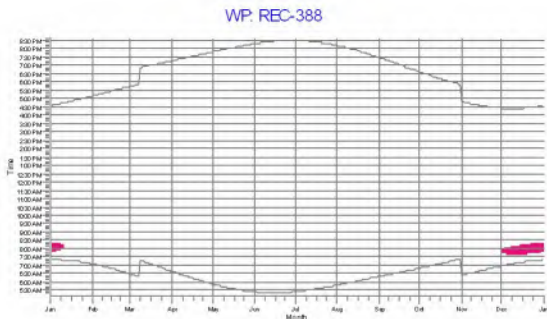
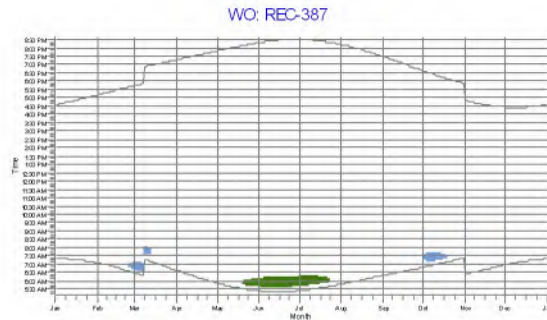
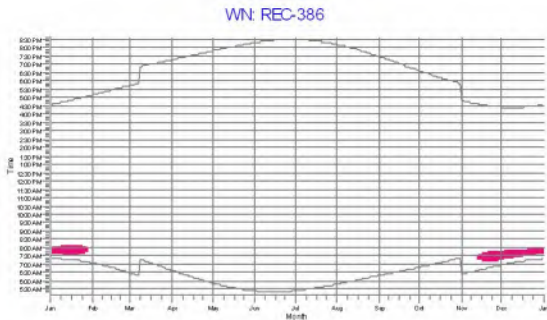
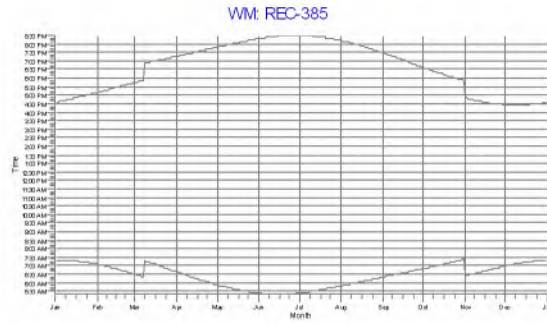
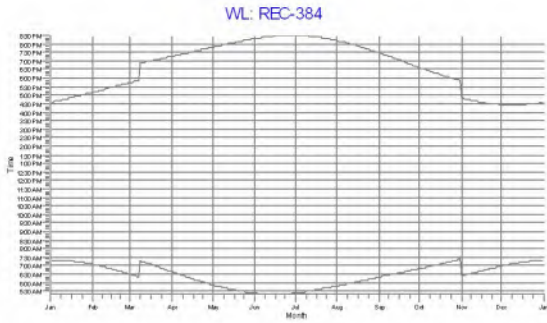
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

89: K43 90: K46 111: K91 124: K107 132: K38

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

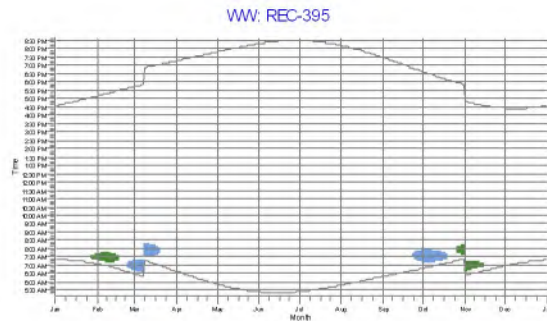
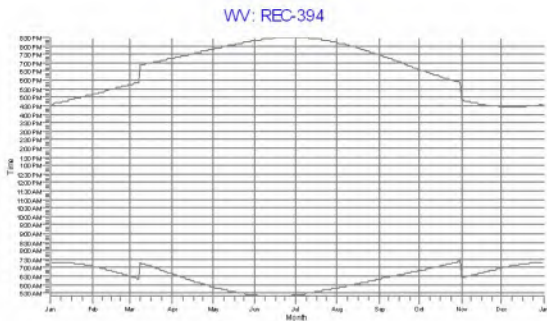
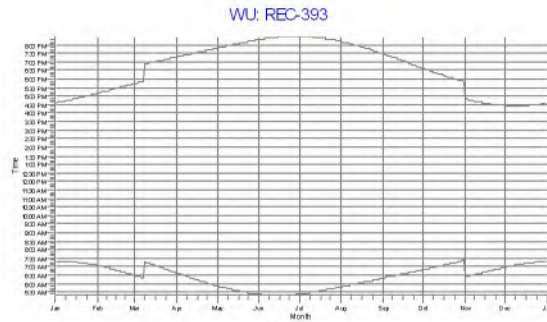
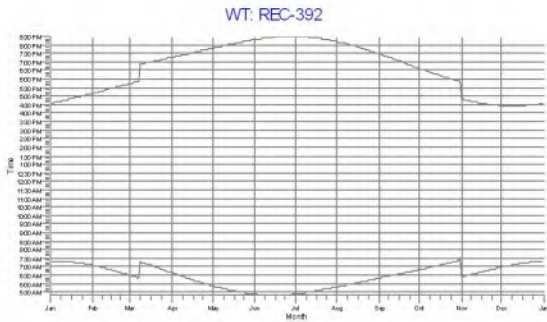
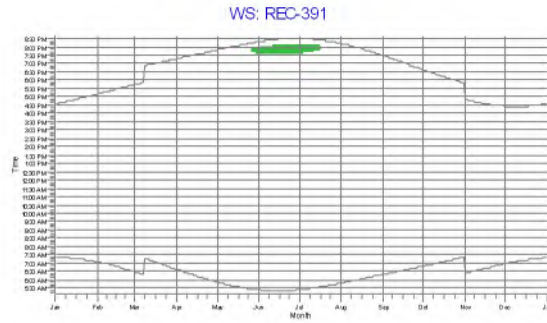
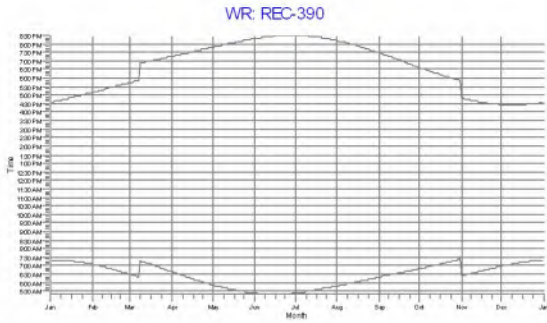
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

85: K34 90: K46 91: K47

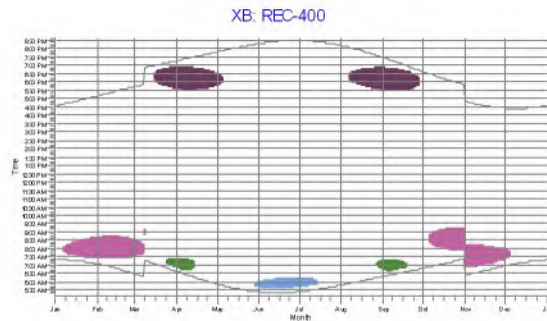
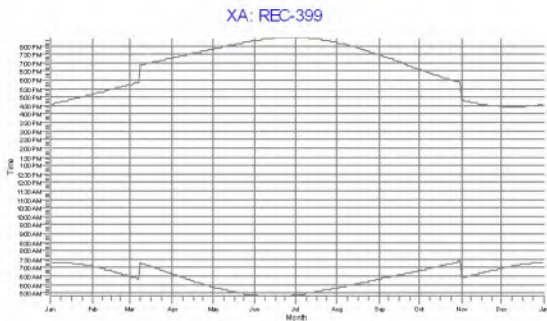
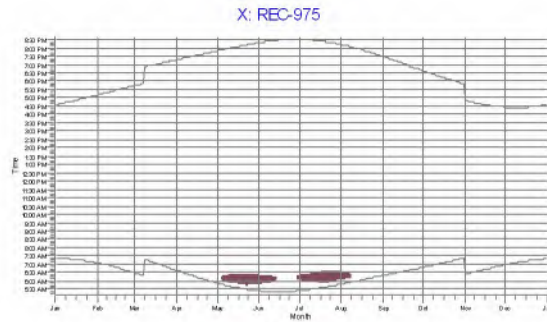
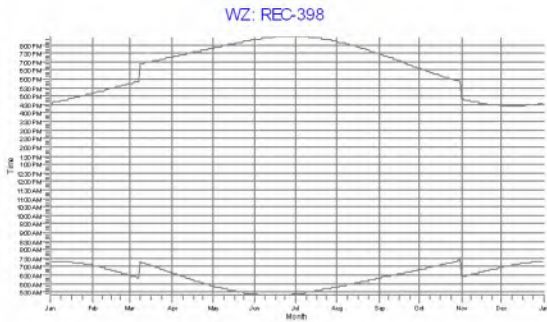
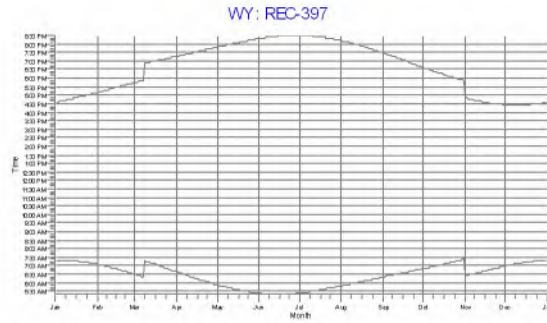
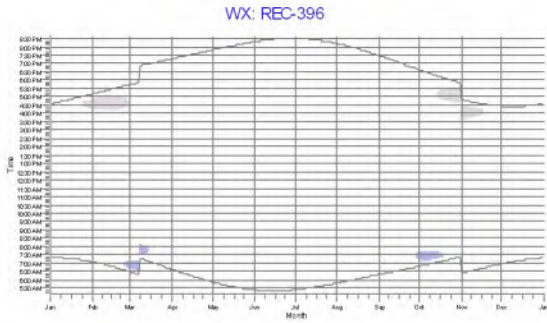
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

- 79: K13
- 86: K36
- 90: K46
- 91: K47
- 115: K50
- 126: K109
- 134: K204

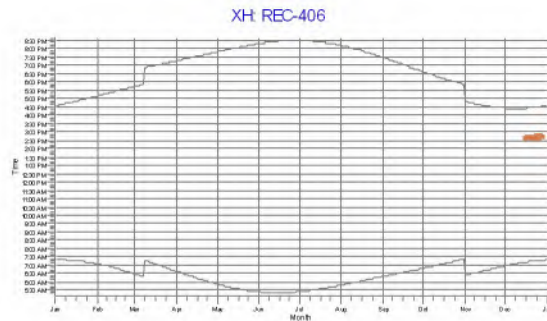
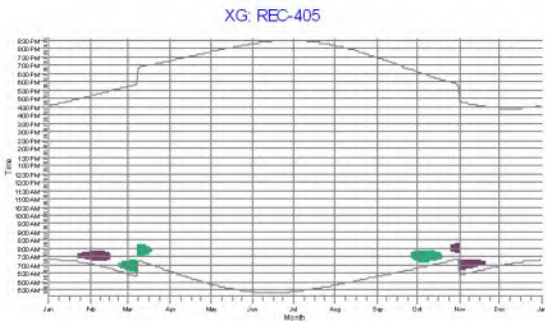
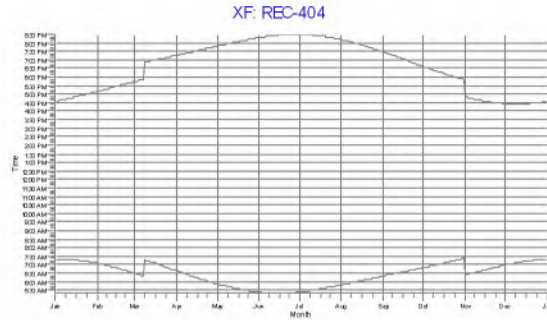
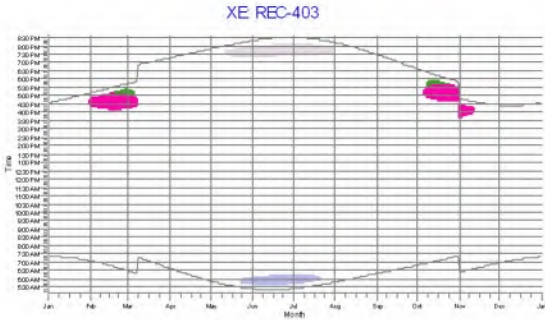
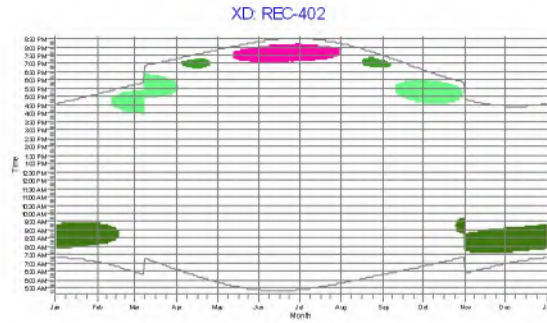
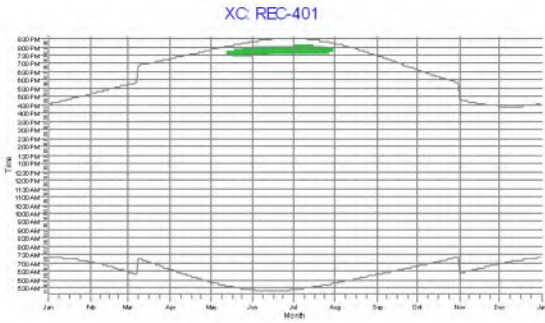
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs



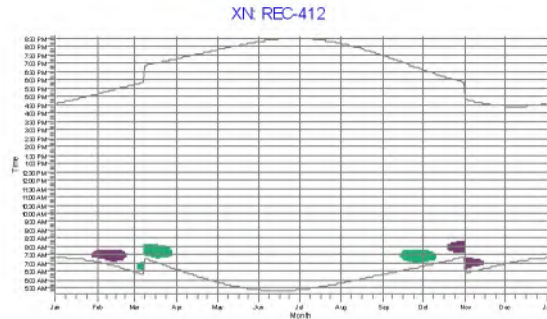
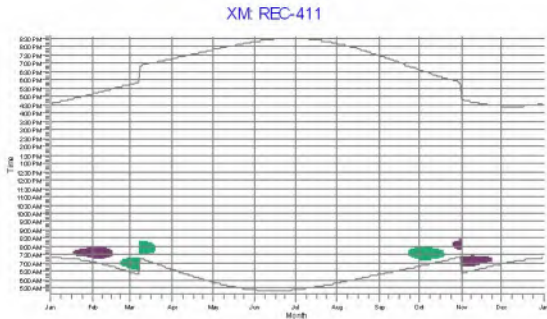
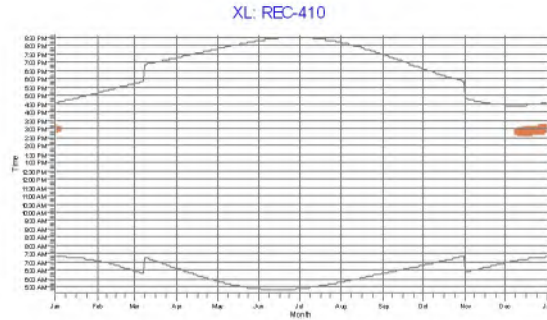
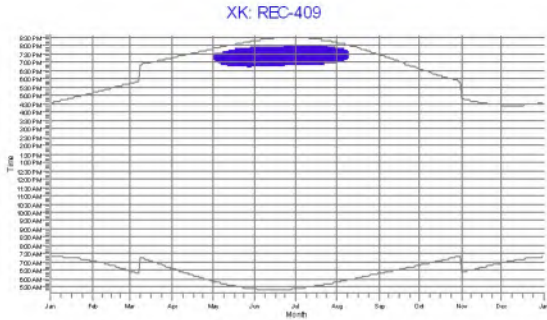
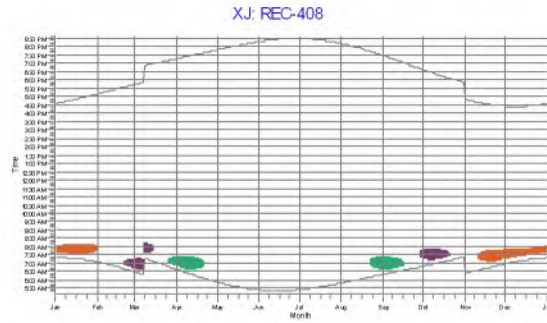
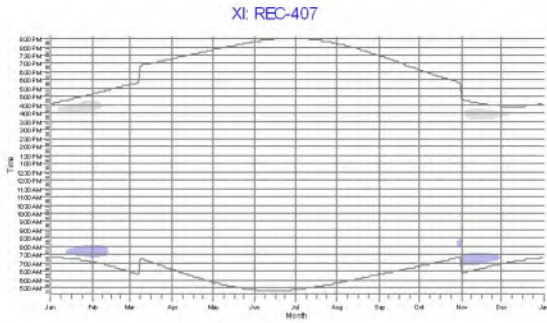
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

86: K36 92: K501 112: K92 115: K50 116: K51 127: K110 128: K48

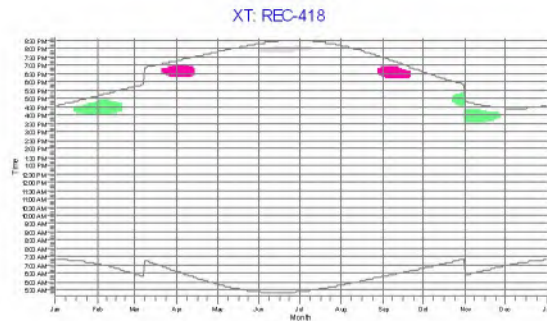
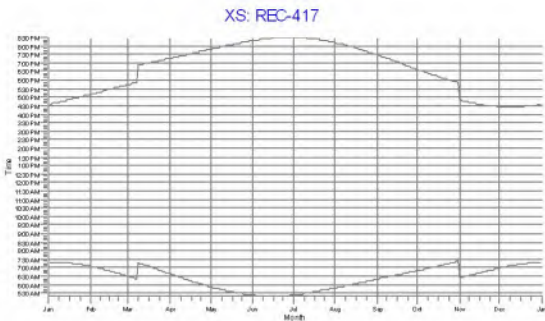
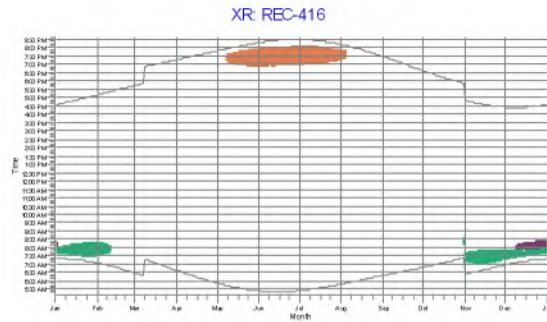
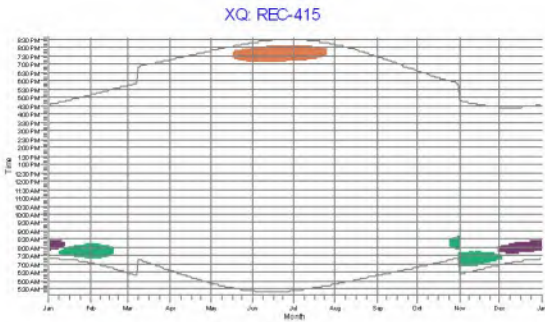
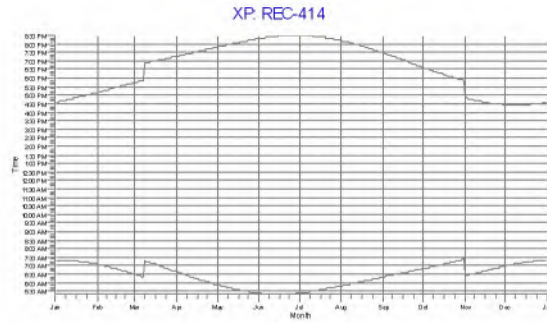
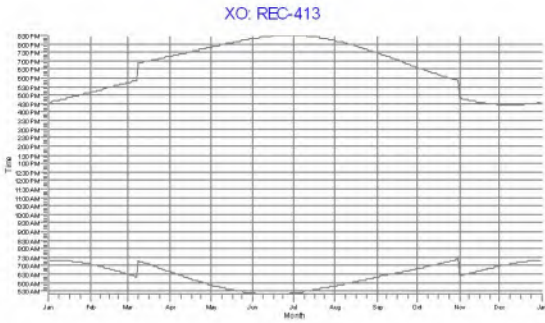
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 86: K36
 87: K503
 92: K501
 112: K92
 116: K51
 132: K38

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

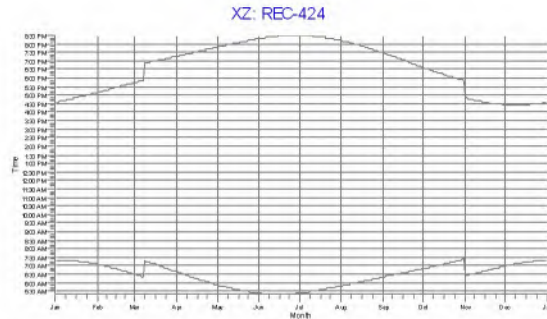
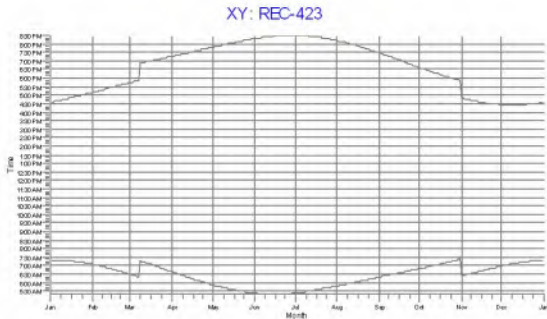
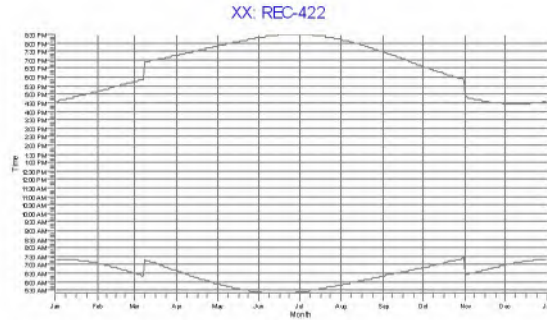
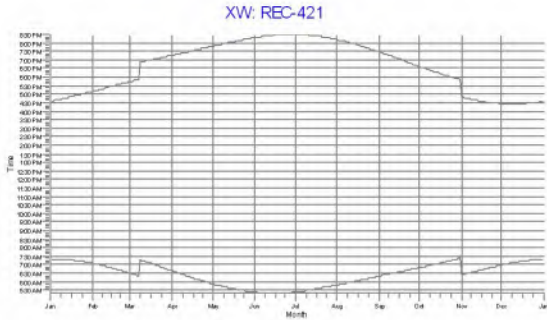
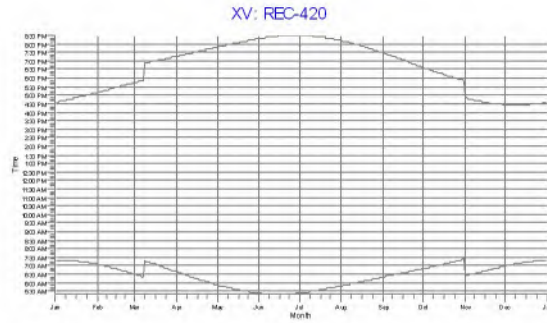
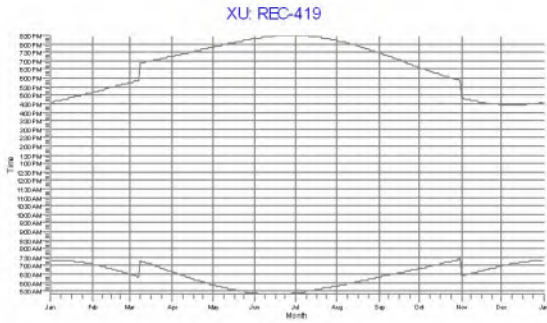
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

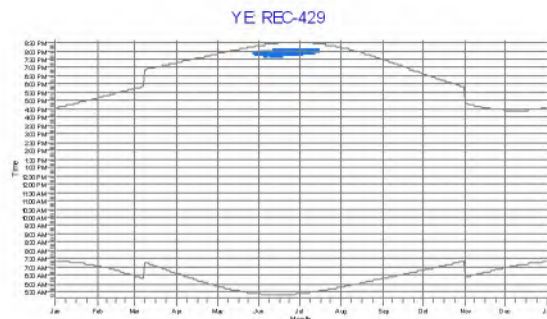
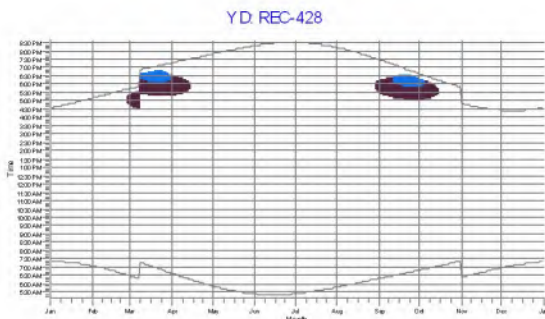
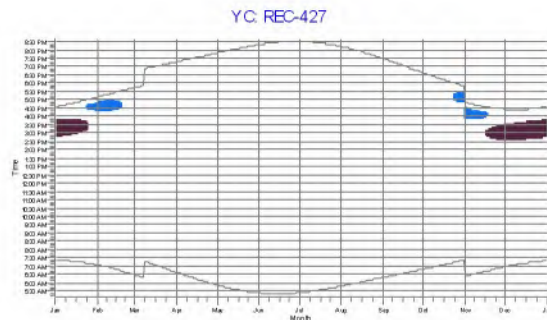
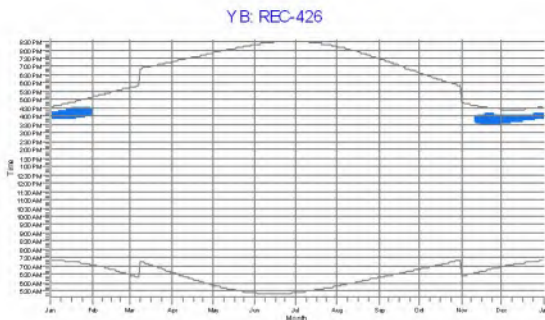
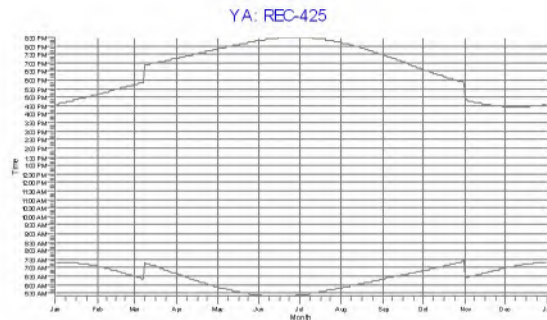
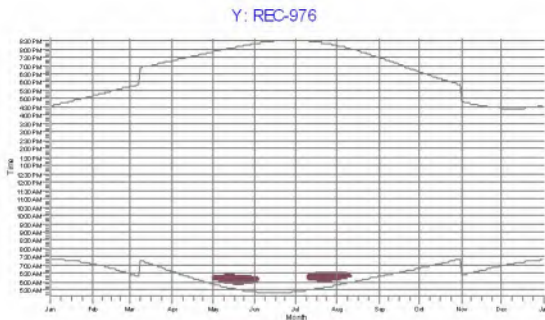
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

79: K13 88: K42 113: K93

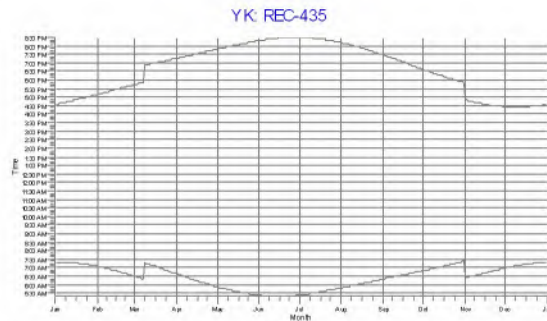
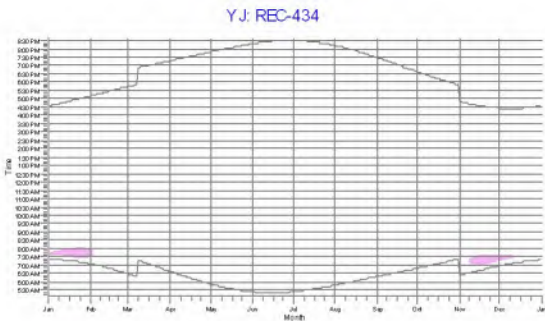
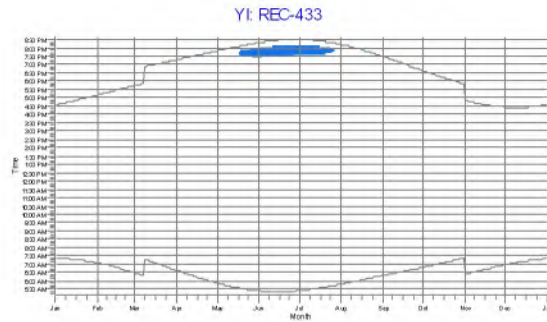
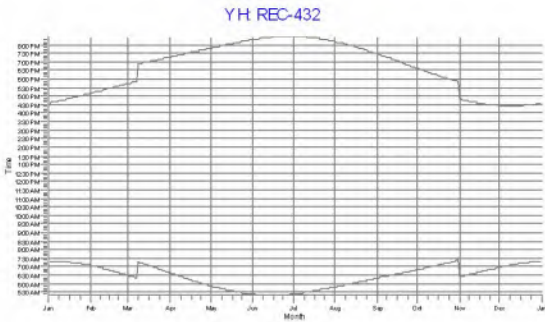
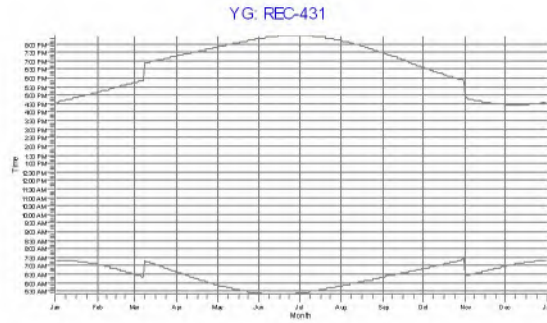
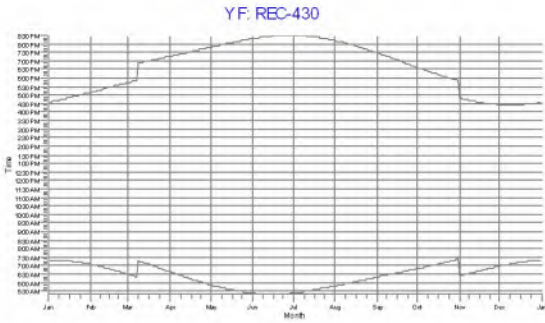
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

113: K93 114: K94

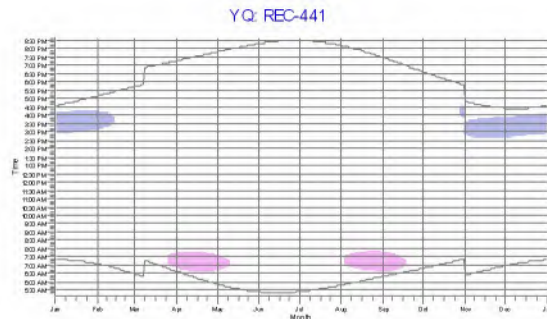
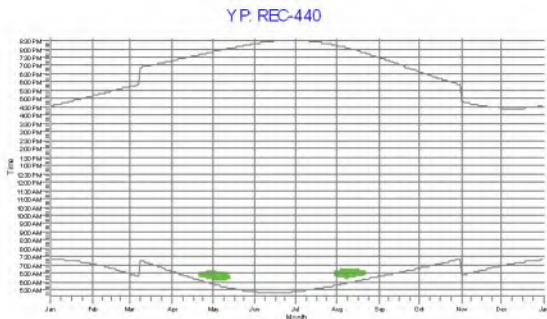
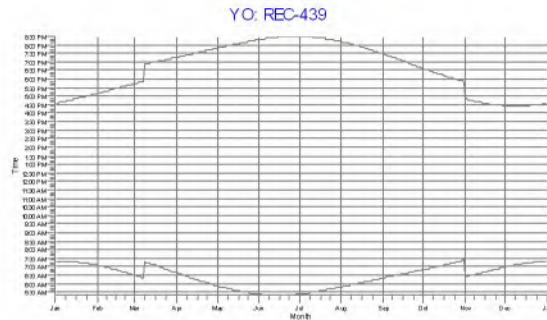
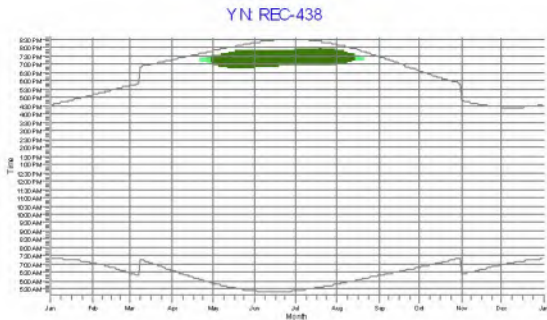
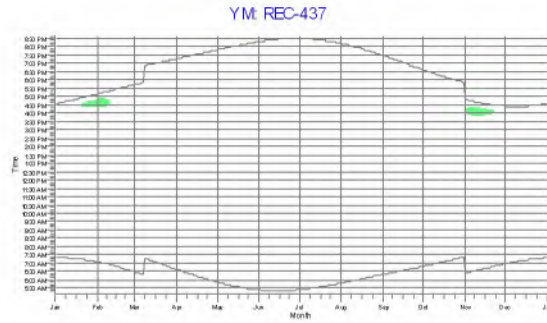
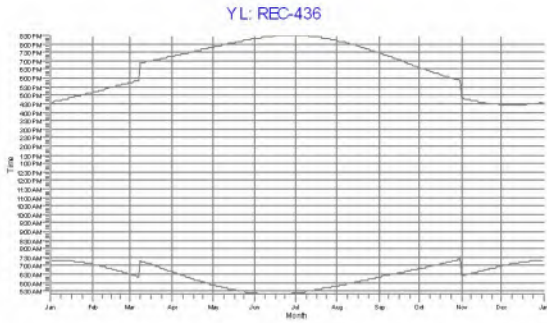
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

87: K503 94: K55 114: K94 115: K50 124: K107

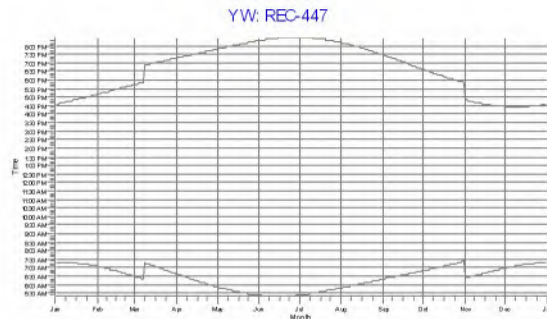
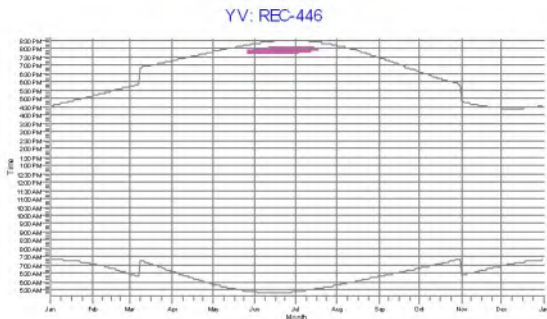
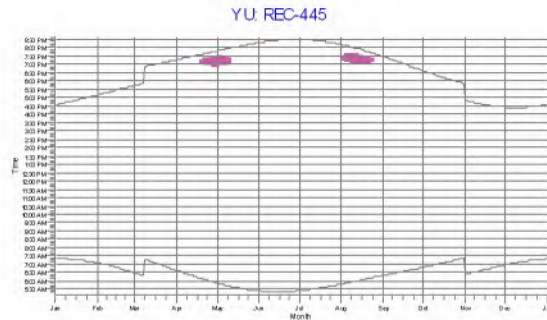
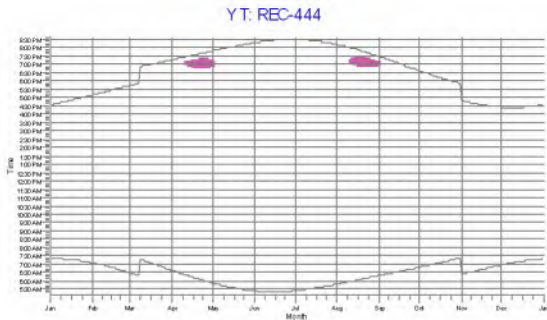
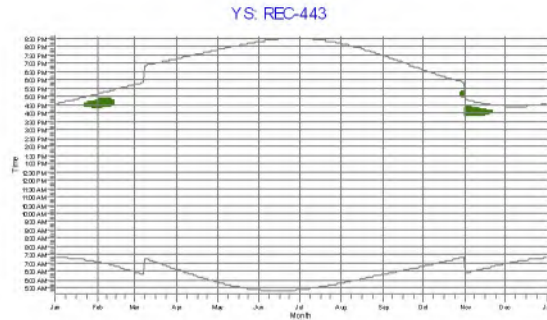
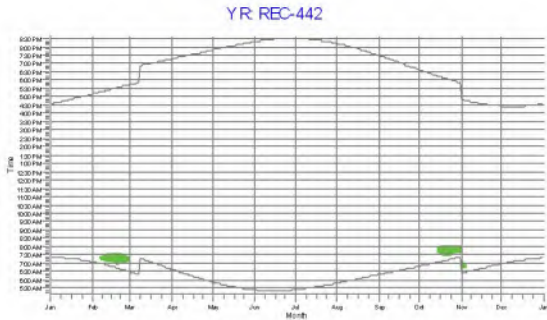
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

94: K55 124: K107 134: K204

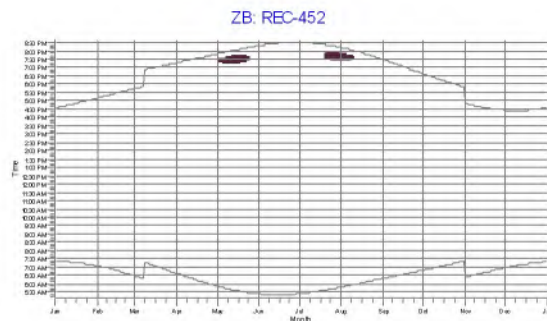
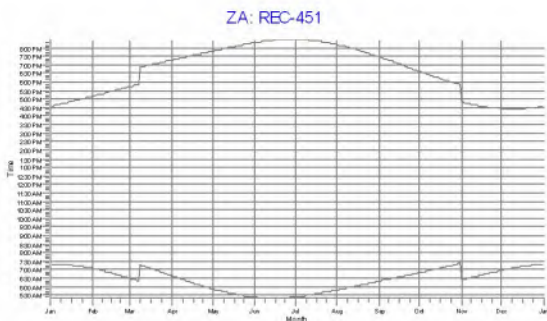
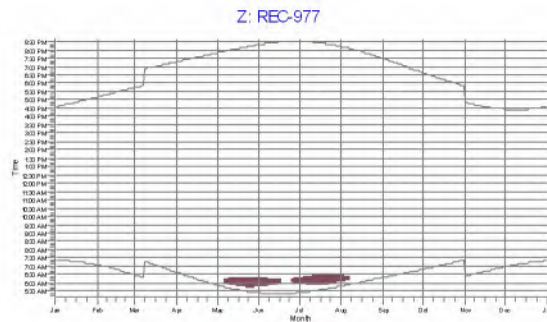
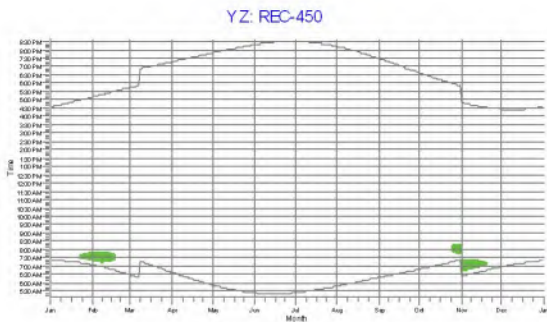
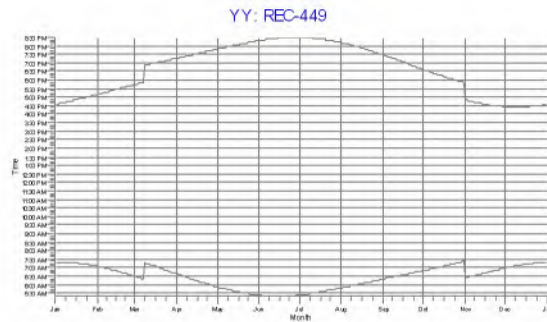
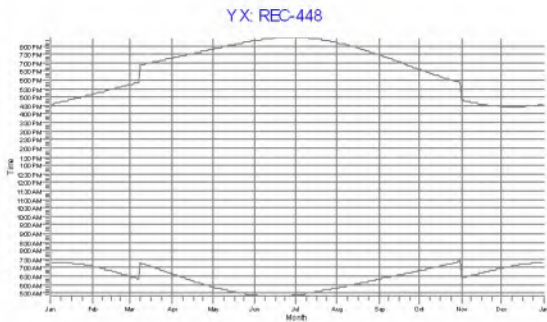
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

79: K13 88: K42 94: K55

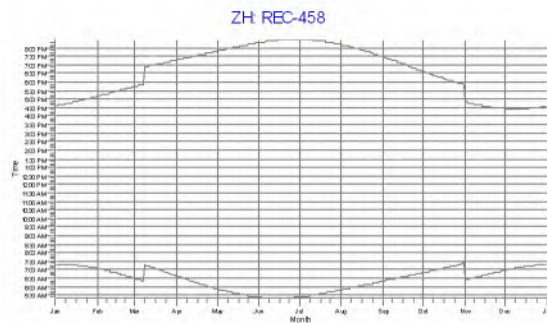
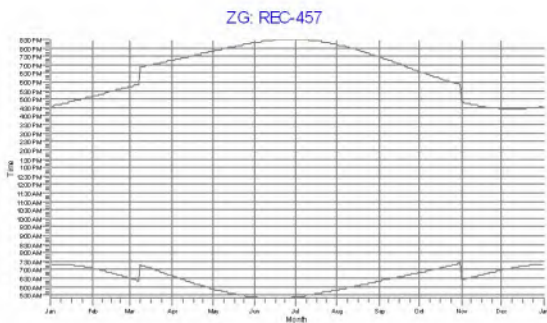
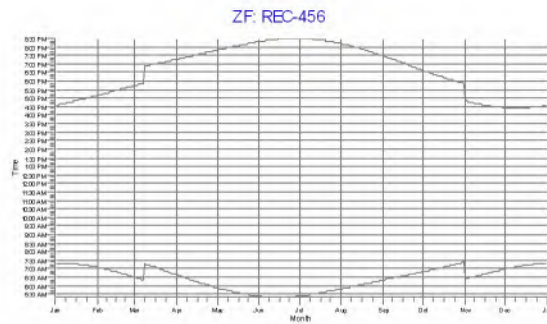
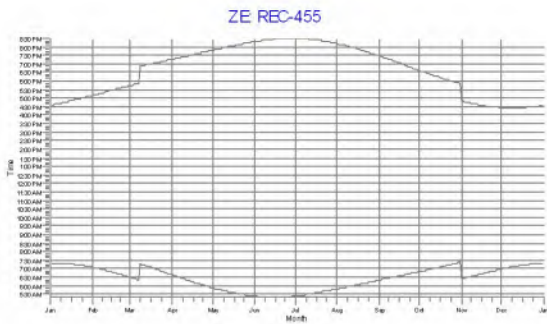
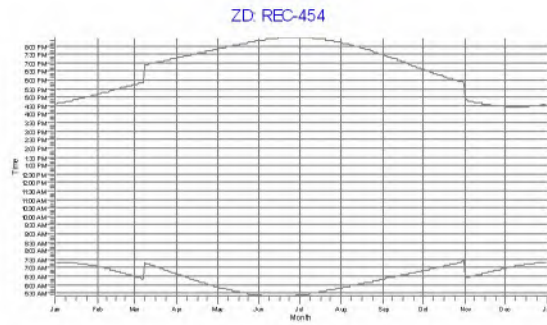
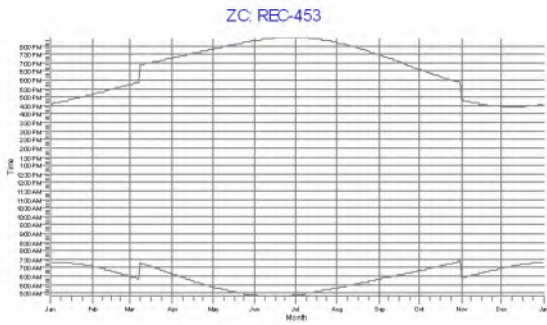
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

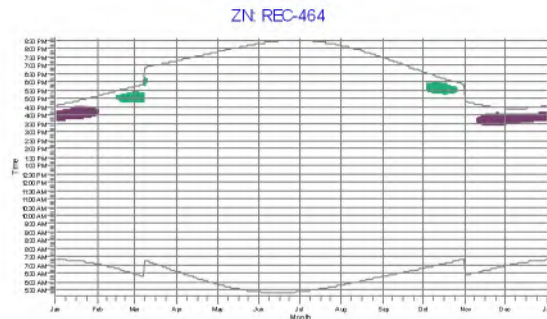
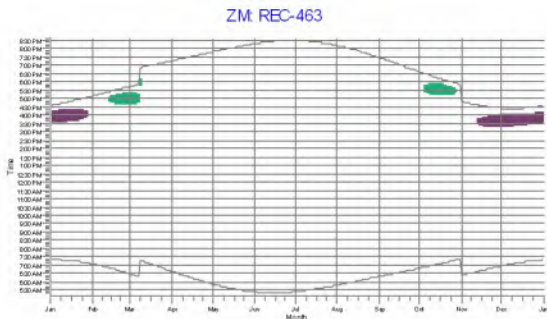
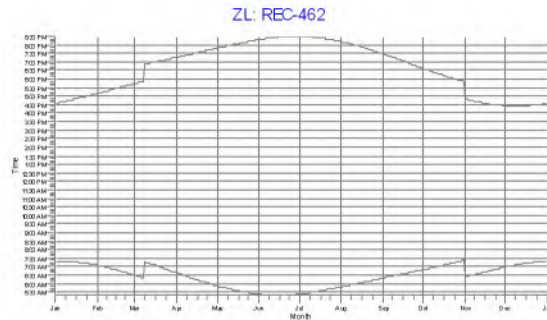
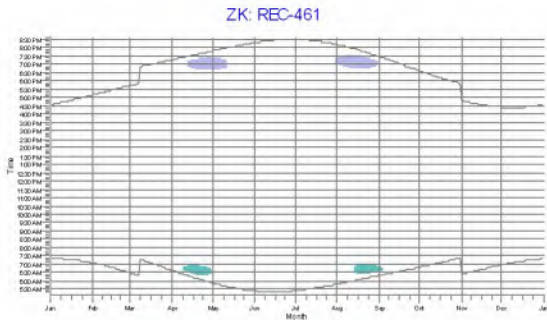
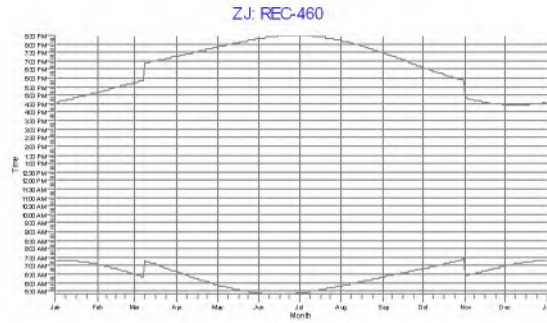
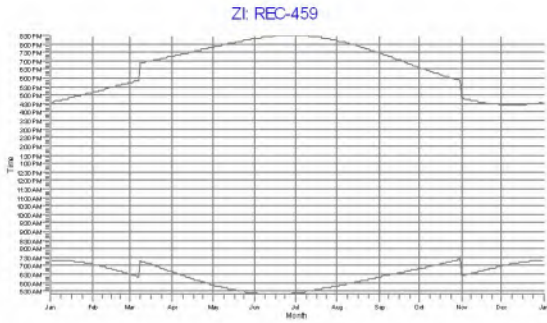
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

92: K501 95: K56 115: K50 116: K51

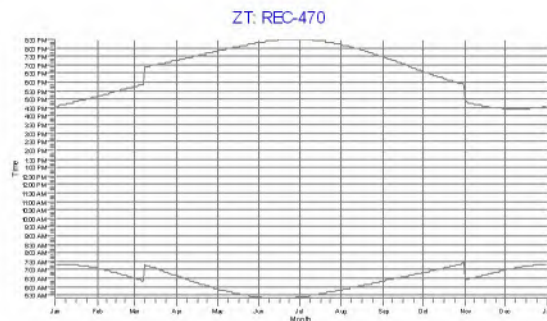
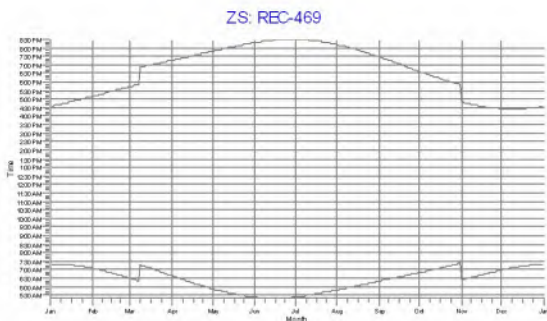
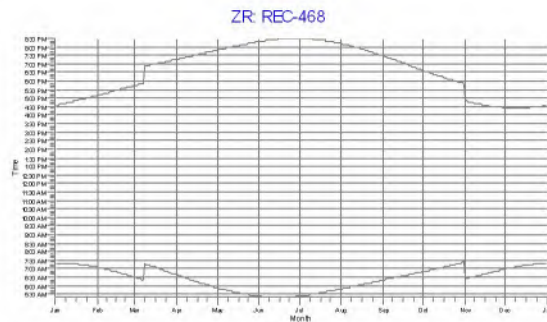
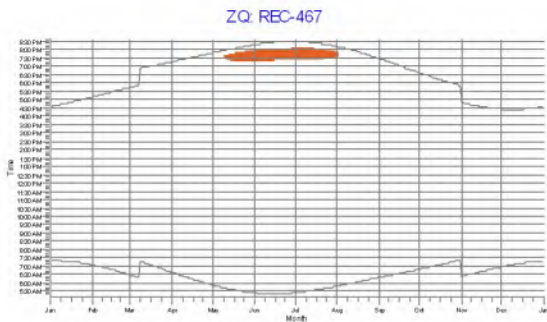
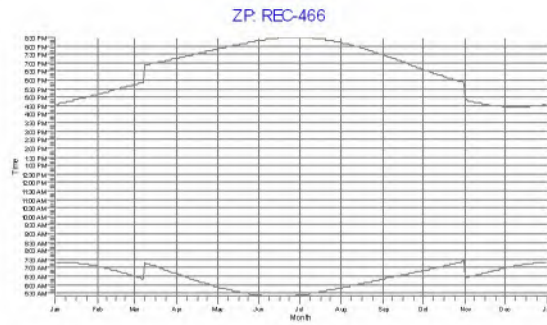
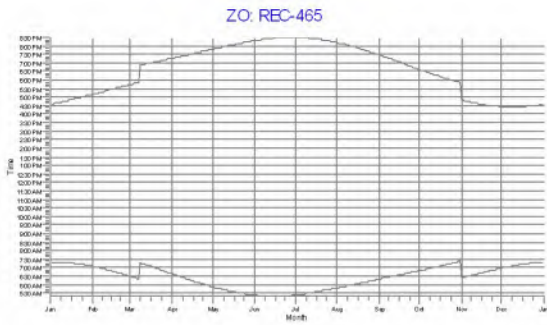
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
128: K48

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

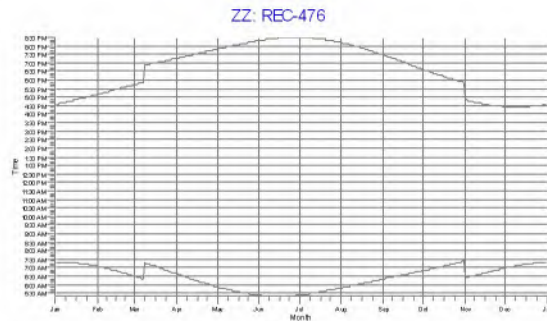
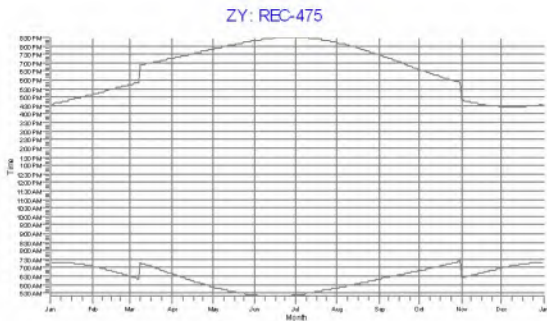
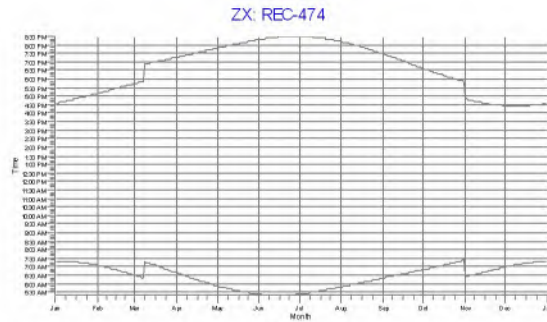
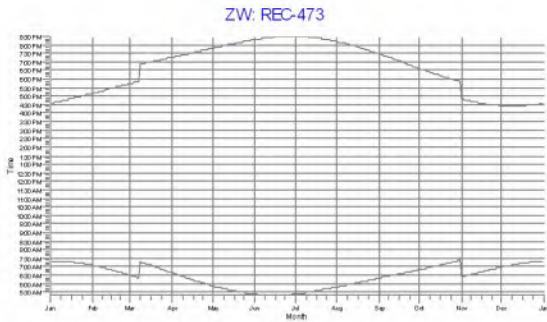
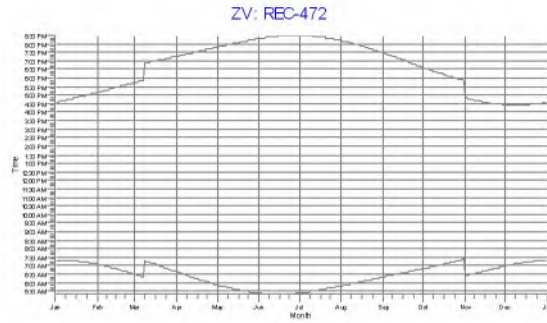
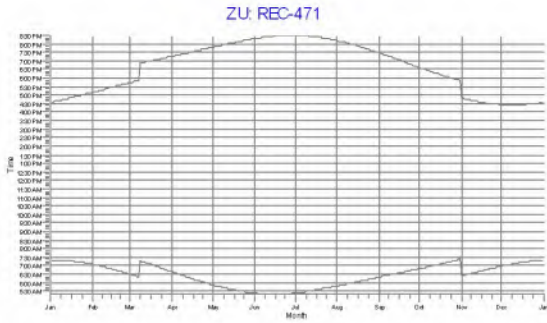
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

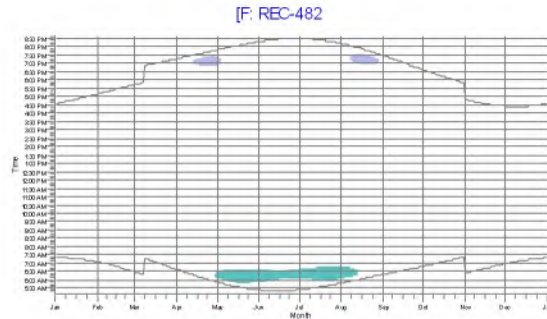
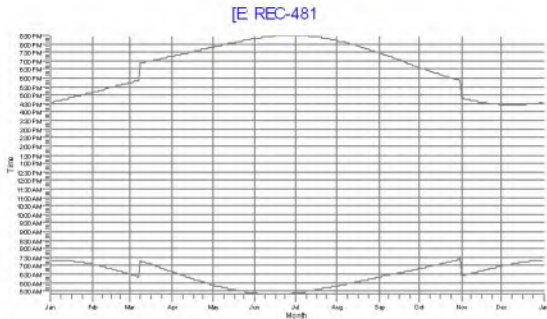
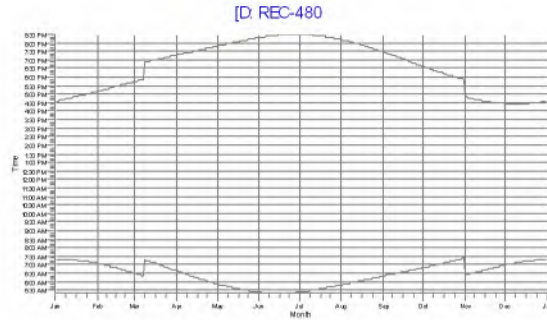
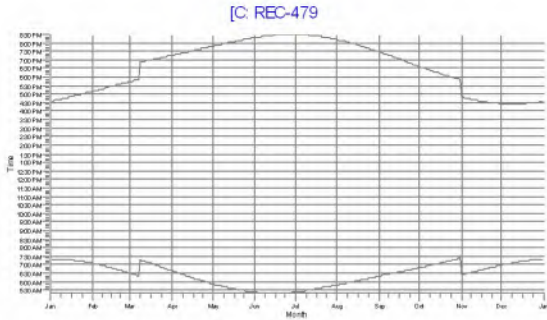
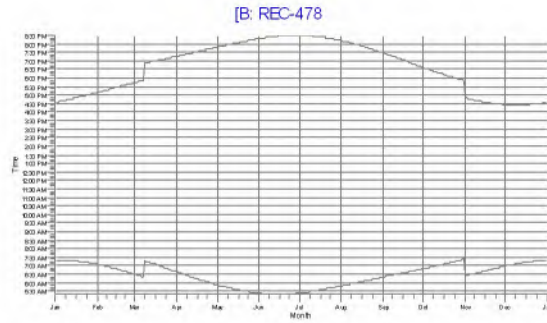
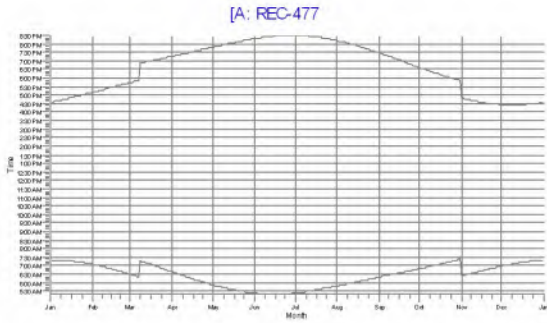
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

95: K56 115: K50

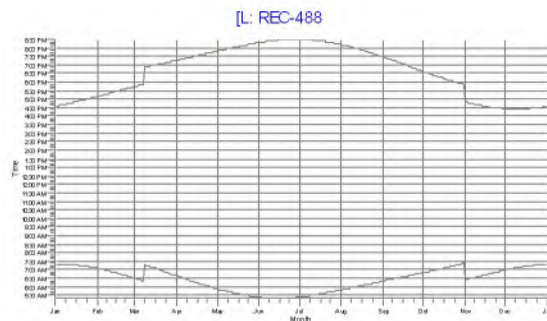
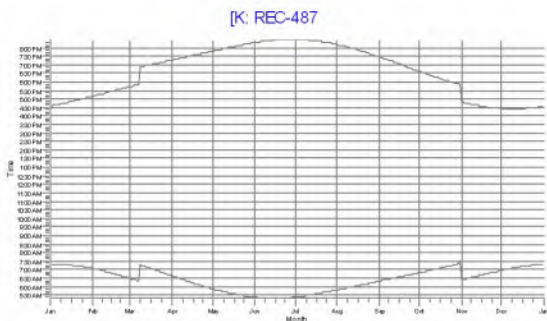
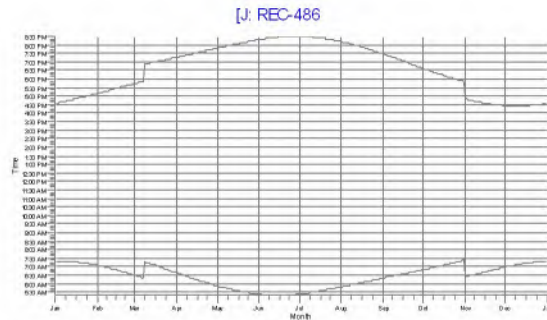
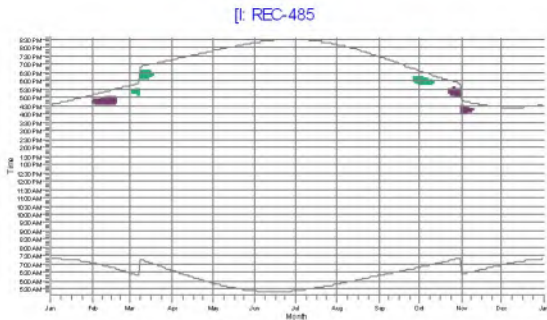
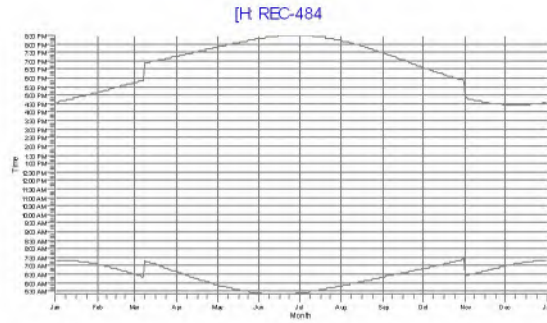
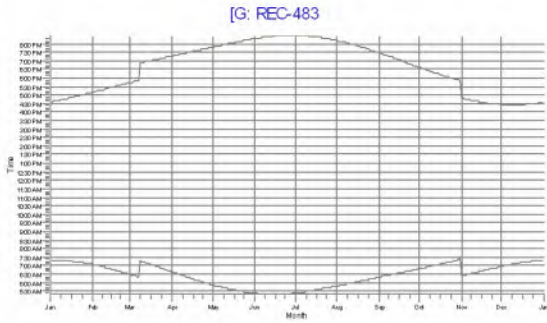
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
92: K501 116: K51

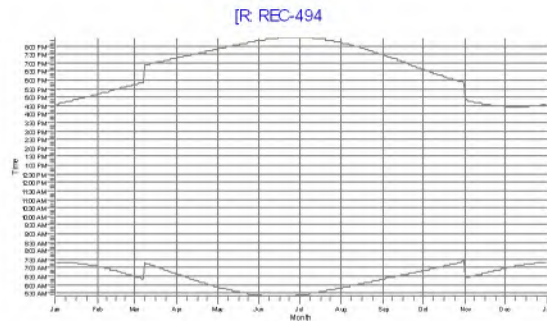
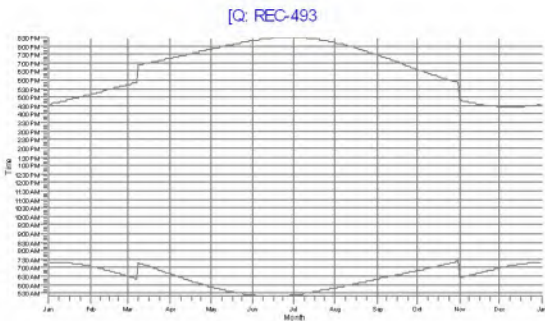
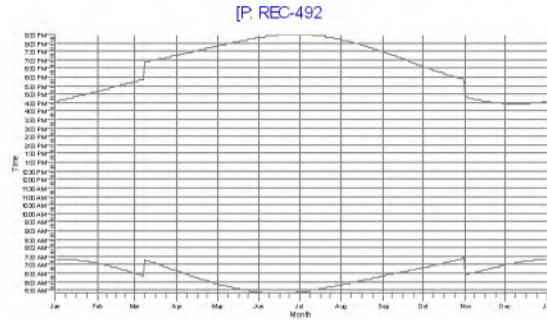
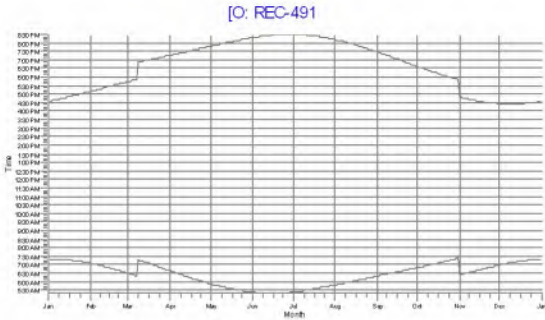
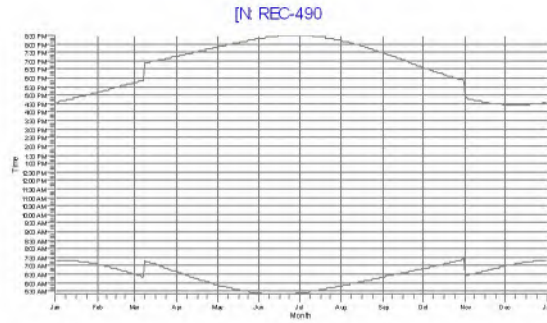
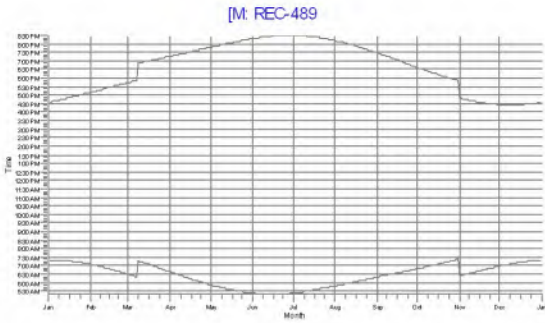
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

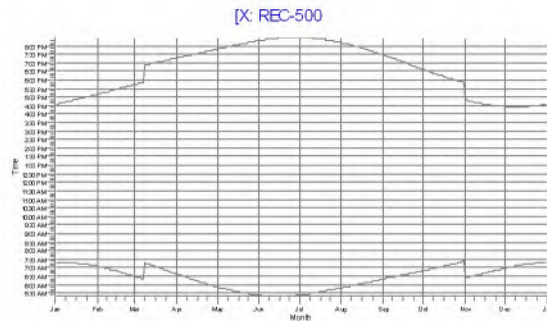
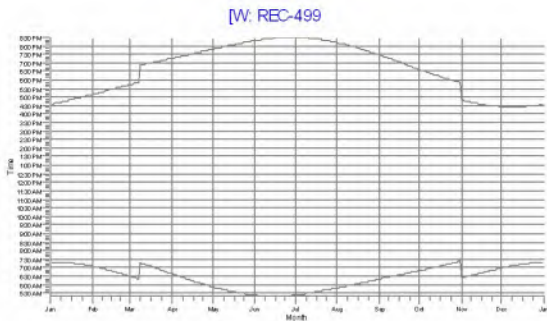
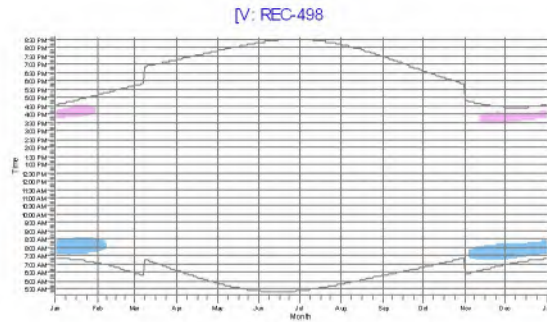
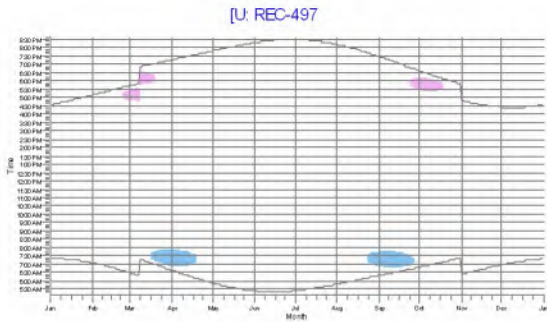
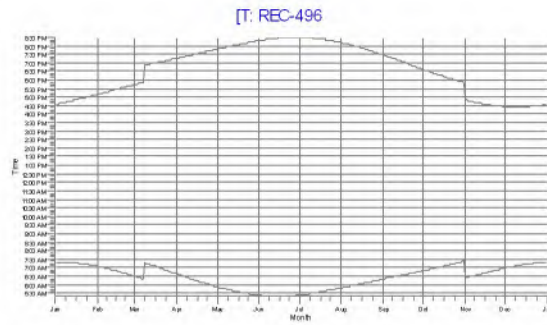
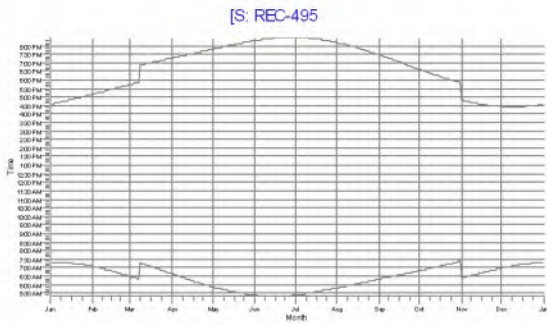
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 114: K94
 117: K57

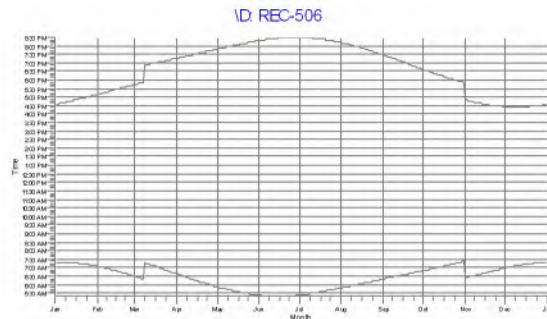
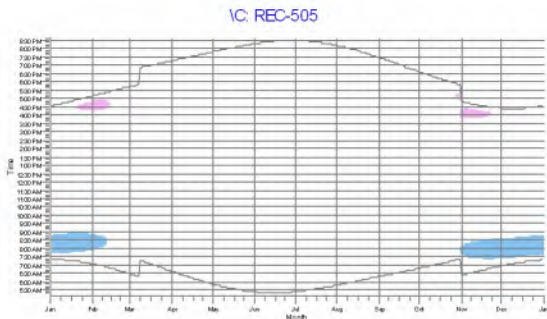
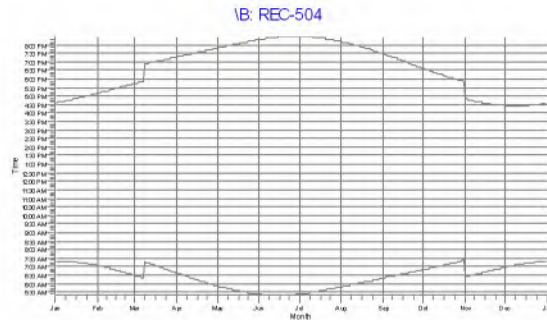
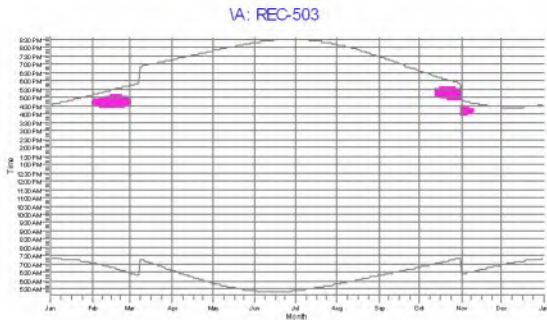
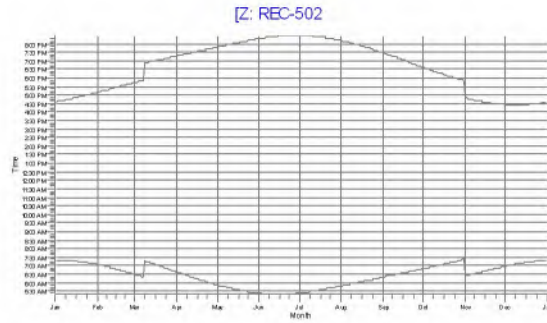
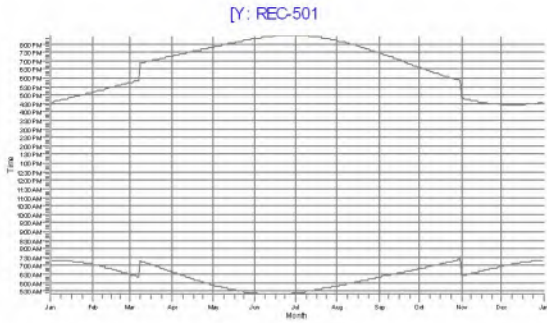
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

93: K54 114: K94 117: K57

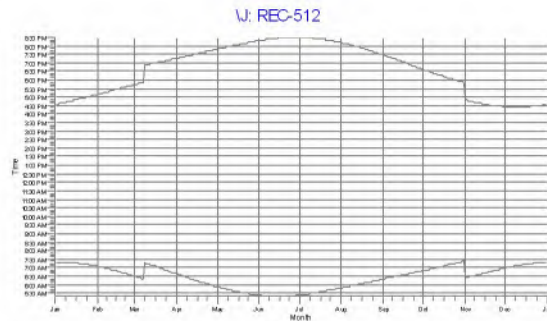
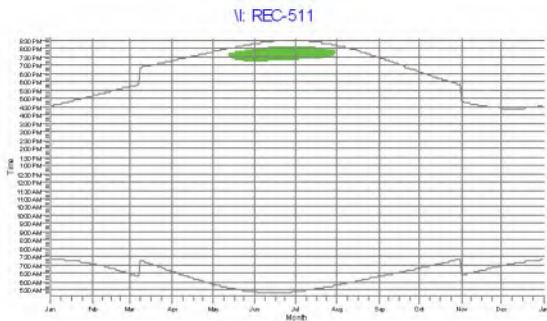
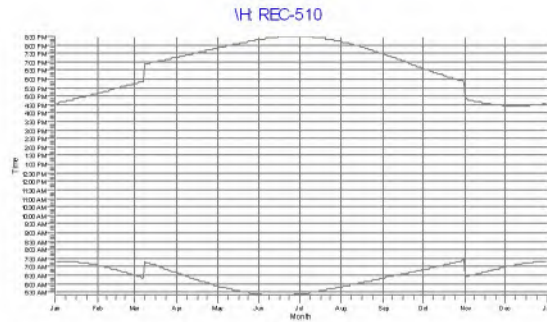
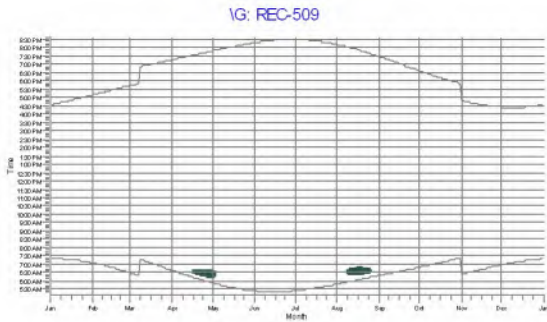
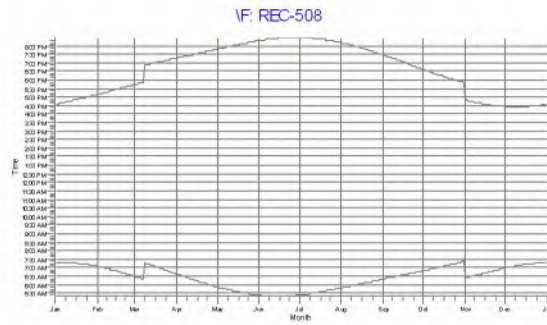
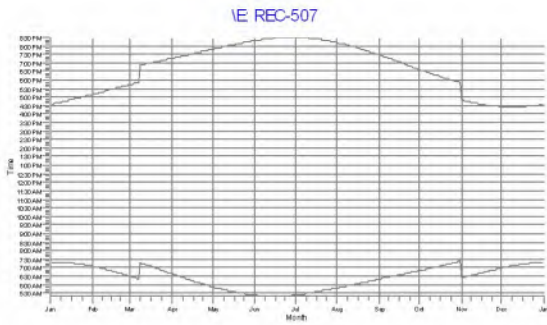
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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Calculated:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
94: K55
96: K60

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

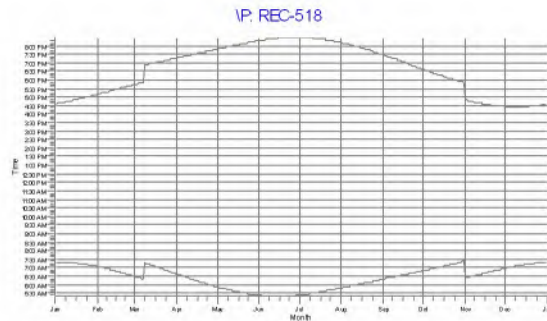
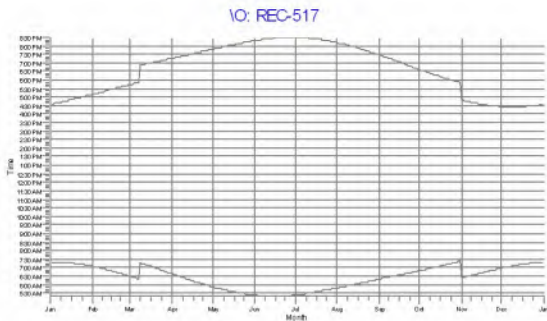
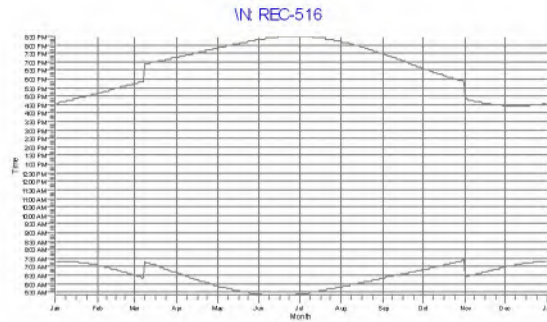
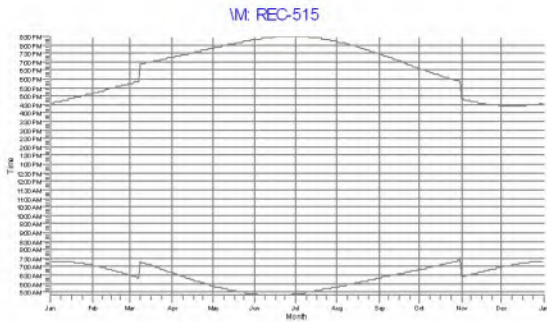
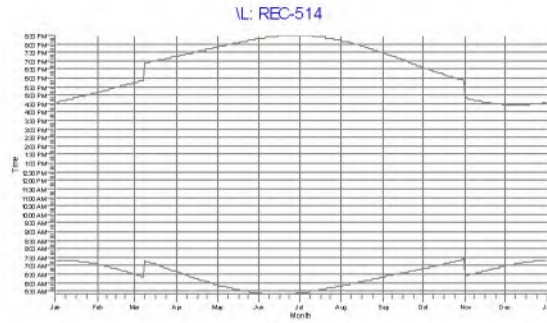
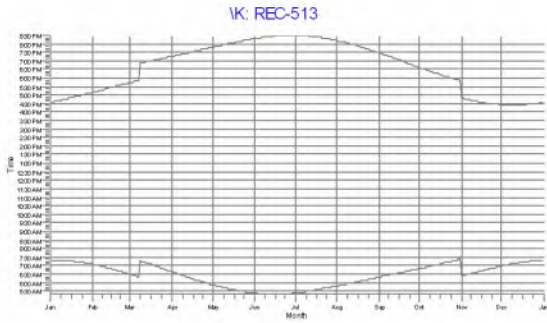
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Calculated:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

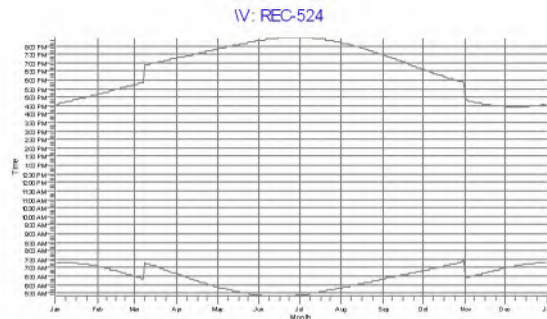
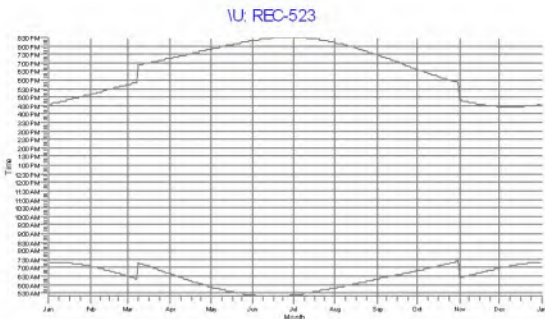
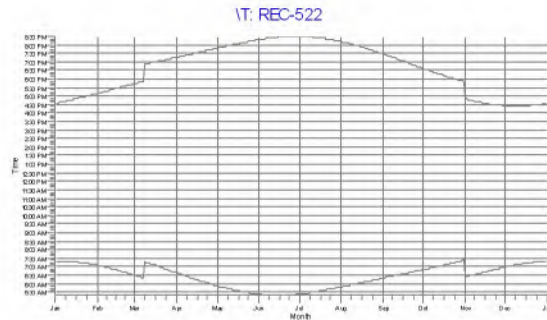
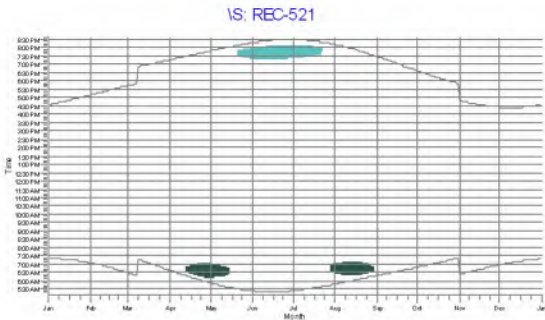
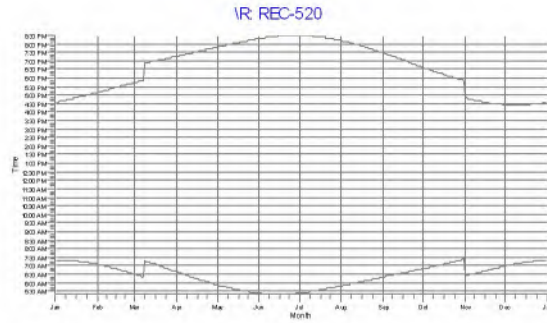
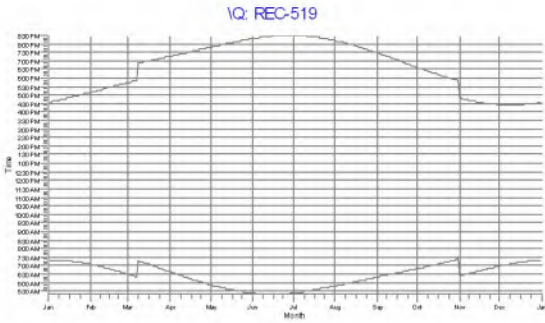
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
95: K56 96: K60

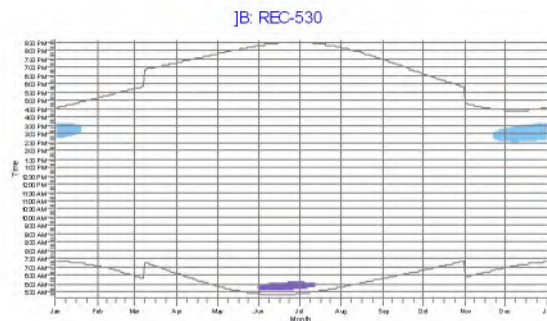
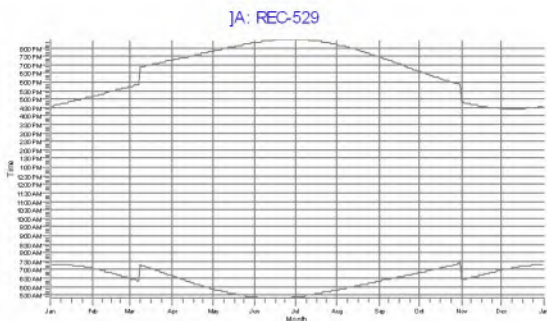
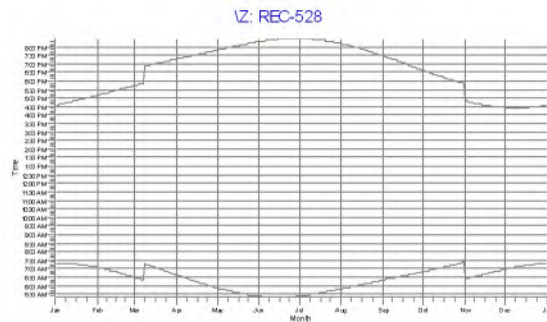
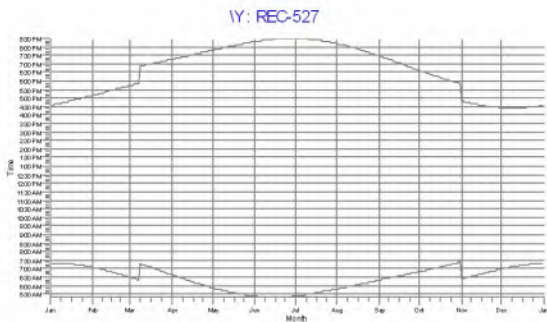
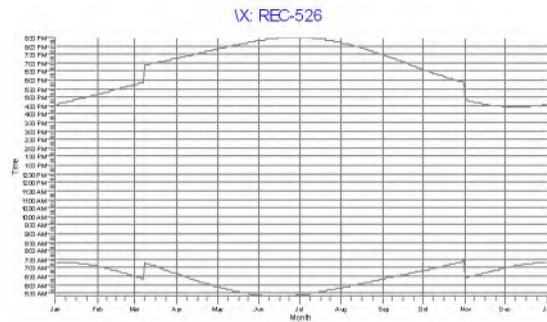
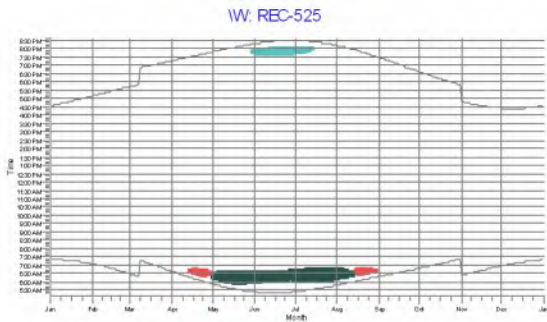
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 95: K56
 96: K60
 97: K61
 98: K62
 117: K57

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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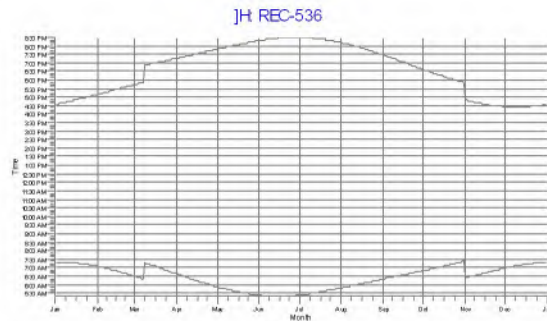
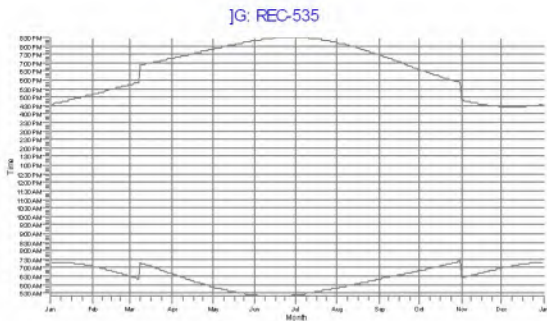
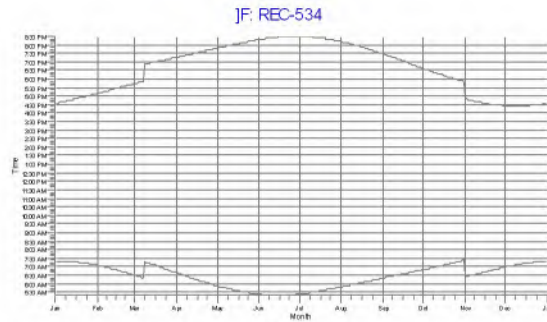
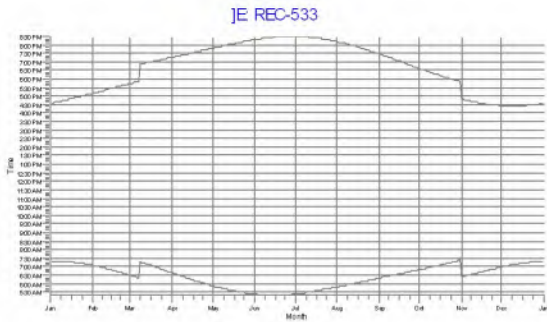
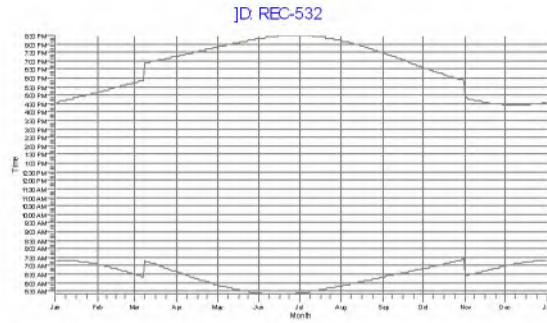
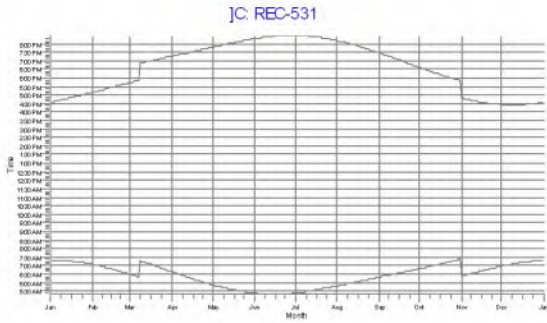
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

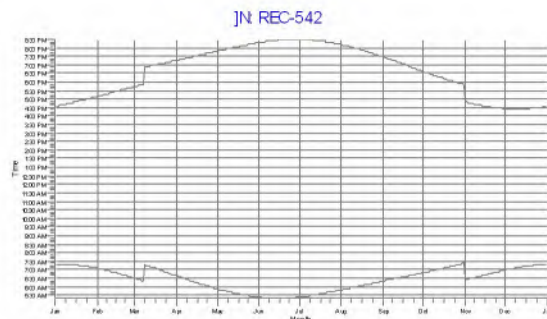
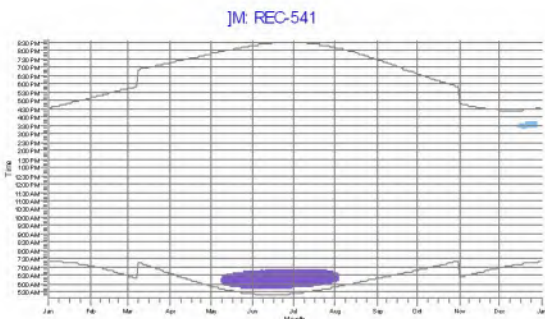
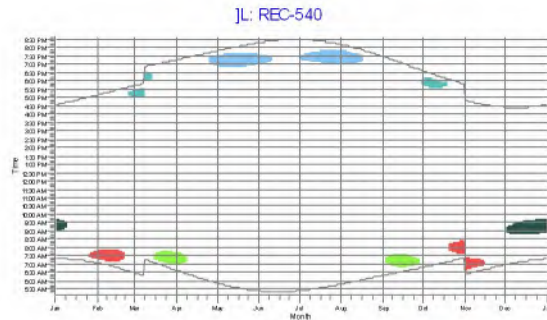
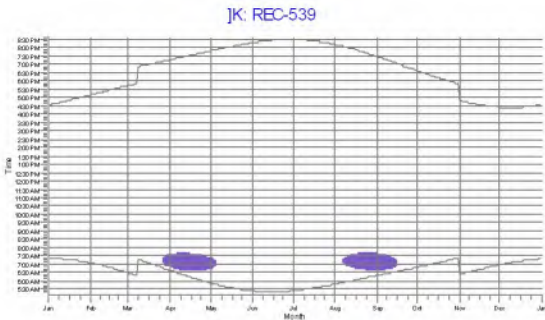
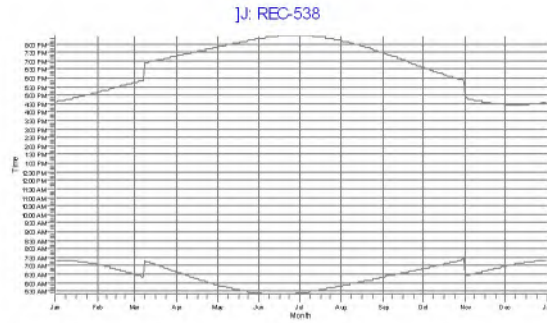
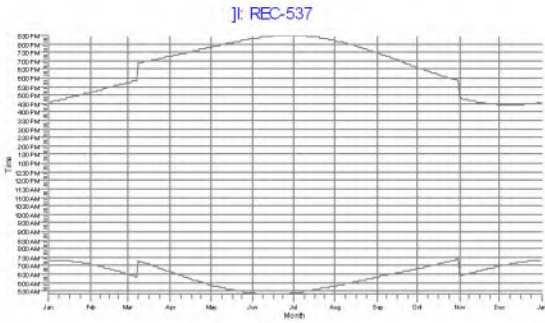
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 95: K56
 96: K60
 97: K61
 98: K62
 117: K57
 118: K98

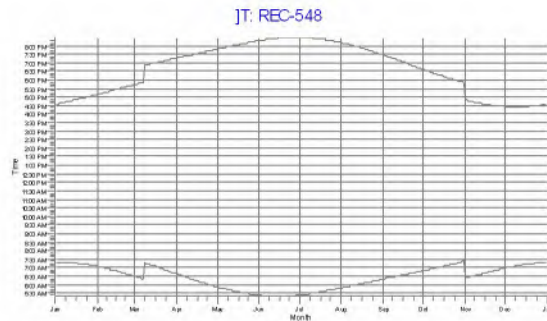
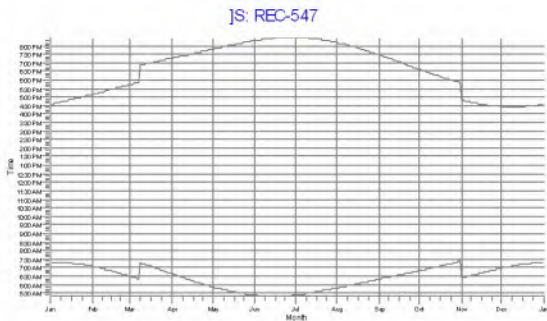
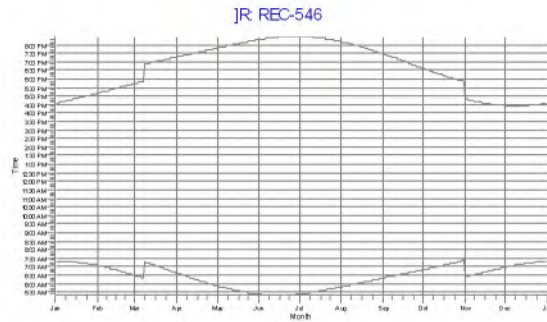
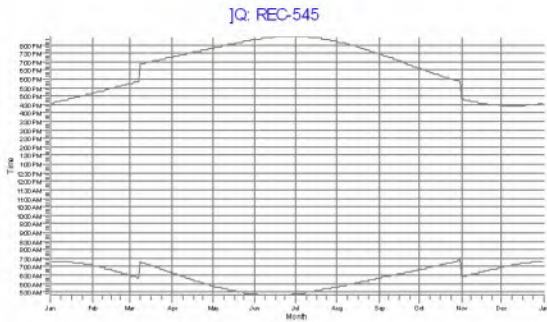
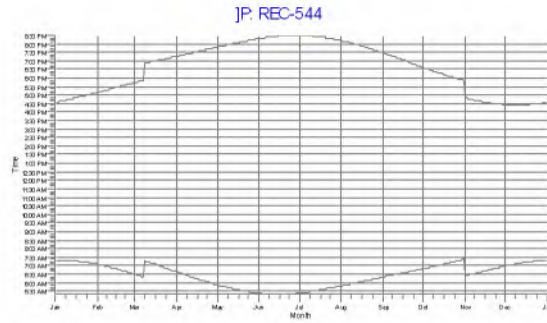
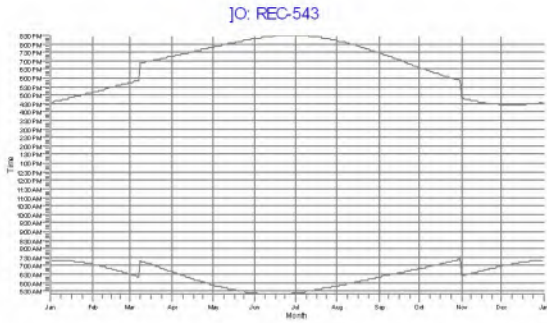
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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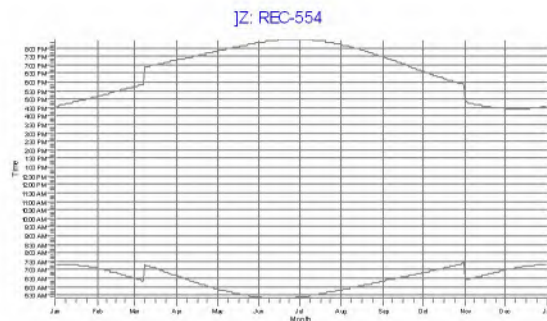
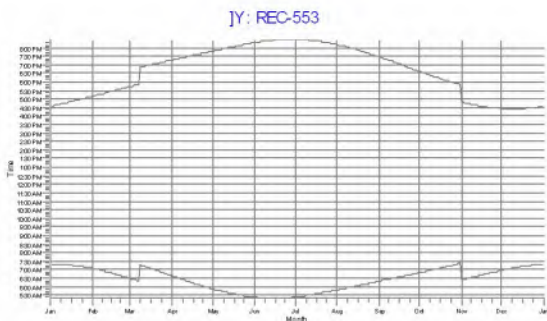
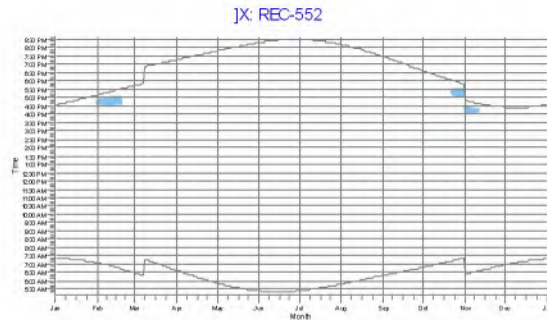
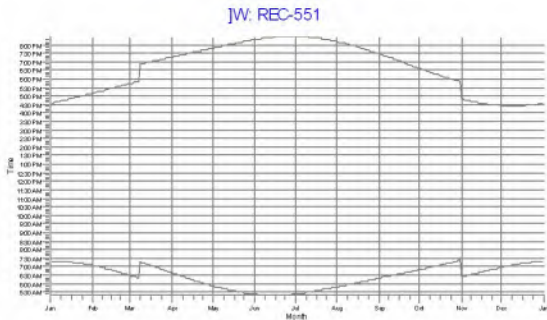
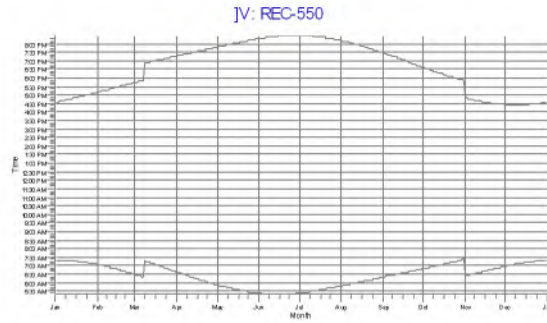
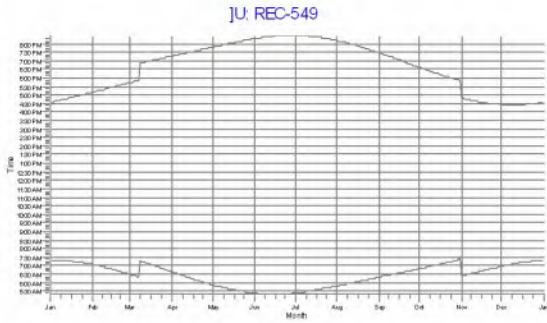
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

117: K57

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

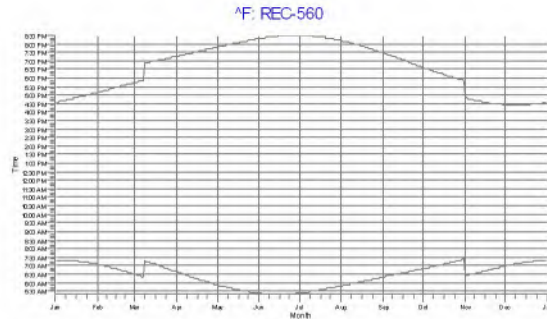
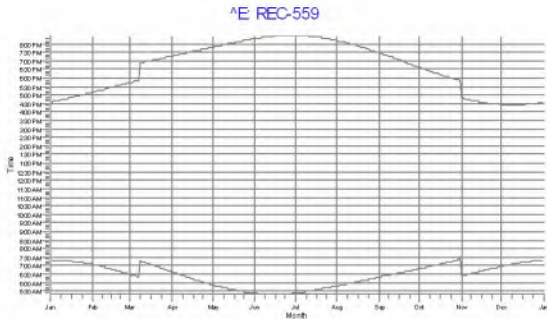
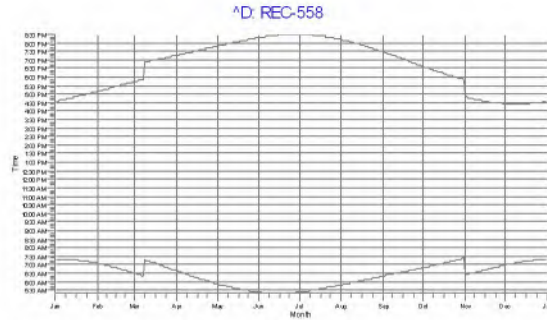
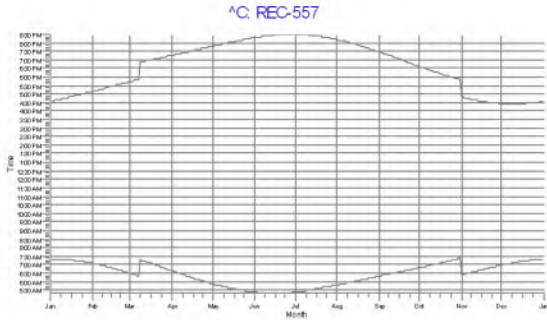
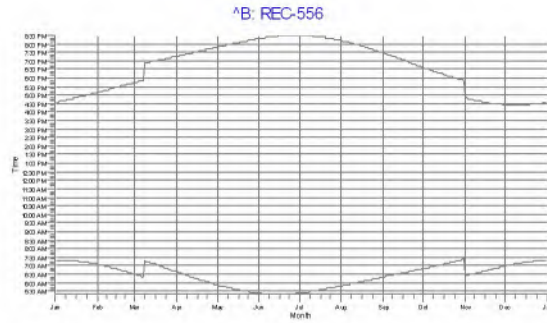
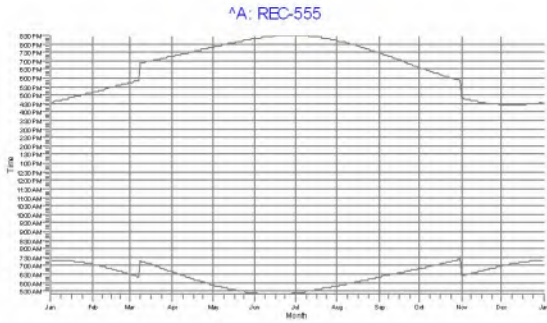
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

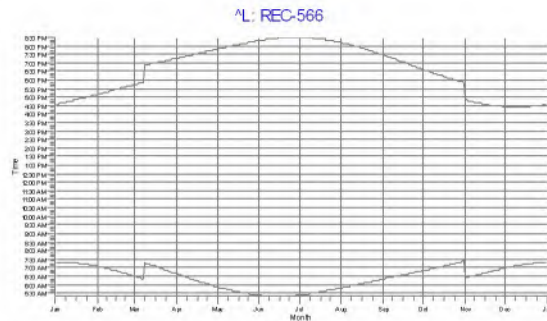
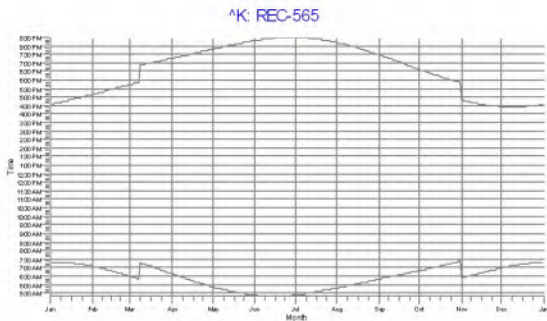
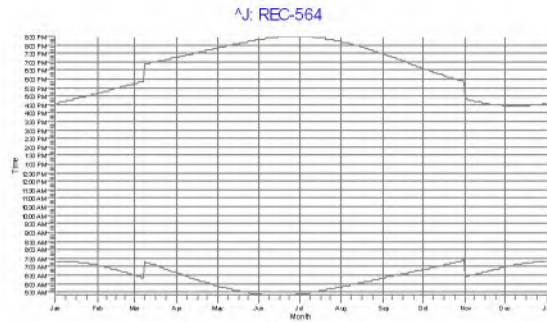
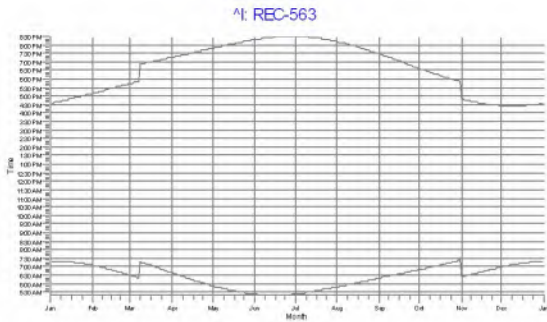
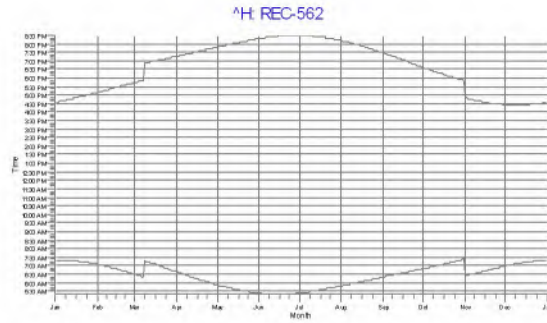
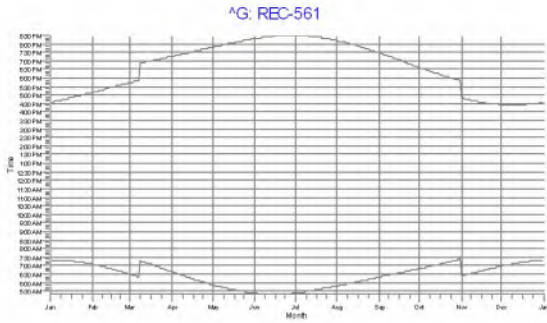
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

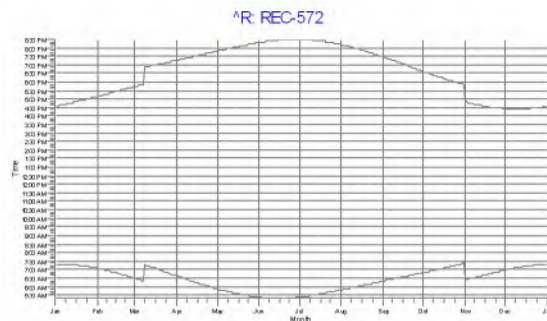
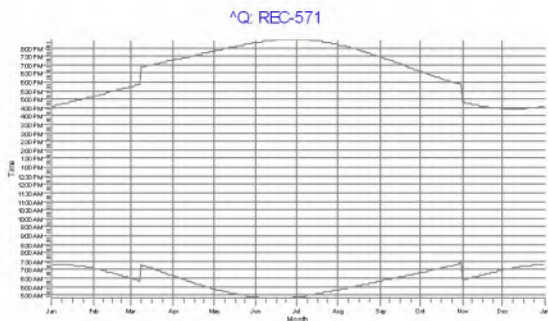
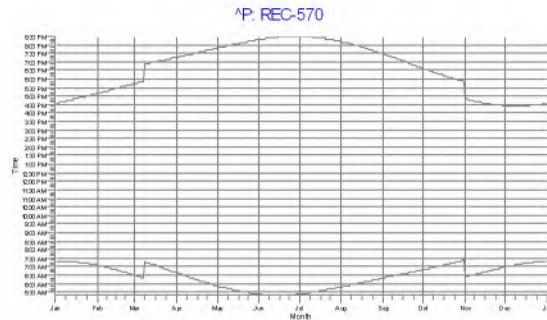
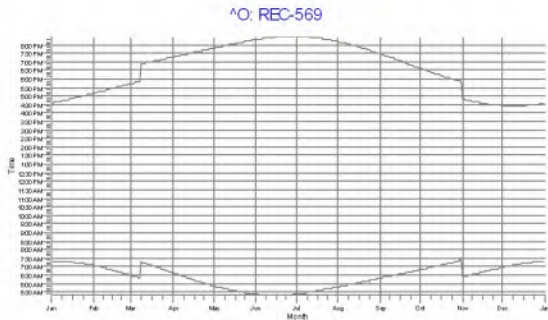
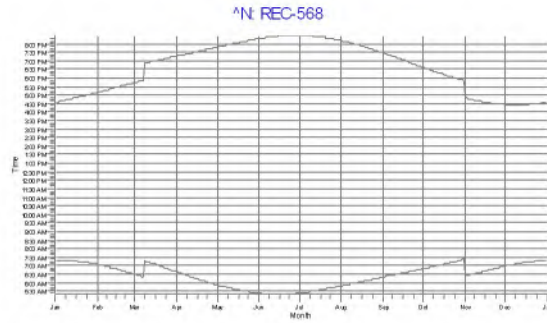
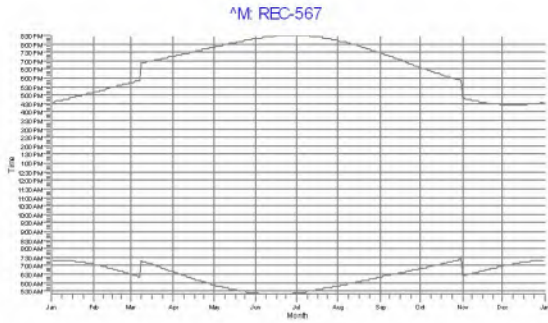
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

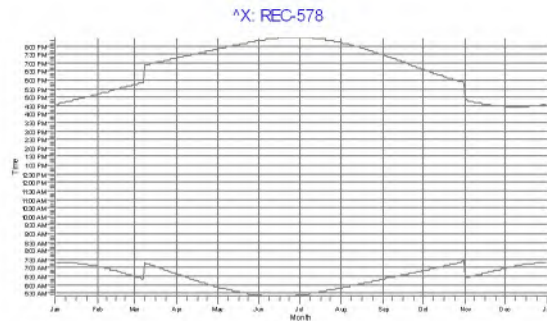
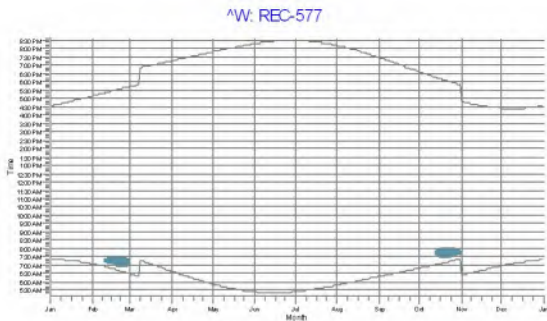
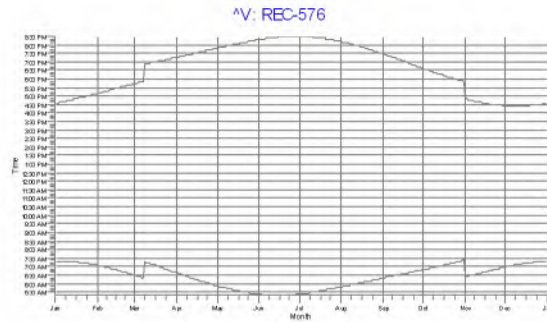
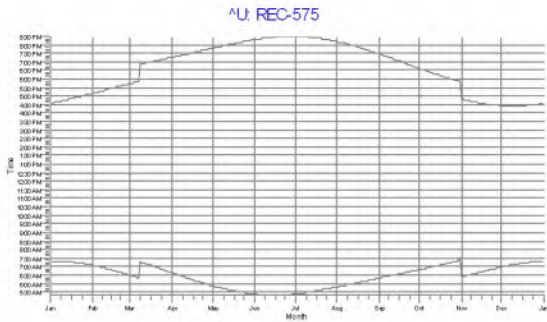
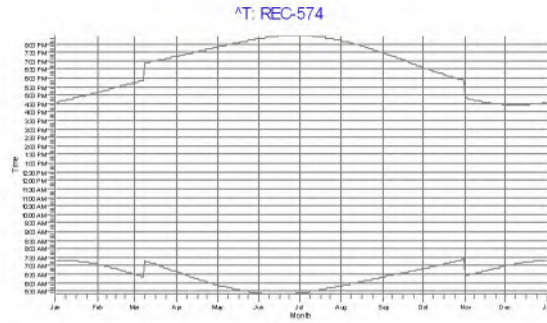
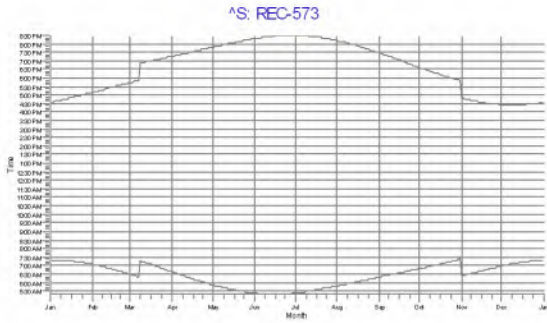
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
99: K66

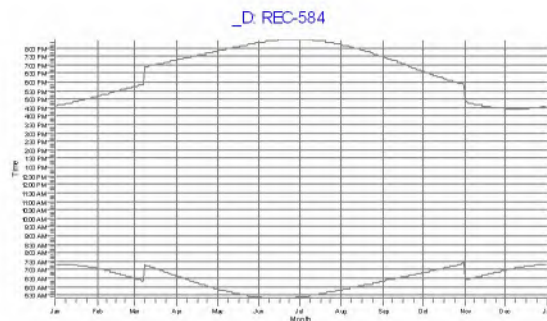
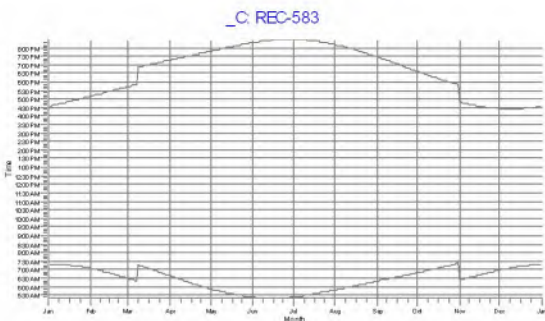
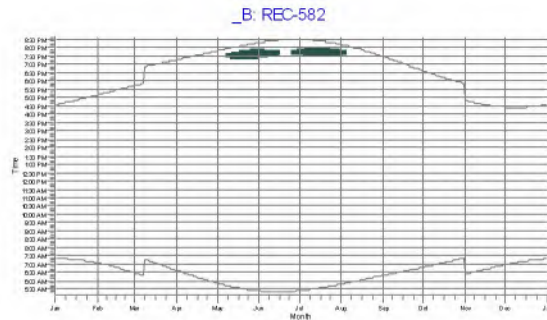
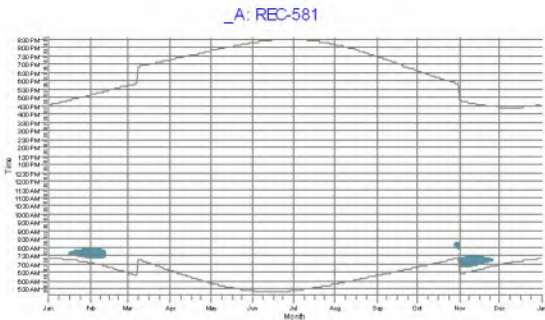
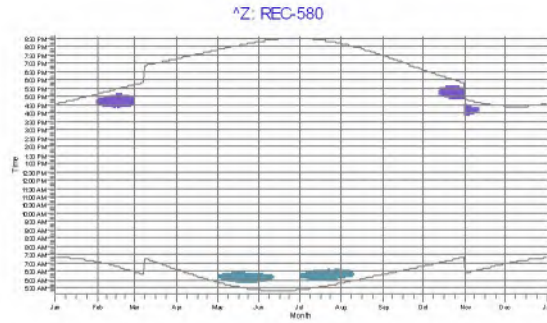
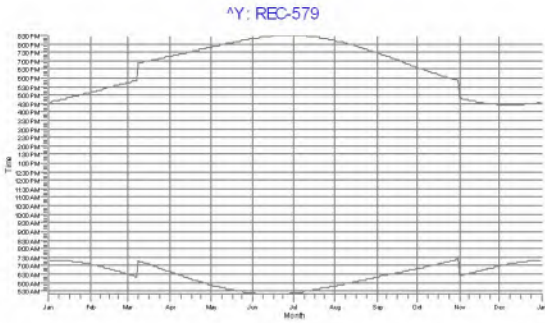
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

96: K60 97: K61 99: K66

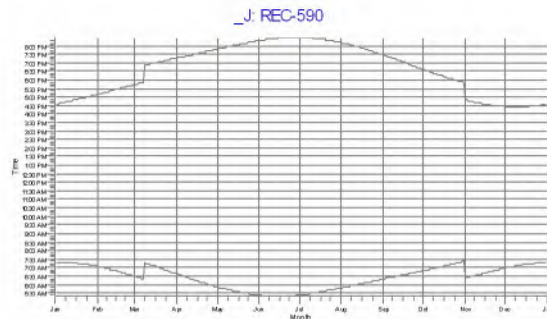
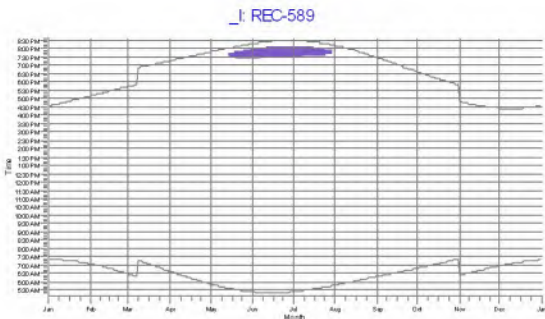
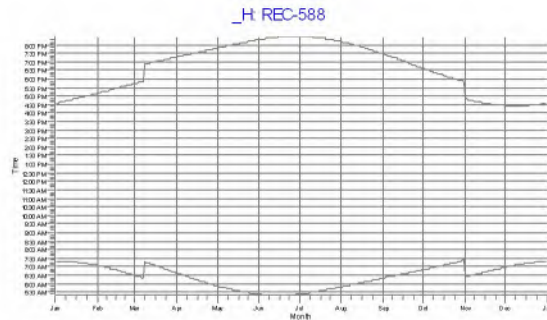
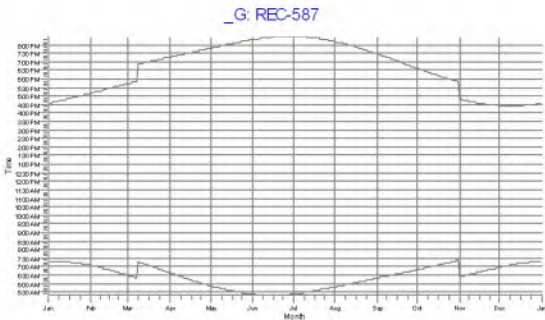
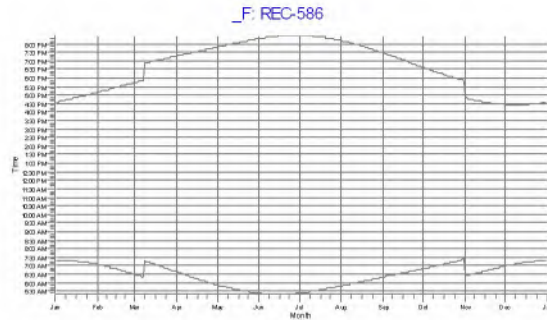
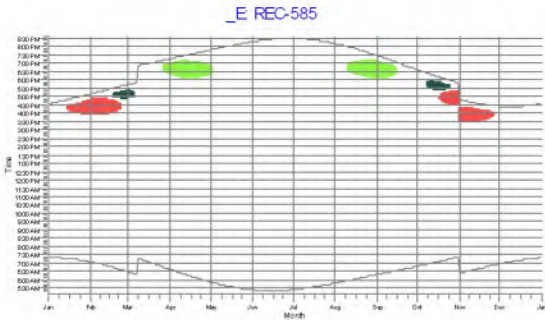
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 96: K60
 97: K61
 98: K62
 118: K98

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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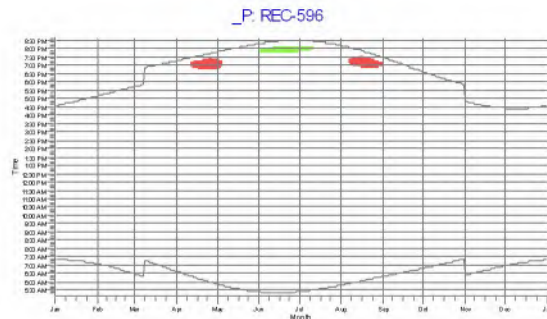
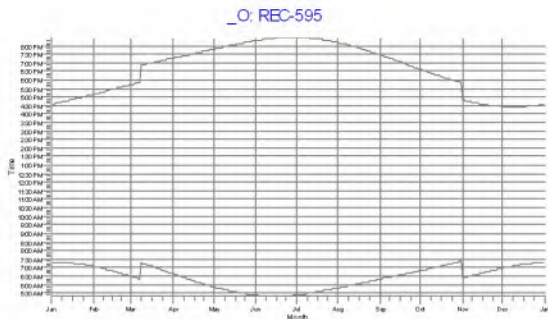
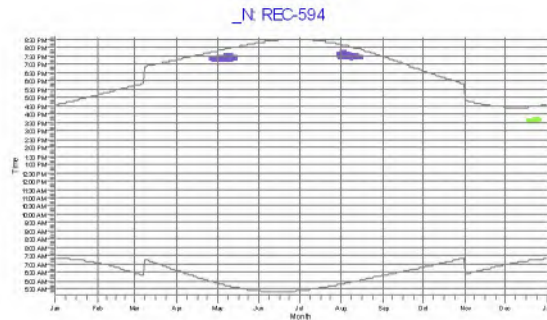
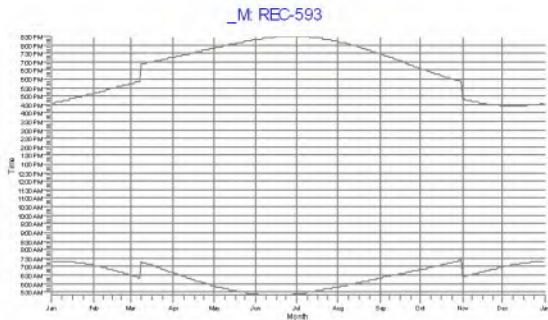
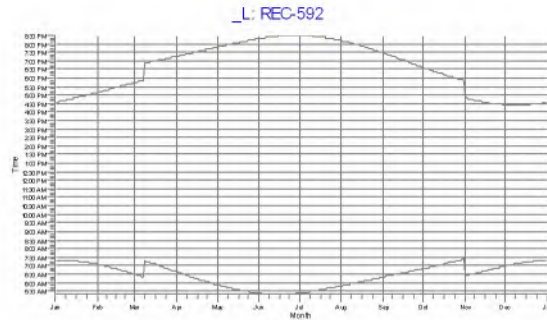
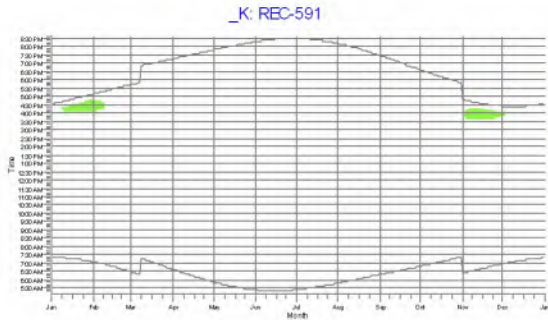
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

■ 97: K61
 ■ 98: K62
 ■ 118: K98

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

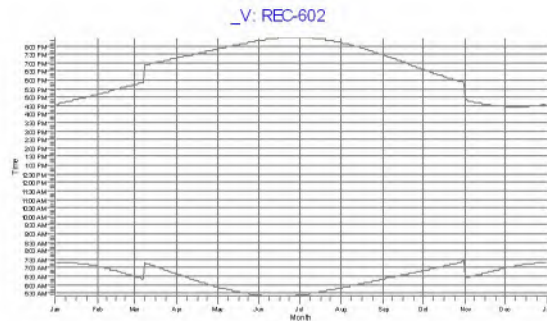
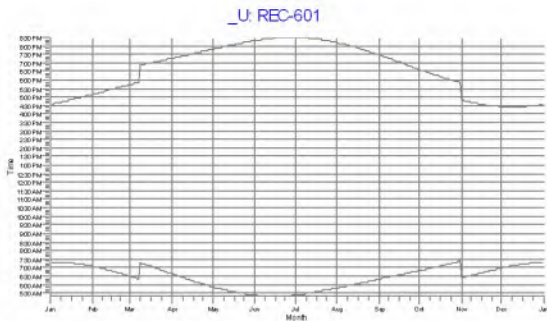
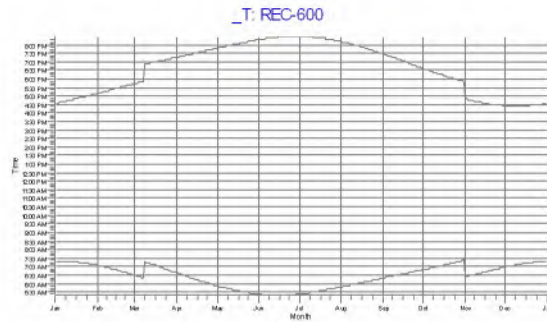
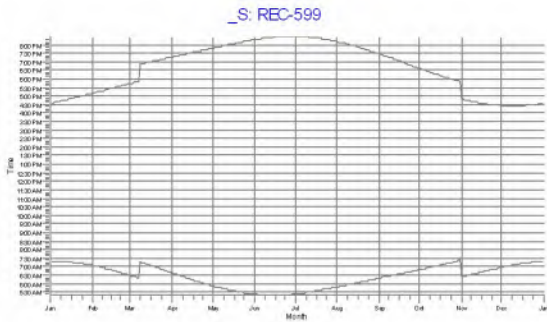
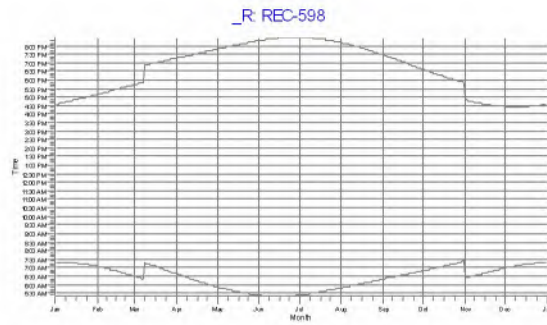
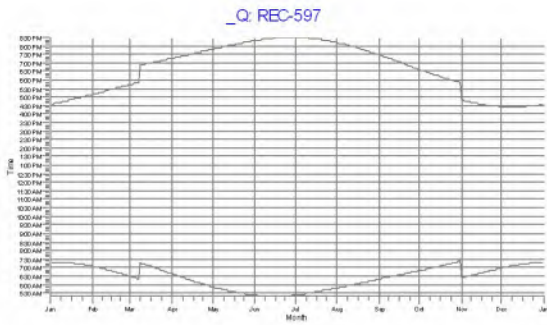
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

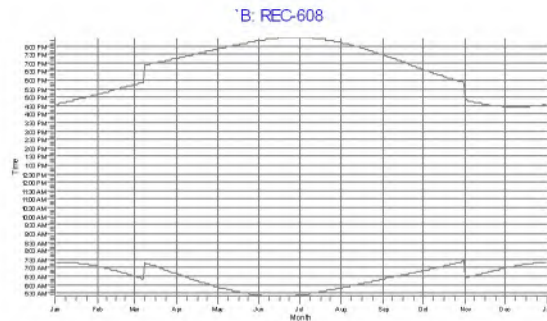
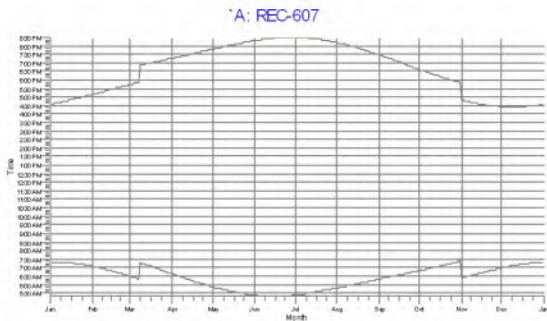
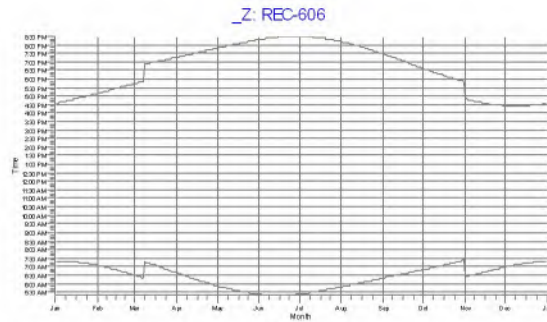
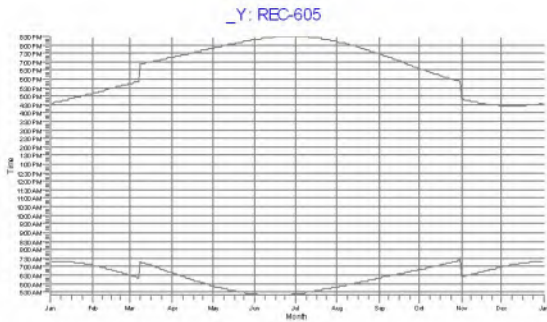
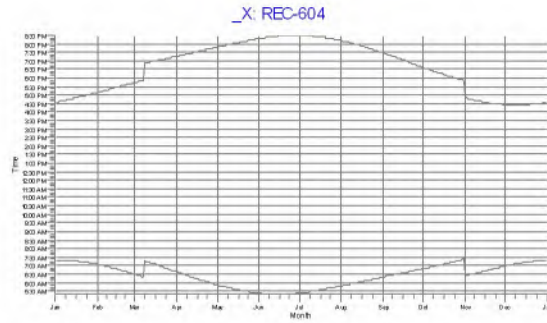
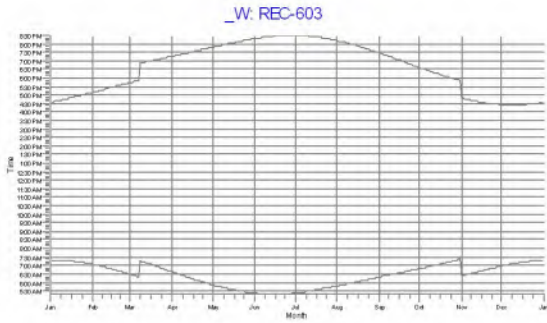
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

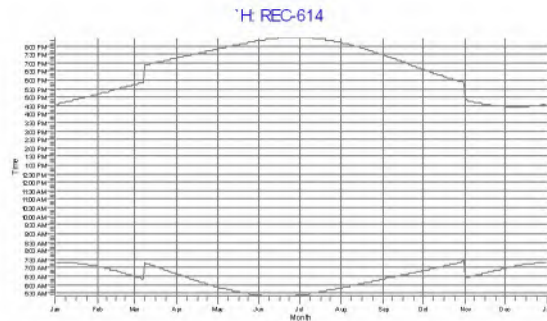
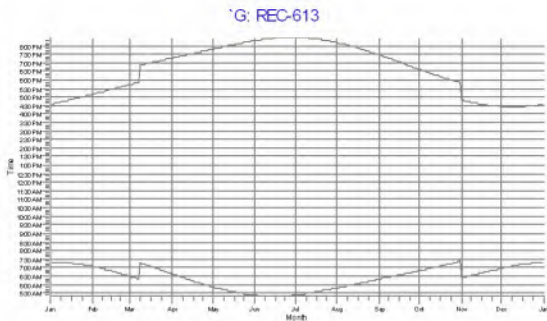
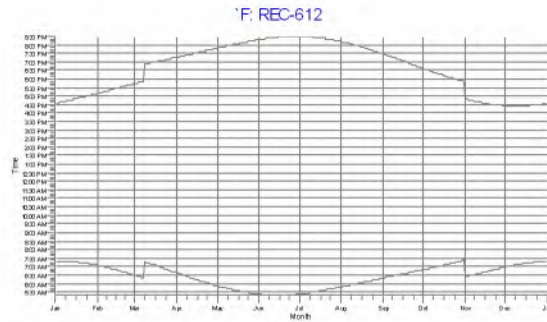
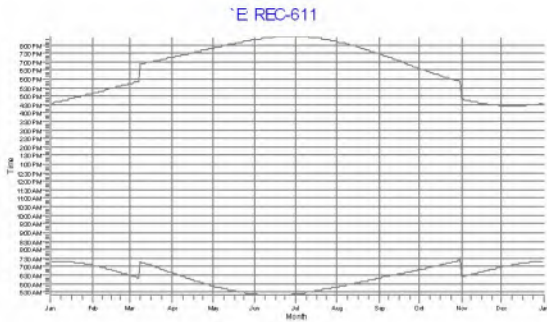
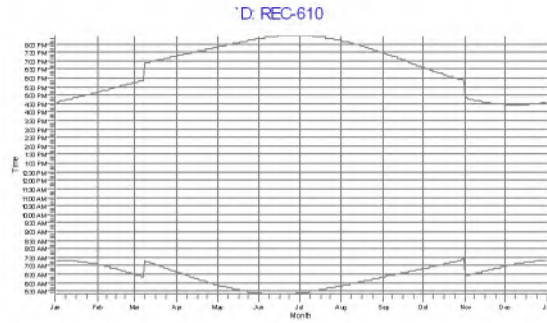
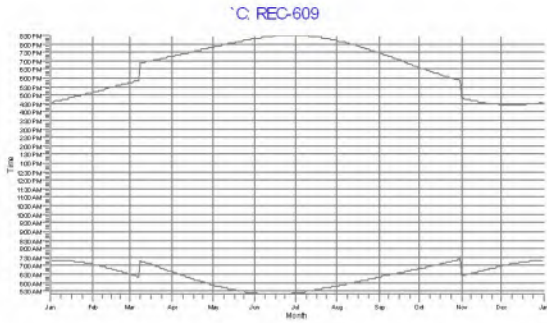
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

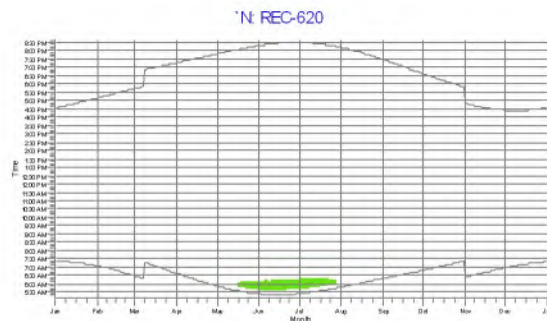
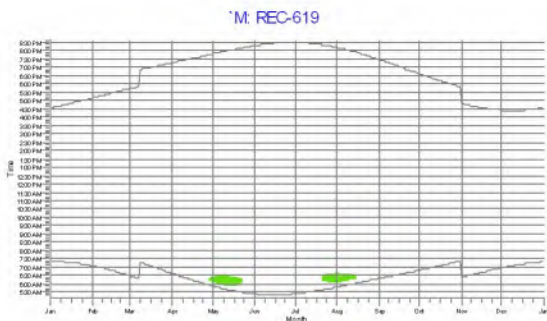
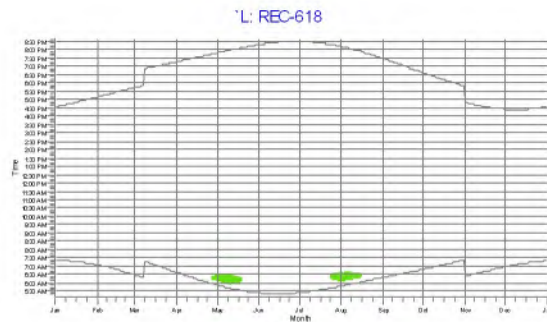
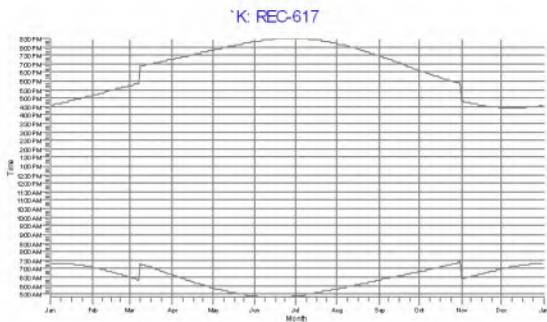
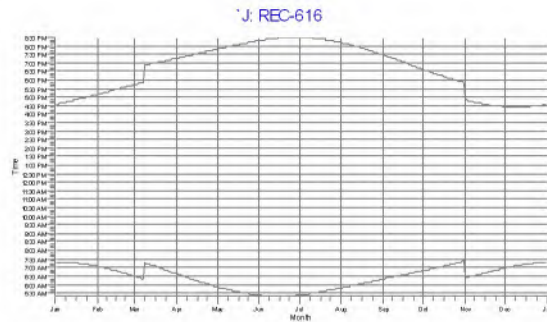
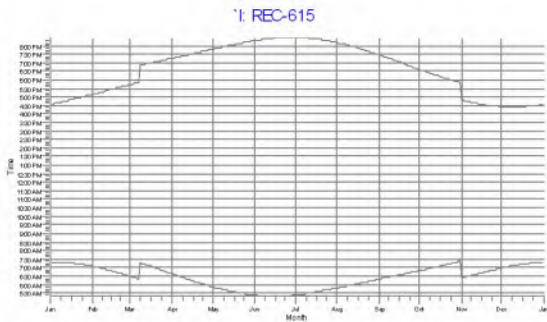
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
119: K99

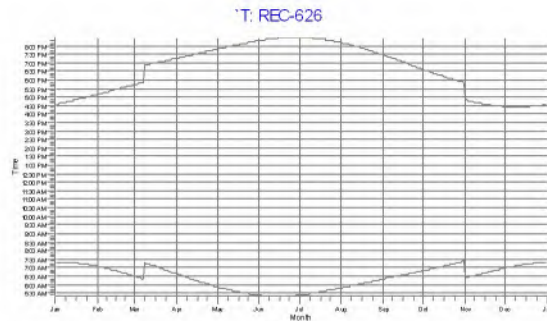
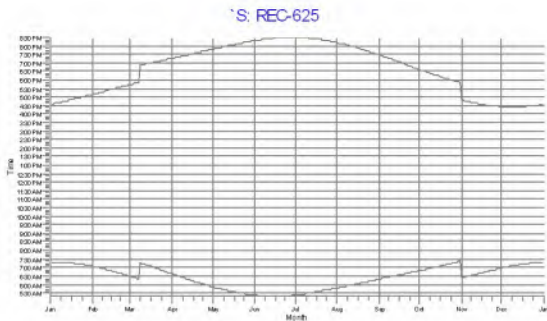
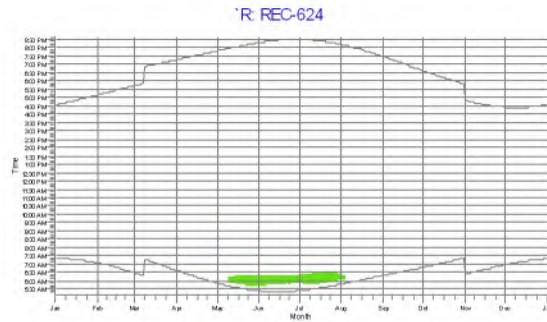
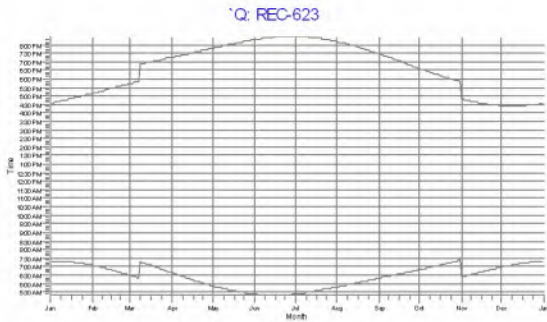
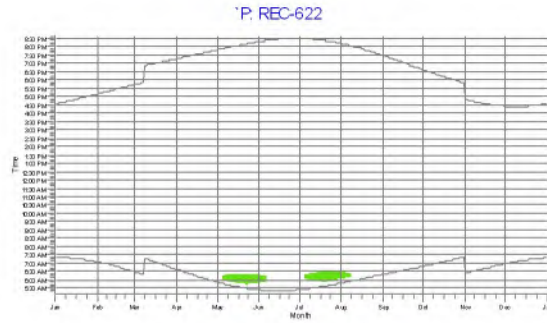
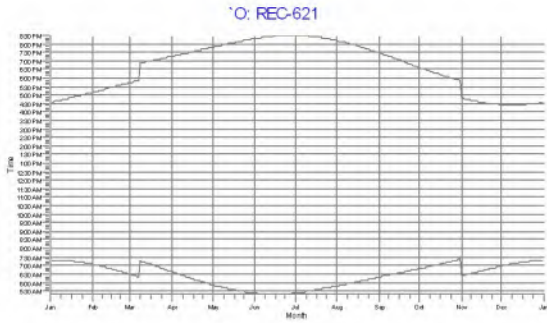
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
119: K99

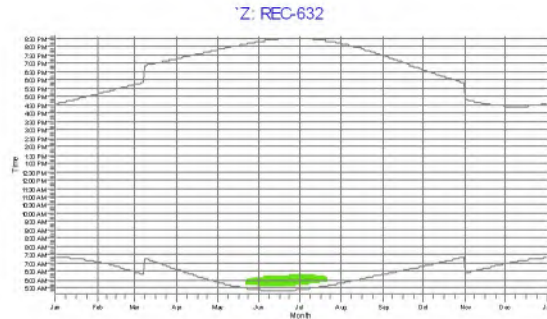
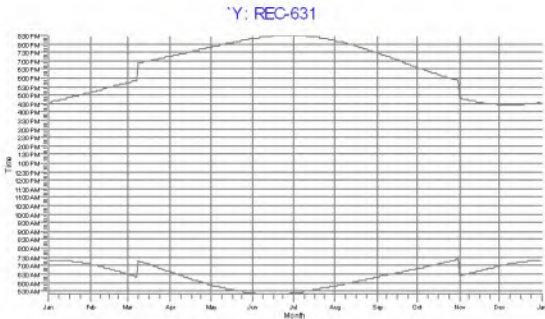
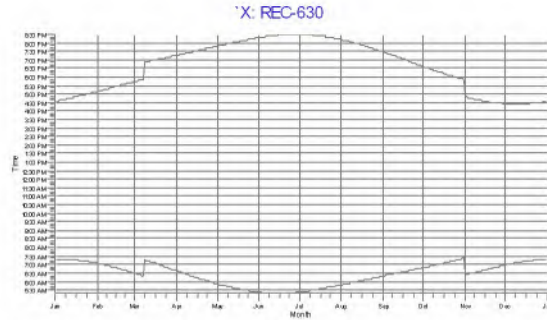
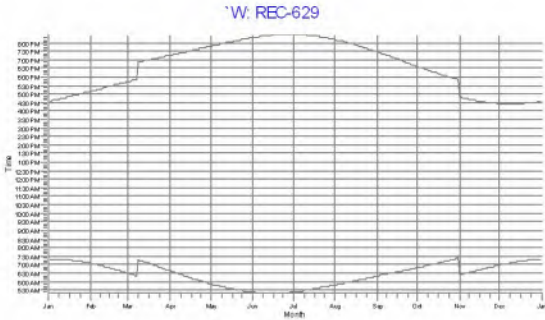
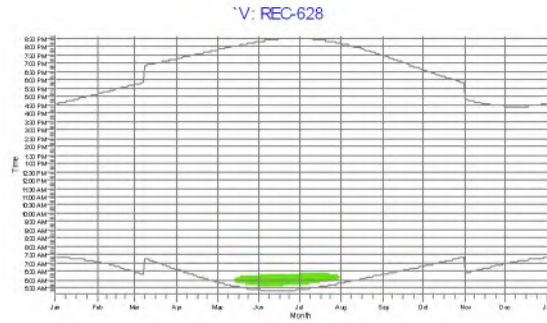
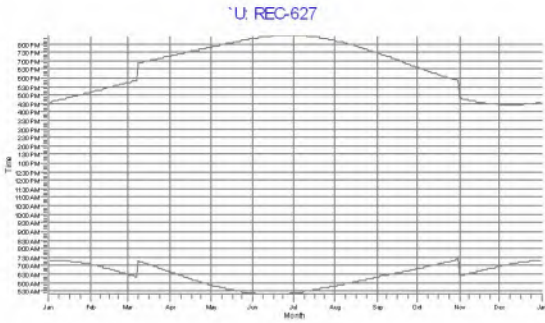
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
119: K99

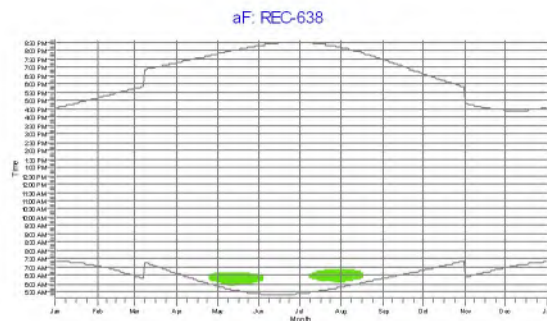
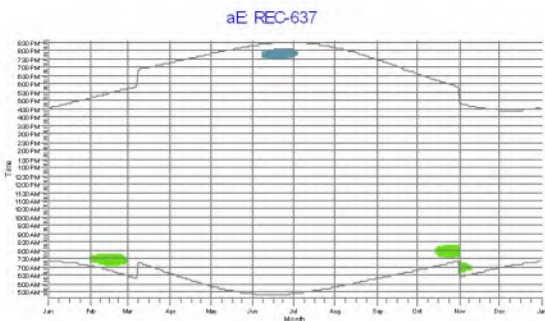
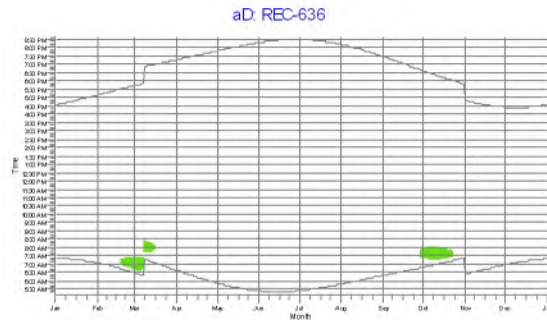
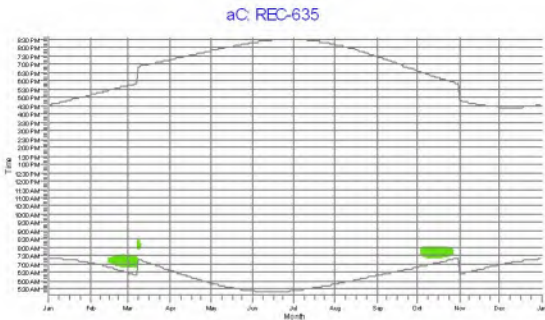
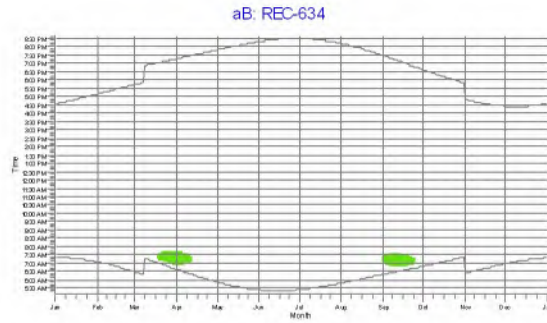
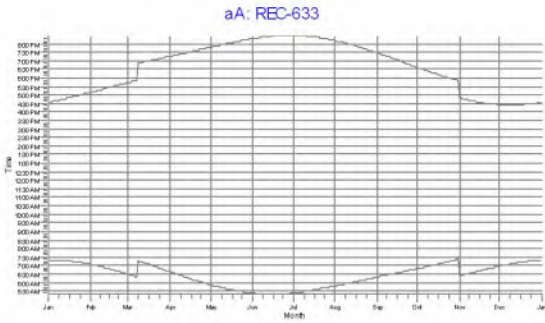
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
99: K66 119: K99

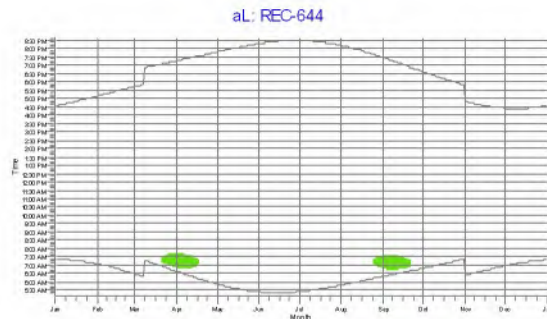
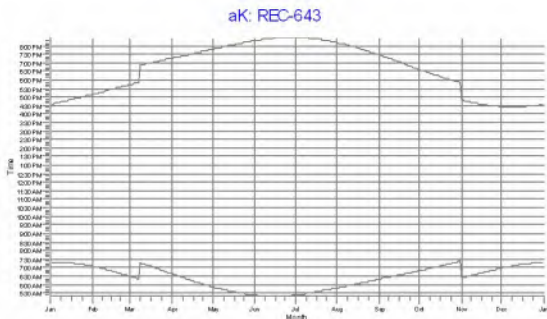
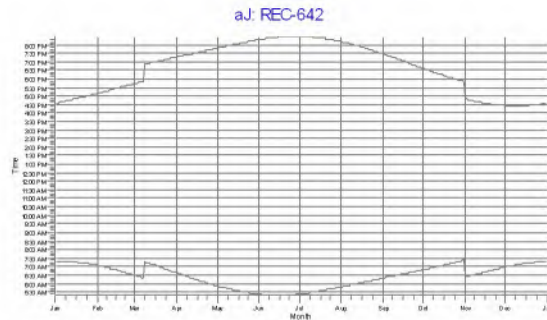
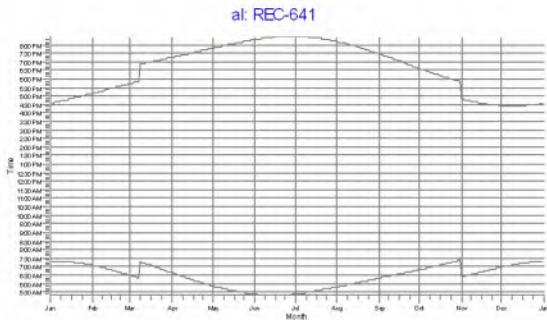
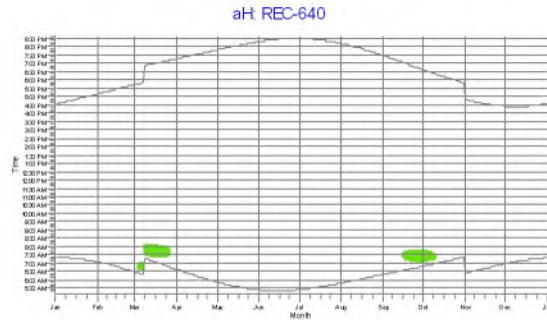
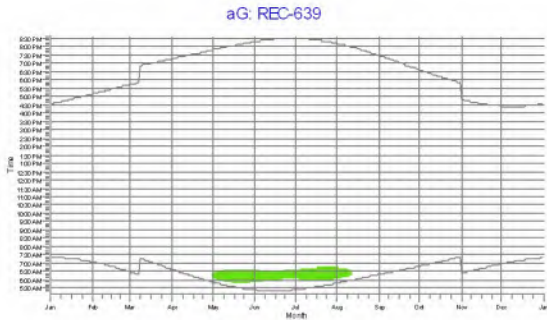
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

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WTGs
119: K99

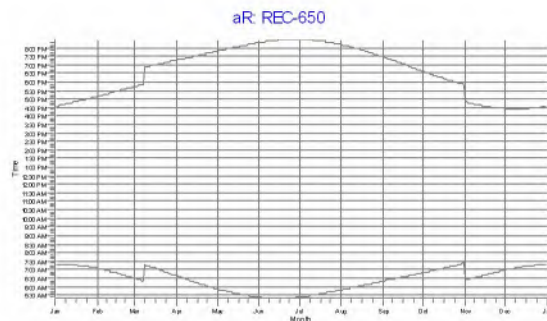
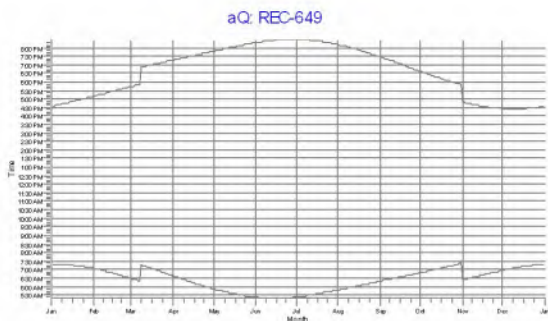
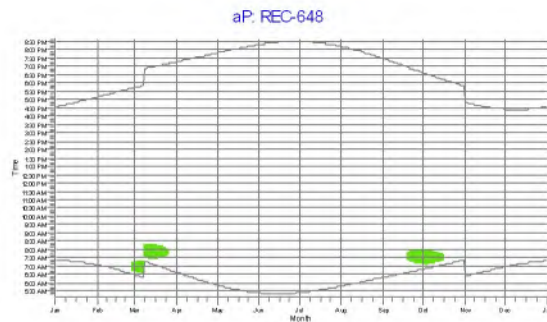
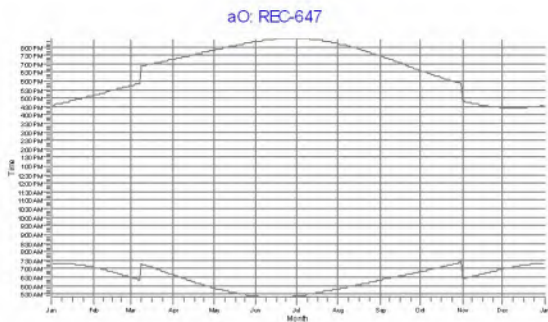
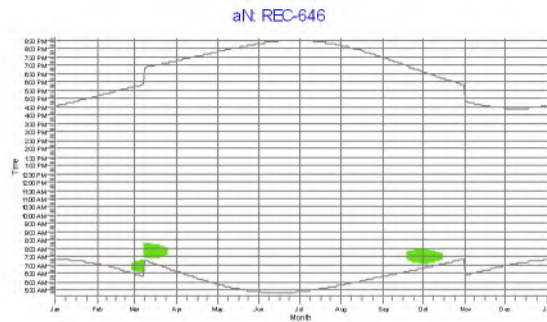
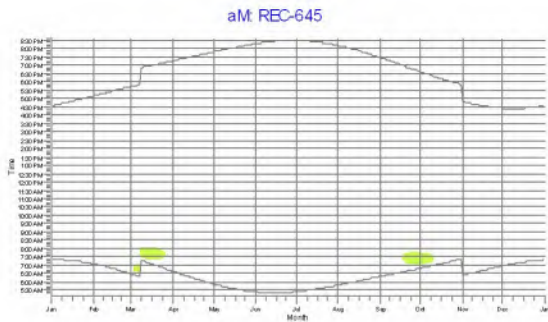
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
100: K70 119: K99

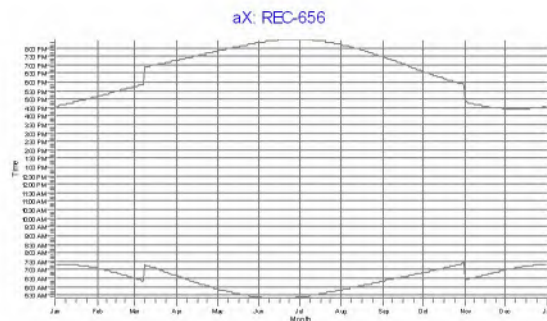
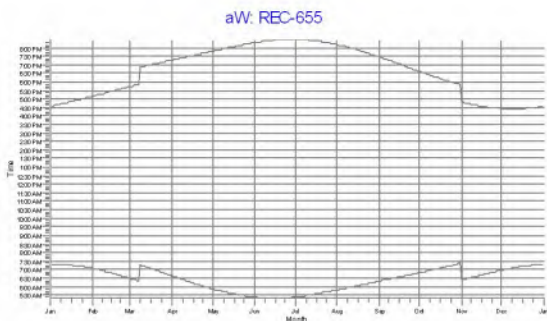
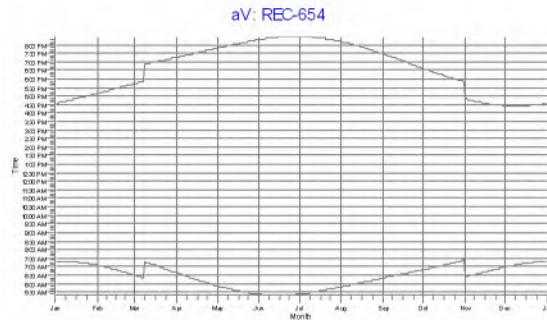
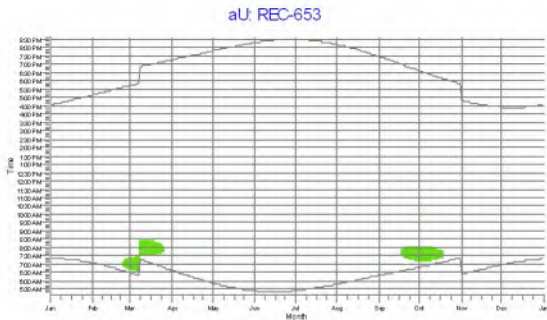
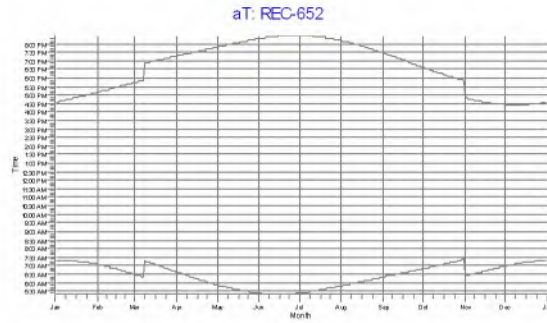
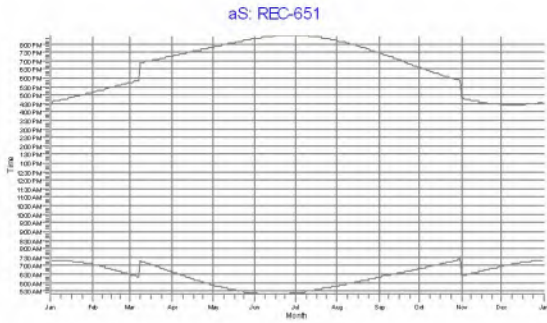
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SHADOW - Calendar, graphical

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WTGs
119: K99

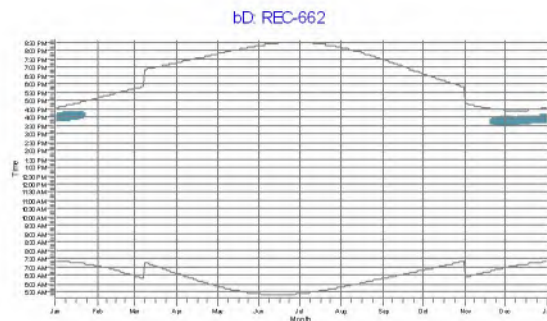
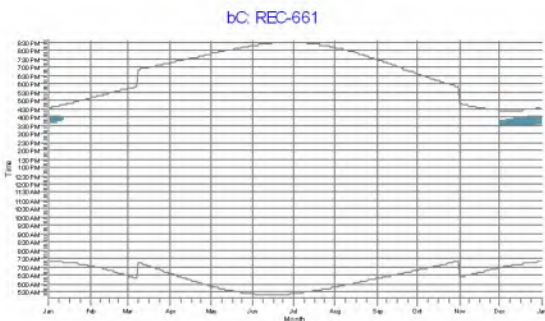
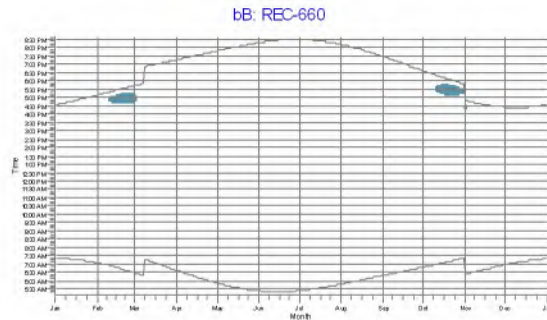
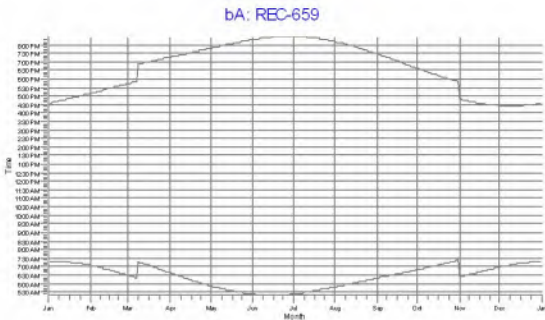
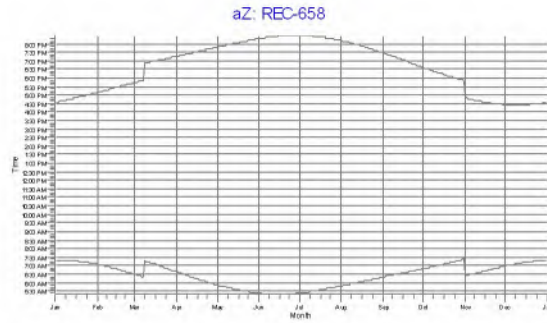
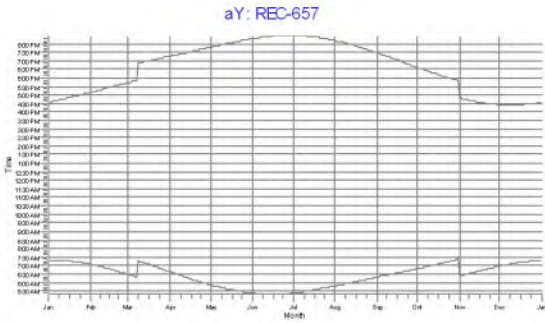
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
99: K66

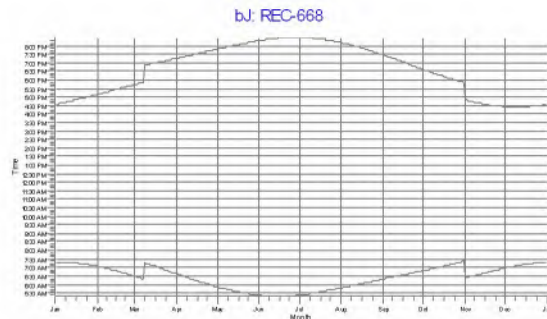
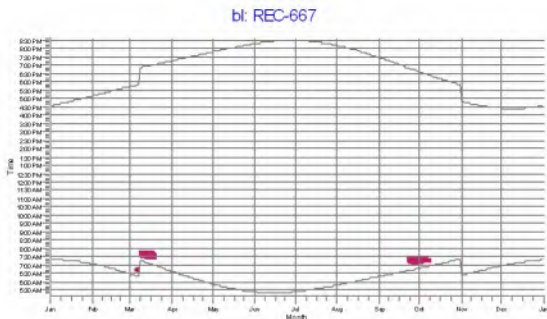
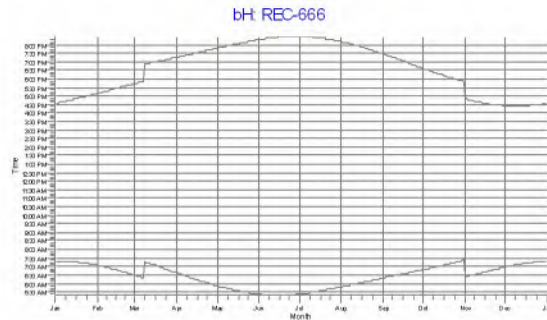
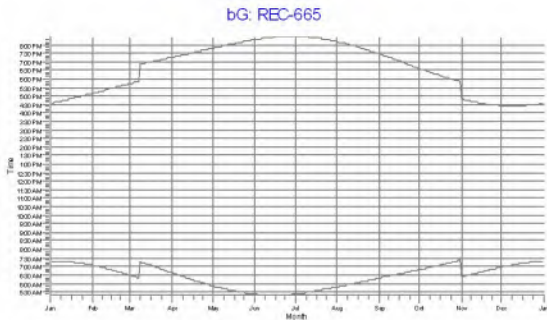
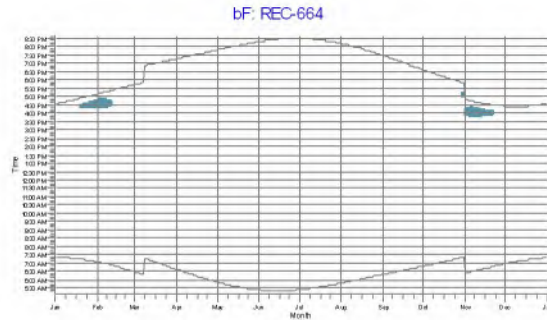
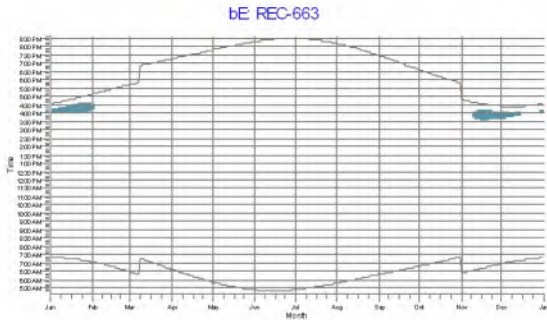
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 99: K66
■ 137: K200

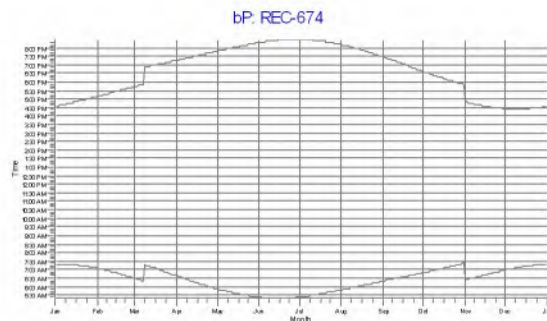
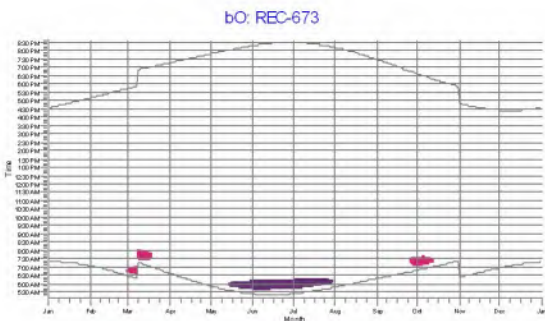
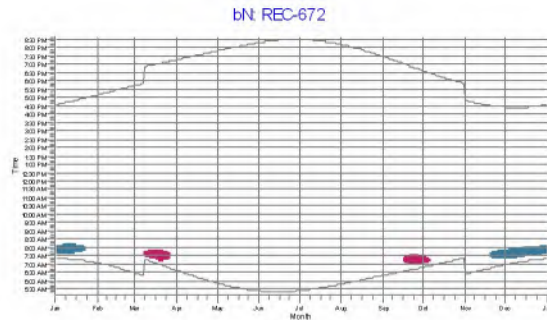
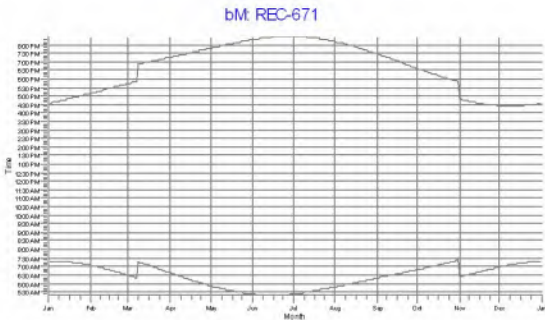
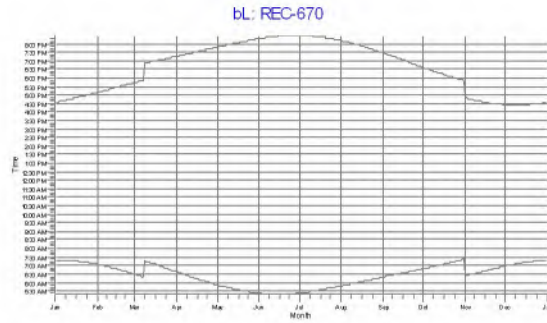
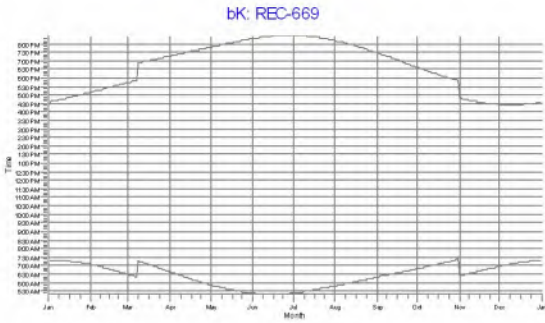
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

101: K73 102: K74 135: K205 137: K200

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

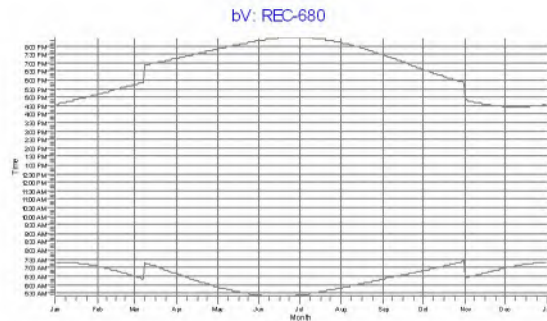
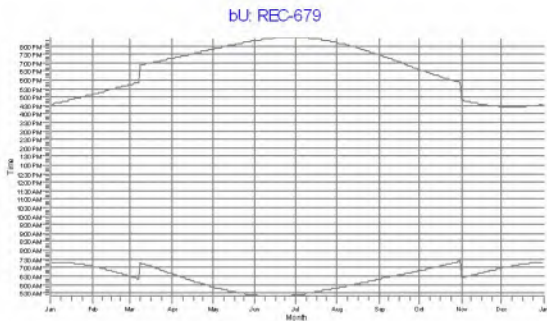
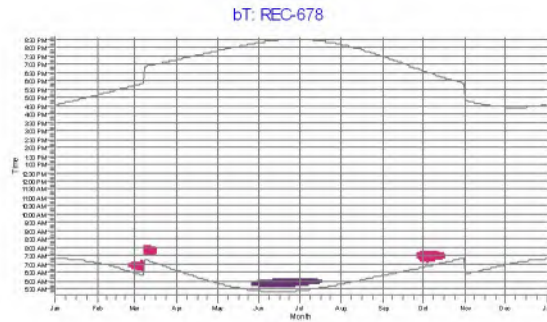
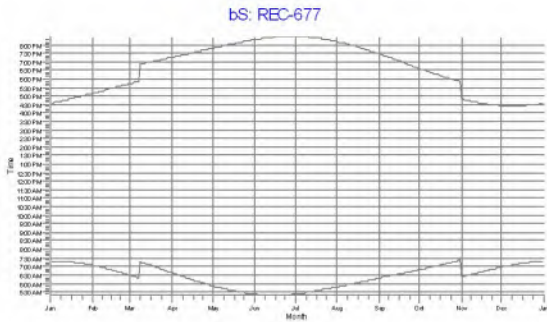
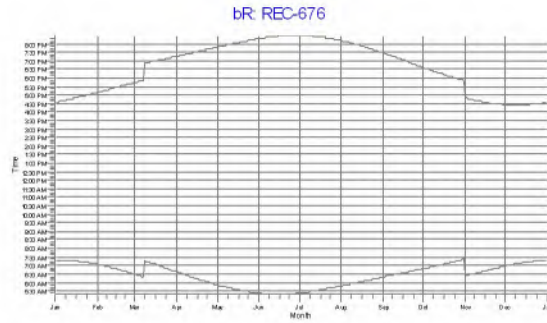
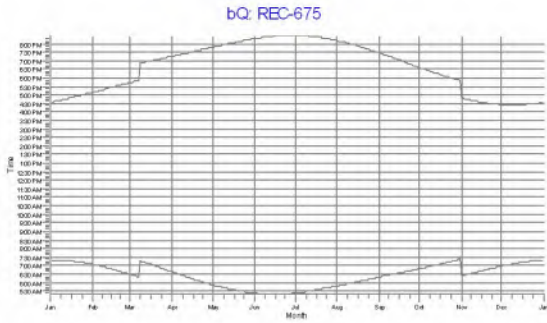
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

101: K73
 102: K74

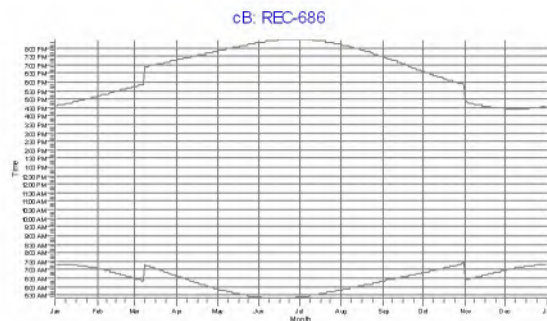
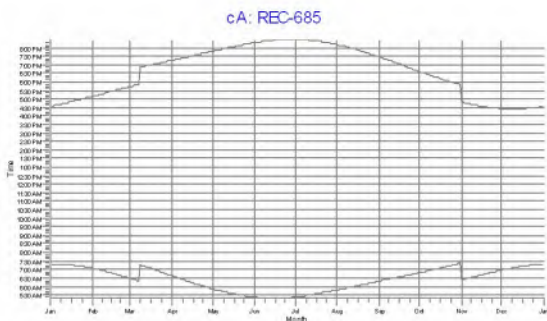
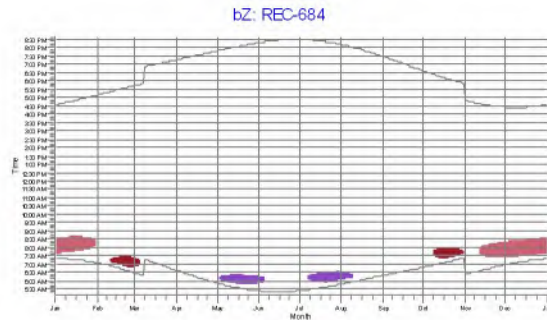
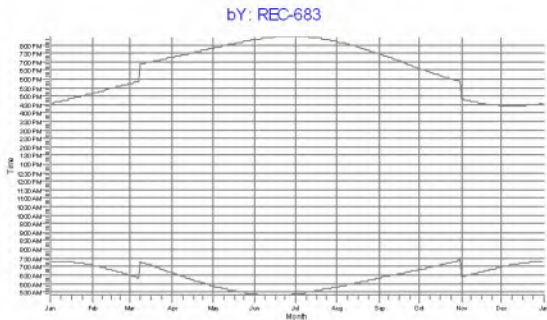
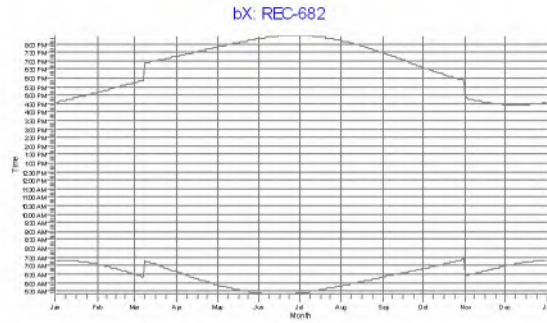
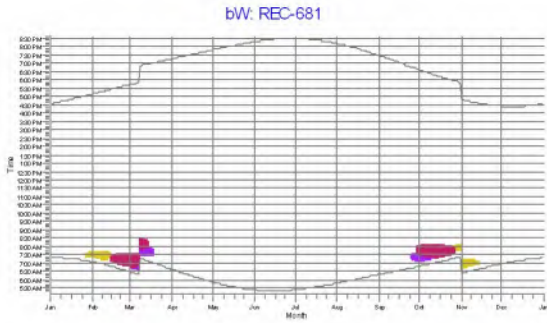
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
 103: K78
 120: K101
 121: K79
 123: K77
 133: K202
 137: K200

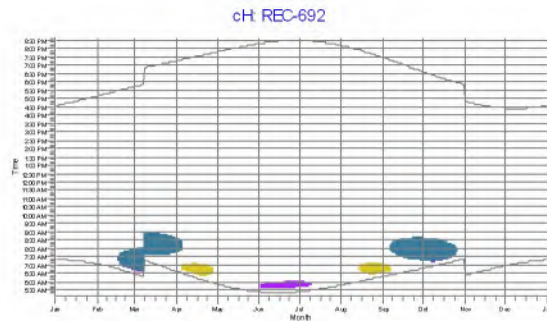
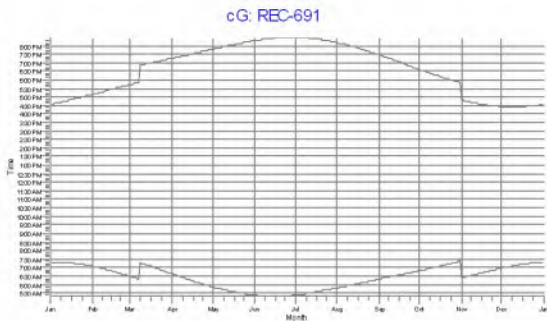
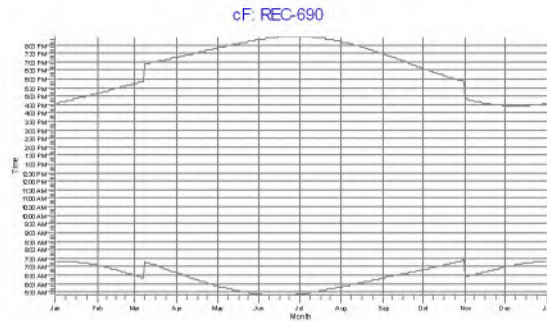
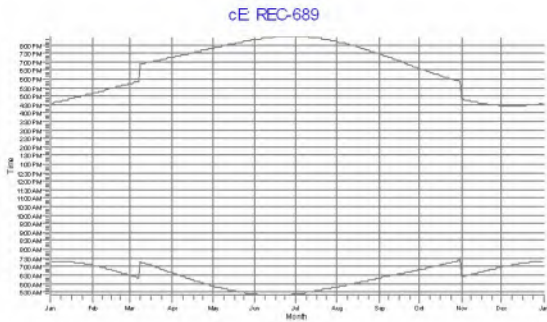
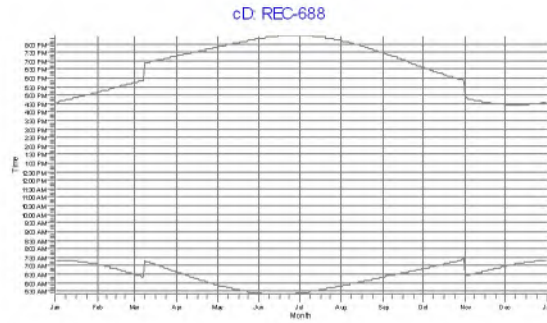
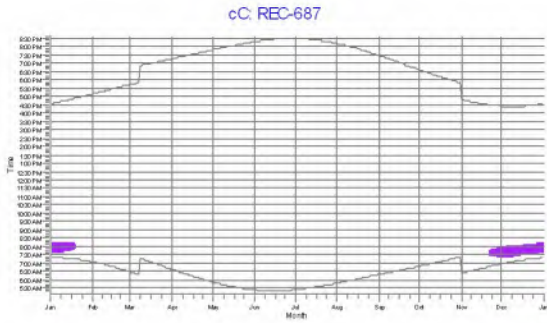
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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Calculated:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

120: K101 121: K79 123: K77 135: K205

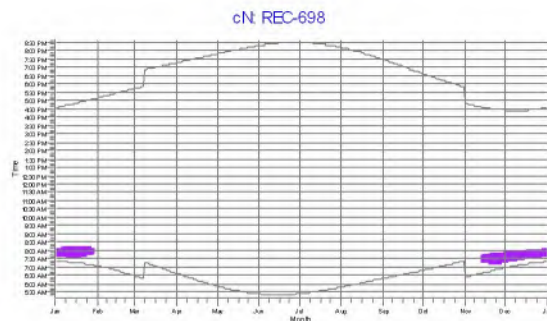
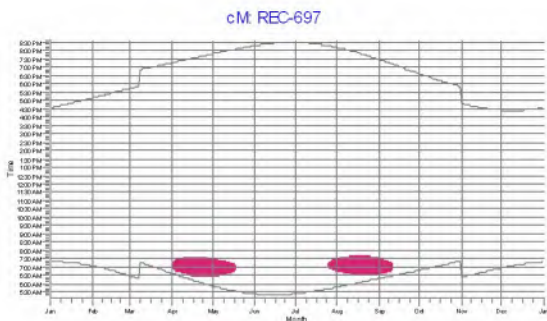
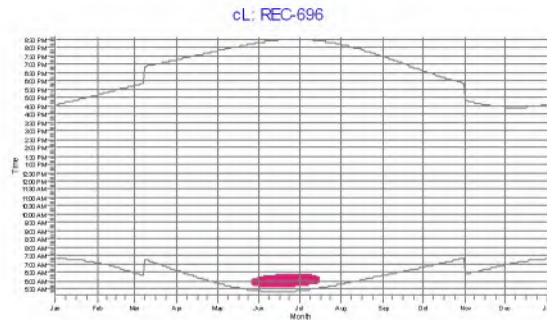
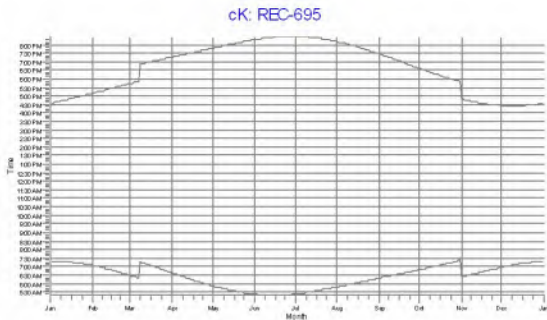
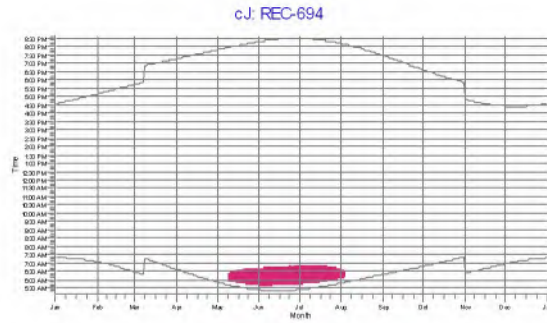
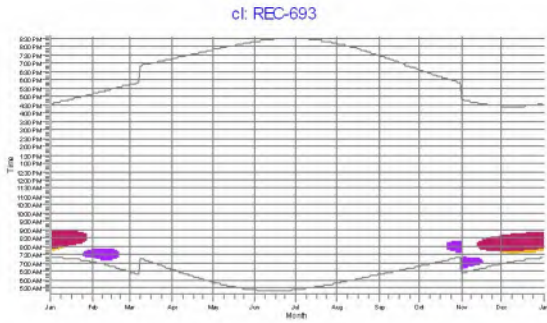
Project:
132138 - Pattern - Heritage Prairie Wind_v6

Description:
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

101: K73 121: K79 123: K77 137: K200

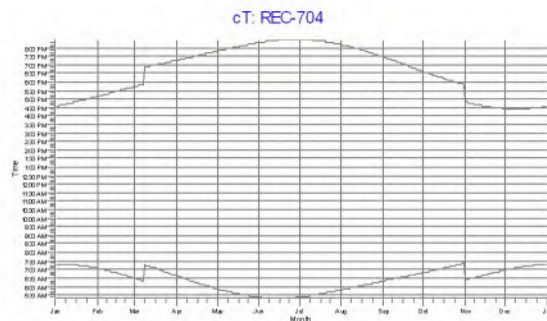
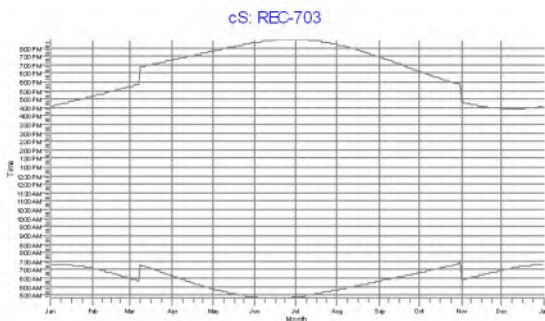
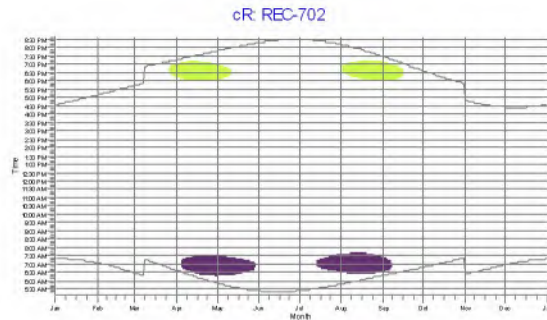
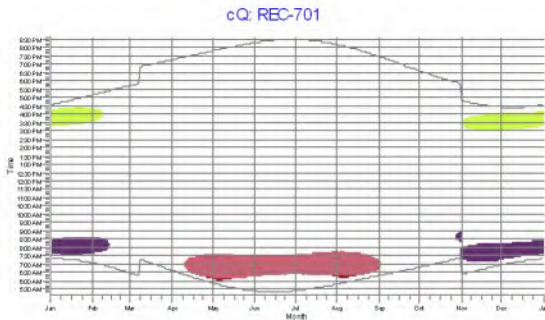
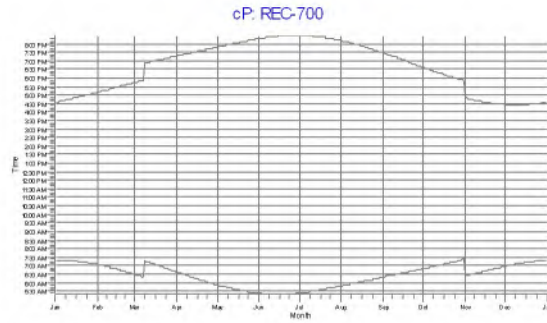
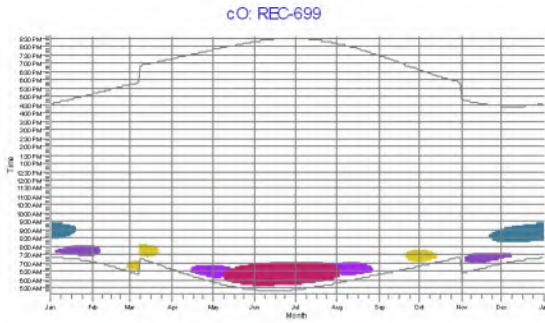
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

100: K70 102: K74 103: K78 120: K101 121: K79 123: K77 133: K202 135: K205 137: K200

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

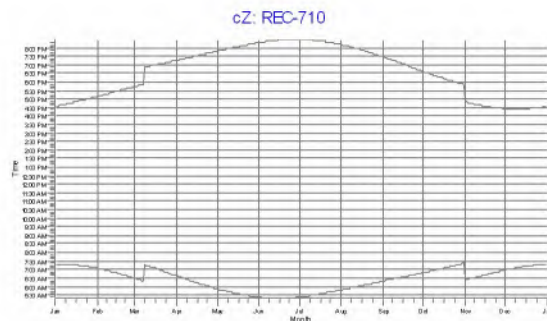
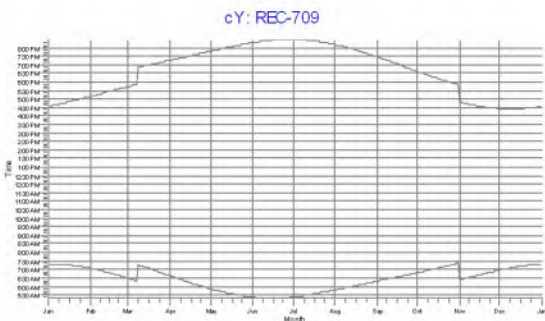
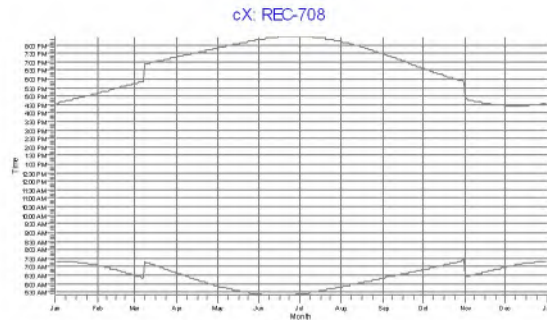
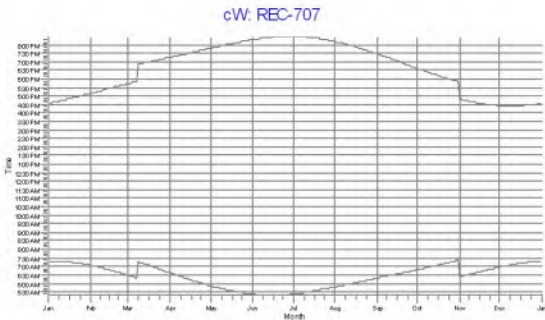
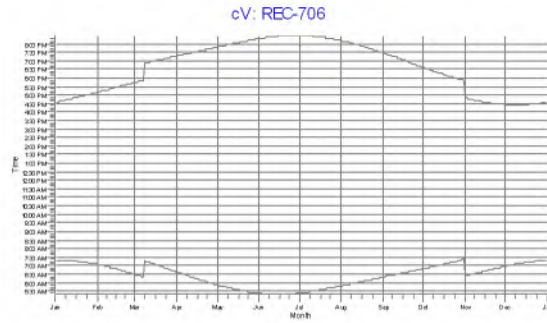
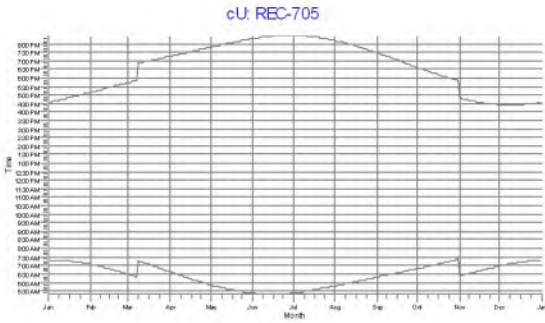
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

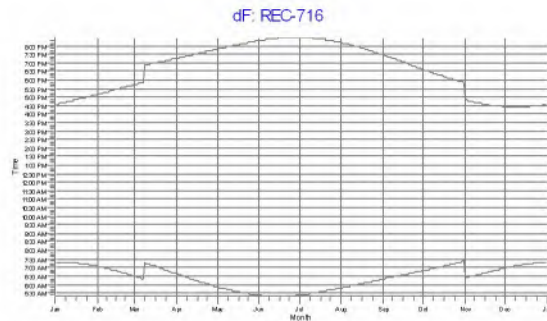
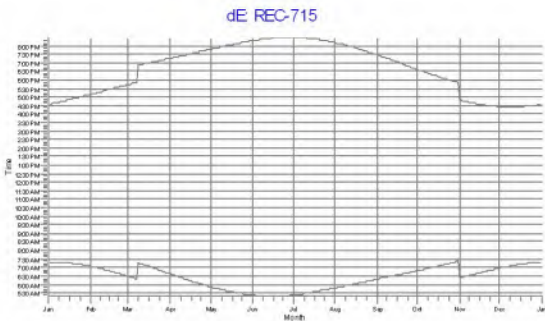
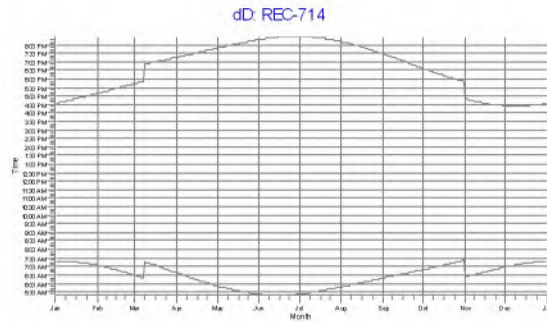
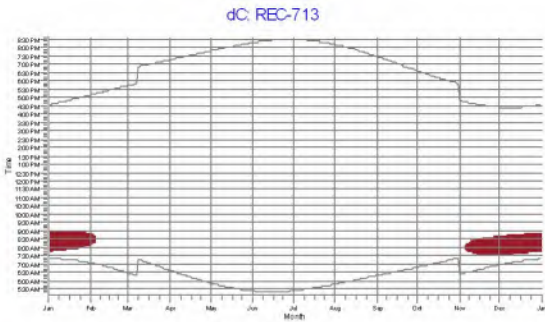
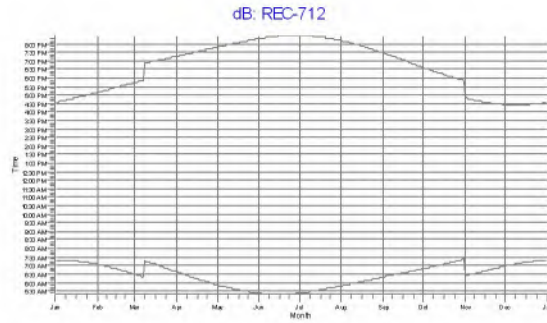
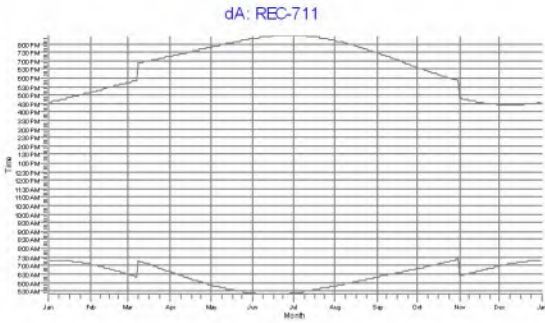
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
103: K78

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

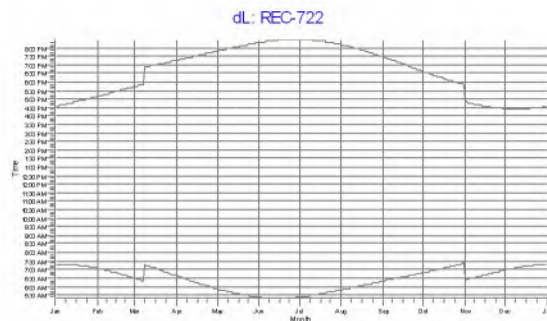
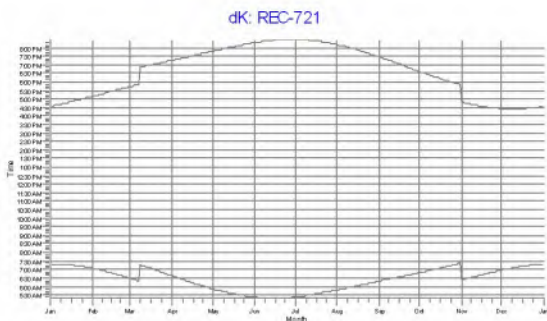
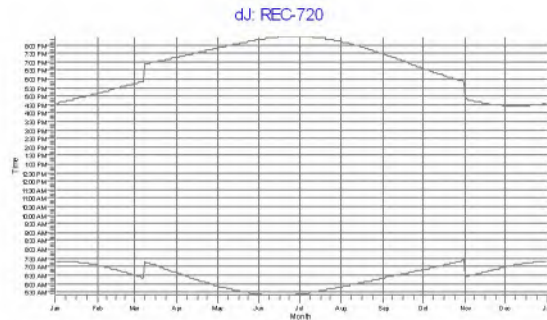
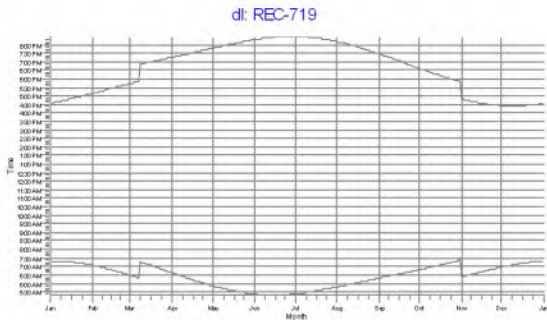
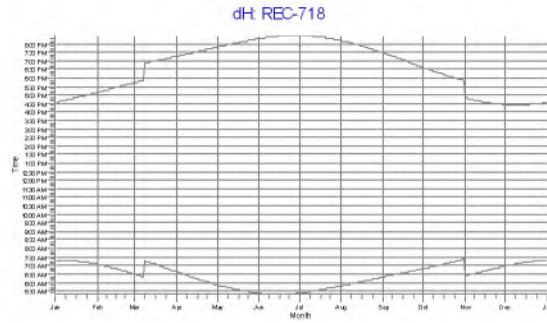
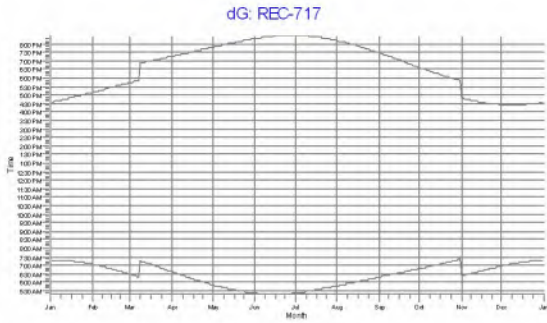
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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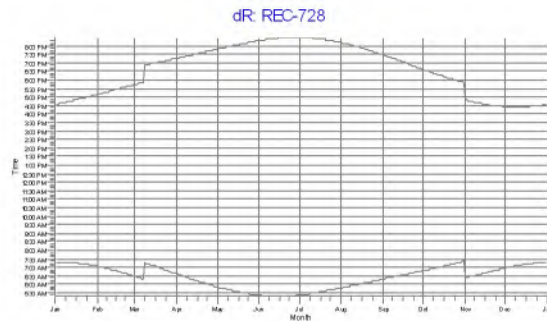
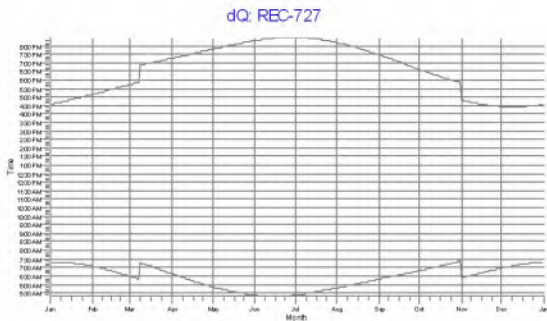
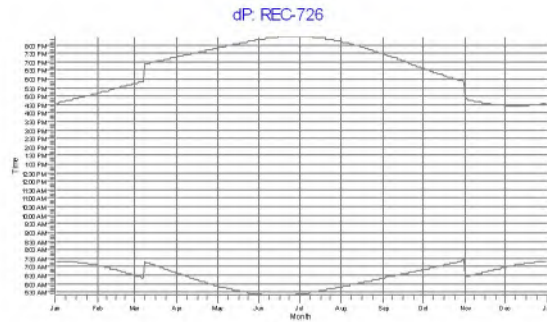
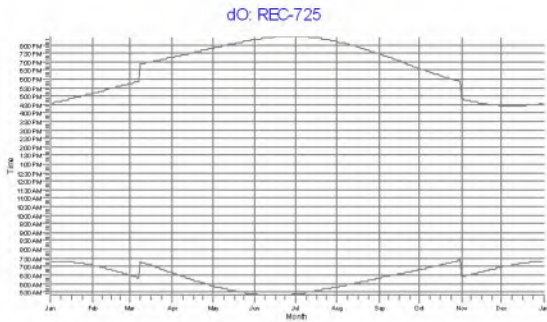
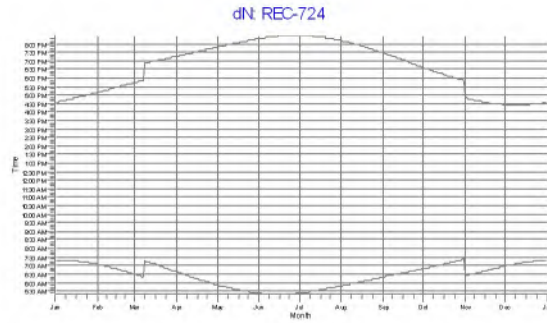
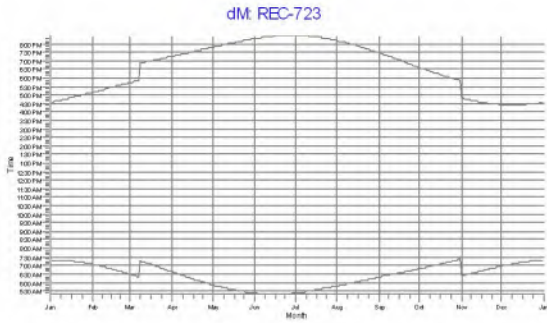
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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

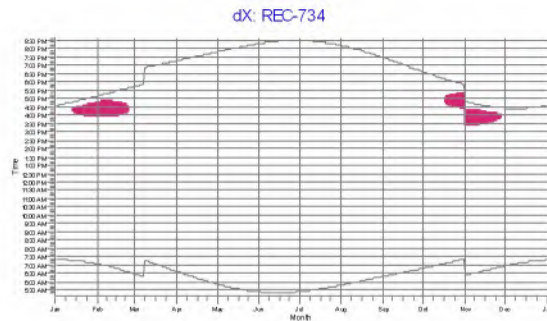
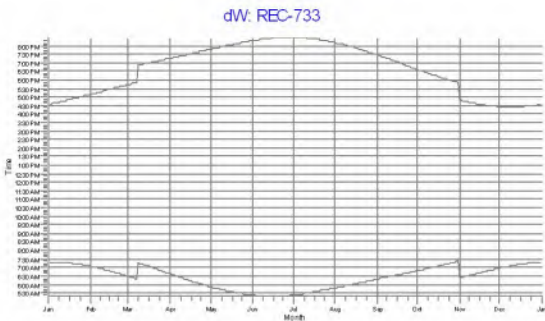
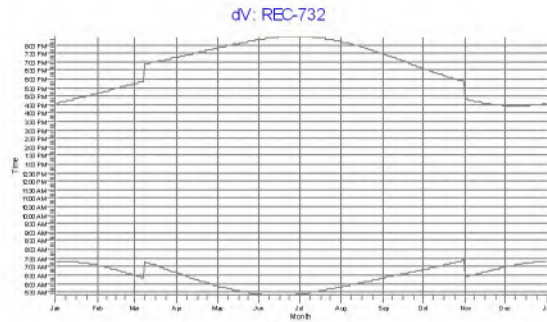
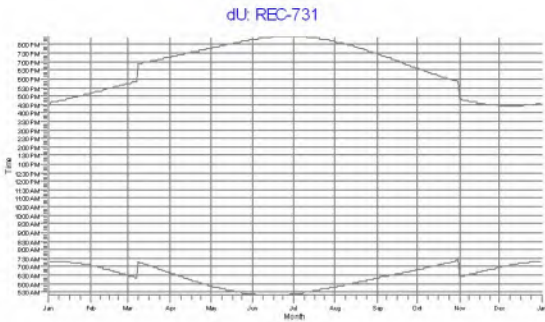
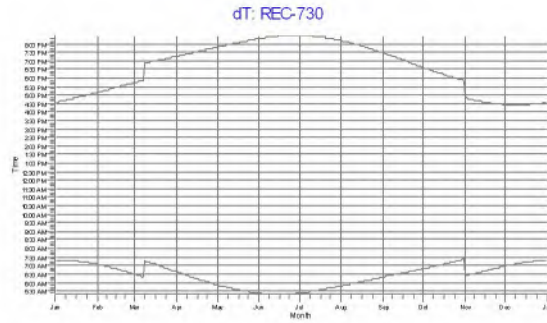
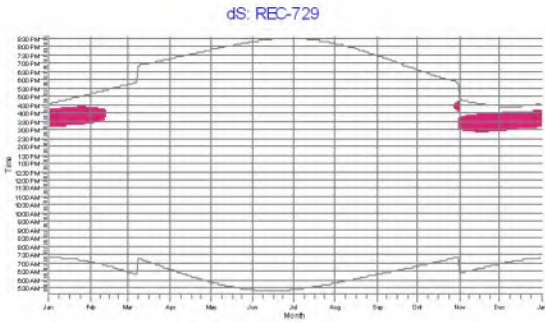
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
101: K73

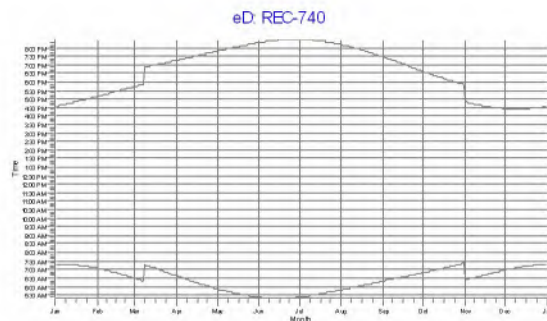
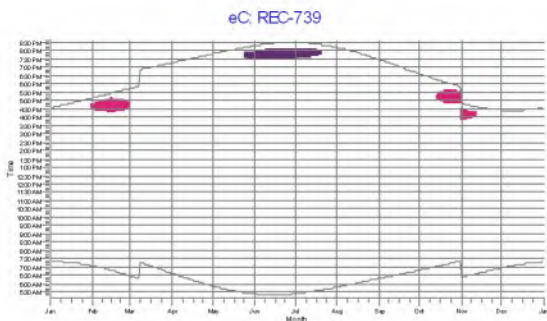
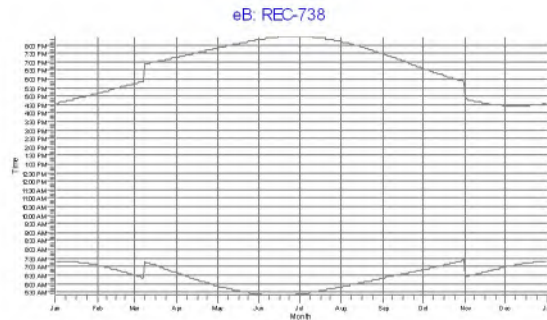
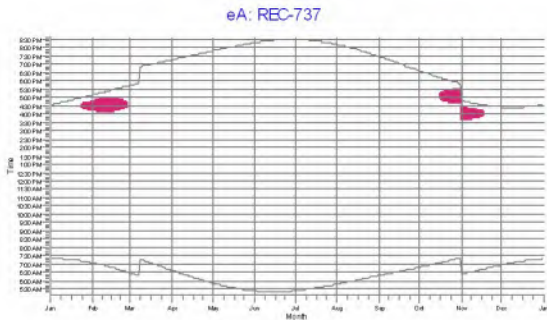
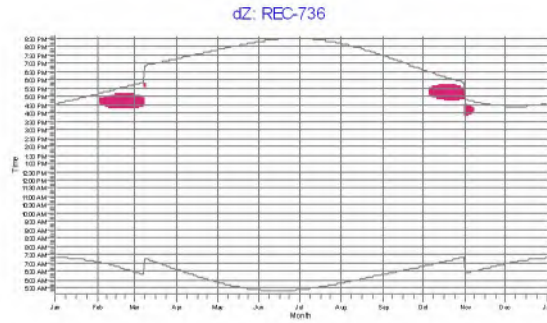
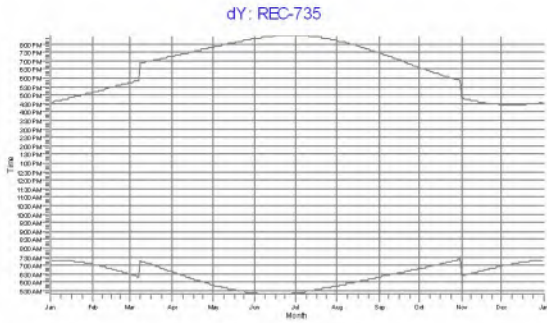
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

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WTGs
 101: K73
 102: K74

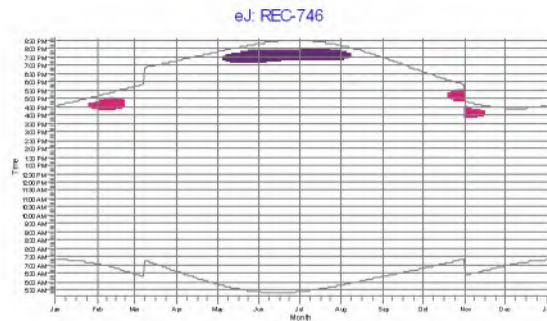
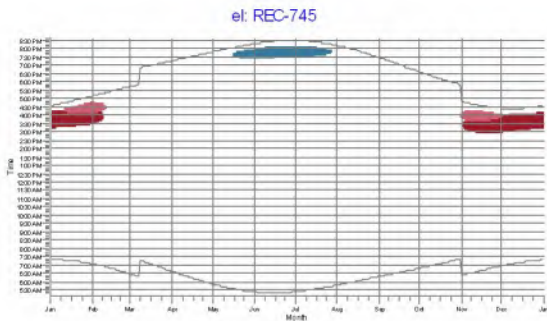
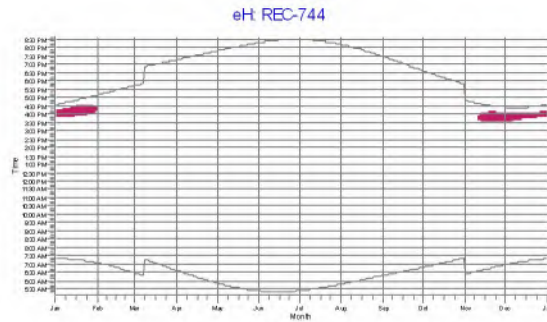
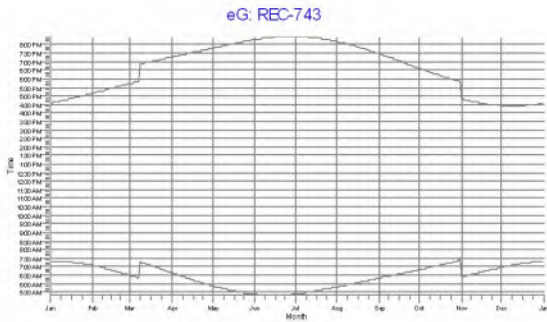
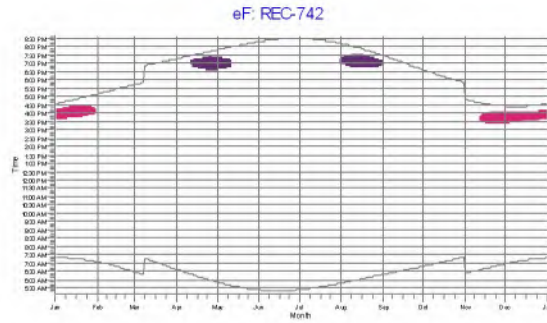
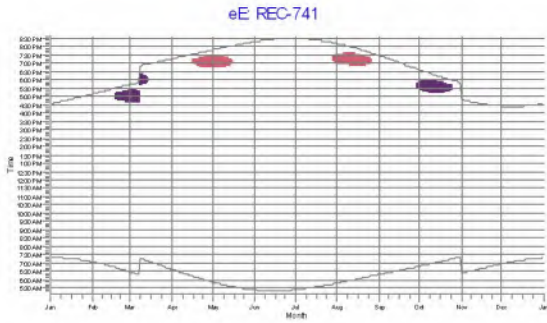
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
■ 101: K73
■ 102: K74
■ 103: K78
■ 133: K202
■ 135: K205
■ 137: K200

Project:

132138 - Pattern - Heritage Prairie Wind_v6

Description:

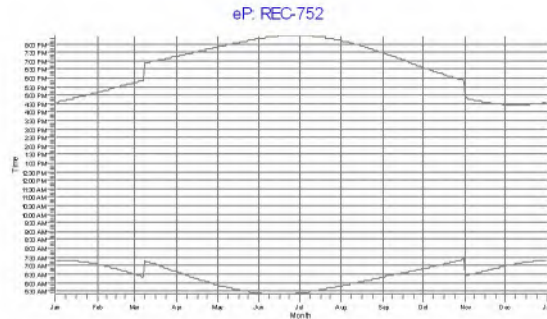
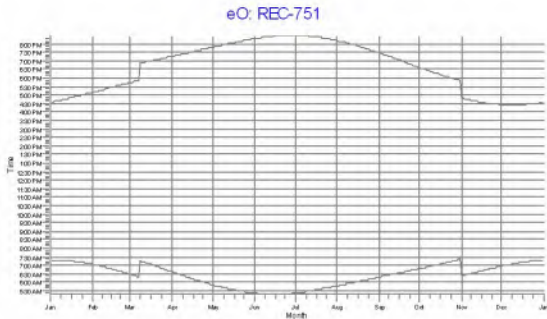
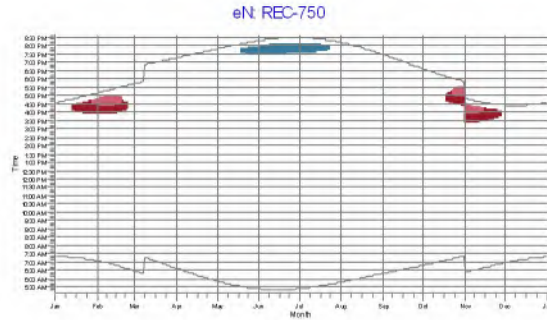
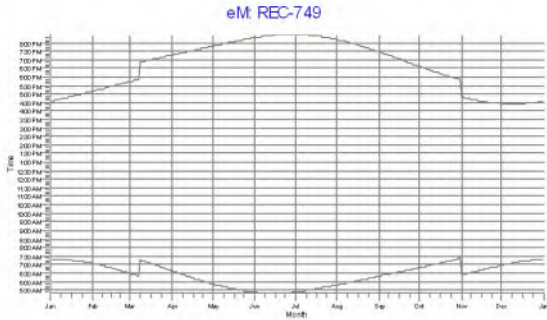
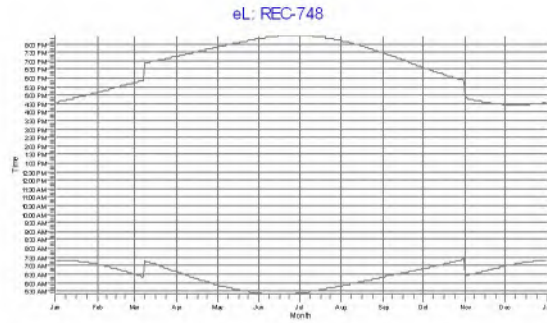
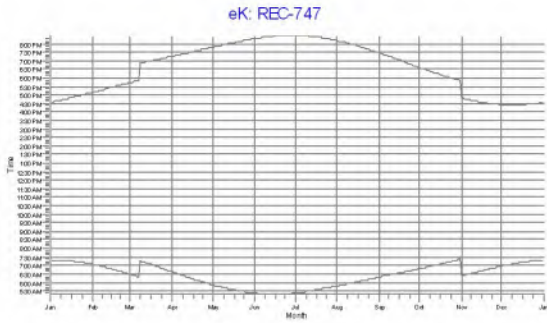
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

103: K78
 133: K202
 135: K205

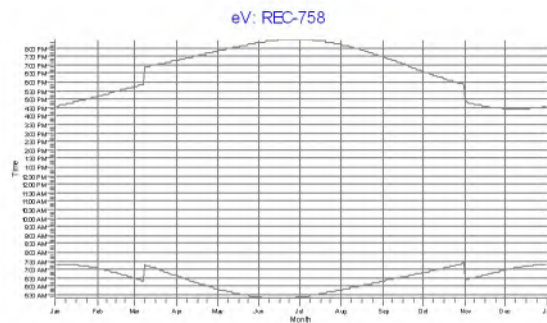
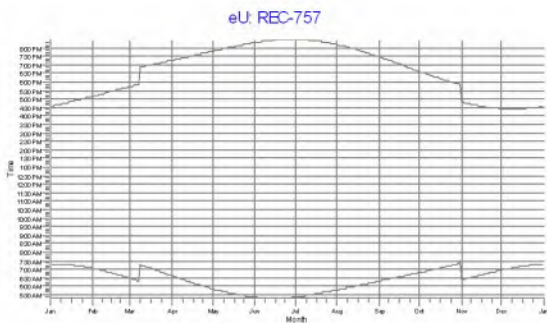
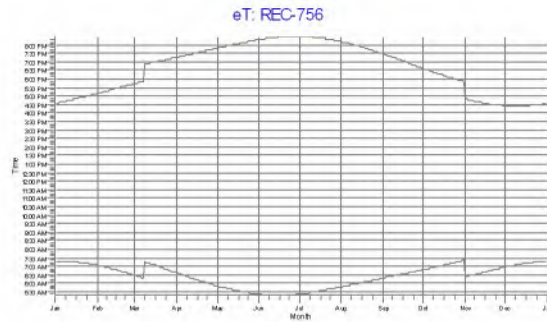
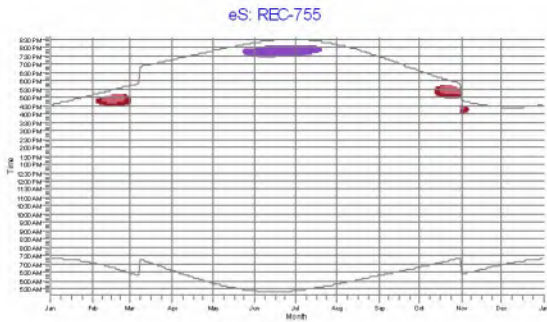
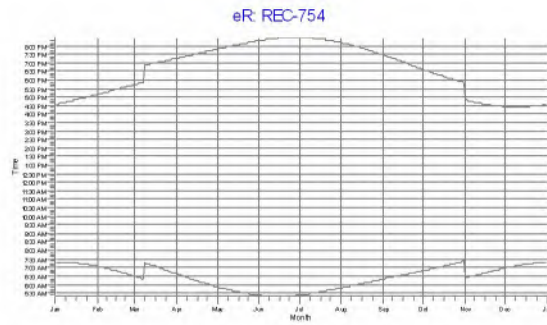
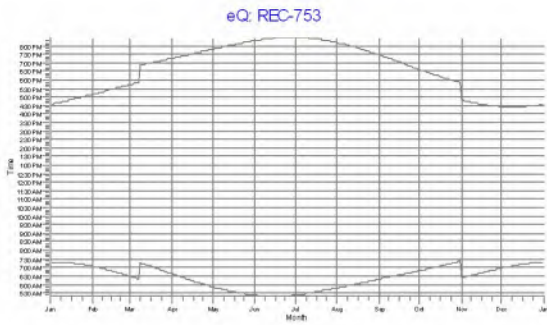
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

103: K78 120: K101 133: K202

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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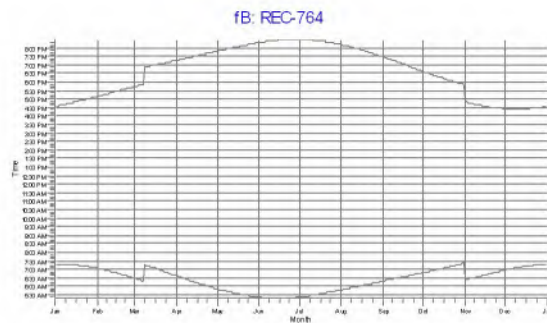
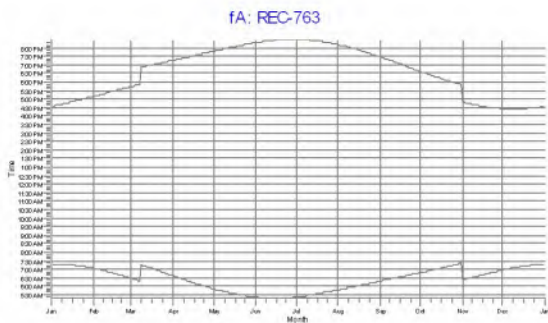
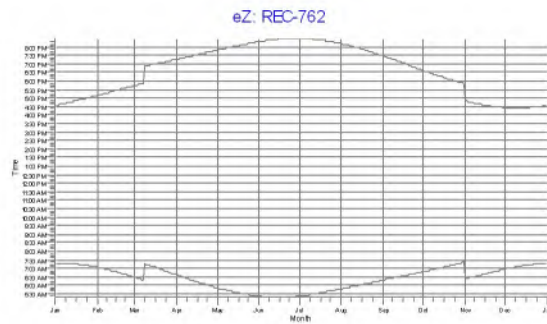
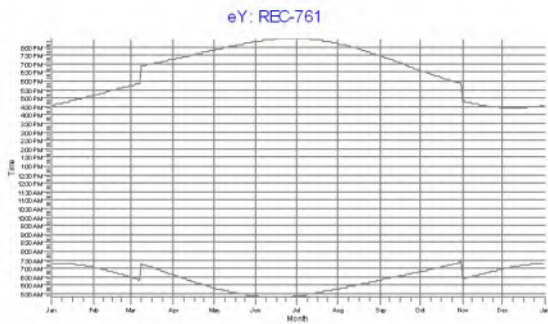
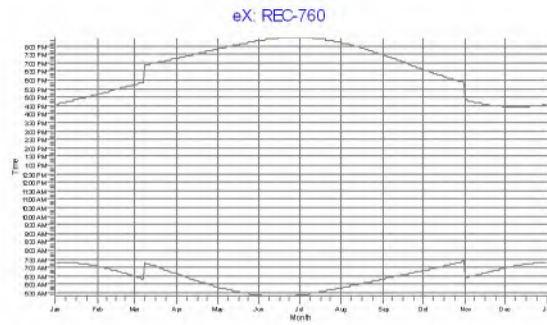
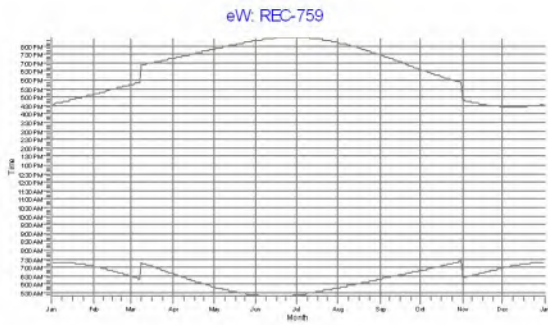
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

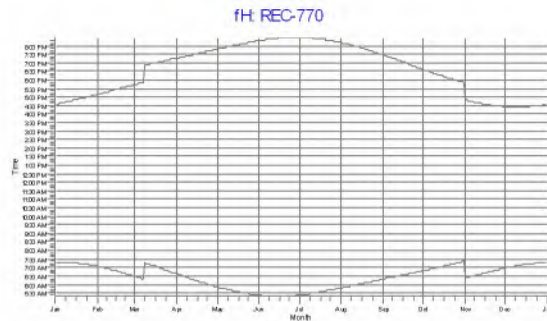
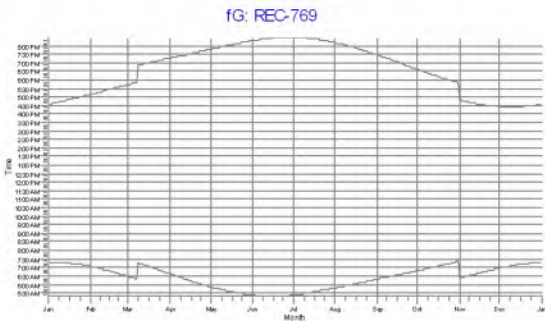
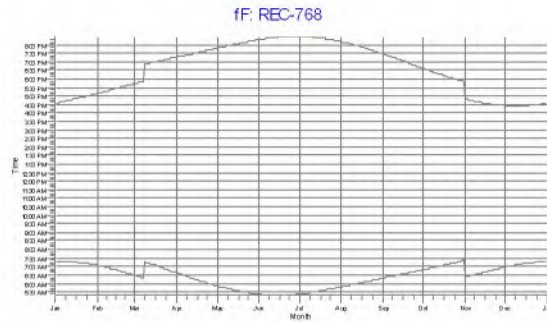
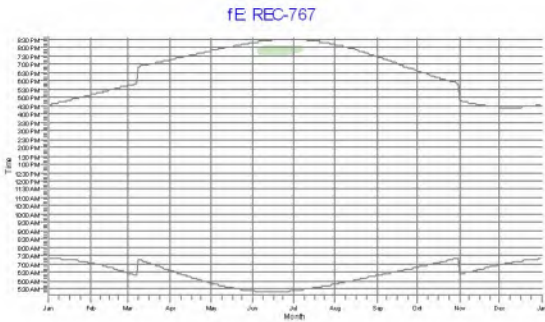
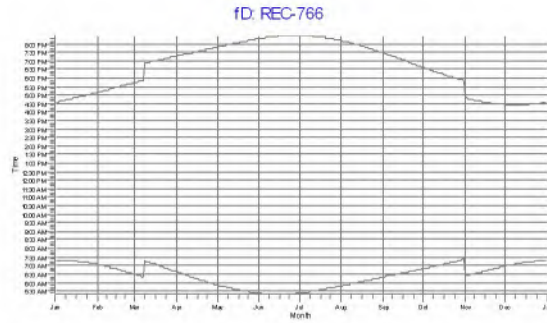
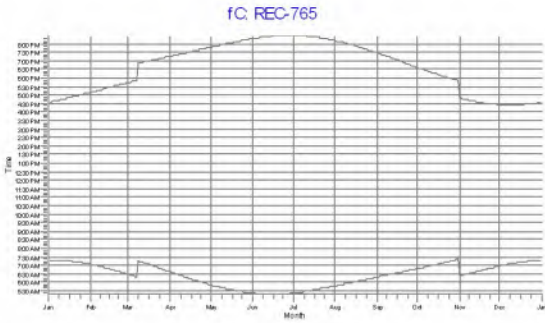
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
122: K81

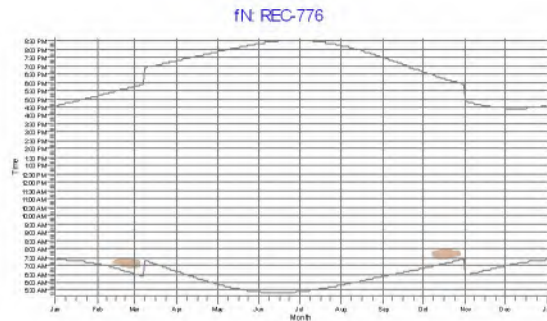
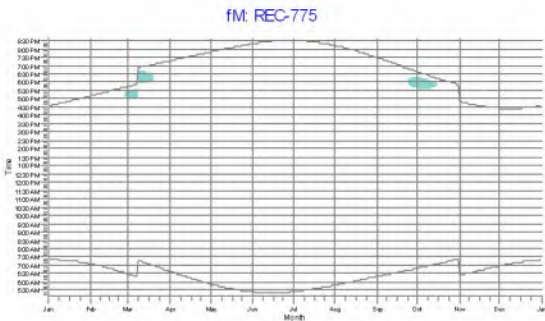
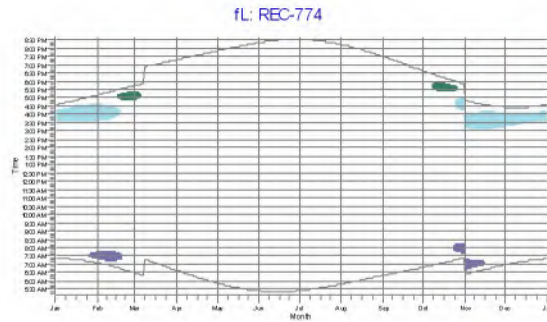
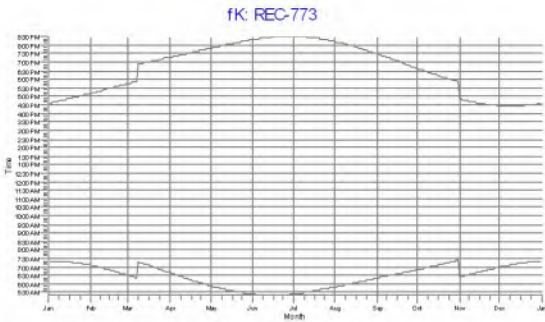
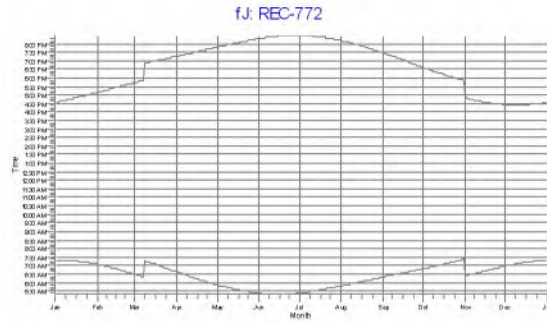
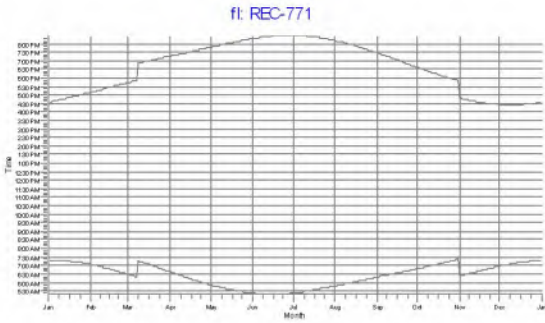
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

17: L29 29: L43 33: L56 48: L76 69: L113

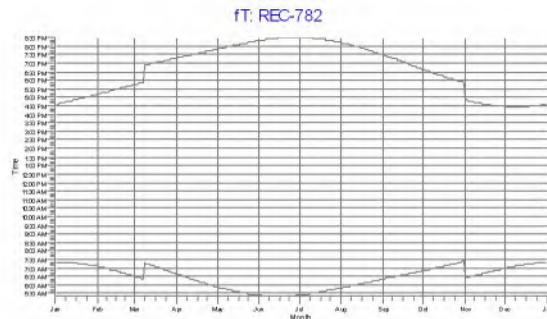
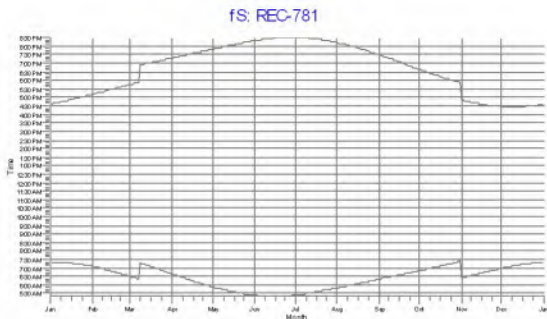
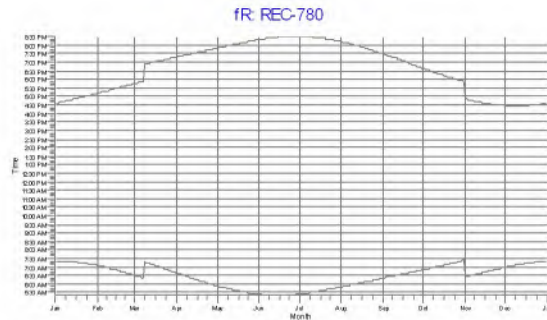
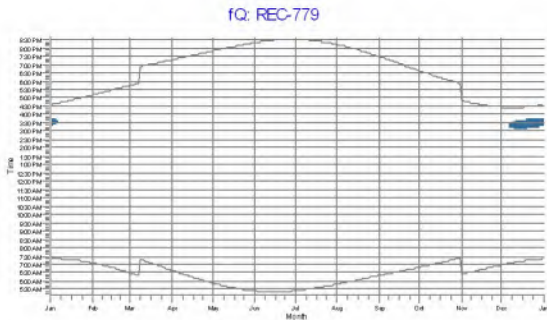
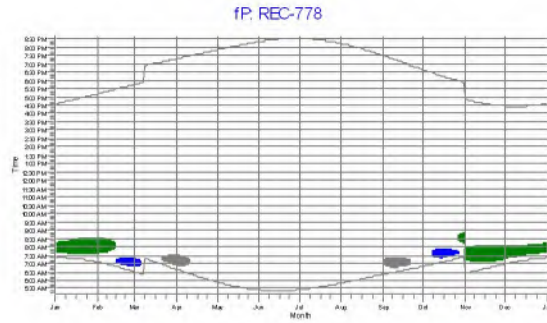
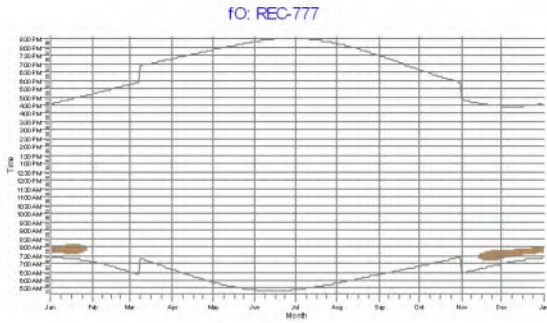
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

1: L2 3: L5 4: L6 22: L34 71: L121

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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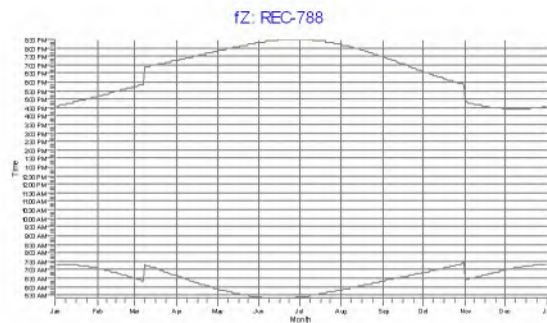
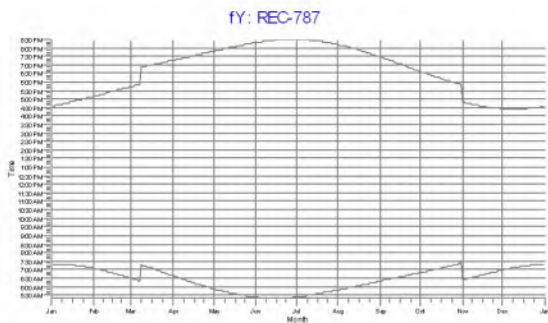
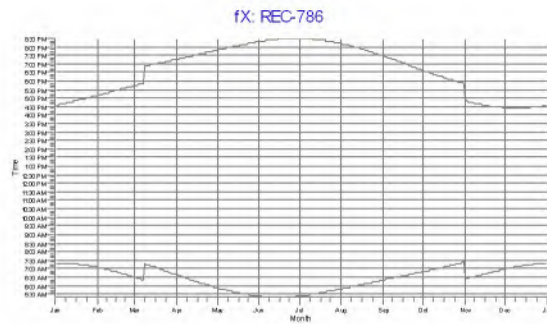
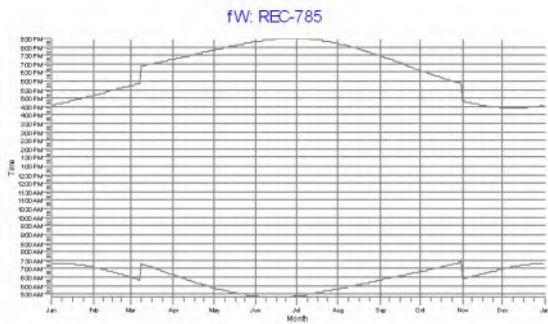
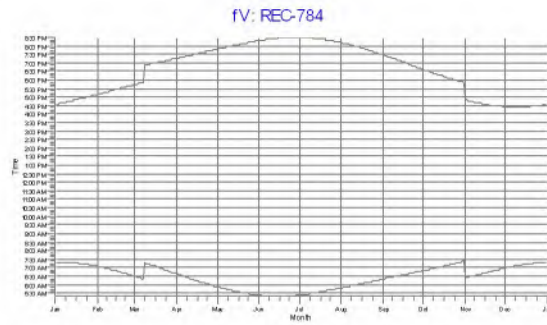
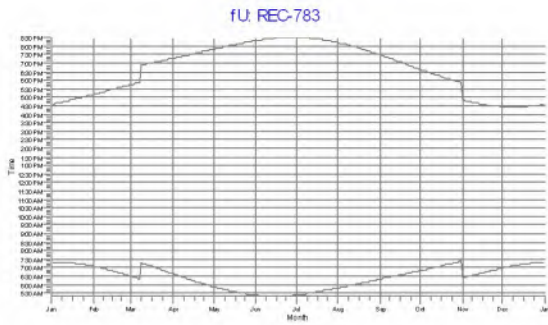
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SHADOW - Calendar, graphical

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WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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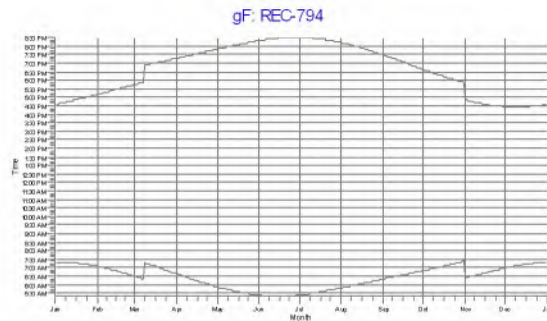
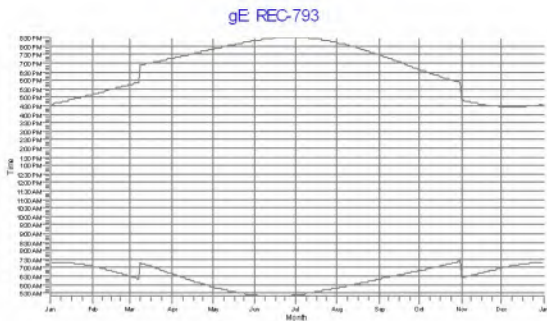
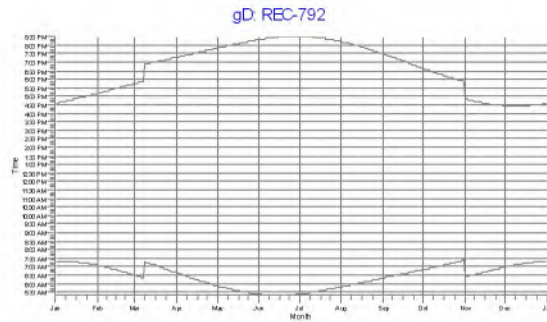
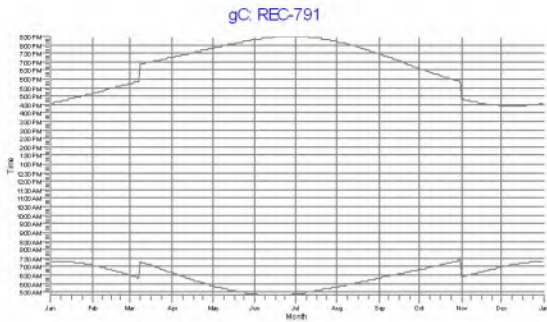
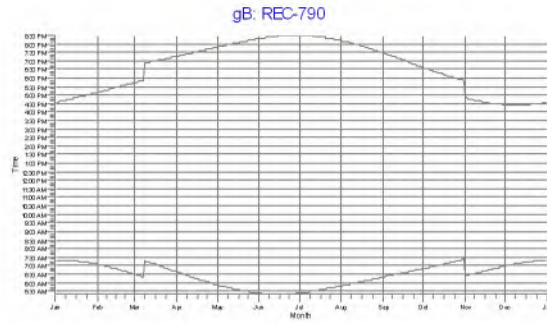
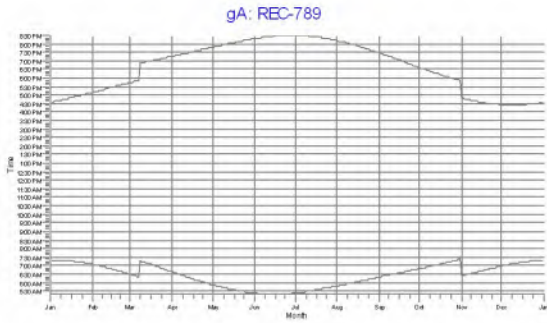
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Calculated:
1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

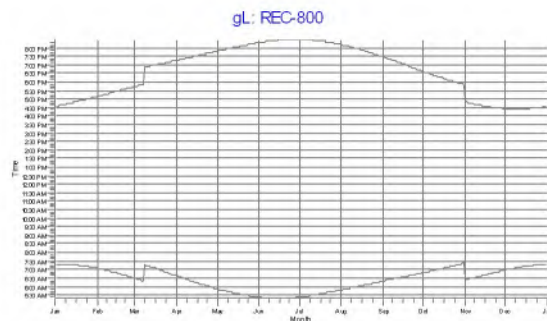
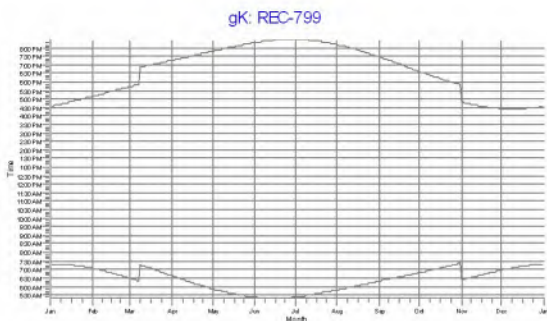
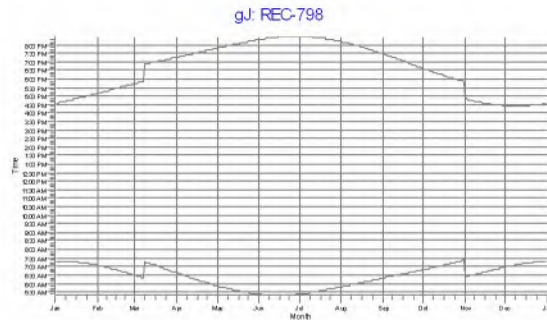
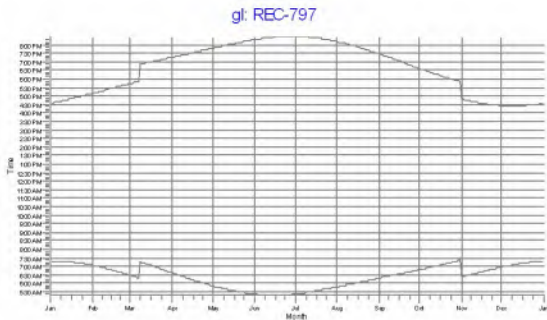
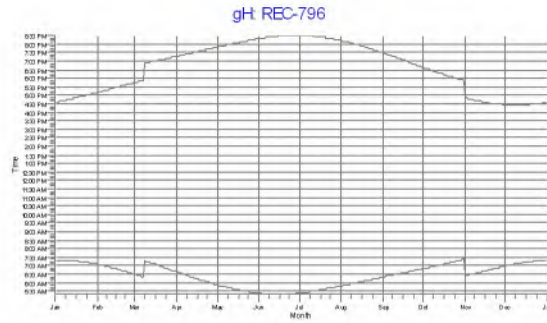
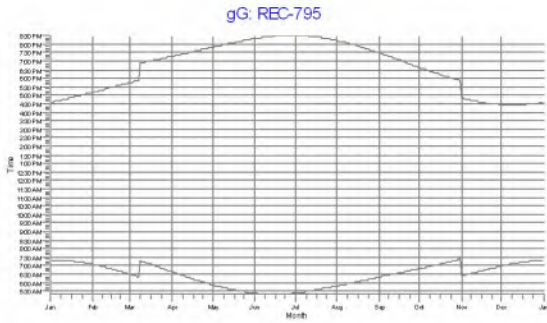
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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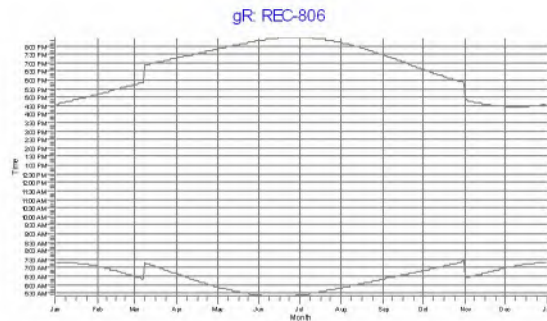
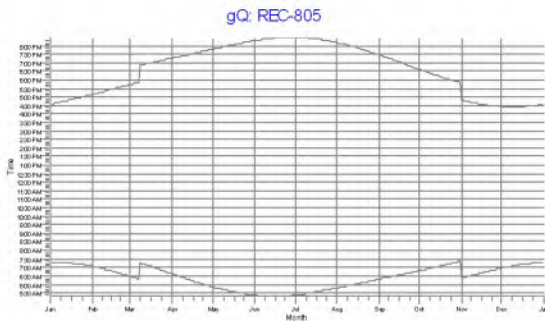
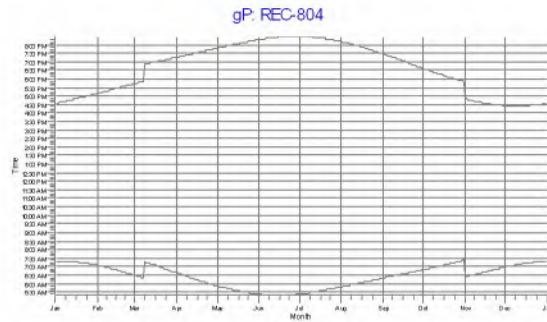
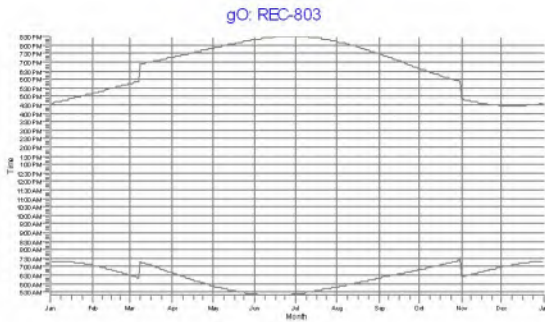
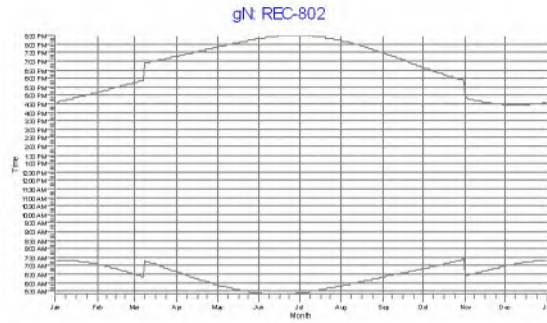
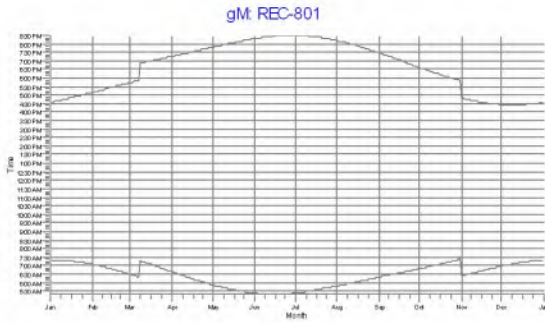
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

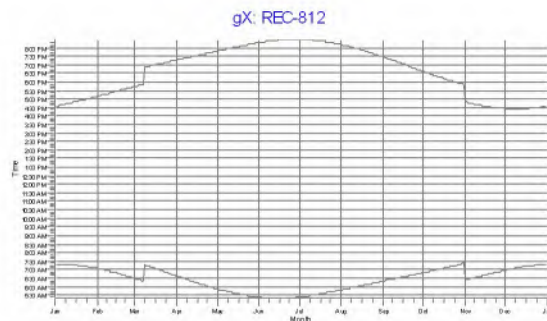
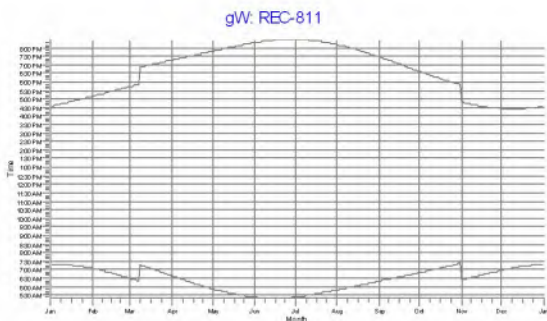
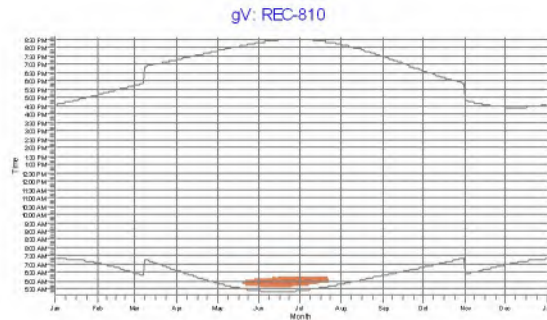
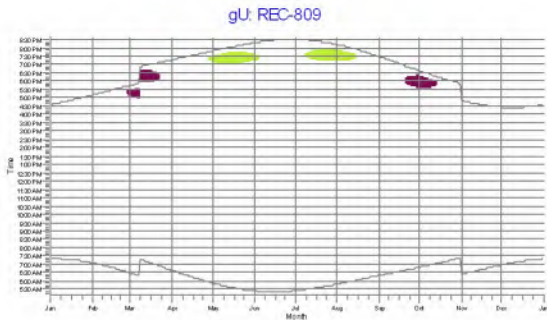
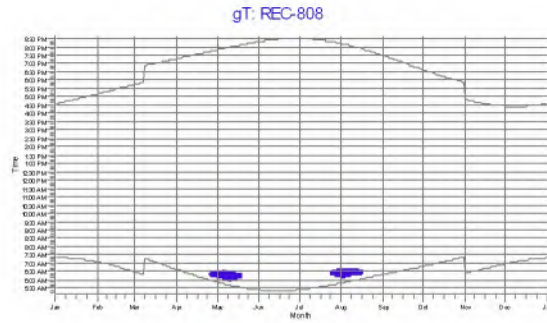
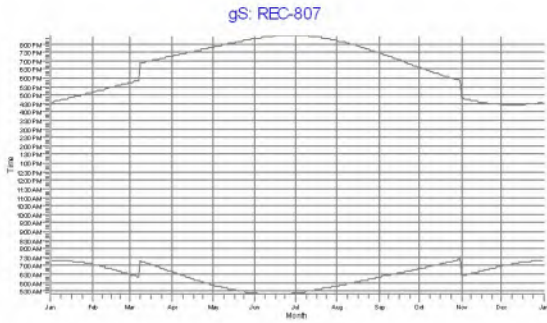
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
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 107: K85
 112: K92
 127: K110

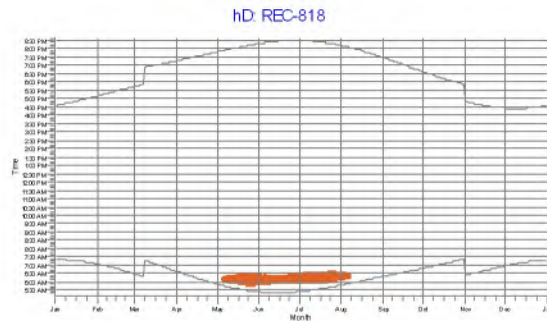
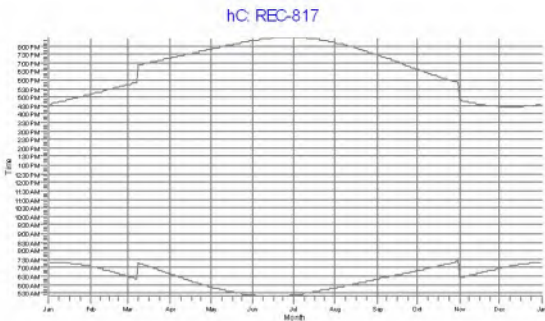
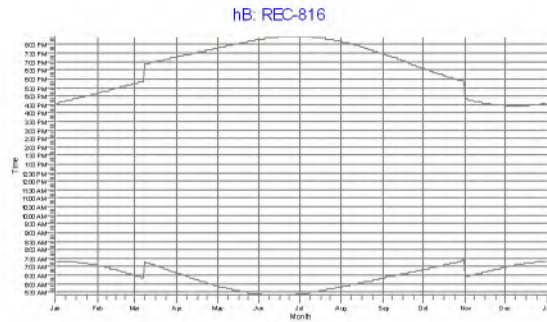
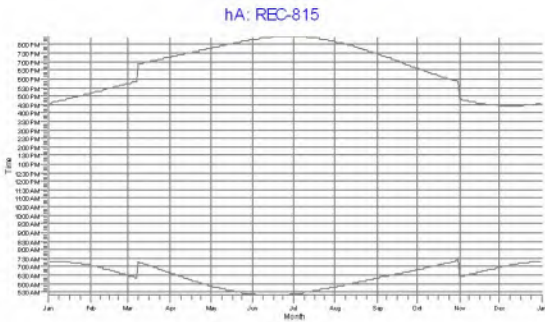
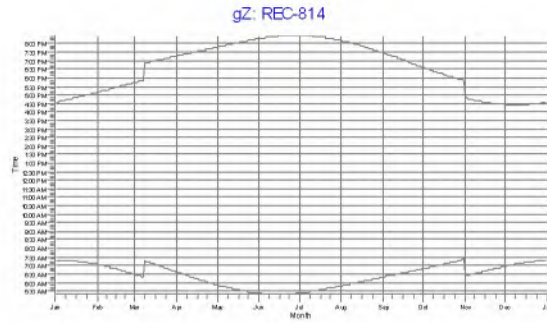
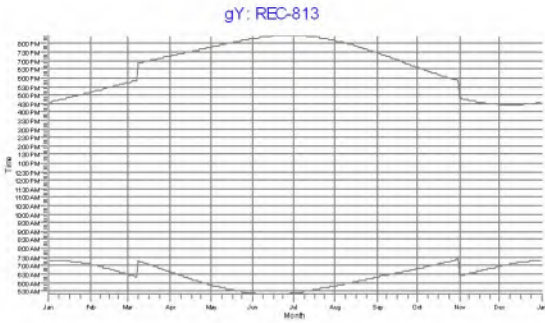
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
128: K48

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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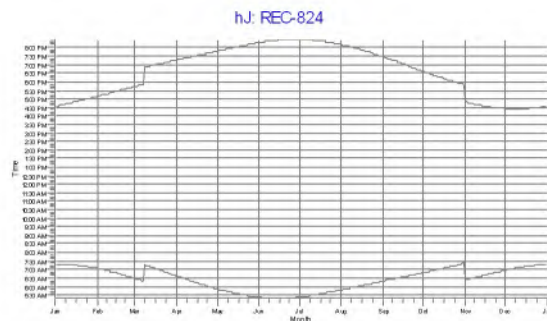
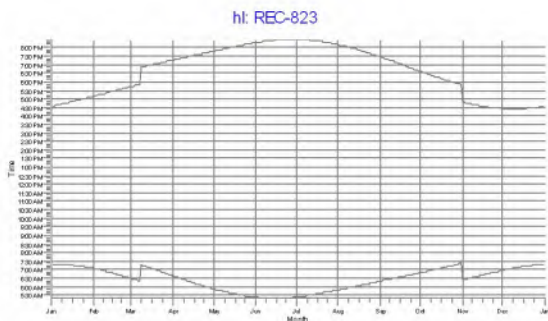
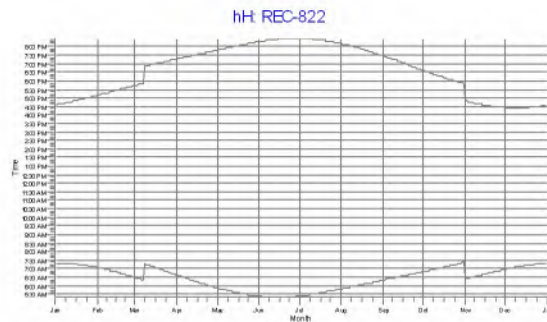
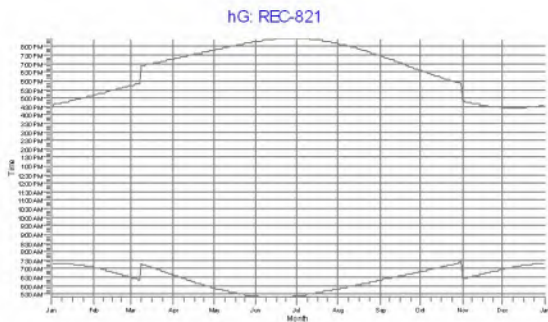
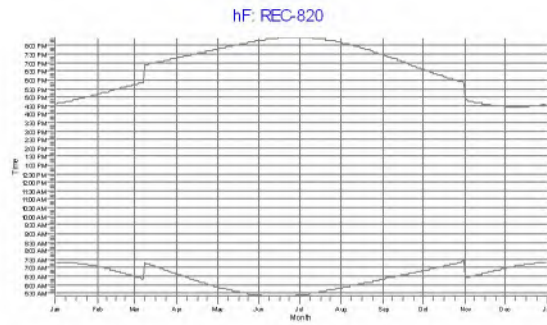
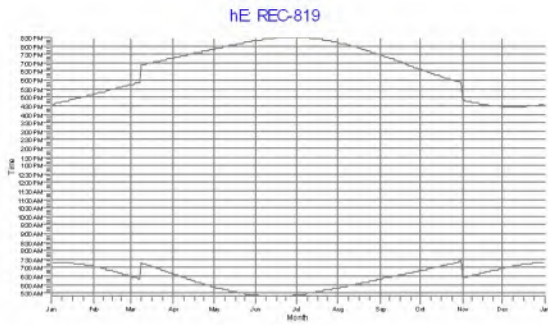
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

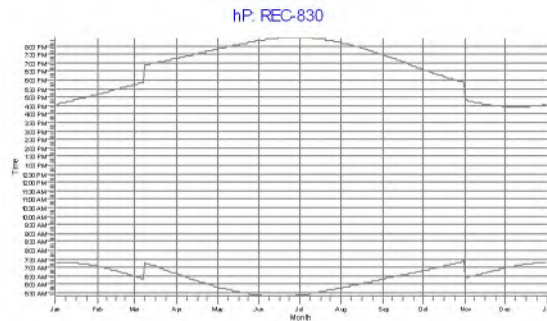
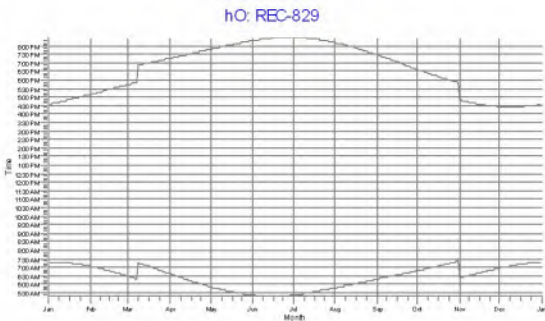
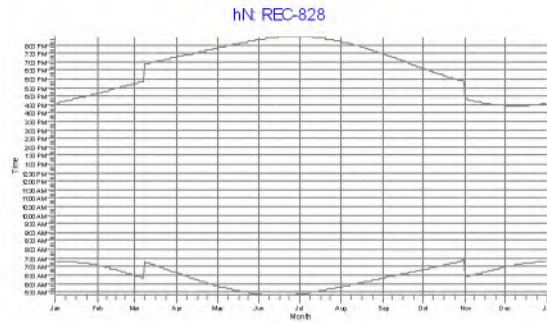
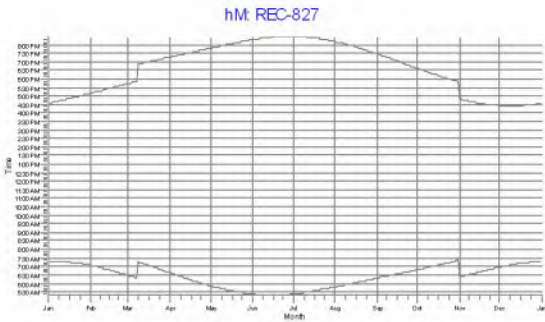
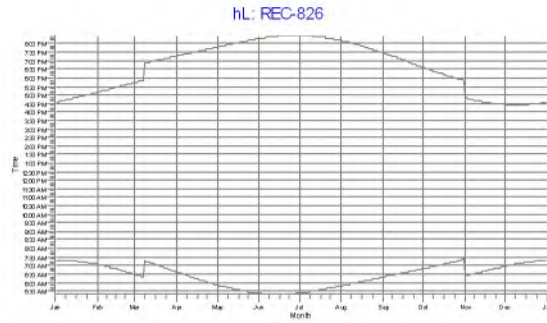
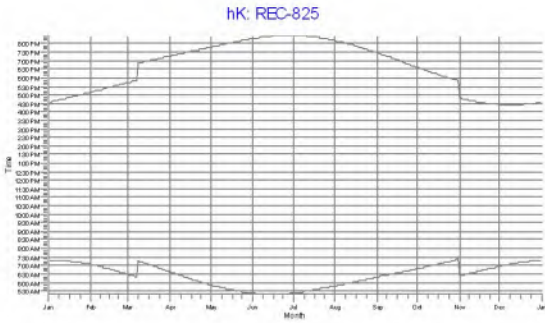
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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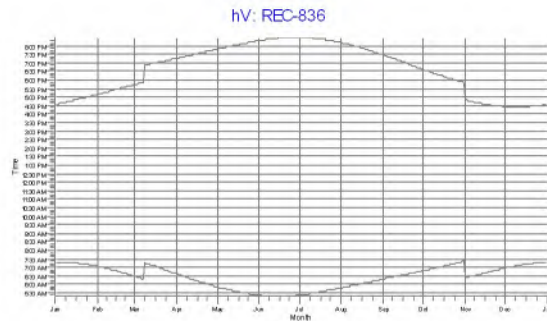
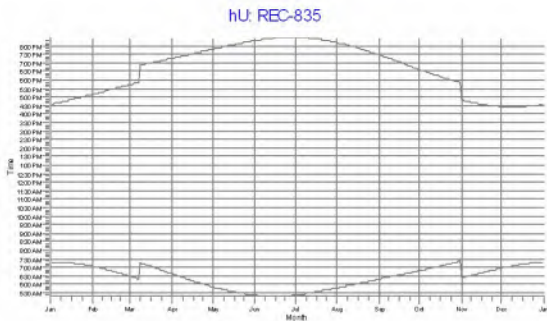
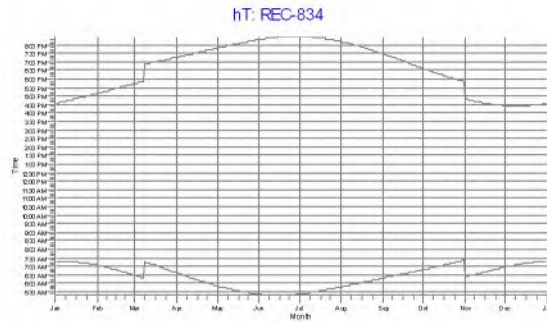
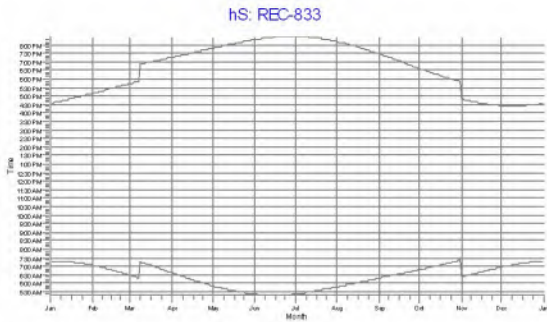
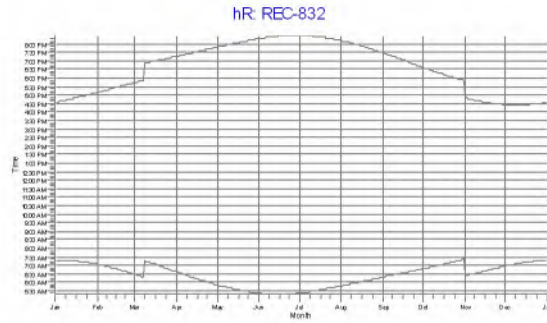
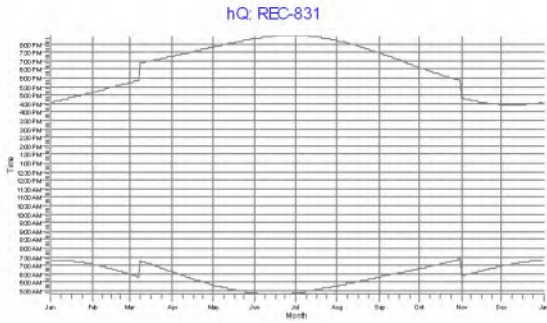
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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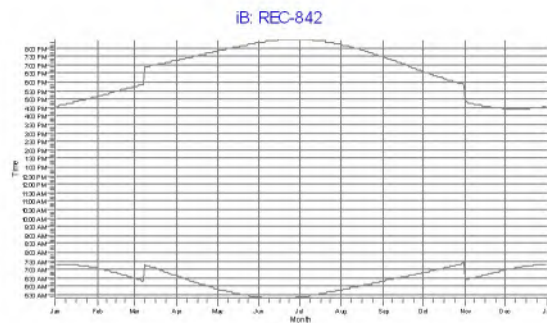
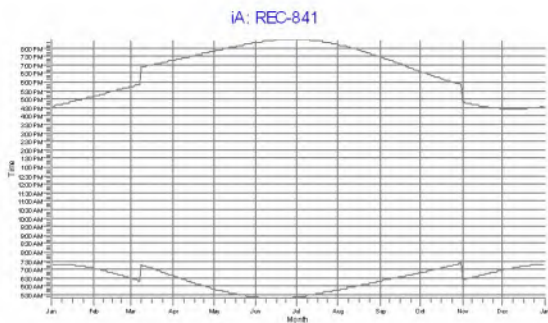
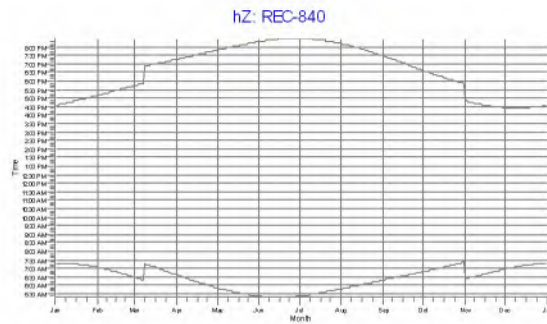
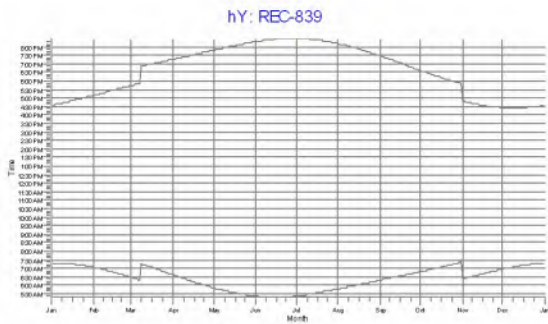
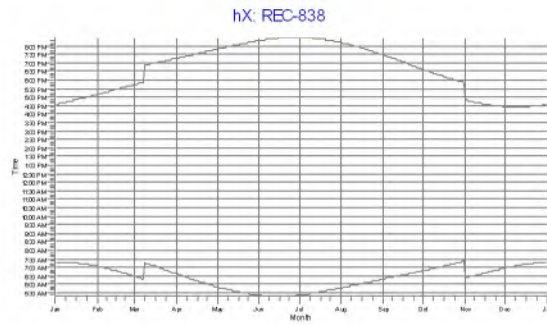
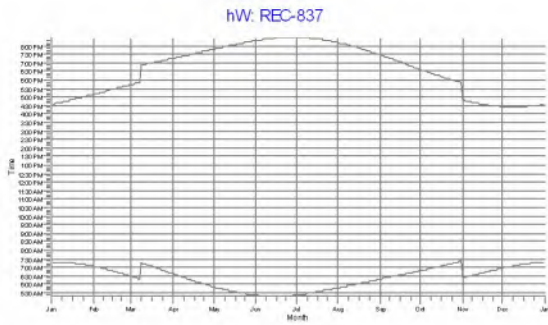
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SHADOW - Calendar, graphical

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WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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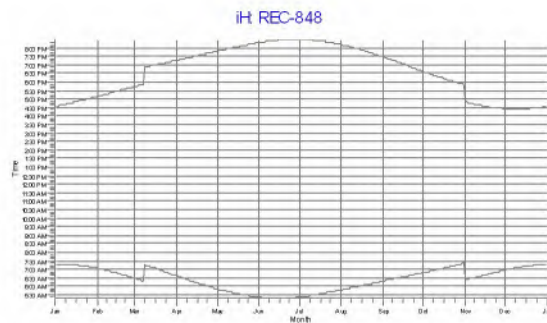
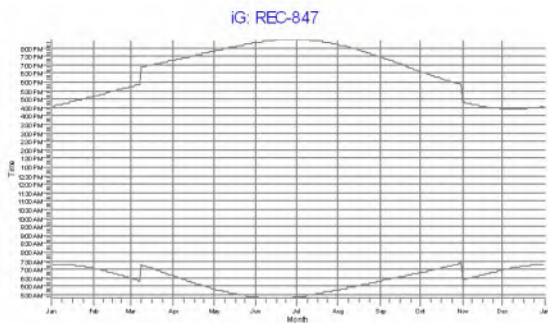
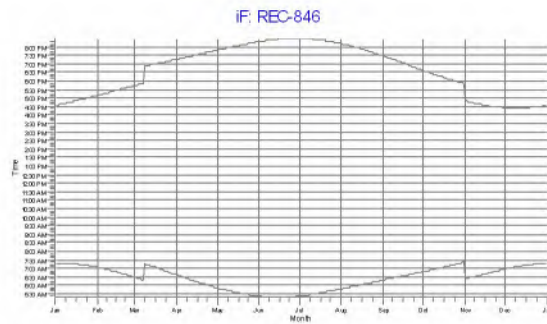
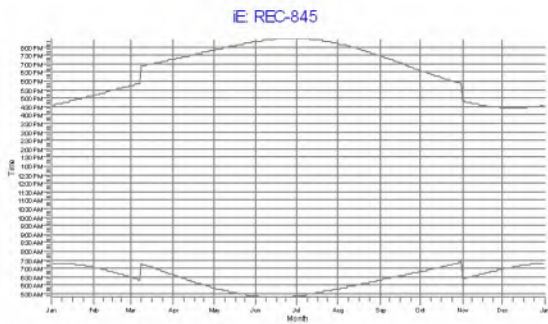
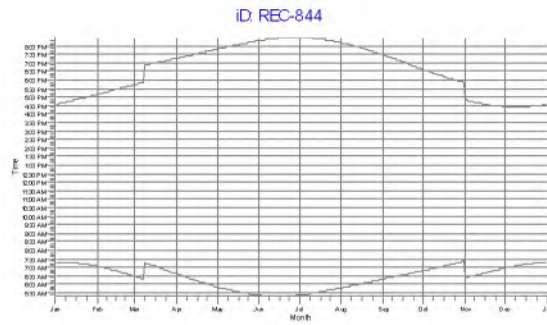
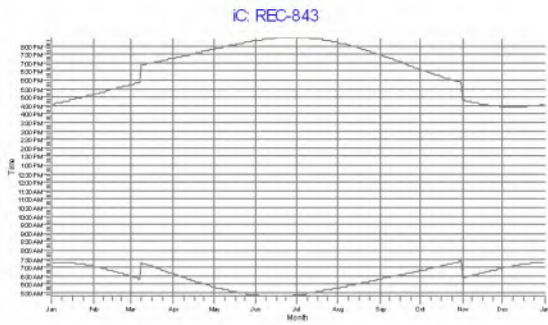
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SHADOW - Calendar, graphical

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WTGs

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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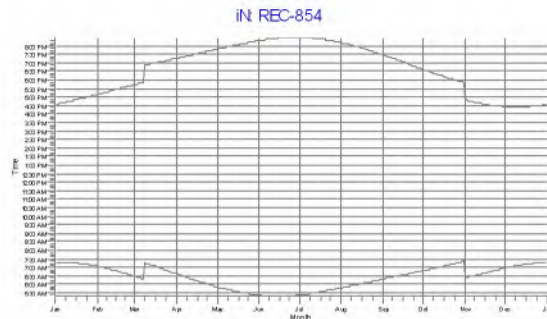
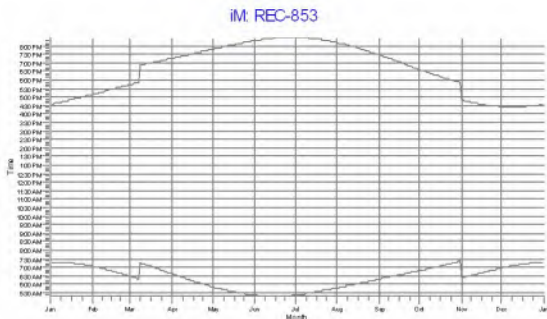
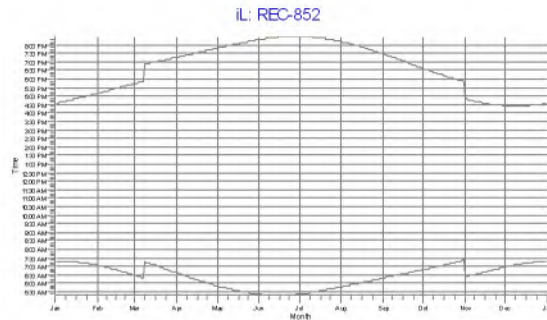
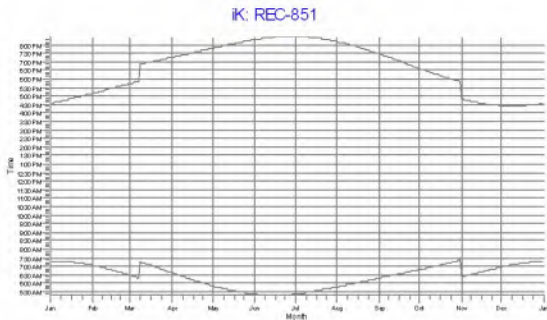
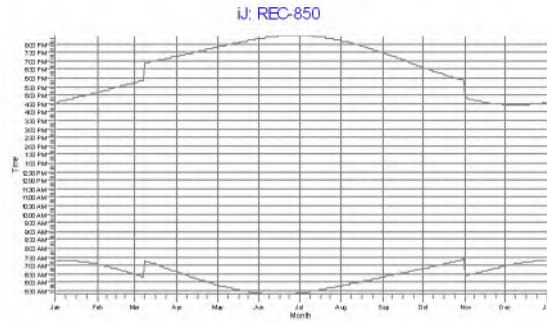
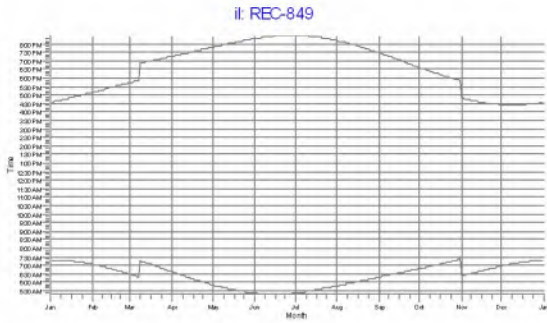
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WTGs

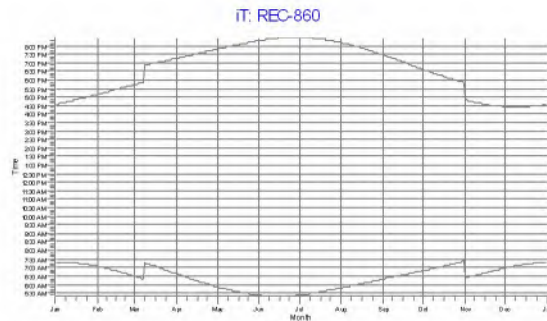
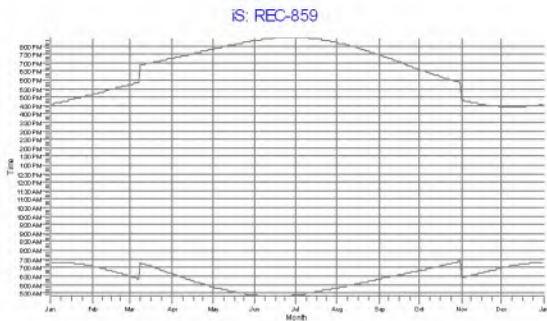
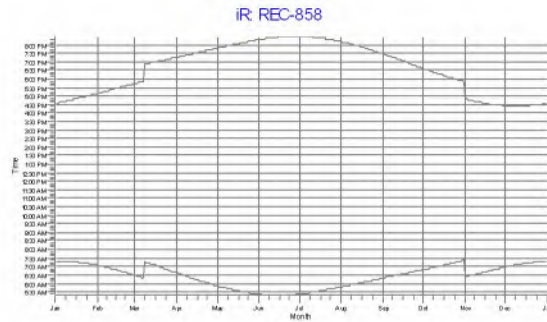
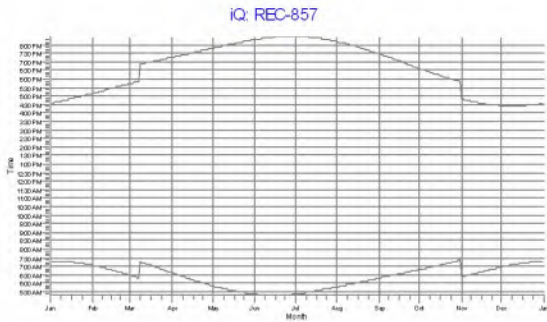
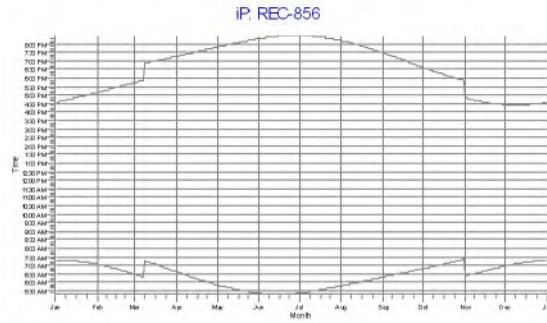
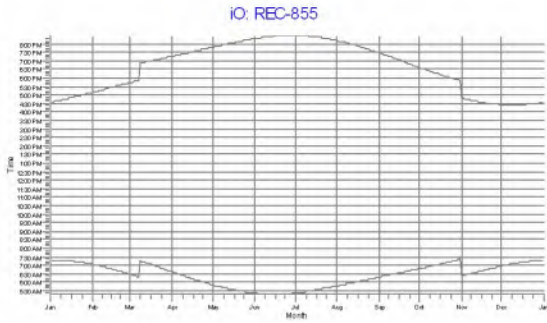
Project:
132138 - Pattern - Heritage Prairie Wind_v6

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1/30/2024 2:50 PM/3.0.654

SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

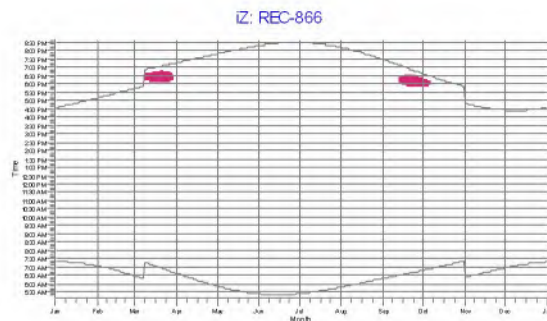
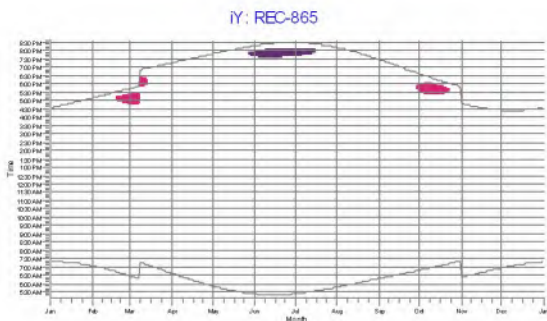
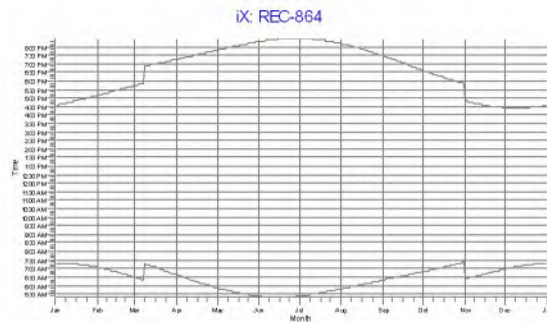
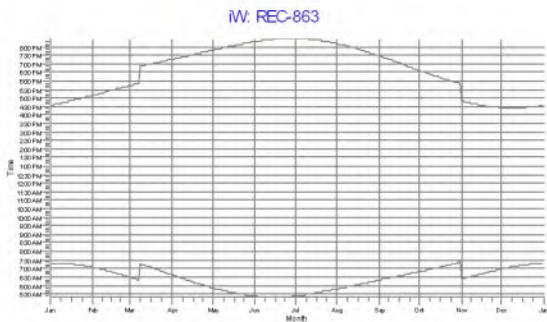
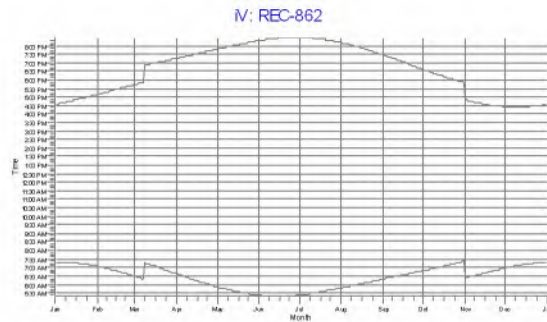
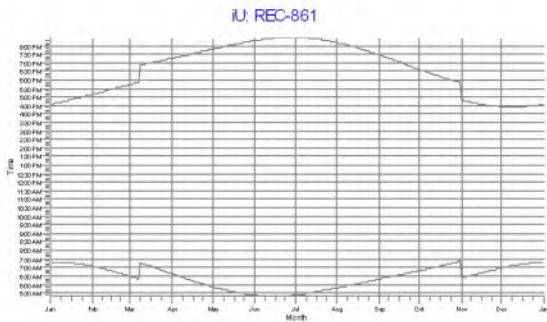
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
101: K73
102: K74

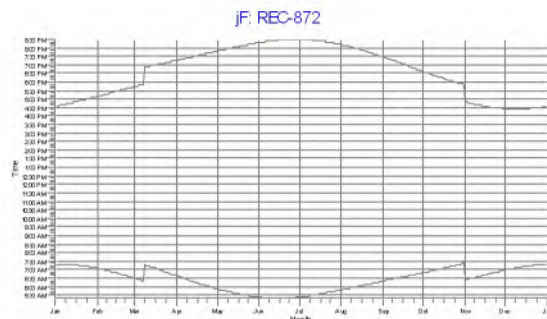
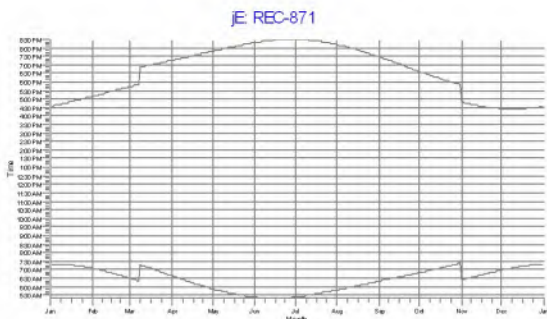
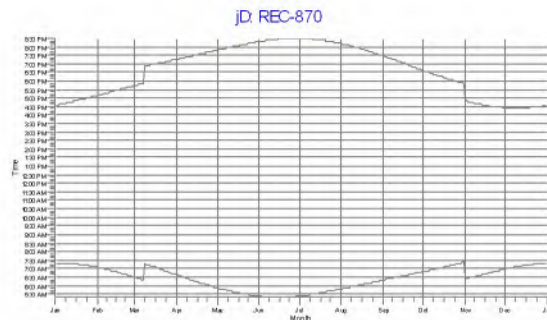
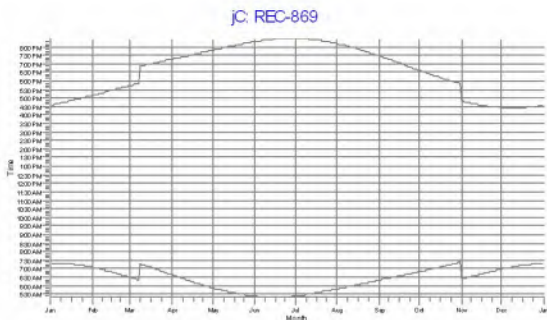
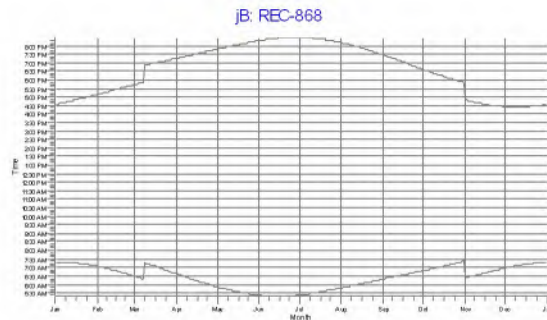
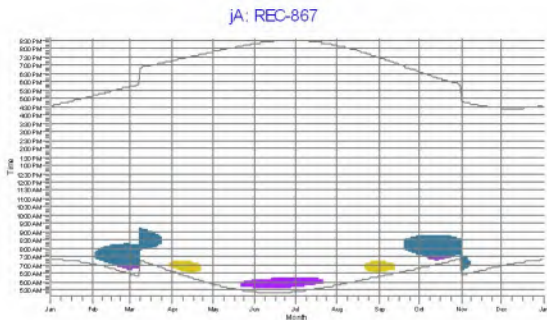
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

120: K101 121: K79 123: K77 135: K205

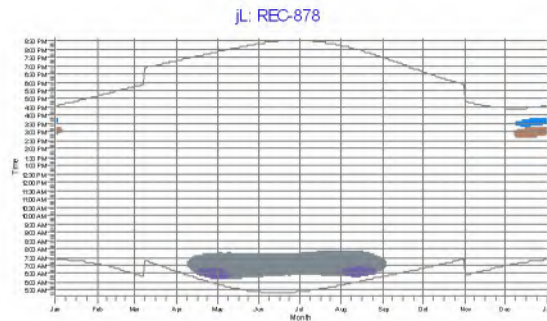
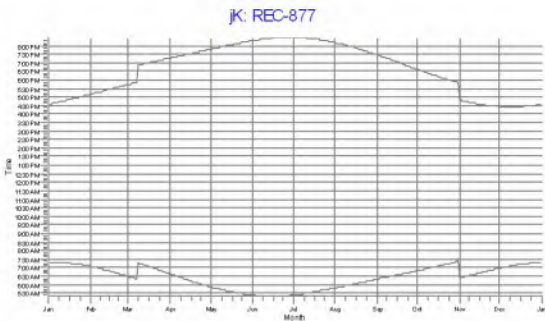
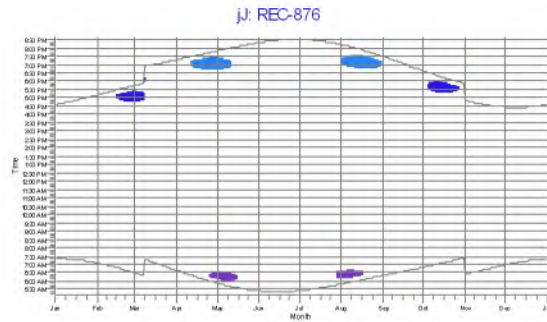
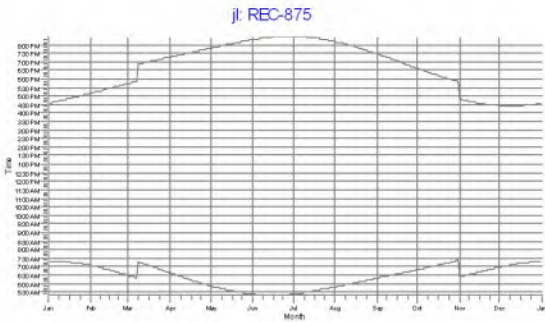
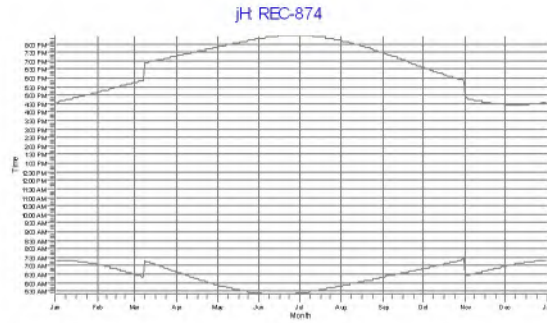
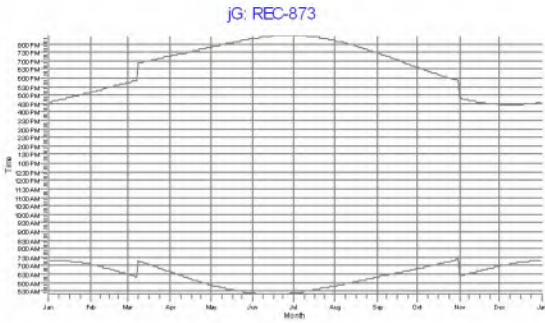
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

- 36: L61
- 38: L63
- 39: L64
- 44: L70
- 55: L87
- 62: L104
- 64: L106

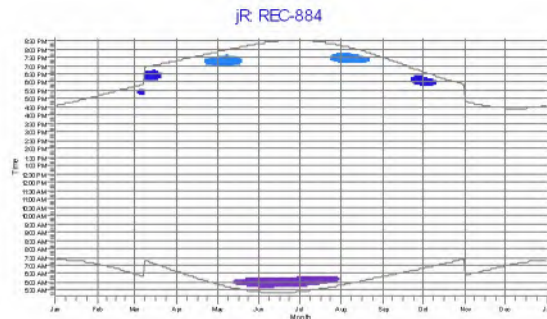
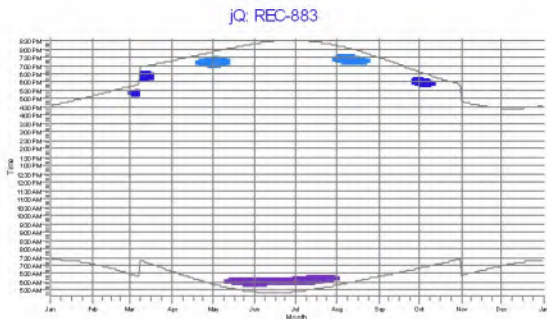
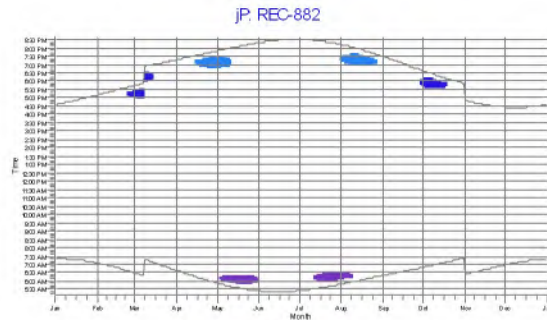
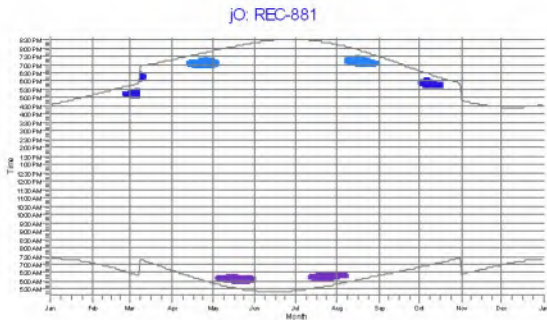
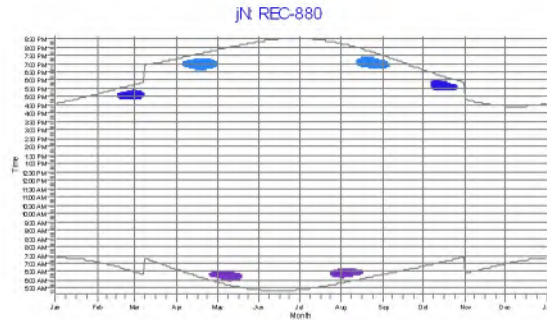
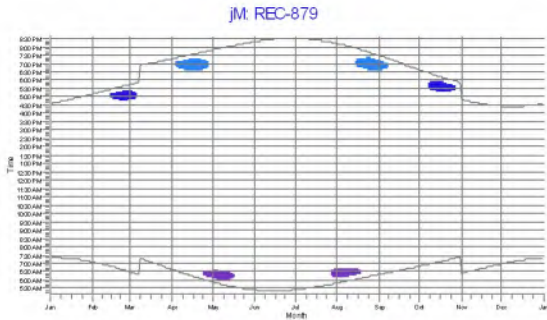
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 55: L87

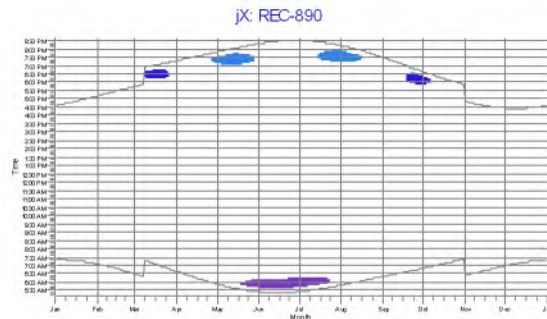
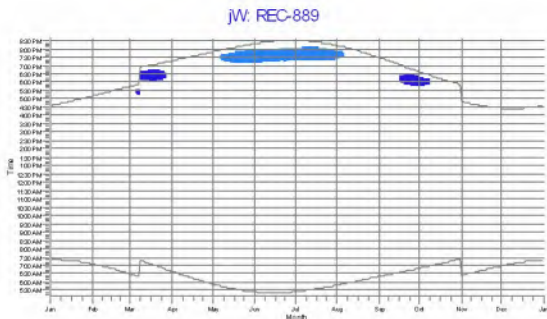
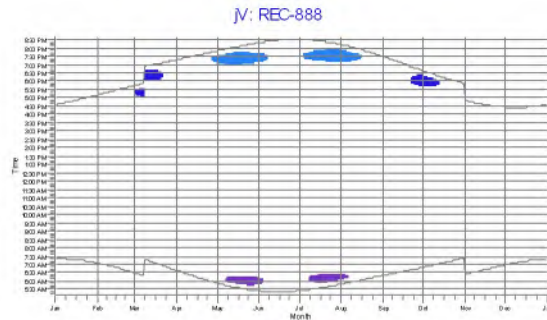
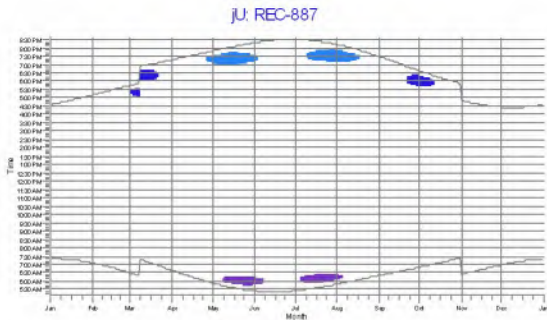
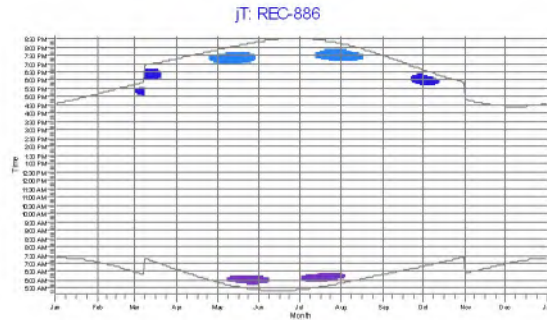
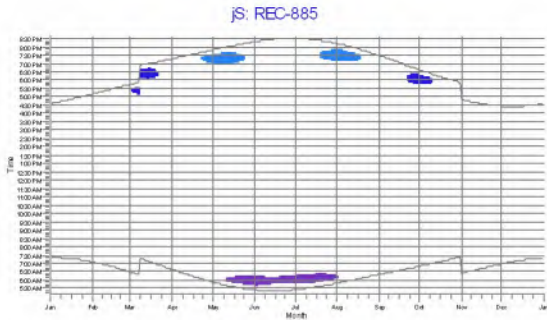
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 55: L87

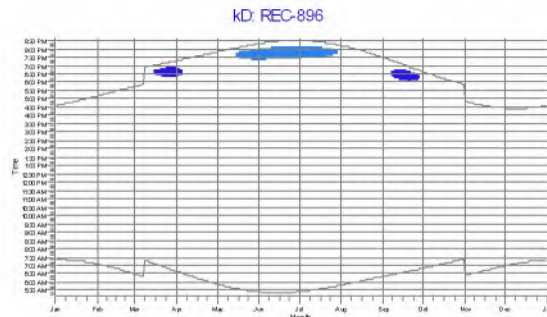
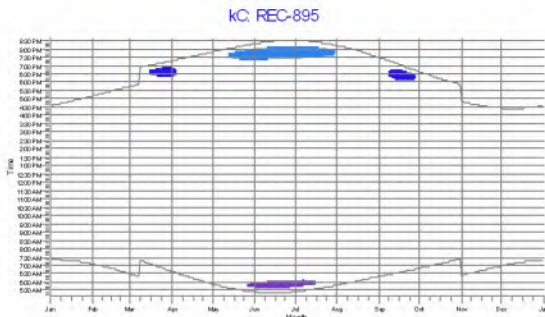
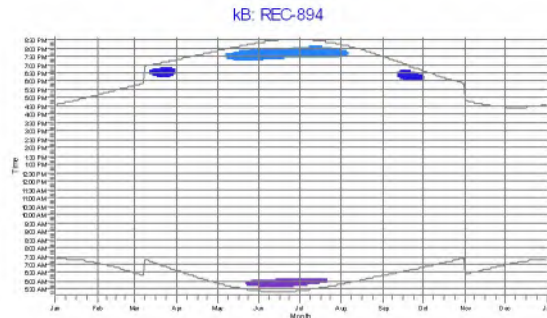
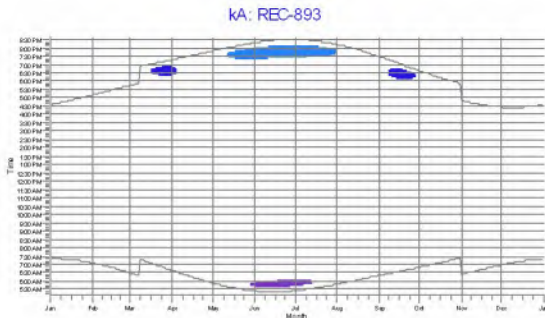
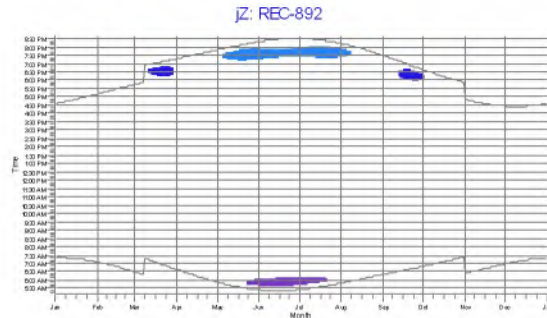
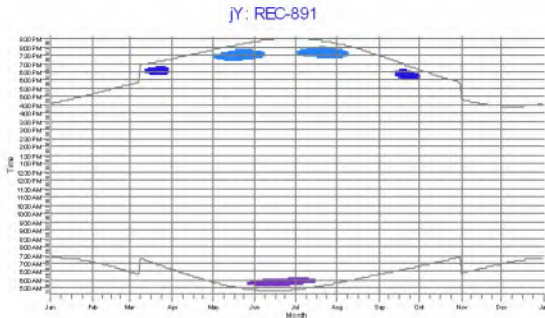
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132138 - Pattern - Heritage Prairie Wind_v6

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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 55: L87

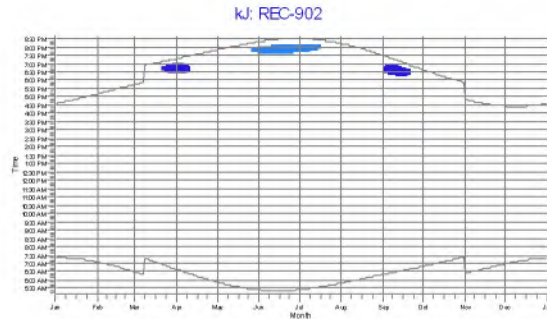
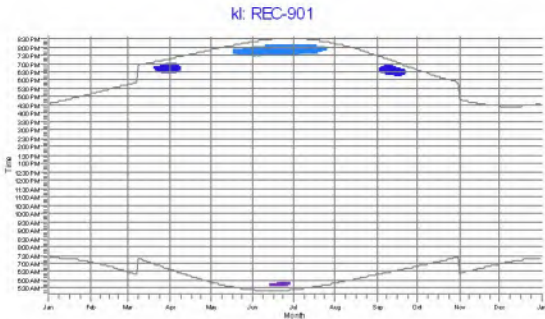
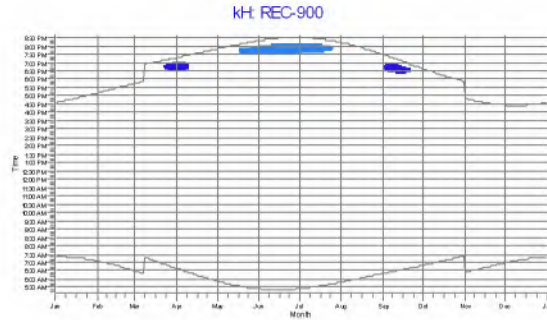
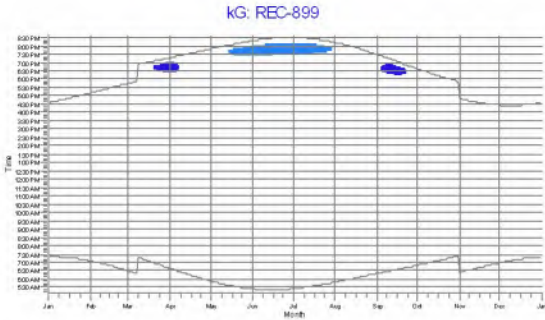
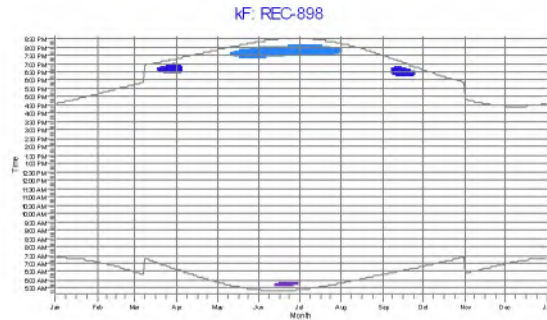
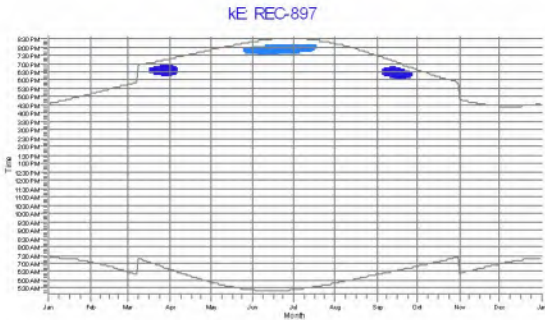
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64 55: L87

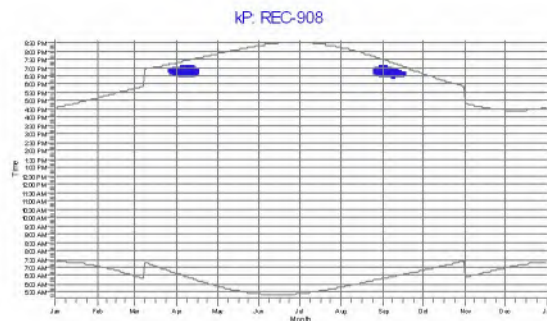
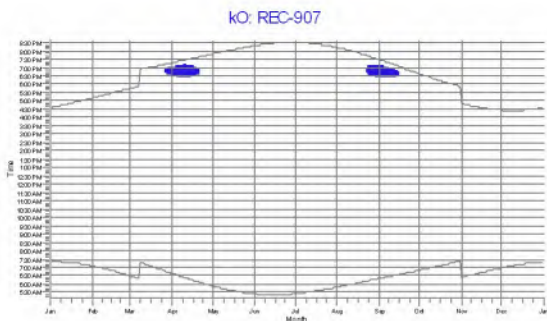
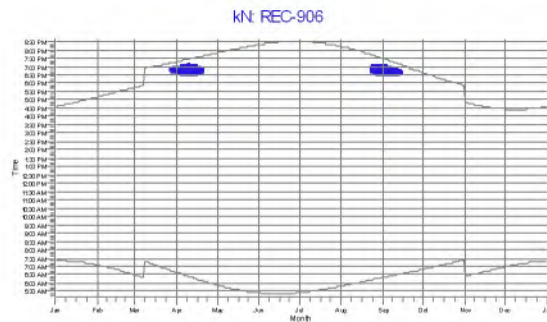
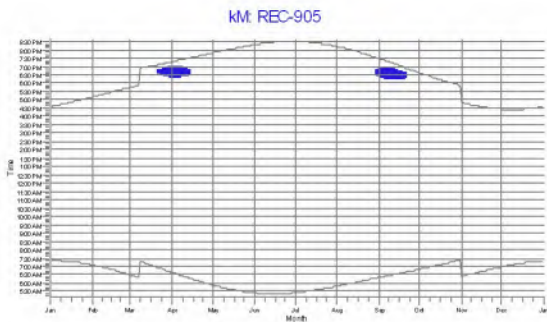
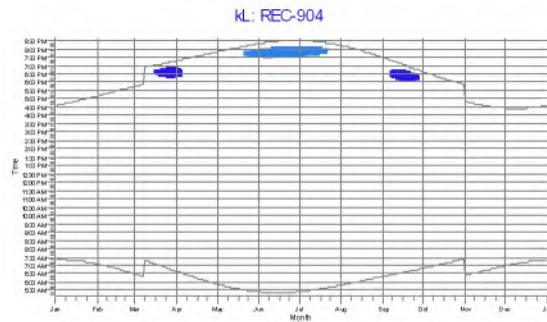
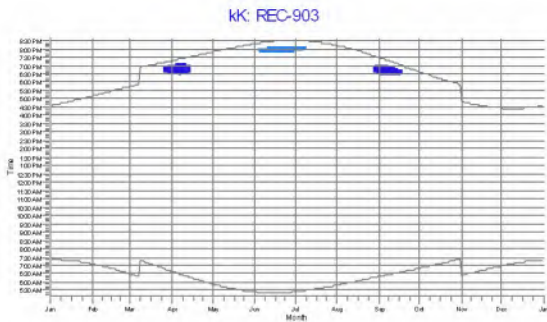
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64

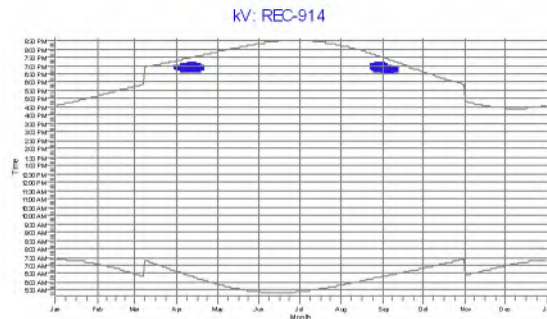
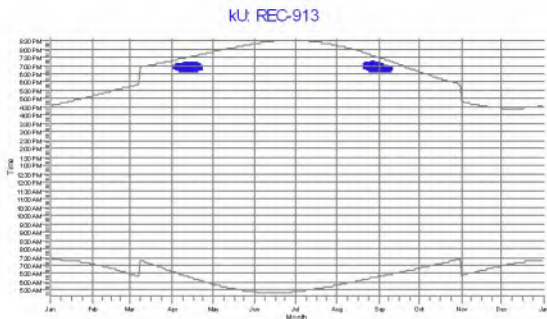
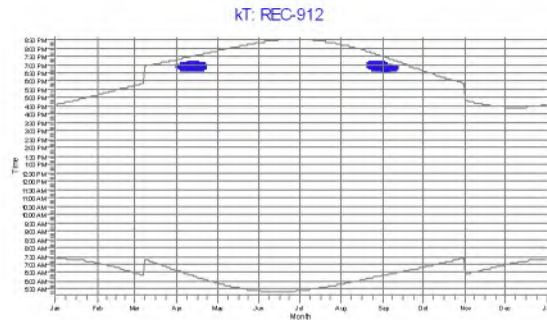
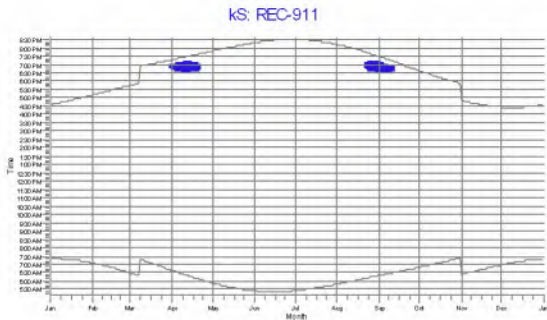
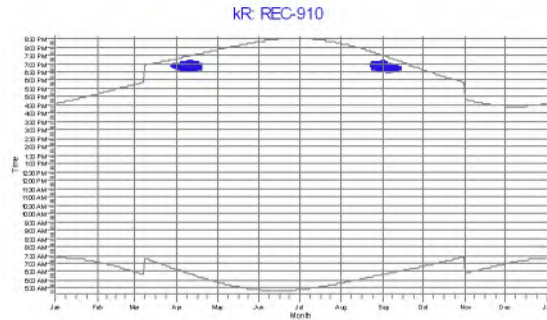
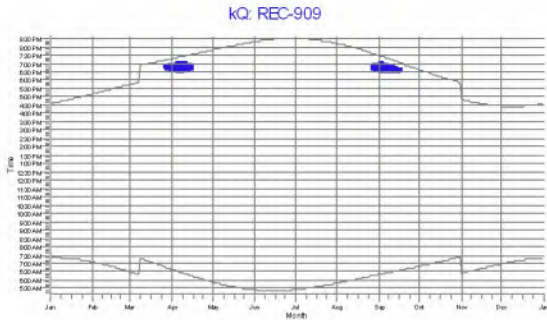
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs
36: L61

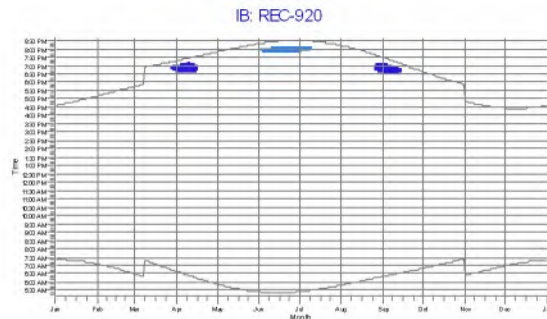
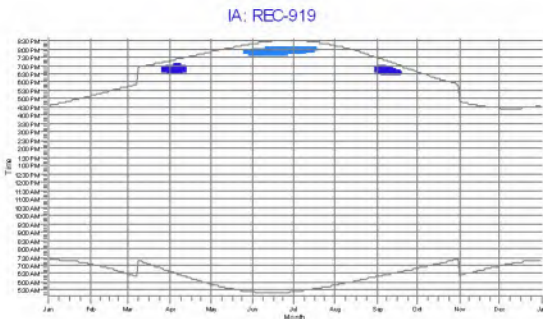
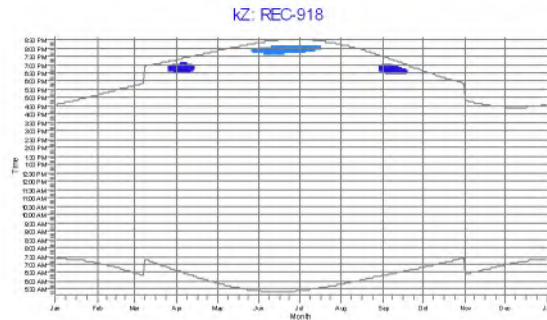
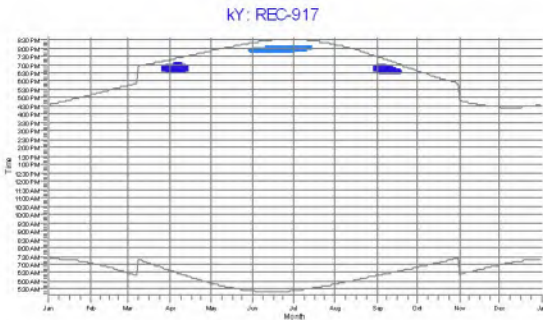
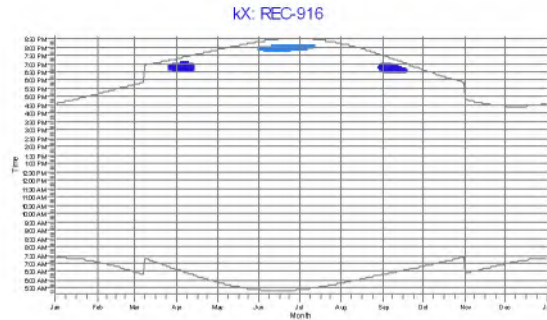
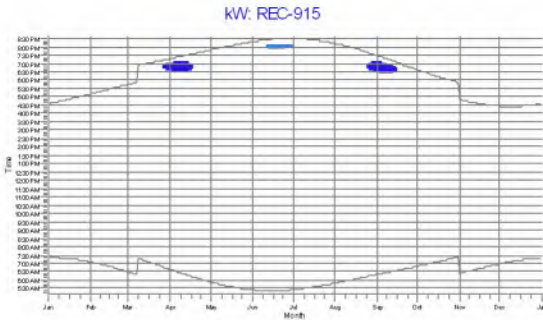
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SHADOW - Calendar, graphical

Calculation: 132138 - Pattern - Heritage Prairie Wind - v6 (Vestas, Estimated Sunshine)



WTGs

36: L61 39: L64

Project:

132138 - Pattern - Heritage Prairie Wind_v6

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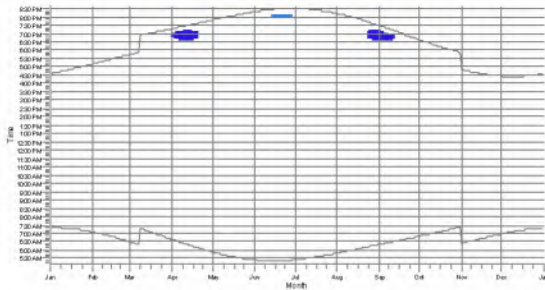
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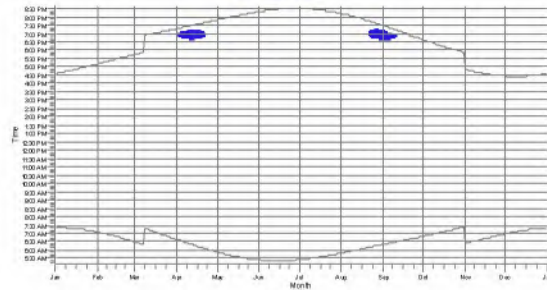
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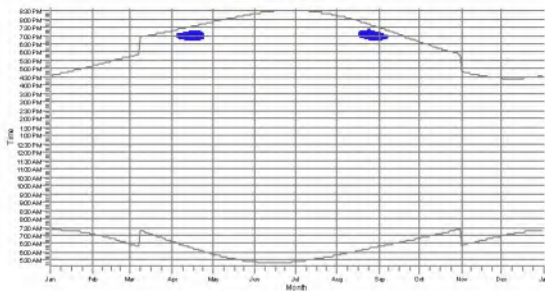
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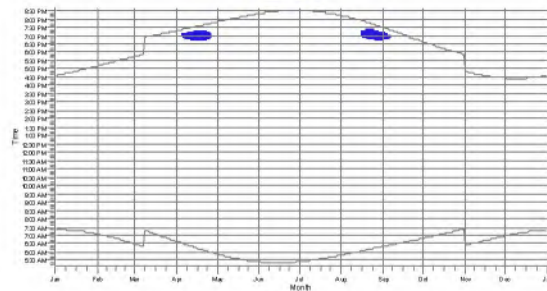
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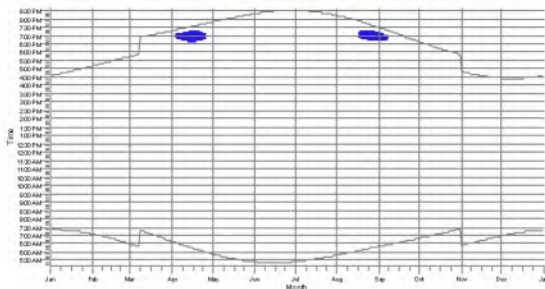
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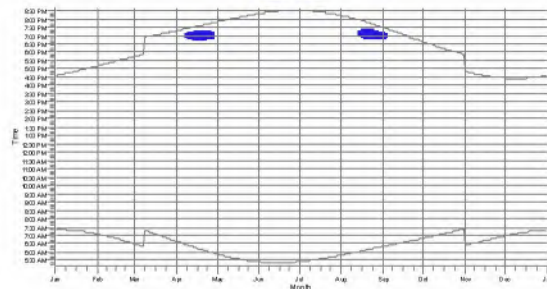
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WTGs

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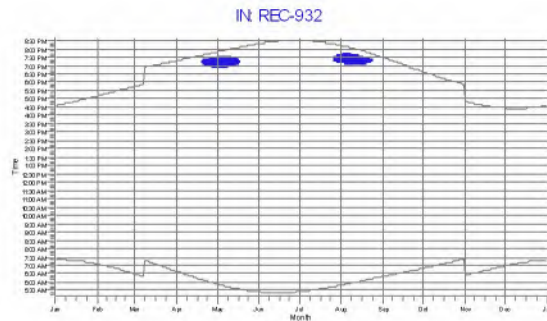
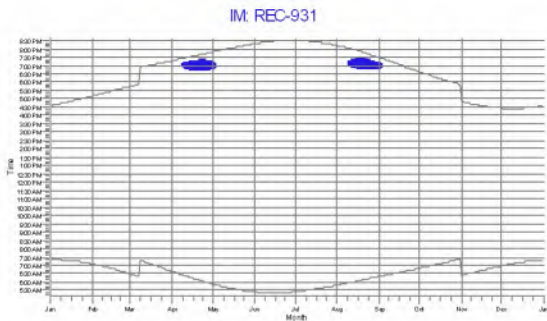
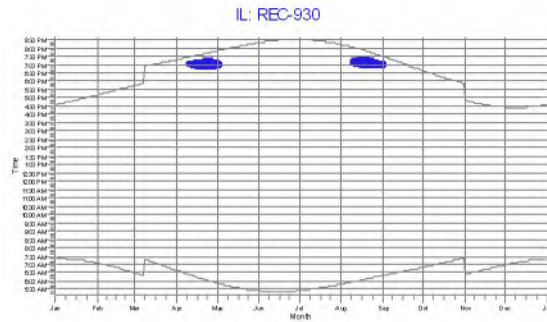
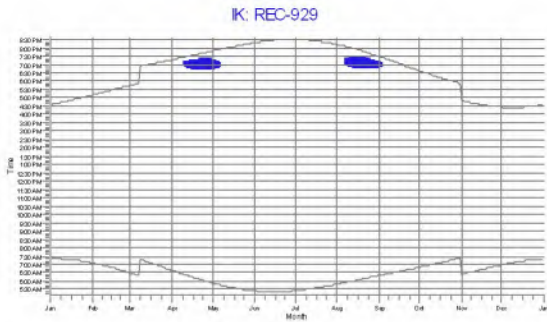
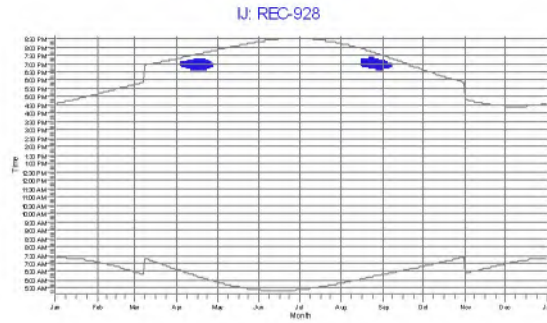
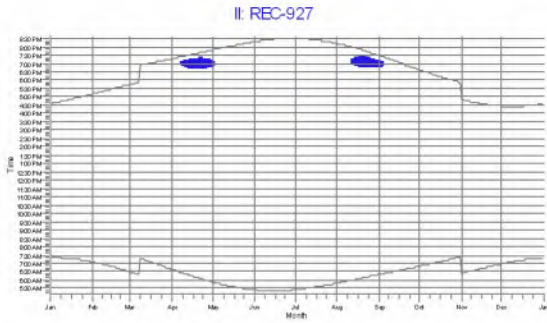
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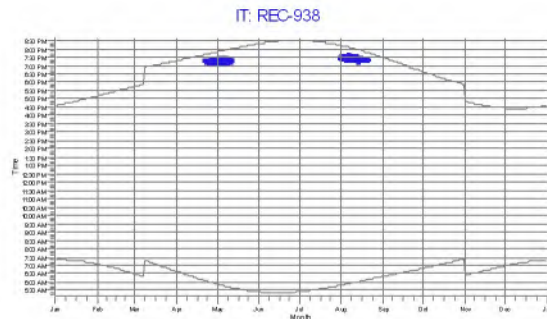
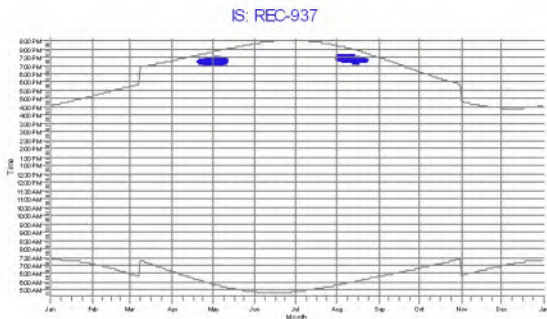
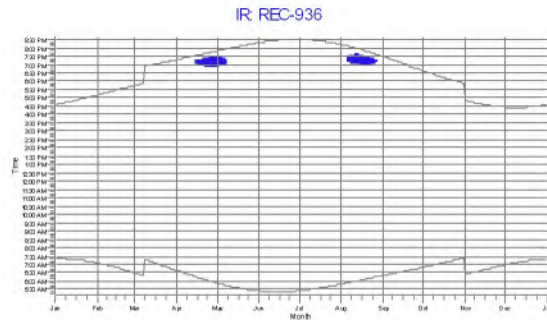
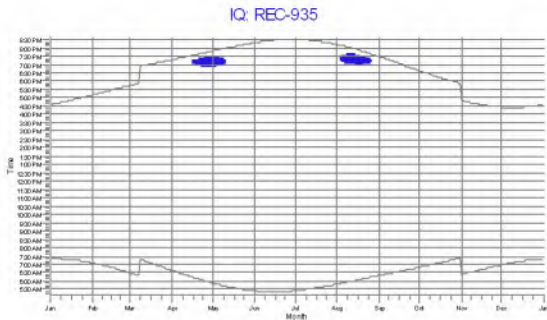
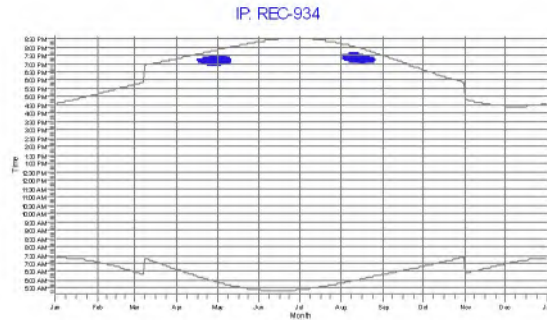
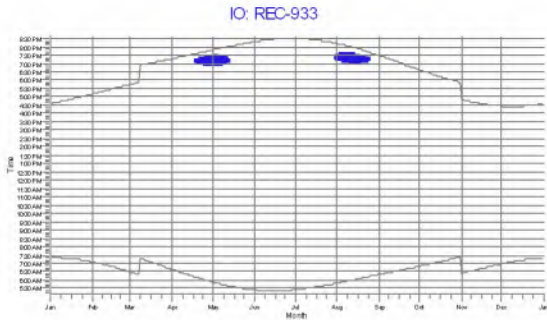
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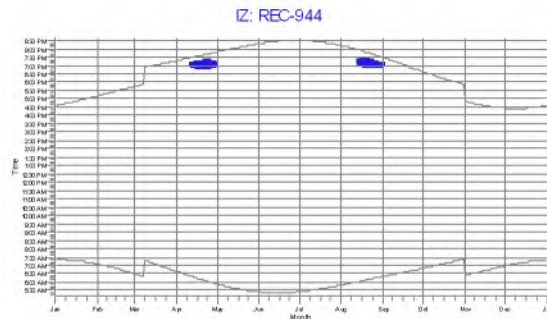
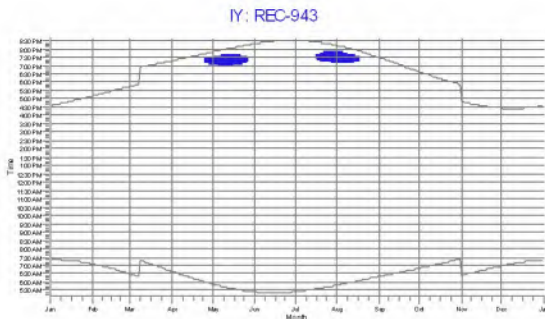
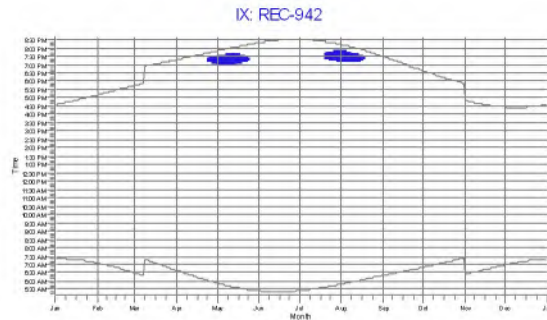
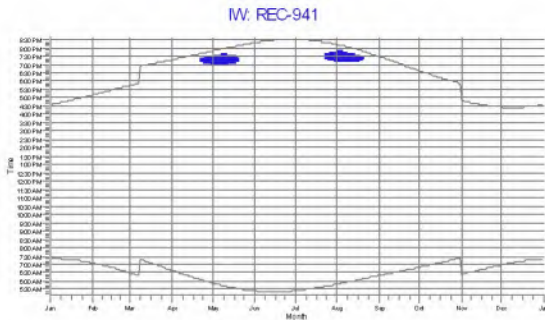
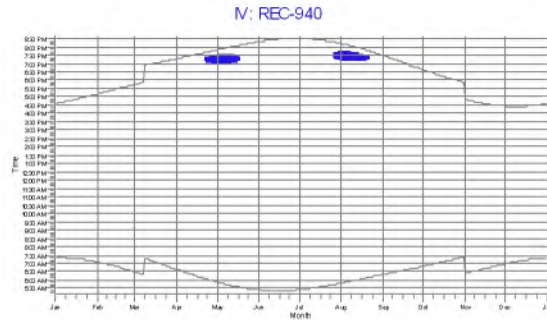
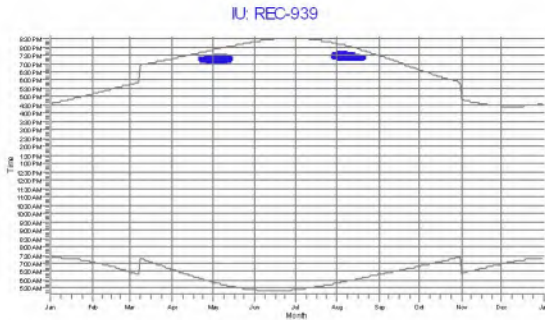
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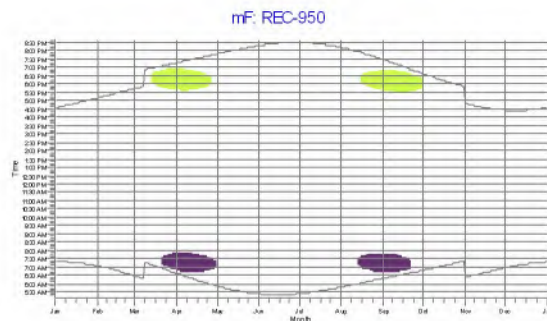
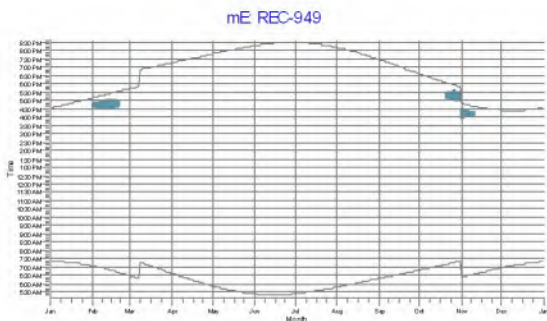
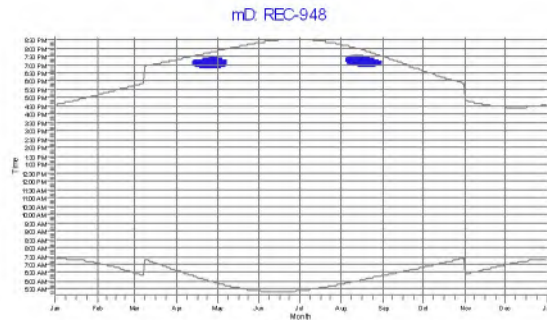
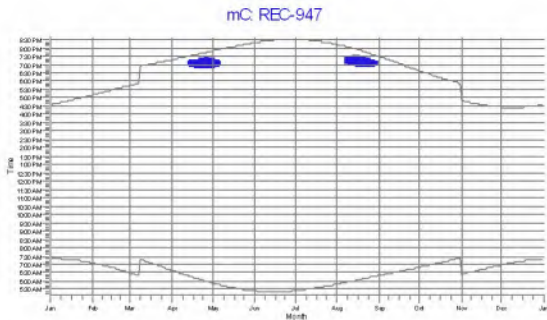
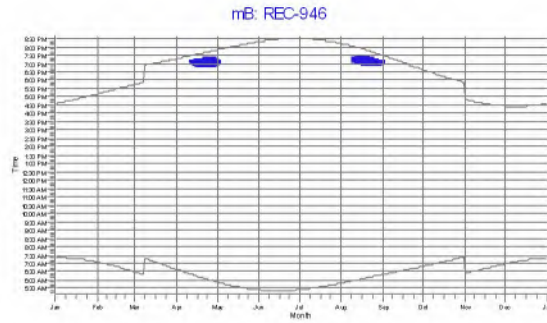
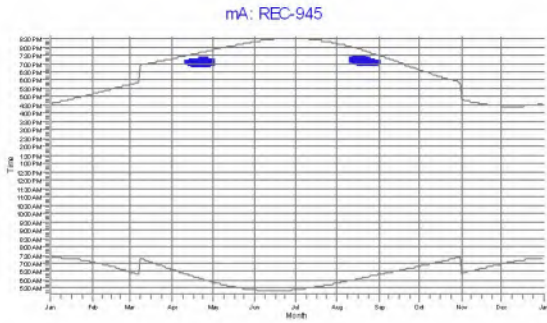
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WTGs

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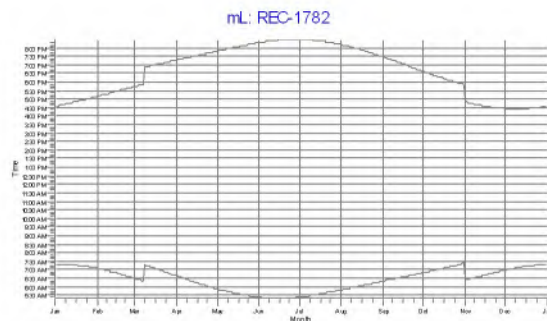
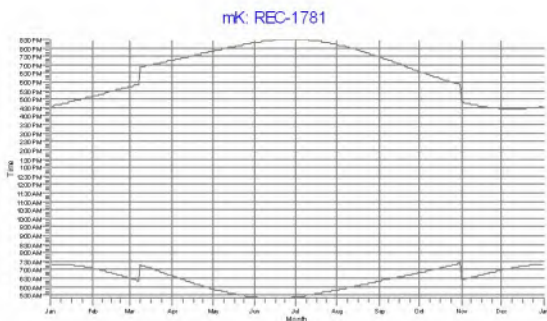
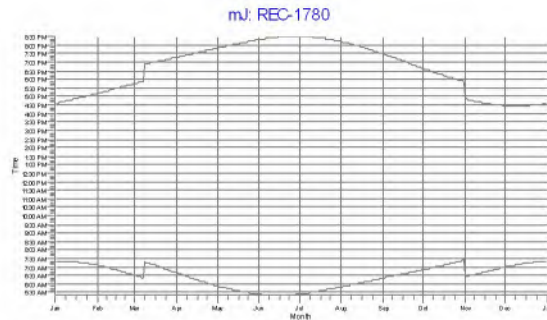
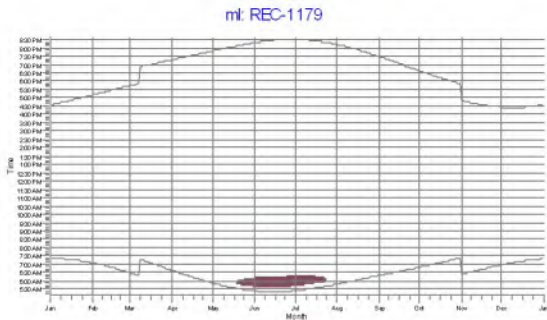
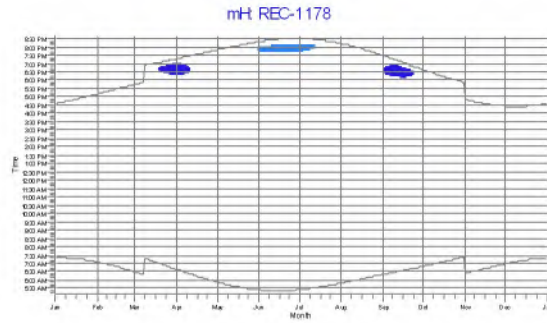
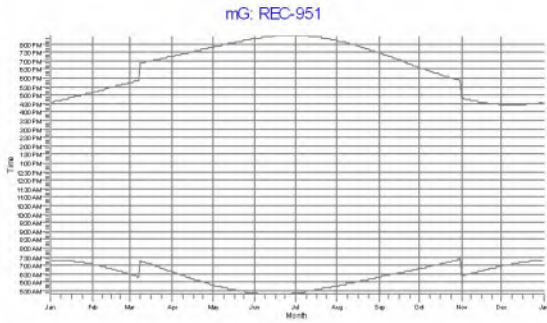
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WTGs

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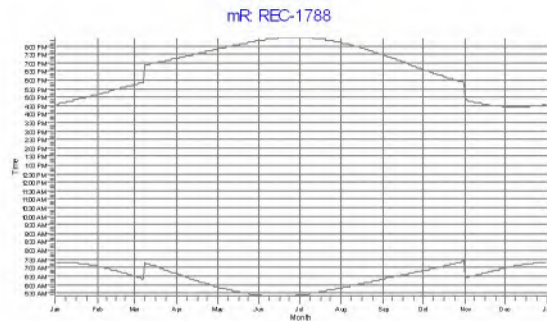
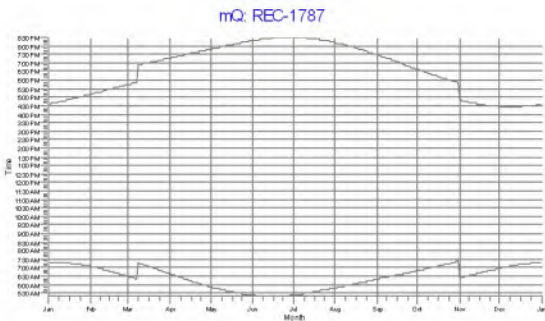
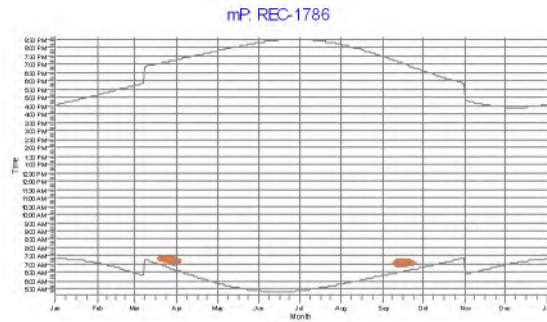
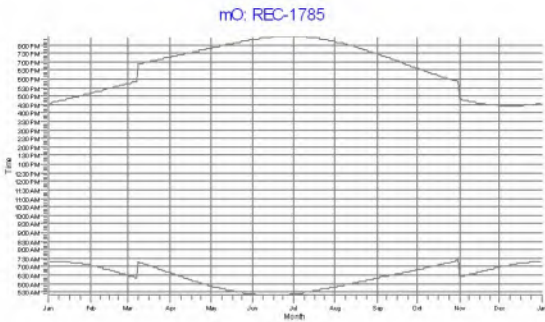
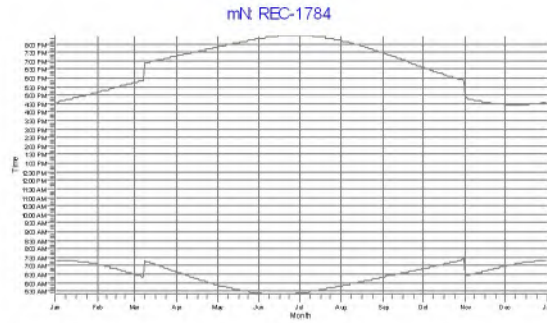
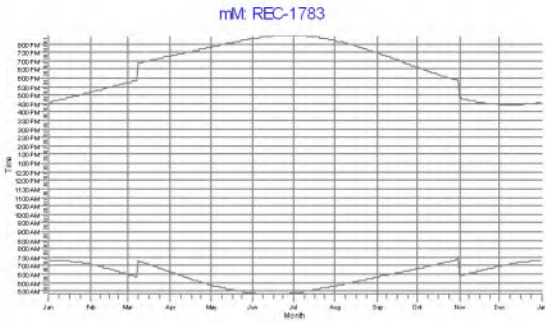
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WTGs
112: K92



APPENDIX Q – SOUND STUDY

ILLINOIS GENERATION LLC

SOUND STUDY

HERITAGE PRAIRIE WIND PROJECT – LIVINGSTON COUNTY

PROJECT NO. 132138

REVISION 0

FEBRUARY 19, 2024

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List of Abbreviations

Abbreviation	Term/Phrase/Name
ANSI	American National Standards Institute
CadnaA	Computer Aided Noise Abatement
dB	decibel
dBA	A-weighted decibels
Developer	Illinois Generation LLC
EPA	Environmental Protection Agency
GE	General Electric
Hz	hertz
IEC	International Electrotechnical Commission
IPCB	Illinois Pollution Control Board
ISO	International Organization for Standardization
kV	kilovolt
L_{eq}	equivalent sound level
LNTE	low-noise trailing edge
MVA	mega-volt-ampere
NRO	noise reduced operating
Project	proposed Heritage Prairie Wind Farm in Livingston County, IL
Sound Study	Acoustical Analysis of Project
STE	serrated trailing edges
the Act	Noise Control Act of 1972
WTG	Wind Turbine Generator

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1.0 Introduction

Burns & McDonnell was retained by Developer to conduct an acoustical analysis (“Sound Study”) for the proposed Heritage Prairie Wind Farm in Livingston County, IL (“Project”). The objective of the Sound Study was to estimate the expected sound impacts generated by Project wind turbines on neighboring landowner properties and residences. There were several objectives in this study, including:

- Identification of applicable county, city, state, or federal noise ordinances and other applicable sound guidelines
- Estimation of the operational sound levels from the proposed Project using the three-dimensional sound modeling program Computer Aided Noise Abatement (“CadnaA”)
- Determination of whether the Project can operate in compliance with the identified applicable regulatory standards

1.1 Project Overview

The Project will be located in Livingston County, Illinois, southeast of the city of Dwight, Illinois. The Project is designed to include a quantity of 71 wind turbine generators (“WTG”) in Livingston County to be constructed as part of the Livingston L12R Layout. The Sound Study analyzed both the General Electric (“GE”) 3.8-154 wind turbine generators with low-noise trailing edge (“LNTE”) blades and the Vestas V163-4.5 wind turbine generators. The GE 3.8-154 WTG has an optional noise reduced operating (NRO) mode and the Vestas V163-4.5 WTG has optional serrated trailing edges (STE) to improve acoustical performance. The low-noise options can be included on specific turbines, if required to meet the identified limits. The wind turbine properties for the GE 3.8-154 and Vestas V163-4.5 are shown in Table 1-1.

Table 1-1: Wind Turbine Generator Properties

Turbine Generator Manufacturer	Turbine Generator Model	Rotor Diameter (meters)	Hub Height (meters)	Turbine Abbreviation in Report
GE	3.8-154	154	98	GE 3.8-154
Vestas	163-4.5	163	113	V163-4.5

The following sections describe the Sound Study completed for the Project.

2.0 Background Information

2.1 Acoustical Terminology

The term “sound level” is often used to describe two different sound characteristics: sound power and sound pressure. Every source that produces sound has a sound power level. The sound power level is the acoustical energy emitted by a sound source and is an absolute number that is not affected by the surrounding environment. The acoustical energy produced by a source propagates through media as pressure fluctuations. These pressure fluctuations, also called sound pressure, are what human ears hear and microphones measure.

Sound is physically characterized by amplitude and frequency. The amplitude of sound is measured in decibels (“dB”) as the logarithmic ratio of a sound pressure to a reference sound pressure (20 microPascals). The reference sound pressure corresponds to the typical threshold of human hearing. To the average listener, a 3-dB change in a continuous broadband sound is generally considered “just barely perceptible”; a 5-dB change is generally considered “clearly noticeable”; and a 10-dB change is generally considered a doubling (or halving, if the sound is decreasing) of the apparent loudness.

Sound waves can occur at many different frequencies, which correspond to the sound’s wavelength. Frequency is measured in hertz (“Hz”), which is the number of wave cycles per second that occur. The typical human ear can hear frequencies ranging from approximately 20 to 20,000 Hz. Normally, the human ear is most sensitive to sounds in the middle frequencies (1,000 to 8,000 Hz) and is less sensitive to sounds in the lower and higher frequencies. As such, the A-weighting scale was developed to simulate the frequency response of the human ear to sounds at typical environmental levels. The A-weighting scale emphasizes sounds in the middle frequencies and de-emphasizes sounds in the low and high frequencies. Any sound level to which the A-weighting scale has been applied is expressed in A-weighted decibels, or dBA. For reference, the A-weighted sound pressure level and subjective loudness associated with some common sound sources are listed in Table 2-1.

Sound in the environment is constantly fluctuating, as when a car drives by, a dog barks, or a plane passes overhead. Therefore, sound metrics have been developed to quantify fluctuating environmental sound levels. These metrics include the exceedance sound level. The exceedance sound level is the sound level exceeded during “x” percent of the sampling period and is also referred to as a statistical sound level. The equivalent-continuous sound level (L_{eq}) is the arithmetic average of the varying sound over a given time period and is the most common metric used to describe sound.

Table 2-1: Typical Sound Pressure Levels Associated with Common Sound Sources

Sound Pressure Level (dBA)	Subjective Evaluation	Environment
140	Deafening	Jet aircraft at 75 feet
130	Threshold of pain	Jet aircraft during takeoff at a distance of 300 feet
120	Threshold of feeling	Elevated train
110	Very loud	Jet flyover at 1,000 feet
100		Motorcycle at 25 feet
90	Moderately loud	Propeller plane flyover at 1,000 feet
80		Diesel truck (40 mph) at 50 feet
70	Loud	B-757 cabin during flight
60	Moderate	Air-conditioner condenser at 15 feet
50	Quiet	Private Office
40		Farm field with light breeze, birdcalls
30	Very quiet	Quiet residential neighborhood
20		Rustling leaves
10	Just audible	--
0	Threshold of hearing	--

Source: Adapted from *Architectural Acoustics*, M. David Egan, 1988, and *Architectural Graphic Standards*, Ramsey and Sleeper, 1994.

2.2 Wind Turbine Sound Characteristics

The sound commonly associated with a wind turbine is described as a rhythmic “whoosh” caused by aerodynamic processes. This sound is created as air flow interacts with the surface of rotor blades. As air flows over the rotor blade, turbulent eddies form in the surface boundary layer and wake of the blade. These eddies are where most of the “whooshing” sound is formed. Additional sound is generated from vortex shedding produced by the tip of the rotor blade. Air flowing past the rotor tip creates alternating low-pressure vortices on the downstream side of the tip causing sound generation to occur. Older wind turbines, built with rotors which operate downwind of the tower (downwind turbines), often have higher aerodynamic impulse sound levels. This is caused by the interaction between the aerodynamic lift created on the rotor blades and the turbulent wake vortices produced by the tower. Modern wind turbine rotors are mostly built to operate upwind of the tower (upwind turbines). Upwind turbines are not impacted by wake vortices generated by the tower and, therefore, overall sound levels can be as much as 10 dBA less for similarly sized turbines. The rhythmic fluctuations of the overall sound level are less perceivable farther from the turbine. Additionally, multiple turbines operating at the same time will create the whooshing sound at different times. These non-synchronized sounds will blend together to create a more constant sound to an observer at most distances from the turbines. Another phenomenon that reduces perceivable noise from turbines is the wind itself. Higher wind speed produces noise that tends to mask (or drown out) the sounds created by wind turbines.

Advancement in wind turbine technology has reduced pure tonal emissions of modern wind turbines. Manufacturers have reduced distinct tonal sounds by reshaping turbine blades and adjusting the angle at which air contacts the blade. Pitching technology allows the angle of

the blade to adjust when the maximum rotational speed is achieved, which allows the turbine to maintain a constant rotational velocity. Therefore, sound emission levels remain constant as the velocity remains the same.

Wind turbines can create noise in other ways as well. Wind turbines have a nacelle where the mechanical portions of the turbine are housed. The current generation of wind turbines use multiple techniques to reduce the noise from this portion of the turbine: vibration isolating mounts, special gears, and acoustic insulation. In general, all moving parts and the housing of the current generation wind turbines have been designed to minimize the noise they generate.

3.0 Regulations

Federal, State of Illinois, and County regulations were reviewed to determine the applicable overall sound level limits for the Project.

3.1 Federal Regulations

The Noise Control Act of 1972 (“the Act”) mandated a national policy:

“...to promote an environment for all Americans free from noise that jeopardizes their health or welfare, to establish a means for effective coordination of Federal research activities in noise control, to authorize the establishment of Federal noise emission standards for products distributed in commerce, and to provide information to the public respecting the noise emission and noise reduction characteristics of such products.” (U.S.C. 4901)

As required by the Act, the Environmental Protection Agency (“EPA”) established criteria for protecting the public health and wellbeing. However, these criteria do not constitute enforceable Federal regulations or standards. The EPA has since delegated regulatory authority to local entities. Therefore, no Federal noise regulations apply to this Project.

3.2 State Regulations

The State of Illinois has regulations that appear in the Illinois Administrative Code *Title 35, Subtitle H, Chapter I, Part 901 Sound Emissions Standards and Limitations for Property-Line Noise-Sources*. These regulations are enacted through the Illinois Pollution Control Board (“IPCB”) and serve as the governing limits for the Project. The complete regulation is readily available on the internet.¹

The IPCB standards regulate sound according to different categories of land use where the sound is produced (emanating) and where the sound is received. Specifically, IPCB lists the sound level limits for different land classifications according to use. Class A land is considered a residence or equally sensitive area. Class B land is of mixed use. Class C land is considered an industrial area. Agricultural land is also classified as Class C. There are no limits set for sound emanating from a Class C land onto a receiving Class C land. It is standard practice to treat the residence on agricultural land as Class A, and the surrounding land as Class C.

The unweighted permissible sound levels for daytime and nighttime for sound emanating from a Class C land to a receiving Class A land are presented in Table 3-1. Sound levels received at a residence are considered in compliance if they are below the regulatory thresholds listed in Table 3-1.

¹ <https://pcb.illinois.gov/SLR/IPCBandIEPAEnvironmentalRegulationsTitle35>

Table 3-1: IPCB Permissible Sound Levels, Class C to Class A

Octave Band Center Frequency (Hz)	Daytime Sound Level (dB)	Nighttime Sound Level (dB)
31.5	75	69
63	74	67
125	69	62
250	64	54
500	58	47
1,000	52	41
2,000	47	36
4,000	43	32
8,000	40	32

Source: IAC Title 35, Subtitle H, Chapter I, Part 901, Section 901.102 Sound Emitted Class A Land

Additionally, the regulation states that no source shall project prominent discrete tones onto any other type of land. Prominent discrete tones are defined in *Title 35, Subtitle H, Chapter I, Part 951* (Definitions).

3.3 Livingston County Regulations

The Project is located in Livingston County, Illinois. The Livingston County Code has an ordinance pertaining to the wind turbine projects, Section 56-620.² The applicable noise standard for Livingston County is defined as follows:

Noise levels from each WECS or WECS project shall comply at all times with applicable Illinois Pollution Control Board (IPCB) regulations and requirements of this section. The applicant, through the use of a qualified professional, as part of the siting approval application process, shall appropriately demonstrate compliance with the noise requirements of this siting section and provide contour maps and at intervals of not greater than five feet. Sound pressure levels shall be measured using the measurement procedures set forth in the IPCB regulations, except that sound pressure levels for purposes of establishing a violation of this section may be measured at any point on the property not more than 150 feet from any portion of the edge of the primary structure. No portion of the property shall exceed the noise levels set by the IPCB. To the extent any property has multiple uses or classifications, all the land utilized for a particular use must not exceed the IPCB noise regulations for the classification of use. The owner of the receiving land may waive compliance with local measuring points requirements pertaining to the IPCB regulations for the owner's property.

3.4 Regulation Summary

The applicable noise regulation for Livingston County requires the Project to comply with IPCB limits defined within Title 35, Subtitle H, Chapter I, Part 901 Sound Emissions Standards and Limitations for Property-Line Noise-Sources. Project compliance was analyzed at modeled receivers placed 150 feet radially from the edge of the primary structure in

²https://library.municode.com/il/livingston_county/codes/code_of_ordinances?nodeId=PTIILAUSPLUT_CH56ZO_ARTVIIIWIEN_S56-620NOLE

accordance with Livingston County regulations. The Project was designed to meet the IPCB nighttime limits at non-participating residences.

4.0 Sound Modeling

Industry-accepted sound modeling software, CadnaA (Version 2023, published by DataKustik, Ltd., Munich, Germany) was used to estimate expected sound pressure levels from the Project. The model inputs and assumptions are described in this section.

4.1 Model Inputs and Settings

The CadnaA program is a scaled, three-dimensional program that takes into account air absorption, terrain, ground absorption, and ground reflection for each piece of noise-emitting equipment and predicts downwind sound pressure levels. The model calculates sound propagation based on International Organization for Standardization (“ISO”) 9613-2:1996, General Method of Calculation. ISO 9613, and therefore CadnaA, assesses the sound pressure levels based on the octave-band center-frequency range from 31.5 to 8,000 Hz. Predicted compliance with the regulations for all turbines operating implies predicted compliance for any combination of the turbines operating.

4.1.1 Project Layout

The Project includes 71 wind turbines, all of which were evaluated in this study to estimate future Project sound level impacts. The turbine locations for the Project layout are listed in Table A-1 of Appendix A for the GE 3.8-154 scenario and Table A-2 of Appendix A for the Vestas V163-4.5 scenario. A map showing the turbine locations and configuration of the Project site for both scenarios is included in Appendix B.

4.1.2 Terrain and Vegetation

Terrain and attenuation from ground absorption can have a significant impact on sound transmission. U.S. Geological Survey Digital Elevation Model contours were imported into the model to account for topographic variations around the Project. The contours were overlaid onto high-resolution, digital ortho imagery obtained from the U.S. Department of Agriculture to visually confirm proper contour positioning. The terrain around the proposed Project is mostly rural with few minor changes in elevation.

The land is primarily used for agricultural purposes. As such, ground attenuation is expected to be fairly high, due to the “soft ground” of the surrounding areas. Ground absorption coefficients range from 0.0 for purely reflective surfaces, such as water bodies, to 1.0 for absorptive surfaces, such as snow-covered ground. The average ground absorption in the model was assumed to be semi-reflective, with a ground absorption coefficient of 0.5. Vegetation in the Project area is mostly low-lying with some areas of dense trees. Areas of dense trees near residential receptors did not have foliage added in the model as a conservative assumption.

4.1.3 Sound Propagation and Directivity

CadnaA calculates downwind sound propagation using ISO 9613 standards, which use omnidirectional downwind sound propagation and worst-case directivity factors. In other words,

the model assumes that each turbine propagates its maximum sound level in all directions at all times. This will likely over-predict upwind sound levels.

4.1.4 Atmospheric Conditions

Atmospheric conditions were based on program defaults. Layers in the atmosphere often form where temperature increases with height (temperature inversions). Sound waves can reflect off of the temperature inversion layer and return to the surface of the earth. This process can increase sound levels at the surface, especially if the height of the inversion begins near the surface of the earth. Temperature inversions tend to occur mainly at night when winds are light or calm, usually when wind turbines are not operating. ISO 9613-2, and therefore CadnaA, calculates the downwind sound in a manner which is favorable for propagation (worst-case scenario) by assuming a well-developed, moderate ground-based temperature inversion that can occur at night. Therefore, predicted sound levels tend to be higher than would likely occur.

The atmosphere does not flow smoothly and tends to have swirls and eddies, also known as turbulence. Turbulence is generally formed by two processes: thermal turbulence and mechanical turbulence. Thermal turbulence is caused by the interaction of heated air rapidly rising from the heated earth's surface with cooler air descending from the atmosphere. Mechanical turbulence is caused as moving air interacts with objects such as trees, buildings, and wind turbines. Turbulent eddies generated by wind turbines and other objects can cause sound waves to scatter, which in turn, provides sound attenuation between the wind turbine and the receiver. The acoustical model assumes laminar air flow, which minimizes sound attenuation that would occur in a realistic nonhomogeneous atmosphere. This assumption also causes the predicted sound levels to be higher than would likely occur.

4.1.5 Wind Turbine Sound Emission Data

Acoustical modeling was completed for the Project, using wind turbine heights and acoustical emissions for each respective turbine type. The expected worst-case sound power levels were provided by the turbine vendor. The sound emissions data supplied was developed using the International Electrotechnical Commission ("IEC") 61400-11 acoustic measurement standards. IEC 61400-11 is used to determine the max sound power level of the overall turbine assembly. Sound power levels were provided by the manufacturer in confidential documents at various wind speeds for a height of 10 meters (32.8 feet) above grade. The loudest turbine sound levels for each octave band, regardless of corresponding wind speed or power output, were used in the model to predict worst-case impacts by octave band.

The apparent sound power levels provided by the vendors are mean values of representative batches of turbines evaluated. Uncertainty levels are not included in the specified noise levels from the turbine vendor. The uncertainty levels associated with measurements and mean values are described in IEC 61400-11 and IEC/TS 61400-14. The unit-to-unit product variation according to IEC/TS 61400-14 is denoted by σ_P . The typical value of $\sigma_P = 0.8$ dB has been added to the vendor-provided turbine sound levels to conservatively estimate turbine noise emissions. The expected worst-case sound power levels for each respective turbine type, inclusive of σ_P , are displayed in Table 4-1.

Table 4-1: Maximum Wind Turbine Sound Power Levels

Equipment ^{a,b}	dBA at Octave Band Frequency (Hz) ^{ab}									Total Sound Level (dBA)
	31.5	63	125	250	500	1000	2000	4000	8000	
V163-4.5 (No STE)	76.5	89.8	98.7	102.9	103.3	101.9	97.5	89.8	78.8	108.5
V163-4.5 (w/ STE)	77.0	89.0	97.0	100.7	101.0	99.7	96.3	90.0	80.9	106.5
GE 3.8-154 (LNTE)	83.6	93.0	97.0	99.0	101.2	104.2	103.2	95.8	79.5	109.0
GE 3.8-154 (NROA) ^c	82.6	92.1	96.1	98.3	100.4	103.2	102.1	94.8	78.6	108.0
GE 3.8-154 (NROB) ^c	81.9	91.5	95.7	98.3	100.1	101.8	100.3	93.3	78.1	107.0
GE 3.8-154 (NROD) ^c	80.0	89.3	93.5	96.8	97.9	99.9	98.8	91.7	75.9	105.2
GE 3.8-154 (NROG) ^c	78.3	87.4	91.7	94.3	95.8	97.7	96.7	89.7	73.7	103.0

(a) Loudest turbine octave-band sound level for any operational wind speed modeled

(b) All provided turbine octave-band sound levels were applied a σ_p of +0.8 dB to their specified sound level

(c) Turbines include GE's Low Noise Trailing Edge (LNTE) technology.

A point source located at the specific hub height of each proposed turbine location was used to model sound emissions from each of the wind turbines. This approach is appropriate for simulating wind turbine noise emissions due to the large distances between the turbines and the receivers as compared to the dimensions of the wind turbines. The sound levels shown in the table above were applied, as appropriate, to each point source.

For both analyzed wind turbine models, various turbines required additional mitigation in the form of NRO or STE to meet the applicable IPCB sound level limits. Table 4-2 provides a summary of the number of turbines requiring mitigation and Appendix A provides a schedule of which turbines require additional mitigation. The specific turbines modeled at each WTG location for the GE 3.8-154 and Vestas V163-4.5 scenarios are listed in Table A-1 and Table A-2 of Appendix A, respectively. The tables note which turbines required NRO or STE mitigation to meet applicable regulations.

Table 4-2: Modeled Wind Turbine Performance

Modeled Turbine Scenario	Total Number of Turbines	Number of Standard Turbines	Number of Turbines Requiring Additional Mitigation
GE 3.8-154	71	39	32
Vestas V163-4.5	71	67	4

(a) Additional mitigation includes various NRO modes for GE 3.8-154 and STE for V163-4.5.

The following assumptions were made to maintain the inherent conservativeness of the model and to estimate the worst-case modeled sound levels:

- Attenuation was not included for sound propagation through wooded areas, existing barriers, or shielding from existing structures.
- All wind turbines were assumed to be operating at the loudest octave-band sound levels at all times to represent worst-case noise impacts from the wind farm as a whole in every direction.

- The unit-to-unit product variation uncertainty level has been added to each vendor-provided turbine sound level to estimate worst-case turbine impacts.

4.1.6 Substation Sound Emission Data

To estimate the sound levels emitted by the substation, individual sound sources were modeled. Two 345 kilovolt (“kV”), 220 mega-volt-ampere (“MVA”) transformers were modeled at the substation. According to National Electrical Manufacturers Association (NEMA) TR-1, the 220-MVA transformers would have a standard sound pressure level of 78 dBA, measured in accordance with the IEEE Standard C57.12.90. The IEEE Standard requires sound level measurements be averaged around the unit, measured at distances of 6 feet from fan coolest surfaces and 1 foot from the tank of the transformer. The input frequency spectrum was developed for the model based on historic data from projects of similar size and scope.

4.2 Acoustical Modeling Results

Sound pressure levels were predicted for the identified residential receivers in the CadnaA noise modeling program using the manufacturer-specified sound power levels at each frequency and the assumptions listed above. Noise modeling results have been demonstrated in previous studies to conservatively approximate real-life measured noise from a source when extraneous noises are not present.

As previously mentioned, decibels are a logarithmic ratio of a sound wave’s pressure to a reference sound pressure. Therefore, individual sound levels must be logarithmically added to determine a cumulative impact (i.e., logarithmically adding 50 dBA and 50 dBA results in 53 dBA). Logarithmically adding each of the individual turbine’s impacts at each receiver provides an overall Project impact at each receiver. These values represent only the noise emitted by the Project, and do not include any extraneous noises (traffic, etc.) that could be present during physical noise measurements. Extraneous sounds (grain dryers, traffic, etc.) are not included in these predictions and may make the overall sound level higher than the limits in some circumstances, but the turbines alone should not cause that to happen.

Noise modeling was completed for the Project with the provided turbine locations. Receivers were provided by Developer, and placed at locations 150 feet in all directions from residential structures in accordance with Livingston County guidance. The Project layout figures are provided in Appendix B, including the identified neighboring residences. Each residence was modeled as a receiver at a height of 1.52 meters (5.0 feet) above ground level. Modeling showed the layout for each turbine modeled (GE and Vestas) had potential exceedances of the IPCB limits at some receiver locations. Low-noise mitigation options, NRO or STE, were applied to specific turbines in order to meet the IPCB limits in all octave bands at all receiver locations. After modeling the Project layout based on the assumptions in Appendix A, all noise-sensitive receivers were modeled to comply with the strictest applicable IPCB regulations.

A detailed octave band analysis was performed for the Project. The 1,000-Hz frequency proved to be the dominant frequency for compliance. In other words, if the Project passes the limits for the 1000-Hz frequency, all other frequencies pass their respective limits as well. Appendix B shows the sound level contours overlaid onto a map to demonstrate how sound

is expected to propagate. As shown in the figure, the predicted limiting sound level contour (41 dB for the 1000-Hz octave band, nighttime limit) does not extend to any non-participating landowner residence. The Project layout has been designed to meet the applicable IPCB sound level regulations. A full set of tabulated sound level results for each modeled receiver can be found in Appendix C.

5.0 Conclusion

Burns & McDonnell conducted a Sound Study for the Heritage Prairie Wind Farm. The Sound Study included identification of applicable sound regulations and predictive modeling to estimate Project-related sound levels in the surrounding community. A comparison to the IPCB noise limits for Class C to Class A land was performed at the neighboring residences.

Sound pressure levels were predicted for the Project wind turbines using manufacturer-specified sound power levels for the proposed Project. Various conservative assumptions were applied to estimate sound pressure levels at the neighboring residences. For those residential landowners that are not participating in the Project, the IPCB noise limits are predicted to be met at 150 feet from their residences for all octave bands during both daytime and nighttime hours for the layout and turbines detailed in this report.

APPENDIX A - TURBINE LOCATIONS AND MITIGATION

WIND TURBINE COORDINATES

Turbine Name	Easting [m]	Northing [m]	Turbine Model	Recommended Mitigation	Hub Height [m]
L2	381,361	4,544,257	GE 3.8-154	LNTE	98
L4	381,816	4,546,429	GE 3.8-154	LNTE	98
L5	382,070	4,544,279	GE 3.8-154	LNTE	98
L6	381,925	4,544,708	GE 3.8-154	LNTE+NROB	98
L9	382,125	4,547,319	GE 3.8-154	LNTE	98
L11	383,064	4,547,991	GE 3.8-154	LNTE	98
L13	383,452	4,548,337	GE 3.8-154	LNTE+NROA	98
L16	384,192	4,549,257	GE 3.8-154	LNTE+NROA	98
L17	384,387	4,547,996	GE 3.8-154	LNTE+NROB	98
L18	384,583	4,544,166	GE 3.8-154	LNTE	98
L20	385,102	4,550,785	GE 3.8-154	LNTE+NROA	98
L21	385,072	4,546,681	GE 3.8-154	LNTE	98
L24	385,327	4,551,792	GE 3.8-154	LNTE+NROD	98
L26	385,405	4,544,326	GE 3.8-154	LNTE	98
L27	385,810	4,550,622	GE 3.8-154	LNTE+NROD	98
L28	385,885	4,548,362	GE 3.8-154	LNTE	98
L29	385,854	4,545,096	GE 3.8-154	LNTE	98
L30	385,290	4,547,880	GE 3.8-154	LNTE+NROD	98
L31	386,221	4,551,806	GE 3.8-154	LNTE	98
L32	386,240	4,551,283	GE 3.8-154	LNTE+NROA	98
L33	386,290	4,549,180	GE 3.8-154	LNTE	98
L34	386,391	4,543,056	GE 3.8-154	LNTE	98
L35	386,550	4,548,830	GE 3.8-154	LNTE+NROD	98
L37	386,552	4,550,786	GE 3.8-154	LNTE+NROG	98
L38	386,432	4,545,114	GE 3.8-154	LNTE	98
L39	386,682	4,547,215	GE 3.8-154	LNTE+NROD	98
L40	386,667	4,547,669	GE 3.8-154	LNTE+NROD	98
L42	387,356	4,546,536	GE 3.8-154	LNTE+NROG	98
L43	387,102	4,549,888	GE 3.8-154	LNTE+NROD	98
L46	387,185	4,545,990	GE 3.8-154	LNTE	98
L47	387,424	4,551,680	GE 3.8-154	LNTE+NROA	98
L50	387,524	4,545,598	GE 3.8-154	LNTE	98
L56	387,899	4,549,880	GE 3.8-154	LNTE	98
L58	388,251	4,549,619	GE 3.8-154	LNTE	98
L60	388,312	4,546,469	GE 3.8-154	LNTE	98
L61	388,914	4,542,372	GE 3.8-154	LNTE	98
L62	389,166	4,544,738	GE 3.8-154	LNTE	98
L63	388,989	4,548,936	GE 3.8-154	LNTE+NROG	98
L64	389,091	4,542,919	GE 3.8-154	LNTE	98
L65	389,017	4,549,550	GE 3.8-154	LNTE	98
L66	389,551	4,543,507	GE 3.8-154	LNTE	98
L68	389,206	4,547,554	GE 3.8-154	LNTE	98
L69	389,369	4,544,246	GE 3.8-154	LNTE+NROB	98
L70	389,754	4,549,131	GE 3.8-154	LNTE+NROA	98
L71	389,688	4,544,833	GE 3.8-154	LNTE+NROA	98
L73	390,552	4,543,981	GE 3.8-154	LNTE+NROG	98
L74	389,915	4,547,268	GE 3.8-154	LNTE+NROB	98
L76	390,763	4,545,123	GE 3.8-154	LNTE	98
L77	390,635	4,546,473	GE 3.8-154	LNTE+NROB	98
L79	390,915	4,544,352	GE 3.8-154	LNTE+NROG	98
L80	391,122	4,543,520	GE 3.8-154	LNTE	98
L81	391,172	4,547,434	GE 3.8-154	LNTE+NROA	98
L82	391,520	4,548,102	GE 3.8-154	LNTE	98
L86	391,574	4,544,333	GE 3.8-154	LNTE	98
L87	391,593	4,543,155	GE 3.8-154	LNTE	98
L89	392,285	4,544,337	GE 3.8-154	LNTE	98

WIND TURBINE COORDINATES

Turbine Name	Easting [m]	Northing [m]	Turbine Model	Recommended Mitigation	Hub Height [m]
L91	392,388	4,543,159	GE 3.8-154	LNTE	98
L95	393,610	4,547,569	GE 3.8-154	LNTE+NROD	98
L97	394,019	4,547,240	GE 3.8-154	LNTE	98
L98	394,441	4,544,333	GE 3.8-154	LNTE	98
L99	385,356	4,548,965	GE 3.8-154	LNTE	98
L104	387,524	4,547,973	GE 3.8-154	LNTE+NROB	98
L105	387,748	4,547,426	GE 3.8-154	LNTE+NROB	98
L106	388,011	4,548,251	GE 3.8-154	LNTE+NROA	98
L107	386,769	4,541,529	GE 3.8-154	LNTE	98
L109	382,048	4,543,186	GE 3.8-154	LNTE+NROB	98
L110	384,699	4,547,195	GE 3.8-154	LNTE	98
L111	385,285	4,548,362	GE 3.8-154	LNTE	98
L113	389,700	4,549,714	GE 3.8-154	LNTE+NROD	98
L120	381,667	4,545,850	GE 3.8-154	LNTE	98
L121	381,200	4,545,029	GE 3.8-154	LNTE+NROB	98

Notes:

[1] All coordinates presented in UTM NAD83 Zone 16N (meters)

[2] Kankakee turbine coordinates were referenced from the provided layout "HP_K3_L05R00BA01_GE_154_with_PMETS_20240109"

[3] Livingston turbine coordinates were referenced from the provided layout "HP_Livingston_L12R00BA06_71WTG_with_PMTs"

[4] LNTE - Low-Noise Trailing Edge

WIND TURBINE COORDINATES

Turbine Name	Easting [m]	Northing [m]	Turbine Model	Recommended Mitigation	Hub Height [m]
L2	381,361	4,544,257	V163-4.5	--	113
L4	381,816	4,546,429	V163-4.5	--	113
L5	382,070	4,544,279	V163-4.5	--	113
L6	381,925	4,544,708	V163-4.5	--	113
L9	382,125	4,547,319	V163-4.5	--	113
L11	383,064	4,547,991	V163-4.5	--	113
L13	383,452	4,548,337	V163-4.5	--	113
L16	384,192	4,549,257	V163-4.5	--	113
L17	384,387	4,547,996	V163-4.5	--	113
L18	384,583	4,544,166	V163-4.5	--	113
L20	385,102	4,550,785	V163-4.5	--	113
L21	385,072	4,546,681	V163-4.5	--	113
L24	385,327	4,551,792	V163-4.5	--	113
L26	385,405	4,544,326	V163-4.5	--	113
L27	385,810	4,550,622	V163-4.5	--	113
L28	385,885	4,548,362	V163-4.5	--	113
L29	385,854	4,545,096	V163-4.5	--	113
L30	385,290	4,547,880	V163-4.5	--	113
L31	386,221	4,551,806	V163-4.5	--	113
L32	386,240	4,551,283	V163-4.5	--	113
L33	386,290	4,549,180	V163-4.5	--	113
L34	386,391	4,543,056	V163-4.5	--	113
L35	386,550	4,548,830	V163-4.5	--	113
L37	386,552	4,550,786	V163-4.5	--	113
L38	386,432	4,545,114	V163-4.5	--	113
L39	386,682	4,547,215	V163-4.5	STE	113
L40	386,667	4,547,669	V163-4.5	--	113
L42	387,356	4,546,536	V163-4.5	STE	113
L43	387,102	4,549,888	V163-4.5	--	113
L46	387,185	4,545,990	V163-4.5	--	113
L47	387,424	4,551,680	V163-4.5	--	113
L50	387,524	4,545,598	V163-4.5	--	113
L56	387,899	4,549,880	V163-4.5	--	113
L58	388,251	4,549,619	V163-4.5	--	113
L60	388,312	4,546,469	V163-4.5	--	113
L61	388,914	4,542,372	V163-4.5	--	113
L62	389,166	4,544,738	V163-4.5	--	113
L63	388,989	4,548,936	V163-4.5	STE	113
L64	389,091	4,542,919	V163-4.5	--	113
L65	389,017	4,549,550	V163-4.5	--	113
L66	389,551	4,543,507	V163-4.5	--	113
L68	389,206	4,547,554	V163-4.5	--	113
L69	389,369	4,544,246	V163-4.5	--	113
L70	389,754	4,549,131	V163-4.5	--	113
L71	389,688	4,544,833	V163-4.5	--	113
L73	390,552	4,543,981	V163-4.5	STE	113
L74	389,915	4,547,268	V163-4.5	--	113
L76	390,763	4,545,123	V163-4.5	--	113
L77	390,635	4,546,473	V163-4.5	--	113
L79	390,915	4,544,352	V163-4.5	--	113
L80	391,122	4,543,520	V163-4.5	--	113
L81	391,172	4,547,434	V163-4.5	--	113
L82	391,520	4,548,102	V163-4.5	--	113
L86	391,574	4,544,333	V163-4.5	--	113
L87	391,593	4,543,155	V163-4.5	--	113
L89	392,285	4,544,337	V163-4.5	--	113

WIND TURBINE COORDINATES

Turbine Name	Easting [m]	Northing [m]	Turbine Model	Recommended Mitigation	Hub Height [m]
L91	392,388	4,543,159	V163-4.5	--	113
L95	393,610	4,547,569	V163-4.5	--	113
L97	394,019	4,547,240	V163-4.5	--	113
L98	394,441	4,544,333	V163-4.5	--	113
L99	385,356	4,548,965	V163-4.5	--	113
L104	387,524	4,547,973	V163-4.5	--	113
L105	387,748	4,547,426	V163-4.5	--	113
L106	388,011	4,548,251	V163-4.5	--	113
L107	386,769	4,541,529	V163-4.5	--	113
L109	382,048	4,543,186	V163-4.5	--	113
L110	384,699	4,547,195	V163-4.5	--	113
L111	385,285	4,548,362	V163-4.5	--	113
L113	389,700	4,549,714	V163-4.5	--	113
L120	381,667	4,545,850	V163-4.5	--	113
L121	381,200	4,545,029	V163-4.5	--	113

Notes:

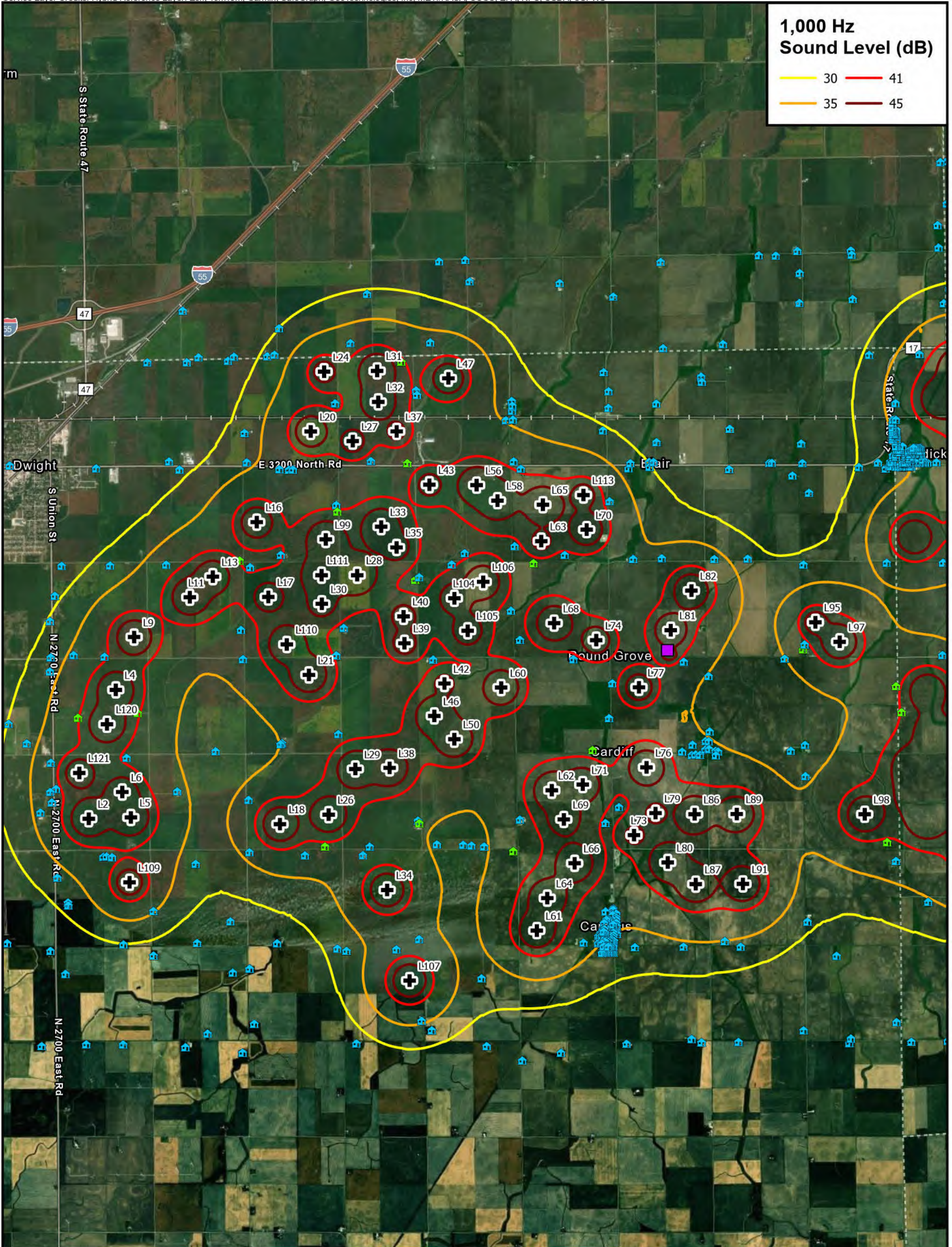
[1] All coordinates presented in UTM NAD83 Zone 16N (meters)

[2] Kankakee turbine coordinates were referenced from the provided layout "HP_K3_L06R00BA02_V163-4.5_66WTG_with_PMETs_20240109"

[3] Livingston turbine coordinates were referenced from the provided layout "HP_Livingston_L12R00BA06_71WTG_with_PMTs"

[4] STE - Serrated-Trailing Edges

APPENDIX B - PROJECT LAYOUT AND SOUND CONTOURS



**1,000 Hz
Sound Level (dB)**

— 30	— 41
— 35	— 45

Modeled Livingston Layout: HP_Livingston_L12R00BA06_71WTG_with_PMTs
 Modeled Livingston Turbine: GE 3.8-154 at 98 meter hub height
 Modeled Kankakee Layout: HP_K3_L05R00BA01_GE_154_with_PMETS_20240109
 Modeled Kankakee Turbine: GE 3.8-154 at 98 meter hub height
 Modeled Transformers: 78 dBA per IEEE

- + Turbine
- 🏠 Non-Participating Receptor
- 🏠 Participating Receptor
- Substation

IPCB - 1000 Hz dB Contour

— 41

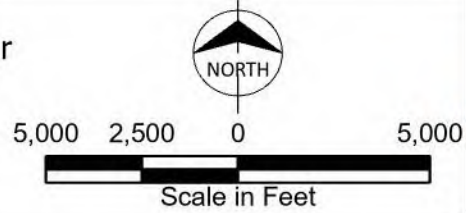
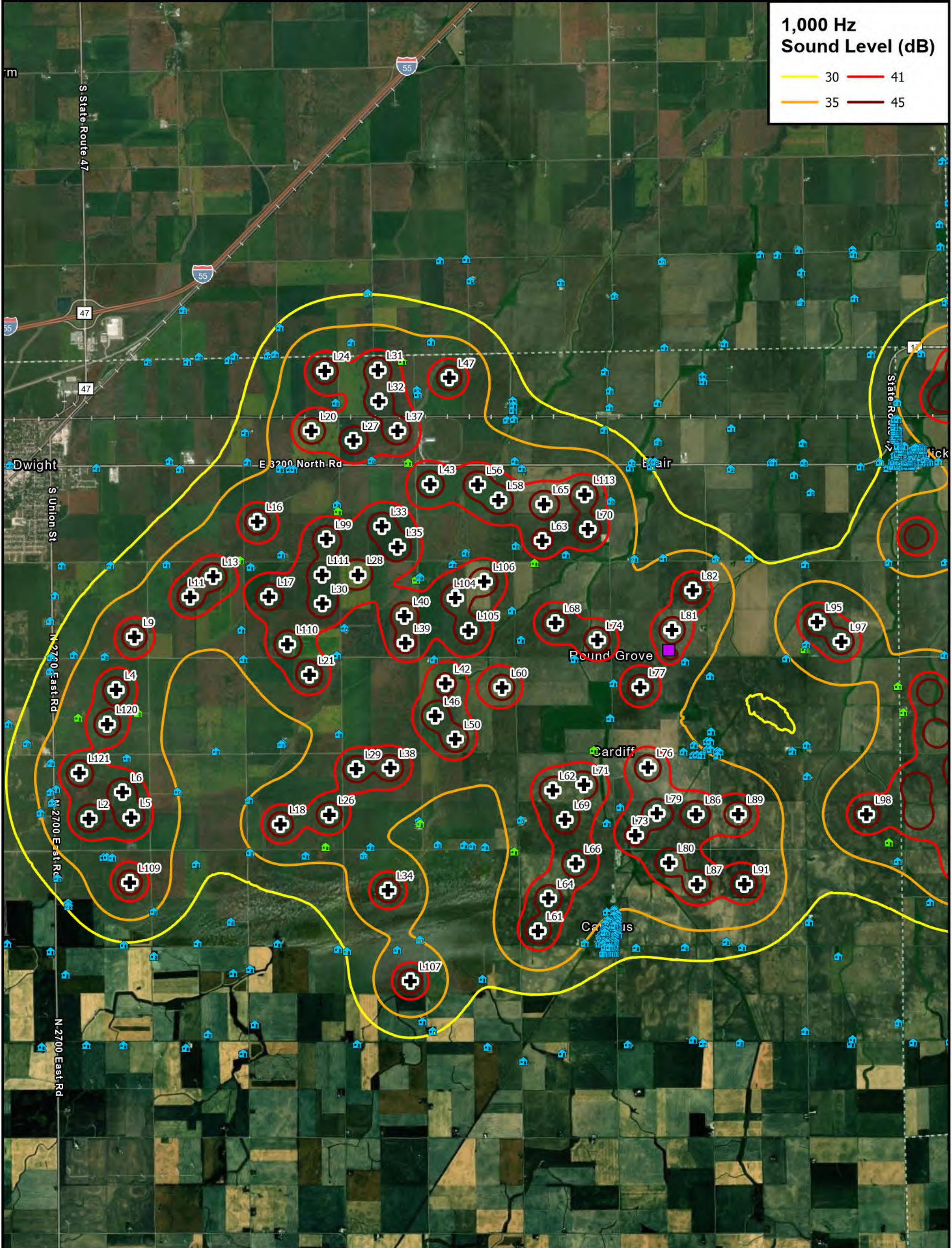


Figure B-1
 Heritage Prairie Wind
 Livingston L12R Layout
 GE 3.8-154 Turbine
 L(GE) / K(GE)



Modeled Livingston Layout: HP_Livingston_L12R00BA06_71WTG_with_PMTs
 Modeled Livingston Turbine: Vestas V163-4.5 at 113 meter hub height
 Modeled Kankakee Layout: HP_K3_L06R00BA02_V163-4.5_66WTG_with_PMETS_20240109
 Modeled Kankakee Turbine: Vestas V163-4.5 at 113 meter hub height
 Modeled Transformers: 78 dBA per IEEE

- + Turbine
- 🏠 Non-Participating Receptor
- 🏠 Participating Receptor
- Substation

IPCB - 1000 Hz dB Contour
— 41

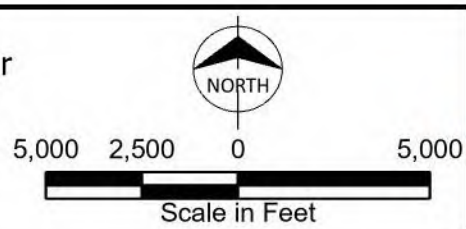


Figure B-2
 Heritage Prairie Wind
 Livingston L12R Layout
 Vestas 163-4.5 Turbine
 L(V) / K(V)

APPENDIX C - TABULATED SOUND LEVEL RESULTS

NOISE MODELING RESULTS - GE 3.8-154

Noise Modeling Results:
GE 3.8-154

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0001		1,247,750	14,913,138	38	60	56	45	38	35	33	23	-	-
REC-0002		1,248,508	14,909,314	41	62	58	47	40	37	37	29	1	-
REC-0003		1,249,033	14,919,892	36	58	54	43	36	32	31	19	-	-
REC-0004		1,249,031	14,917,113	38	60	56	45	38	34	34	24	-	-
REC-0005		1,249,073	14,917,890	38	59	56	45	37	34	33	22	-	-
REC-0006		1,249,086	14,912,071	43	63	59	50	42	39	39	32	12	-
REC-0007		1,249,302	14,921,298	35	57	53	43	35	31	29	17	-	-
REC-0008		1,249,141	14,909,871	43	63	59	49	42	39	39	32	9	-
REC-0009		1,249,065	14,901,660	31	54	50	39	32	28	25	10	-	-
REC-0010		1,249,369	14,910,620	44	64	60	51	43	40	40	34	14	-
REC-0011		1,249,678	14,922,955	33	57	53	42	34	30	28	14	-	-
REC-0012		1,249,443	14,905,707	38	59	55	45	38	34	33	23	-	-
REC-0013		1,249,892	14,900,389	30	53	50	39	31	26	23	8	-	-
REC-0014		1,250,035	14,904,336	37	58	54	44	37	33	32	21	-	-
REC-0015		1,250,049	14,904,174	36	58	54	44	37	33	31	21	-	-
REC-0016		1,250,345	14,918,016	40	61	58	47	40	36	36	28	-	-
REC-0017	Signed	1,250,583	14,914,552	45	65	61	51	44	41	41	35	16	-
REC-0018		1,251,043	14,896,493	21	45	41	30	23	18	13	-	-	-
REC-0019		1,252,050	14,917,933	45	65	61	51	43	40	41	35	14	-
REC-0020		1,251,984	14,906,862	44	64	60	50	43	40	40	34	11	-
REC-0021		1,252,359	14,922,974	37	59	55	44	37	33	32	21	-	-
REC-0022		1,252,166	14,906,880	44	64	60	50	43	40	40	34	11	-
REC-0023		1,252,468	14,906,845	45	64	61	51	44	41	41	34	13	-
REC-0024		1,253,102	14,902,017	35	57	53	42	35	32	30	20	-	-
REC-0025		1,253,275	14,912,341	45	65	61	51	44	41	41	34	12	-
REC-0026		1,253,086	14,896,484	22	45	41	31	23	18	14	-	-	-
REC-0028	Signed	1,253,884	14,914,818	46	66	62	52	44	41	42	36	16	-
REC-0029		1,254,421	14,934,209	25	49	45	34	26	21	17	-	-	-
REC-0030		1,254,765	14,901,402	33	56	52	41	34	30	28	16	-	-
REC-0031		1,255,464	14,923,021	43	63	59	49	42	39	39	32	8	-
REC-0032		1,255,621	14,928,727	34	57	53	42	34	30	28	13	-	-
REC-0033		1,256,200	14,928,279	35	58	54	43	36	31	29	15	-	-
REC-0034		1,256,377	14,937,064	27	51	47	36	28	23	19	-	-	-
REC-0035		1,256,073	14,910,484	41	62	59	48	41	37	37	28	-	-
REC-0036		1,256,605	14,934,210	30	54	50	38	31	26	22	5	-	-
REC-0037		1,256,526	14,896,335	21	45	41	30	22	17	13	-	-	-
REC-0038		1,257,249	14,934,483	30	54	50	39	31	26	23	6	-	-
REC-0039		1,257,094	14,906,473	38	60	56	46	38	34	33	22	-	-
REC-0040		1,257,175	14,902,101	33	57	53	42	34	30	27	13	-	-
REC-0042		1,257,752	14,897,085	24	48	44	33	25	20	15	-	-	-
REC-0043		1,258,195	14,912,702	38	61	57	46	39	35	33	19	-	-
REC-0044		1,258,880	14,934,291	33	56	52	41	34	29	27	13	-	-
REC-0045		1,259,212	14,934,520	33	56	52	41	34	29	27	14	-	-
REC-0046		1,259,012	14,903,293	34	57	53	42	35	30	28	13	-	-
REC-0047		1,259,145	14,900,459	31	55	51	40	32	27	24	5	-	-
REC-0048	Signed	1,259,523	14,923,248	46	66	62	52	44	41	41	35	14	-
REC-0049		1,259,602	14,919,409	44	65	61	50	43	40	39	32	5	-
REC-0050		1,259,794	14,930,301	38	60	56	45	38	34	33	22	-	-
REC-0051		1,259,709	14,917,792	43	64	60	49	42	39	38	30	3	-
REC-0052		1,259,917	14,928,678	39	61	57	47	39	35	34	24	-	-
REC-0053		1,260,105	14,922,877	45	66	62	52	45	41	41	34	12	-
REC-0054		1,259,691	14,896,027	24	48	44	33	25	20	16	-	-	-
REC-0055		1,260,020	14,910,013	42	63	59	49	41	38	38	31	8	-
REC-0056		1,260,067	14,907,119	41	62	58	48	40	37	37	30	6	-
REC-0057		1,260,076	14,900,674	31	55	51	40	32	27	24	6	-	-
REC-0058		1,260,334	14,897,628	28	52	48	37	28	23	20	0	-	-
REC-0059		1,261,054	14,934,546	37	58	55	44	37	33	31	21	-	-
REC-0060		1,261,449	14,934,629	37	59	55	44	38	33	32	23	-	-
REC-0061		1,261,706	14,936,091	36	58	54	43	36	32	30	20	-	-
REC-0062		1,261,724	14,928,293	42	63	59	48	41	38	37	28	0	-
REC-0063		1,261,803	14,923,563	46	66	62	52	45	41	41	34	9	-
REC-0064		1,261,596	14,902,082	34	57	53	42	34	30	27	12	-	-
REC-0065		1,261,861	14,913,145	40	63	59	48	40	37	35	25	-	-
REC-0066		1,262,259	14,928,268	42	63	60	49	42	38	38	29	3	-
REC-0067		1,262,473	14,928,276	42	64	60	49	42	38	38	30	5	-
REC-0068		1,263,139	14,906,946	43	63	59	49	42	39	39	32	8	-
REC-0069	Signed	1,264,245	14,907,432	44	64	60	50	43	40	40	34	13	-
REC-0070		1,264,809	14,931,941	45	65	61	51	44	41	41	35	12	-
REC-0071		1,264,869	14,926,318	45	66	62	51	44	41	41	34	11	-
REC-0072	Signed	1,264,926	14,925,952	46	66	62	52	45	42	42	36	15	-
REC-0073		1,264,875	14,918,006	45	66	62	52	44	41	41	34	12	-
REC-0074		1,264,985	14,913,654	44	65	61	50	43	40	39	32	8	-
REC-0075		1,264,931	14,901,789	37	59	55	44	36	33	32	21	-	-
REC-0076		1,265,282	14,919,520	45	66	62	52	45	41	41	33	9	-
REC-0078		1,265,653	14,935,275	43	63	59	49	42	39	39	32	10	-
REC-0079		1,265,435	14,901,665	37	59	55	44	37	33	33	23	-	-
REC-0080		1,266,574	14,937,996	36	58	54	43	36	32	31	20	-	-
REC-0081		1,265,986	14,896,544	33	55	51	40	32	29	28	17	-	-
REC-0082		1,266,346	14,906,953	43	63	59	49	42	38	38	31	6	-
REC-0083		1,266,786	14,928,749	45	65	61	51	44	41	40	33	14	-
REC-0084		1,266,720	14,907,426	42	63	59	49	42	38	38	31	4	-
REC-0085	Signed	1,268,467	14,934,240	46	65	62	52	44	42	42	37	19	-
REC-0086		1,268,198	14,901,744	43	63	59	49	41	38	39	33	12	-
REC-0087	Signed	1,268,804	14,928,632	44	65	61	51	44	40	40	33	12	-
REC-0088		1,269,282	14,932,656	45	65	61	51	44	41	41	35	13	-
REC-0089		1,269,334	14,932,407	45	65	61	51	44	41	41	35	12	-
REC-0090	Signed	1,269,236	14,922,173	45	66	62	52	45	41	41	33	9	-

NOISE MODELING RESULTS - GE 3.8-154

Noise Modeling Results:
GE 3.8-154

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz)	63 (Hz)	125 (Hz)	250 (Hz)	500 (Hz)	1000 (Hz)	2000 (Hz)	4000 (Hz)	8000 (Hz)
dB	dB	dB	dB	dB	dB	dB	dB	dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level									
		Easting (m)	Northing (m)		31.5 (Hz)	63 (Hz)	125 (Hz)	250 (Hz)	500 (Hz)	1000 (Hz)	2000 (Hz)	4000 (Hz)	8000 (Hz)	
				dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
REC-0091		1,269,452	14,922,330	45	66	62	52	45	41	41	33	9	-	-
REC-0092		1,269,387	14,908,865	41	63	59	48	41	37	36	26	-	-	-
REC-0093	Signed	1,269,463	14,908,721	41	63	59	48	40	37	36	26	-	-	-
REC-0094		1,269,451	14,902,309	42	62	58	48	40	37	37	30	6	-	-
REC-0095		1,270,067	14,935,314	42	62	58	48	41	37	37	30	6	-	-
REC-0096		1,269,595	14,897,794	40	60	56	46	38	35	36	29	6	-	-
REC-0097		1,270,564	14,939,794	31	55	51	40	32	28	25	10	-	-	-
REC-0098		1,270,229	14,917,772	46	66	62	52	45	42	41	34	14	-	-
REC-0099		1,270,155	14,897,270	37	58	54	43	36	33	33	25	-	-	-
REC-0100		1,271,253	14,923,037	46	66	62	52	45	42	41	34	12	-	-
REC-0101		1,272,009	14,939,870	30	53	49	39	31	26	24	9	-	-	-
REC-0102		1,271,970	14,923,660	45	66	62	52	45	41	41	33	11	-	-
REC-0103		1,272,241	14,938,685	32	55	51	40	33	28	26	13	-	-	-
REC-0104		1,271,890	14,907,528	39	62	58	47	39	36	34	21	-	-	-
REC-0105		1,272,347	14,907,487	39	62	58	47	40	36	34	21	-	-	-
REC-0106		1,272,906	14,900,142	38	59	55	45	37	34	33	23	-	-	-
REC-0107		1,273,049	14,907,438	40	62	58	48	40	36	35	23	-	-	-
REC-0108		1,273,190	14,896,395	32	55	51	40	33	29	27	13	-	-	-
REC-0109		1,274,253	14,931,006	40	62	58	47	40	36	35	25	-	-	-
REC-0110		1,274,577	14,932,074	38	61	57	46	39	35	33	22	-	-	-
REC-0111		1,274,593	14,931,524	39	61	57	46	39	35	34	23	-	-	-
REC-0112		1,274,610	14,931,810	39	61	57	46	39	35	34	22	-	-	-
REC-0113		1,274,643	14,931,044	39	61	57	47	39	36	34	24	-	-	-
REC-0114		1,274,534	14,920,474	45	66	62	51	44	41	40	33	9	-	-
REC-0115	Signed	1,274,662	14,907,176	42	64	60	49	42	38	38	29	-	-	-
REC-0116		1,275,074	14,928,326	45	65	61	51	44	41	41	34	10	-	-
REC-0117		1,275,030	14,918,864	45	65	62	51	44	41	40	33	9	-	-
REC-0118		1,275,025	14,908,920	44	65	61	50	43	40	39	31	6	-	-
REC-0119		1,275,161	14,895,599	30	54	50	39	31	26	24	8	-	-	-
REC-0120	Signed	1,275,781	14,923,103	45	65	61	51	44	41	40	33	15	-	-
REC-0121		1,277,227	14,938,593	27	51	47	36	28	23	19	1	-	-	-
REC-0122		1,277,507	14,923,559	45	65	61	51	44	41	41	34	14	-	-
REC-0123		1,277,303	14,896,028	30	54	50	39	31	27	24	8	-	-	-
REC-0124		1,277,990	14,917,789	45	65	61	51	44	41	40	34	14	-	-
REC-0125		1,278,547	14,902,115	42	63	59	48	41	37	37	29	2	-	-
REC-0126	Signed	1,279,046	14,912,765	44	65	61	51	43	40	40	33	10	-	-
REC-0127		1,279,660	14,933,668	31	55	51	40	32	28	25	7	-	-	-
REC-0128		1,279,620	14,930,443	36	59	55	44	37	33	31	20	-	-	-
REC-0129		1,279,930	14,932,613	33	56	52	41	33	29	26	11	-	-	-
REC-0130		1,279,921	14,931,691	34	57	53	42	35	30	28	14	-	-	-
REC-0131		1,279,986	14,926,525	44	64	60	50	43	40	40	34	15	-	-
REC-0132		1,280,189	14,937,843	22	47	43	31	24	18	14	-	-	-	-
REC-0133		1,279,765	14,908,732	45	66	62	52	45	41	41	34	11	-	-
REC-0134		1,279,961	14,914,532	42	64	60	49	42	39	38	29	3	-	-
REC-0135		1,280,139	14,916,459	45	65	61	51	44	41	40	34	15	-	-
REC-0136		1,280,509	14,909,617	45	66	62	52	45	41	41	34	11	-	-
REC-0137		1,281,037	14,928,354	38	60	56	45	38	34	33	24	-	-	-
REC-0138		1,281,139	14,928,634	38	59	56	45	38	34	32	22	-	-	-
REC-0139		1,281,294	14,923,337	41	62	58	48	41	37	36	27	-	-	-
REC-0140		1,280,929	14,896,525	30	54	50	39	31	26	23	5	-	-	-
REC-0141		1,281,388	14,901,867	38	61	57	46	38	34	33	21	-	-	-
REC-0142		1,282,176	14,928,703	36	58	54	43	36	32	30	18	-	-	-
REC-0143		1,282,197	14,928,428	36	58	54	44	36	32	31	19	-	-	-
REC-0144		1,282,416	14,928,697	35	58	54	43	36	32	30	17	-	-	-
REC-0145		1,282,571	14,931,926	31	55	51	40	32	27	24	7	-	-	-
REC-0146		1,282,586	14,929,793	34	57	53	42	34	30	28	14	-	-	-
REC-0147		1,282,811	14,939,763	-80	-	-	-	-	-	-	-	-	-	-
REC-0148		1,282,946	14,934,991	26	50	46	35	27	22	18	-	-	-	-
REC-0149		1,282,879	14,923,373	41	62	58	48	41	37	37	30	4	-	-
REC-0150		1,284,000	14,912,682	43	64	60	50	42	39	39	32	8	-	-
REC-0151		1,284,092	14,917,655	45	64	60	51	43	42	40	34	18	-	-
REC-0152		1,284,079	14,901,894	39	61	57	46	39	35	34	24	-	-	-
REC-0153		1,284,538	14,912,495	43	64	60	49	42	39	38	30	3	-	-
REC-0154		1,284,578	14,913,064	42	63	59	49	41	38	37	28	-	-	-
REC-0155		1,285,050	14,933,421	26	51	47	35	27	22	18	-	-	-	-
REC-0156		1,284,745	14,912,523	42	64	60	49	42	38	38	29	0	-	-
REC-0157		1,284,525	14,896,785	30	54	50	39	31	26	23	3	-	-	-
REC-0158		1,285,092	14,933,123	26	51	47	35	27	22	18	-	-	-	-
REC-0159		1,284,988	14,912,502	42	63	59	49	42	38	37	29	-	-	-
REC-0161		1,285,282	14,912,791	41	63	59	48	41	37	36	27	-	-	-
REC-0162		1,285,306	14,913,269	41	62	59	48	40	37	36	26	-	-	-
REC-0164		1,285,076	14,896,605	29	53	49	38	30	25	22	3	-	-	-
REC-0165		1,285,464	14,916,858	40	62	58	47	40	37	35	25	-	-	-
REC-0166		1,285,473	14,913,254	40	62	59	48	40	37	36	25	-	-	-
REC-0167		1,285,491	14,912,820	41	63	59	48	41	37	36	27	-	-	-
REC-0168		1,285,525	14,913,796	40	62	58	47	40	36	35	24	-	-	-
REC-0169		1,285,781	14,923,334	41	62	58	48	40	37	37	31	8	-	-
REC-0170		1,285,848	14,912,724	41	63	59	48	41	37	36	26	-	-	-
REC-0171		1,286,260	14,935,221	17	42	38	26	19	13	8	-	-	-	-
REC-0172		1,285,984	14,912,686	41	63	59	48	41	37	36	26	-	-	-
REC-0174		1,286,602	14,928,298	32	55	51	40	33	28	25	8	-	-	-
REC-0175		1,286,635	14,930,535	30	54	50	39	30	25	22	1	-	-	-
REC-0176		1,286,361	14,902,205	40	61	57	46	39	36	35	26	-	-	-
REC-0177		1,287,120	14,896,627	28	51	47	36	28	24	21	2	-	-	-
REC-0178		1,287,238	14,901,897	38	60	56	45	38	34	34	24	-	-	-
REC-0179		1,287,624	14,923,349	37	59	55	44	37	33	32	23	-	-	-
REC-0181		1,288,239	14,940,129	-80	-	-	-	-	-	-	-	-	-	-
REC-0182		1,288,823	14,928,645	32	56	52	41	32	28	24	5	-	-	-
REC-0183		1,288,961	14,928,652	32	56	52	41	33	28	24	5	-	-	-
REC-0184		1,289,181	14,940,111	20	45	41	29	21	16	11	-	-	-	-
REC-0185		1,289,666	14,917,824	40	61	57	47	40	36	35	27	-	-	-
REC-0186		1,290,099	14,927,950	33	57	53	41	33	29	26	8	-	-	-
REC-0187		1,290,377	14,940,370	24	49	44	33	25	19	15	-	-	-	-
REC-0188		1,290,012	14,912,726	39	62	58	47	39	35	33	20	-	-	-
REC-0189		1,290,500	14,939,150	26	51	46	35	27	22	18	-	-	-	-
REC-0190		1,2												

NOISE MODELING RESULTS - GE 3.8-154

Noise Modeling Results:
GE 3.8-154

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0194	Signed	1,290,685	14,918,332	44	64	60	50	43	39	39	33	13	-
REC-0195		1,290,775	14,918,607	45	64	60	51	43	40	40	35	17	-
REC-0196		1,290,797	14,913,050	39	62	58	47	39	35	33	20	-	-
REC-0197		1,291,019	14,926,996	33	57	53	42	34	30	27	11	-	-
REC-0198		1,290,817	14,911,324	40	62	58	47	40	36	35	23	-	-
REC-0199		1,290,720	14,897,268	27	51	47	36	27	23	19	0	-	-
REC-0200		1,290,934	14,903,280	37	60	56	45	37	33	32	20	-	-
REC-0201		1,292,544	14,901,388	34	58	53	42	34	30	27	10	-	-
REC-0202		1,293,332	14,940,392	27	51	47	36	28	23	20	2	-	-
REC-0203		1,293,381	14,940,163	28	52	48	36	28	24	21	2	-	-
REC-0204		1,293,434	14,937,709	31	54	50	39	31	27	25	10	-	-
REC-0205		1,293,250	14,896,563	21	46	42	30	22	17	13	-	-	-
REC-0206		1,293,780	14,928,419	36	58	54	44	36	32	31	18	-	-
REC-0207		1,293,337	14,896,814	21	46	42	31	22	17	14	-	-	-
REC-0208		1,294,342	14,934,621	36	58	54	43	36	32	31	20	-	-
REC-0209		1,294,836	14,928,663	37	59	55	44	37	33	32	21	-	-
REC-0210		1,295,315	14,923,126	42	62	58	48	41	37	38	31	9	-
REC-0211	Signed	1,295,340	14,907,679	45	65	61	51	44	41	41	34	11	-
REC-0213	Signed	1,295,836	14,916,298	45	65	61	51	43	40	40	34	13	-
REC-0214		1,295,828	14,906,638	42	64	60	49	42	38	38	30	0	-
REC-0215		1,295,863	14,897,723	28	52	48	37	28	23	19	-	-	-
REC-0219		1,298,131	14,941,798	31	54	50	39	31	27	24	6	-	-
REC-0221		1,298,184	14,940,556	32	55	51	40	32	28	26	10	-	-
REC-0223		1,298,474	14,937,476	38	59	55	44	37	34	33	23	-	-
REC-0773		1,251,588	14,928,346	29	53	49	38	30	25	22	3	-	-
REC-0774		1,274,684	14,928,735	44	65	61	50	43	40	40	33	8	-
REC-0775		1,285,870	14,912,480	41	63	59	48	41	37	37	27	-	-
REC-0776		1,261,793	14,913,091	40	63	59	48	40	36	35	24	-	-
REC-0777		1,246,747	14,914,218	36	58	54	43	36	32	30	18	-	-
REC-0778		1,249,047	14,910,449	43	63	59	49	42	39	39	32	10	-
REC-0779		1,270,436	14,907,551	40	62	58	47	40	36	35	23	-	-
REC-0780		1,246,668	14,902,081	29	53	49	38	30	26	22	5	-	-
REC-0781		1,248,578	14,896,398	20	44	40	29	22	16	12	-	-	-
REC-0782		1,254,754	14,903,867	40	60	57	47	40	36	35	28	7	-
REC-0796		1,298,284	14,945,280	24	49	45	33	25	20	16	-	-	-
REC-0876		1,279,767	14,903,840	42	63	59	48	41	38	37	28	-	-
REC-0878		1,274,737	14,924,043	45	66	62	52	45	41	41	34	12	-
REC-0879		1,280,186	14,904,004	42	63	59	48	41	38	37	28	-	-
REC-0880		1,280,185	14,903,939	42	63	59	48	41	38	37	28	-	-
REC-0881		1,280,361	14,903,727	41	63	59	48	41	37	37	27	-	-
REC-0882		1,280,169	14,903,647	41	63	59	48	41	37	37	27	-	-
REC-0883		1,280,359	14,903,502	41	62	58	48	40	37	36	26	-	-
REC-0884		1,280,356	14,903,396	41	62	58	48	40	37	36	26	-	-
REC-0885		1,280,164	14,903,379	41	62	58	48	40	37	36	26	-	-
REC-0886		1,279,967	14,903,398	41	62	59	48	41	37	36	27	-	-
REC-0887		1,279,904	14,903,384	41	62	59	48	41	37	37	27	-	-
REC-0888		1,279,814	14,903,386	41	63	59	48	41	37	37	27	-	-
REC-0889		1,279,683	14,903,202	41	62	59	48	41	37	37	27	-	-
REC-0890		1,280,354	14,903,213	40	62	58	47	40	37	36	26	-	-
REC-0891		1,280,381	14,903,033	40	62	58	47	40	36	36	25	-	-
REC-0892		1,280,182	14,903,042	40	62	58	47	40	36	36	25	-	-
REC-0893		1,280,136	14,902,863	40	62	58	47	40	36	35	25	-	-
REC-0894		1,280,094	14,903,015	40	62	58	47	40	37	36	26	-	-
REC-0895		1,280,042	14,902,872	40	62	58	47	40	36	36	25	-	-
REC-0896		1,279,974	14,902,869	40	62	58	47	40	36	36	25	-	-
REC-0897		1,279,615	14,902,837	41	62	58	48	40	37	36	27	-	-
REC-0898		1,280,363	14,902,780	40	62	58	47	40	36	35	24	-	-
REC-0899		1,280,362	14,902,694	40	62	58	47	40	36	35	24	-	-
REC-0900		1,280,393	14,902,603	40	62	58	47	39	36	35	24	-	-
REC-0901		1,280,197	14,902,681	40	62	58	47	40	36	35	25	-	-
REC-0902		1,279,897	14,902,662	40	62	58	47	40	36	35	25	-	-
REC-0903		1,279,925	14,902,518	40	62	58	47	40	36	35	25	-	-
REC-0904		1,279,707	14,902,866	41	62	58	48	40	37	36	26	-	-
REC-0905		1,279,490	14,902,656	41	62	58	47	40	37	36	27	-	-
REC-0906		1,279,373	14,902,482	41	62	58	47	40	37	36	27	-	-
REC-0907		1,279,464	14,902,469	40	62	58	47	40	36	36	26	-	-
REC-0908		1,279,566	14,902,512	40	62	58	47	40	36	36	26	-	-
REC-0909		1,279,715	14,902,506	40	62	58	47	40	36	35	26	-	-
REC-0910		1,279,707	14,902,408	40	62	58	47	40	36	35	25	-	-
REC-0911		1,279,746	14,902,350	40	62	58	47	40	36	35	25	-	-
REC-0912		1,279,740	14,902,315	40	62	58	47	40	36	35	25	-	-
REC-0913		1,279,893	14,902,272	40	61	57	47	39	36	35	24	-	-
REC-0914		1,279,918	14,902,335	40	62	58	47	39	36	35	24	-	-
REC-0915		1,279,917	14,902,443	40	62	58	47	40	36	35	25	-	-
REC-0916		1,279,992	14,902,527	40	62	58	47	40	36	35	25	-	-
REC-0917		1,280,078	14,902,523	40	62	58	47	40	36	35	24	-	-
REC-0918		1,280,133	14,902,522	40	62	58	47	40	36	35	24	-	-
REC-0919		1,280,210	14,902,523	40	62	58	47	39	36	35	24	-	-
REC-0920		1,280,194	14,902,383	39	61	57	47	39	36	35	24	-	-
REC-0921		1,280,182	14,902,275	39	61	57	47	39	36	35	24	-	-
REC-0922		1,280,229	14,902,216	39	61	57	47	39	35	34	23	-	-
REC-0923		1,280,194	14,902,098	39	61	57	46	39	35	34	23	-	-
REC-0924		1,280,110	14,902,076	39	61	57	46	39	35	34	23	-	-
REC-0925		1,279,917	14,902,168	39	61	57	47	39	36	35	24	-	-
REC-0926		1,279,915	14,902,063	39	61	57	47	39	35	34	24	-	-
REC-0927		1,279,741	14,902,067	39	61	57	47	39	36	35	24	-	-
REC-0928		1,279,732	14,902,182	40	61	58	47	39	36	35	25	-	-
REC-0929		1,279,360	14,902,083	40	62	58	47	40	36	35	26	-	-
REC-0930		1,279,497	14,902,075	40	62	58	47	39	36	35	25	-	-
REC-0931		1,279,572	14,902,073	40	61	58	47	39	36	35	25	-	-
REC-0932		1,279,627	14,901,707	39	61	57	46	39	35	34	24	-	-
REC-0933		1,279,746	14,901,741	39	61	57	46	39	35	34	24	-	-
REC-0934		1,279,982	14,901,705	39	61	57	46	39	35	34	23	-	-
REC-0935		1,280,062	14,901,701	39	61	57	46	39	35	34	23	-	-
REC-0936		1,280,158	14,901,708	39	61	57	46	39	35	34	22	-	-
REC-0937		1,280,198	14,901,559	38	61	57	46	38	35	33	22	-	-
REC-0938		1,280,104	14,901,566	38	61	57	46	38	35	33	22	-	-
REC-0939		1,279,997	14,901,561	39	61	57	46	38	35	34	22	-	-
REC-0940		1,279,905	14,901,561	39	61	57	46	39	35	34	23	-	-

NOISE MODELING RESULTS - GE 3.8-154

Noise Modeling Results:
GE 3.8-154

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0941		1,279,778	14,901,564	39	61	57	46	39	35	34	23	-	-
REC-0942		1,279,653	14,901,553	39	61	57	46	39	35	34	23	-	-
REC-0943		1,279,562	14,901,552	39	61	57	46	39	35	34	24	-	-
REC-0944		1,280,192	14,901,907	39	61	57	46	39	35	34	23	-	-
REC-0945		1,280,054	14,901,916	39	61	57	46	39	35	34	23	-	-
REC-0946		1,279,991	14,901,913	39	61	57	46	39	35	34	23	-	-
REC-0947		1,279,767	14,901,916	39	61	57	46	39	35	34	24	-	-
REC-0948		1,279,665	14,901,912	39	61	57	47	39	35	35	24	-	-
REC-0952		1,279,726	14,902,688	40	62	58	47	40	36	36	26	-	-
REC-0953		1,279,919	14,901,899	39	61	57	46	39	35	34	23	-	-
REC-0954		1,280,188	14,903,119	40	62	58	47	40	37	36	26	-	-
REC-0955		1,295,257	14,928,339	38	60	56	45	38	34	33	22	-	-
REC-0956		1,295,461	14,928,464	38	60	56	45	38	34	33	23	-	-
REC-0957		1,295,540	14,928,460	38	60	56	45	38	34	34	23	-	-
REC-1016		1,295,518	14,928,722	38	60	56	45	38	34	33	23	-	-
REC-1017		1,295,601	14,928,689	38	60	56	45	38	34	34	23	-	-
REC-1018		1,295,679	14,928,962	38	60	56	45	38	35	34	23	-	-
REC-1019		1,295,656	14,929,065	38	60	56	45	38	35	34	23	-	-
REC-1031		1,295,644	14,929,949	39	60	57	46	39	35	35	25	-	-
REC-1032		1,295,659	14,930,106	39	61	57	46	39	35	35	25	-	-
REC-1034		1,295,658	14,930,223	39	61	57	46	39	35	35	26	-	-
REC-1037		1,295,651	14,930,352	39	61	57	46	39	35	35	26	-	-
REC-1039		1,295,653	14,930,478	40	61	57	46	39	36	35	26	-	-
REC-1040		1,295,642	14,930,604	40	61	57	46	39	36	35	27	-	-
REC-1041		1,295,635	14,930,862	40	61	57	46	39	36	36	27	-	-
REC-1042		1,295,665	14,931,027	40	61	57	47	39	36	36	28	-	-
REC-1178		1,279,655	14,902,727	40	62	58	47	40	37	36	26	-	-
REC-1780		1,246,811	14,928,503	20	45	41	30	21	16	11	-	-	-

NOISE MODELING RESULTS - Vestas V163-4.5

Noise Modeling Results:
Vestas V163-4.5

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz)	63 (Hz)	125 (Hz)	250 (Hz)	500 (Hz)	1000 (Hz)	2000 (Hz)	4000 (Hz)	8000 (Hz)
dB	dB	dB	dB	dB	dB	dB	dB	dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0001		1,247,750	14,913,138	39	53	53	48	42	37	32	19	-	-
REC-0002		1,248,508	14,909,314	42	55	55	50	44	39	35	24	-	-
REC-0003		1,249,033	14,919,892	36	51	51	45	40	34	28	13	-	-
REC-0004		1,249,031	14,917,113	39	53	53	47	42	37	32	18	-	-
REC-0005		1,249,073	14,917,890	38	53	53	47	41	36	31	17	-	-
REC-0006		1,249,086	14,912,071	44	57	57	52	47	42	38	29	9	-
REC-0007		1,249,302	14,921,298	36	51	51	45	39	33	27	11	-	-
REC-0008		1,249,141	14,909,871	44	57	57	52	46	42	38	28	4	-
REC-0009		1,249,065	14,901,660	33	48	48	42	36	30	24	7	-	-
REC-0010		1,249,369	14,910,620	45	58	58	53	48	43	39	30	11	-
REC-0011		1,249,678	14,922,955	34	50	50	44	38	32	26	8	-	-
REC-0012		1,249,443	14,905,707	39	53	53	47	42	37	32	19	-	-
REC-0013		1,249,892	14,900,389	32	47	47	41	35	29	23	5	-	-
REC-0014		1,250,035	14,904,336	38	52	52	46	41	36	31	18	-	-
REC-0015		1,250,049	14,904,174	38	52	52	46	41	36	31	17	-	-
REC-0016		1,250,345	14,918,016	41	55	54	49	44	39	34	22	-	-
REC-0017	Signed	1,250,583	14,914,552	45	58	58	53	48	43	39	30	9	-
REC-0018		1,251,043	14,896,493	24	40	39	33	27	21	14	-	-	-
REC-0019		1,252,050	14,917,933	45	58	58	53	47	43	39	29	8	-
REC-0020		1,251,984	14,906,862	45	58	58	53	47	43	39	29	6	-
REC-0021		1,252,359	14,922,974	38	52	52	46	41	36	30	16	-	-
REC-0022		1,252,166	14,906,880	45	58	58	53	48	43	39	30	7	-
REC-0023		1,252,468	14,906,845	46	58	58	53	48	43	40	30	9	-
REC-0024		1,253,102	14,902,017	37	51	51	45	40	35	30	17	-	-
REC-0025		1,253,275	14,912,341	46	59	59	54	48	44	40	30	7	-
REC-0026		1,253,086	14,896,484	24	40	40	34	28	21	14	-	-	-
REC-0028	Signed	1,253,884	14,914,818	46	59	59	54	48	44	40	31	10	-
REC-0029		1,254,421	14,934,209	27	44	43	37	31	25	17	-	-	-
REC-0030		1,254,765	14,901,402	35	50	50	44	38	33	27	13	-	-
REC-0031		1,255,464	14,923,021	43	57	56	51	46	41	37	26	2	-
REC-0032		1,255,621	14,928,727	35	51	51	45	39	33	26	8	-	-
REC-0033		1,256,200	14,928,279	37	52	52	46	40	34	28	11	-	-
REC-0034		1,256,377	14,937,064	29	46	45	39	33	26	19	-	-	-
REC-0035		1,256,073	14,910,484	42	56	56	50	45	40	35	23	-	-
REC-0036		1,256,605	14,934,210	32	48	48	42	36	29	22	1	-	-
REC-0037		1,256,526	14,896,335	23	39	39	33	27	20	13	-	-	-
REC-0038		1,257,249	14,934,483	33	48	48	42	36	30	23	3	-	-
REC-0039		1,257,094	14,906,473	39	54	54	48	42	37	32	18	-	-
REC-0040		1,257,175	14,902,101	35	50	50	44	38	32	26	10	-	-
REC-0042		1,257,752	14,897,085	25	42	42	35	29	22	15	-	-	-
REC-0043		1,258,195	14,912,702	39	54	54	48	43	37	31	14	-	-
REC-0044		1,258,880	14,934,291	35	51	50	44	39	33	27	10	-	-
REC-0045		1,259,212	14,934,520	36	51	51	45	39	33	27	11	-	-
REC-0046		1,259,012	14,903,293	35	51	51	44	39	33	26	9	-	-
REC-0047		1,259,145	14,900,459	32	48	48	42	36	30	22	1	-	-
REC-0048	Signed	1,259,523	14,923,248	46	59	59	54	49	44	40	30	9	-
REC-0049		1,259,602	14,919,409	45	58	58	53	48	43	38	27	1	-
REC-0050		1,259,794	14,930,301	40	54	54	48	43	37	32	18	-	-
REC-0051		1,259,709	14,917,792	43	57	57	52	46	41	36	24	-	-
REC-0052		1,259,917	14,928,678	41	55	55	49	44	39	33	20	-	-
REC-0053		1,260,105	14,922,877	46	60	60	54	49	44	40	30	7	-
REC-0054		1,259,691	14,896,027	25	41	41	35	29	22	14	-	-	-
REC-0055		1,260,020	14,910,013	42	56	56	50	45	40	35	25	1	-
REC-0056		1,260,067	14,907,119	41	55	55	49	44	39	35	24	-	-
REC-0057		1,260,076	14,900,674	32	48	48	41	36	29	22	1	-	-
REC-0058		1,260,334	14,897,628	29	45	45	38	32	26	18	-	-	-
REC-0059		1,261,054	14,934,546	39	53	53	47	42	37	32	19	-	-
REC-0060		1,261,449	14,934,629	40	54	54	48	43	38	33	21	-	-
REC-0061		1,261,706	14,936,091	38	53	52	47	41	36	31	18	-	-
REC-0062		1,261,724	14,928,293	43	57	57	51	46	41	36	24	-	-
REC-0063		1,261,803	14,923,563	46	60	60	54	49	44	40	29	4	-
REC-0064		1,261,596	14,902,082	34	50	50	44	38	32	25	7	-	-
REC-0065		1,261,861	14,913,145	41	56	56	50	44	39	33	19	-	-
REC-0066		1,262,259	14,928,268	44	58	58	52	47	41	37	25	-	-
REC-0067		1,262,473	14,928,276	44	58	58	52	47	42	37	25	-	-
REC-0068		1,263,139	14,906,946	43	56	56	51	46	41	37	26	2	-
REC-0069	Signed	1,264,245	14,907,432	44	57	57	52	47	42	38	28	7	-
REC-0070		1,264,809	14,931,941	47	60	60	55	50	45	41	32	9	-
REC-0071		1,264,869	14,926,318	46	60	59	54	49	44	39	28	5	-
REC-0072	Signed	1,264,926	14,925,952	47	60	60	55	49	44	40	30	9	-
REC-0073		1,264,875	14,918,006	46	59	59	54	49	44	39	29	6	-
REC-0074		1,264,985	14,913,654	44	58	58	52	47	42	37	26	2	-
REC-0075		1,264,931	14,901,789	37	51	51	46	40	35	30	16	-	-
REC-0076		1,265,282	14,919,520	47	60	60	55	49	44	40	30	7	-
REC-0078		1,265,653	14,935,275	44	57	57	52	47	42	38	28	5	-
REC-0079		1,265,435	14,901,665	38	52	52	46	41	35	30	17	-	-
REC-0080		1,266,574	14,937,996	38	52	52	46	41	35	30	15	-	-
REC-0081		1,265,986	14,896,544	33	47	47	41	36	31	25	11	-	-
REC-0082		1,266,346	14,906,953	43	56	56	51	45	41	36	25	-	-
REC-0083		1,266,786	14,928,749	47	60	60	55	50	45	41	32	12	-
REC-0084		1,266,720	14,907,426	43	56	56	51	45	40	36	25	-	-
REC-0085	Signed	1,268,467	14,934,240	47	59	59	54	49	44	40	31	13	-
REC-0086		1,268,198	14,901,744	43	56	56	51	45	40	37	27	6	-
REC-0087	Signed	1,268,804	14,928,632	47	60	60	55	50	45	41	31	10	-
REC-0088		1,269,282	14,932,656	46	59	59	54	49	44	40	31	8	-
REC-0089		1,269,334	14,932,407	46	59	59	54	49	44	40	30	7	-
REC-0090	Signed	1,269,236	14,922,173	47	61	61	55	50	45	41	30	7	-

NOISE MODELING RESULTS - Vestas V163-4.5

Noise Modeling Results:
Vestas V163-4.5

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0091		1,269,452	14,922,330	47	61	61	55	50	45	41	30	6	-
REC-0092		1,269,387	14,908,865	41	56	56	50	45	39	34	21	-	-
REC-0093	Signed	1,269,463	14,908,721	41	56	56	50	44	39	34	20	-	-
REC-0094		1,269,451	14,902,309	42	55	55	50	44	39	35	25	-	-
REC-0095		1,270,067	14,935,314	43	56	56	51	45	40	36	25	1	-
REC-0096		1,269,595	14,897,794	40	53	53	47	42	37	33	24	-	-
REC-0097		1,270,564	14,939,794	33	49	49	43	37	31	24	6	-	-
REC-0098		1,270,229	14,917,772	47	61	61	55	50	45	41	32	13	-
REC-0099		1,270,155	14,897,270	37	51	51	45	40	35	31	19	-	-
REC-0100		1,271,253	14,923,037	47	60	60	55	50	45	41	30	8	-
REC-0101		1,272,009	14,939,870	32	48	48	42	36	30	23	4	-	-
REC-0102		1,271,970	14,923,660	46	60	60	54	49	44	40	29	6	-
REC-0103		1,272,241	14,938,685	34	50	49	43	38	32	25	8	-	-
REC-0104		1,271,890	14,907,528	40	55	55	49	44	38	32	16	-	-
REC-0105		1,272,347	14,907,487	40	55	55	49	44	38	32	16	-	-
REC-0106		1,272,906	14,900,142	38	52	52	46	41	36	31	17	-	-
REC-0107		1,273,049	14,907,438	41	56	56	50	44	39	33	18	-	-
REC-0108		1,273,190	14,896,395	33	48	48	42	36	31	25	8	-	-
REC-0109		1,274,253	14,931,006	41	56	56	50	45	39	34	20	-	-
REC-0110		1,274,577	14,932,074	40	55	55	49	43	38	32	18	-	-
REC-0111		1,274,593	14,931,524	40	55	55	49	44	38	33	18	-	-
REC-0112		1,274,610	14,931,810	40	55	55	49	43	38	32	18	-	-
REC-0113		1,274,643	14,931,044	41	56	55	49	44	39	33	19	-	-
REC-0114		1,274,534	14,920,474	46	60	60	54	49	44	39	29	3	-
REC-0115	Signed	1,274,662	14,907,176	43	57	57	51	46	41	36	24	-	-
REC-0116		1,275,074	14,928,326	45	59	59	53	48	43	39	29	4	-
REC-0117		1,275,030	14,918,864	45	59	59	54	48	43	39	28	3	-
REC-0118		1,275,025	14,908,920	44	58	58	52	47	42	38	27	1	-
REC-0119		1,275,161	14,895,599	31	46	46	40	35	28	22	2	-	-
REC-0120	Signed	1,275,781	14,923,103	47	61	60	55	49	44	40	31	15	-
REC-0121		1,277,227	14,938,593	28	45	45	38	32	26	18	-	-	-
REC-0122		1,277,507	14,923,559	47	60	60	55	49	44	40	31	12	-
REC-0123		1,277,303	14,896,028	31	47	47	41	35	29	22	2	-	-
REC-0124		1,277,990	14,917,789	46	59	59	54	49	44	40	30	10	-
REC-0125		1,278,547	14,902,115	42	56	56	50	45	40	35	24	-	-
REC-0126	Signed	1,279,046	14,912,765	45	59	59	53	48	43	38	28	5	-
REC-0127		1,279,660	14,933,668	34	49	49	43	37	31	24	4	-	-
REC-0128		1,279,620	14,930,443	39	53	53	47	42	36	31	17	-	-
REC-0129		1,279,930	14,932,613	35	50	50	44	38	32	26	7	-	-
REC-0130		1,279,921	14,931,691	36	51	51	45	40	34	28	11	-	-
REC-0131		1,279,986	14,926,525	46	59	59	54	49	44	40	31	12	-
REC-0132		1,280,189	14,937,843	25	41	41	35	29	22	14	-	-	-
REC-0133		1,279,765	14,908,732	47	61	60	55	49	45	41	31	9	-
REC-0134		1,279,961	14,914,532	44	58	58	52	47	42	37	25	-	-
REC-0135		1,280,139	14,916,459	46	59	59	54	49	44	40	31	12	-
REC-0136		1,280,509	14,909,617	47	61	60	55	50	45	41	31	10	-
REC-0137		1,281,037	14,928,354	40	54	54	49	43	38	33	21	-	-
REC-0138		1,281,139	14,928,634	40	54	54	48	43	37	32	20	-	-
REC-0139		1,281,294	14,923,337	42	56	56	50	45	40	35	22	-	-
REC-0140		1,280,929	14,896,525	31	48	47	41	35	29	21	-	-	-
REC-0141		1,281,388	14,901,867	39	54	54	48	42	37	31	16	-	-
REC-0142		1,282,176	14,928,703	38	53	52	46	41	35	30	15	-	-
REC-0143		1,282,197	14,928,428	38	53	53	47	41	36	30	16	-	-
REC-0144		1,282,416	14,928,697	37	52	52	46	41	35	29	15	-	-
REC-0145		1,282,571	14,931,926	33	49	49	42	37	30	24	5	-	-
REC-0146		1,282,586	14,929,793	36	51	51	45	39	33	27	11	-	-
REC-0147		1,282,811	14,939,763	-80	-	-	-	-	-	-	-	-	-
REC-0148		1,282,946	14,934,991	28	45	44	38	32	25	17	-	-	-
REC-0149		1,282,879	14,923,373	42	56	56	50	45	40	35	24	-	-
REC-0150		1,284,000	14,912,682	44	58	58	52	47	42	37	26	2	-
REC-0151		1,284,092	14,917,655	45	58	58	53	47	43	39	31	17	-
REC-0152		1,284,079	14,901,894	40	54	54	48	43	37	32	18	-	-
REC-0153		1,284,538	14,912,495	43	57	57	52	46	41	36	25	-	-
REC-0154		1,284,578	14,913,064	43	57	57	51	46	40	35	23	-	-
REC-0155		1,285,050	14,933,421	28	45	44	38	32	25	17	-	-	-
REC-0156		1,284,745	14,912,523	43	57	57	51	46	41	36	24	-	-
REC-0157		1,284,525	14,896,785	31	47	47	41	35	28	20	-	-	-
REC-0158		1,285,092	14,933,123	28	45	44	38	32	25	18	-	-	-
REC-0159		1,284,988	14,912,502	43	57	57	51	46	41	36	23	-	-
REC-0161		1,285,282	14,912,791	42	57	56	51	45	40	35	22	-	-
REC-0162		1,285,306	14,913,269	42	56	56	50	45	39	34	20	-	-
REC-0164		1,285,076	14,896,605	30	46	46	40	34	27	19	-	-	-
REC-0165		1,285,464	14,916,858	41	56	55	50	44	39	34	21	-	-
REC-0166		1,285,473	14,913,254	42	56	56	50	45	39	34	20	-	-
REC-0167		1,285,491	14,912,820	42	56	56	50	45	40	35	21	-	-
REC-0168		1,285,525	14,913,796	41	56	56	50	44	39	33	19	-	-
REC-0169		1,285,781	14,923,334	42	55	55	50	44	39	35	25	2	-
REC-0170		1,285,848	14,912,724	42	56	56	50	45	40	34	21	-	-
REC-0171		1,286,260	14,935,221	21	38	38	31	25	18	9	-	-	-
REC-0172		1,285,984	14,912,686	42	56	56	50	45	39	34	21	-	-
REC-0174		1,286,602	14,928,298	33	49	49	43	37	31	24	3	-	-
REC-0175		1,286,635	14,930,535	31	48	47	41	35	28	20	-	-	-
REC-0176		1,286,361	14,902,205	40	54	54	48	43	38	33	20	-	-
REC-0177		1,287,120	14,896,627	28	44	44	38	32	26	18	-	-	-
REC-0178		1,287,238	14,901,897	39	53	53	47	42	37	32	18	-	-
REC-0179		1,287,624	14,923,349	38	53	53	47	42	36	31	17	-	-
REC-0181		1,288,239	14,940,129	-80	-	-	-	-	-	-	-	-	-
REC-0182		1,288,823	14,928,645	33	49	49	43	37	30	22	-	-	-
REC-0183		1,288,961	14,928,652	33	50	49	43	37	30	23	-	-	-
REC-0184		1,289,181	14,940,111	21	38	37	31	25	17	9	-	-	-
REC-0185		1,289,666	14,917,824	41	55	55	50	44	39	35	23	-	-
REC-0186		1,290,099	14,927,950	34	50	50	44	38	31	24	2	-	-
REC-0187		1,290,377	14,940,370	24	41	41	34	28	21	13	-	-	-
REC-0188		1,290,012	14,912,726	40	55	55	49	43	37	31	14	-	-
REC-0189		1,290,500	14,939,150	27	43	43	37	31	24	16	-	-	-
REC-0190		1,290,490	14,937,494	28	44	44	38	32	25	17	-	-	-
REC-0191		1,290,585	14,929,719	33	49	49	43	37	30	23	1	-	-
REC-0192		1,290,651	14,928,643	34	50	49	43	37	31	24	2	-	-
REC-0193		1,290,711	14,923,031	39	53	53	47	42	37	32	19	-	-

NOISE MODELING RESULTS - Vestas V163-4.5

Noise Modeling Results:
Vestas V163-4.5

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0194	Signed	1,290,685	14,918,332	45	58	58	53	47	43	39	30	10	-
REC-0195		1,290,775	14,918,607	46	59	59	54	48	44	40	32	14	-
REC-0196		1,290,797	14,913,050	39	55	55	49	43	37	31	14	-	-
REC-0197		1,291,019	14,926,996	35	50	50	44	38	32	25	6	-	-
REC-0198		1,290,817	14,911,324	40	55	55	49	44	38	32	18	-	-
REC-0199		1,290,720	14,897,268	28	44	44	37	31	25	17	-	-	-
REC-0200		1,290,934	14,903,280	38	53	53	46	41	35	29	14	-	-
REC-0201		1,292,544	14,901,388	34	50	50	44	38	32	25	5	-	-
REC-0202		1,293,332	14,940,392	28	44	44	38	32	26	18	-	-	-
REC-0203		1,293,381	14,940,163	29	44	44	38	32	26	19	-	-	-
REC-0204		1,293,434	14,937,709	32	47	47	41	35	29	23	4	-	-
REC-0205		1,293,250	14,896,563	24	41	41	35	28	21	13	-	-	-
REC-0206		1,293,780	14,928,419	37	51	51	45	40	34	28	12	-	-
REC-0207		1,293,337	14,896,814	25	41	41	35	28	22	13	-	-	-
REC-0208		1,294,342	14,934,621	37	51	51	45	40	34	29	14	-	-
REC-0209		1,294,836	14,928,663	38	52	52	46	41	36	30	15	-	-
REC-0210		1,295,315	14,923,126	42	55	55	50	45	40	35	25	3	-
REC-0211	Signed	1,295,340	14,907,679	45	58	58	53	48	43	39	29	6	-
REC-0213	Signed	1,295,836	14,916,298	44	57	57	52	47	42	38	28	7	-
REC-0214		1,295,828	14,906,638	43	57	57	51	46	41	36	25	-	-
REC-0215		1,295,863	14,897,723	29	45	45	39	32	26	17	-	-	-
REC-0219		1,298,131	14,941,798	31	47	47	41	35	29	21	0	-	-
REC-0221		1,298,184	14,940,556	33	48	48	42	36	30	24	4	-	-
REC-0223		1,298,474	14,937,476	38	52	52	46	41	36	31	18	-	-
REC-0773		1,251,588	14,928,346	30	46	46	40	34	28	20	-	-	-
REC-0774		1,274,684	14,928,735	45	58	58	53	48	43	38	28	2	-
REC-0775		1,285,870	14,912,480	42	56	56	50	45	40	35	22	-	-
REC-0776		1,261,793	14,913,091	41	56	56	50	44	39	33	19	-	-
REC-0777		1,246,747	14,914,218	37	52	51	46	40	35	29	13	-	-
REC-0778		1,249,047	14,910,449	44	57	57	52	47	42	38	28	6	-
REC-0779		1,270,436	14,907,551	40	55	55	49	44	38	32	18	-	-
REC-0780		1,246,668	14,902,081	31	47	47	41	35	28	21	1	-	-
REC-0781		1,248,578	14,896,398	22	39	39	32	26	19	12	-	-	-
REC-0782		1,254,754	14,903,867	41	55	54	49	44	39	35	25	3	-
REC-0796		1,298,284	14,945,280	25	41	41	35	29	22	14	-	-	-
REC-0876		1,279,767	14,903,840	42	57	56	51	45	40	35	23	-	-
REC-0878		1,274,737	14,924,043	47	61	60	55	49	44	40	31	12	-
REC-0879		1,280,186	14,904,004	42	57	56	51	45	40	35	23	-	-
REC-0880		1,280,185	14,903,939	42	56	56	50	45	40	35	22	-	-
REC-0881		1,280,361	14,903,727	42	56	56	50	45	40	35	21	-	-
REC-0882		1,280,169	14,903,647	42	56	56	50	45	40	35	22	-	-
REC-0883		1,280,359	14,903,502	42	56	56	50	45	39	34	21	-	-
REC-0884		1,280,356	14,903,396	41	56	56	50	45	39	34	21	-	-
REC-0885		1,280,164	14,903,379	42	56	56	50	45	39	34	21	-	-
REC-0886		1,279,967	14,903,398	42	56	56	50	45	40	35	21	-	-
REC-0887		1,279,904	14,903,384	42	56	56	50	45	40	35	22	-	-
REC-0888		1,279,814	14,903,386	42	56	56	50	45	40	35	22	-	-
REC-0889		1,279,683	14,903,202	42	56	56	50	45	40	35	22	-	-
REC-0890		1,280,354	14,903,213	41	56	55	50	44	39	34	20	-	-
REC-0891		1,280,381	14,903,033	41	55	55	49	44	39	34	20	-	-
REC-0892		1,280,182	14,903,042	41	56	55	49	44	39	34	20	-	-
REC-0893		1,280,136	14,902,863	41	55	55	49	44	39	34	20	-	-
REC-0894		1,280,094	14,903,015	41	56	55	49	44	39	34	20	-	-
REC-0895		1,280,042	14,902,872	41	55	55	49	44	39	34	20	-	-
REC-0896		1,279,974	14,902,869	41	55	55	49	44	39	34	20	-	-
REC-0897		1,279,615	14,902,837	41	56	55	50	44	39	34	21	-	-
REC-0898		1,280,363	14,902,780	41	55	55	49	44	38	33	19	-	-
REC-0899		1,280,362	14,902,694	41	55	55	49	44	38	33	19	-	-
REC-0900		1,280,393	14,902,603	40	55	55	49	44	38	33	18	-	-
REC-0901		1,280,197	14,902,681	41	55	55	49	44	38	33	19	-	-
REC-0902		1,279,897	14,902,662	41	55	55	49	44	39	33	20	-	-
REC-0903		1,279,925	14,902,518	41	55	55	49	44	38	33	19	-	-
REC-0904		1,279,707	14,902,866	41	56	55	50	44	39	34	21	-	-
REC-0905		1,279,490	14,902,656	41	55	55	49	44	39	34	21	-	-
REC-0906		1,279,373	14,902,482	41	55	55	49	44	39	34	21	-	-
REC-0907		1,279,464	14,902,469	41	55	55	49	44	39	34	21	-	-
REC-0908		1,279,566	14,902,512	41	55	55	49	44	39	34	20	-	-
REC-0909		1,279,715	14,902,506	41	55	55	49	44	39	33	20	-	-
REC-0910		1,279,707	14,902,408	41	55	55	49	44	38	33	20	-	-
REC-0911		1,279,746	14,902,350	41	55	55	49	44	38	33	19	-	-
REC-0912		1,279,740	14,902,315	41	55	55	49	44	38	33	19	-	-
REC-0913		1,279,893	14,902,272	40	55	55	49	44	38	33	19	-	-
REC-0914		1,279,918	14,902,335	40	55	55	49	44	38	33	19	-	-
REC-0915		1,279,917	14,902,443	41	55	55	49	44	38	33	19	-	-
REC-0916		1,279,992	14,902,527	41	55	55	49	44	38	33	19	-	-
REC-0917		1,280,078	14,902,523	41	55	55	49	44	38	33	19	-	-
REC-0918		1,280,133	14,902,522	40	55	55	49	44	38	33	19	-	-
REC-0919		1,280,210	14,902,523	40	55	55	49	44	38	33	19	-	-
REC-0920		1,280,194	14,902,383	40	55	55	49	43	38	33	18	-	-
REC-0921		1,280,182	14,902,275	40	55	55	49	43	38	33	18	-	-
REC-0922		1,280,229	14,902,216	40	55	55	49	43	38	32	18	-	-
REC-0923		1,280,194	14,902,098	40	55	54	48	43	38	32	18	-	-
REC-0924		1,280,110	14,902,076	40	55	54	48	43	38	32	18	-	-
REC-0925		1,279,917	14,902,168	40	55	55	49	43	38	33	19	-	-
REC-0926		1,279,915	14,902,063	40	55	55	49	43	38	32	18	-	-
REC-0927		1,279,741	14,902,067	40	55	55	49	43	38	33	19	-	-
REC-0928		1,279,732	14,902,182	40	55	55	49	44	38	33	19	-	-
REC-0929		1,279,360	14,902,083	41	55	55	49	44	38	33	20	-	-
REC-0930		1,279,497	14,902,075	40	55	55	49	44	38	33	20	-	-
REC-0931		1,279,572	14,902,073	40	55	55	49	44	38	33	19	-	-
REC-0932		1,279,627	14,901,707	40	54	54	48	43	38	32	18	-	-
REC-0933		1,279,746	14,901,741	40	54	54	48	43	38	32	18	-	-
REC-0934		1,279,982	14,901,705	40	54	54	48	43	37	32	17	-	-
REC-0935		1,280,062	14,901,701	39	54	54	48	43	37	32	17	-	-
REC-0936		1,280,158	14,901,708	39	54	54	48	43	37	32	17	-	-
REC-0937		1,280,198	14,901,559	39	54	54	48	43	37	31	16	-	-
REC-0938		1,280,104	14,901,566	39	54	54	48	43	37	31	16	-	-
REC-0939		1,279,997	14,901,561	39	54	54	48	43	37	32	17	-	-
REC-0940		1,279,905	14,901,561	39	54	54	48	43	37	32	17	-	-

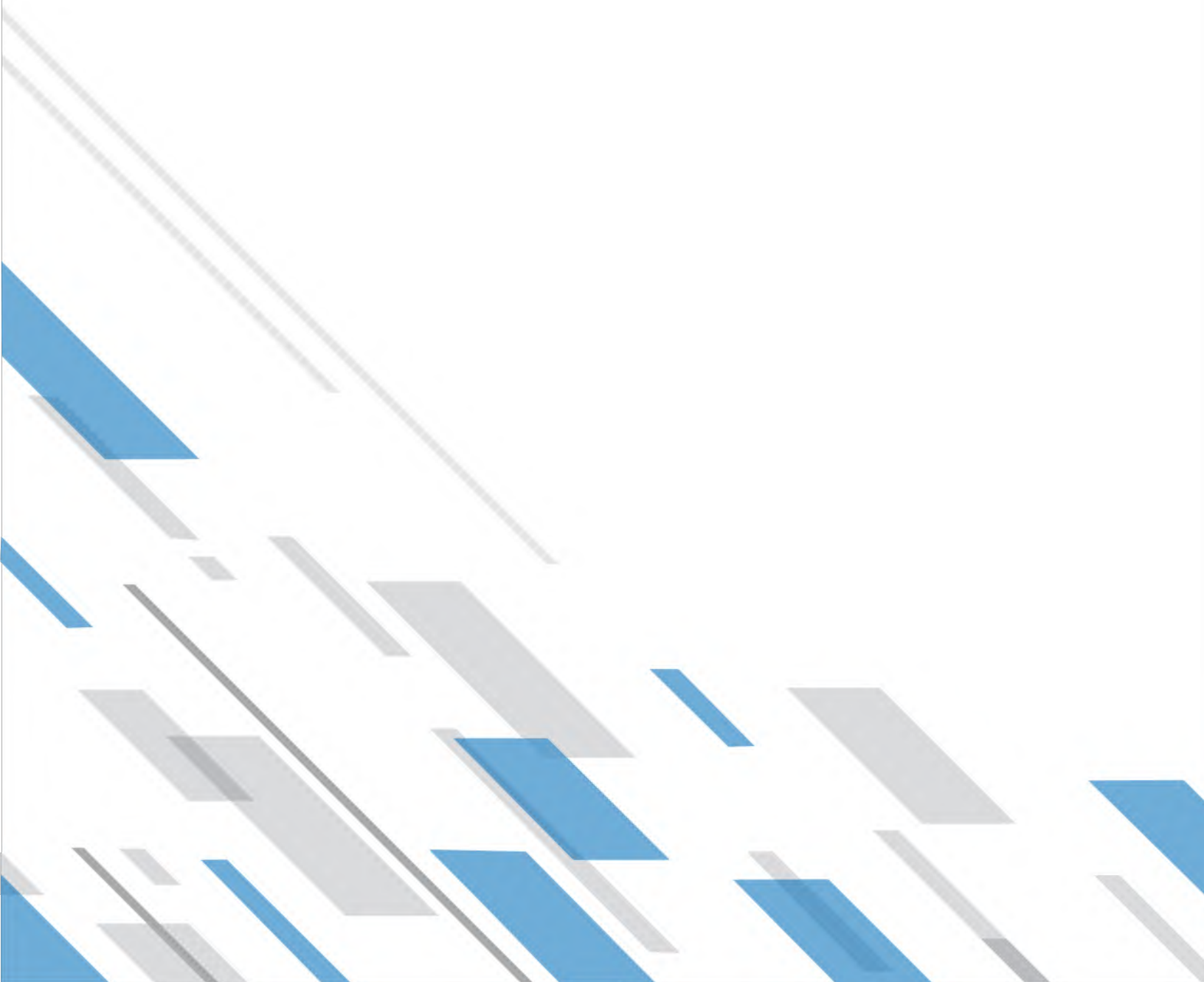
NOISE MODELING RESULTS - Vestas V163-4.5

Noise Modeling Results:
Vestas V163-4.5

IPCB Individual Octave Band Frequency Sound Pressure Level Limits (Nighttime)								
31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
69	67	62	54	47	41	36	32	32

Participating Exceedance
Non-Participating Exceedance

Receiver ID	Status	UTM Coordinates (Zone 16)		Overall (dBA)	Frequency Spectra Level								
		Easting (m)	Northing (m)		31.5 (Hz) dB	63 (Hz) dB	125 (Hz) dB	250 (Hz) dB	500 (Hz) dB	1000 (Hz) dB	2000 (Hz) dB	4000 (Hz) dB	8000 (Hz) dB
REC-0941		1,279,778	14,901,564	40	54	54	48	43	37	32	17	-	-
REC-0942		1,279,653	14,901,553	40	54	54	48	43	37	32	18	-	-
REC-0943		1,279,562	14,901,552	40	54	54	48	43	37	32	18	-	-
REC-0944		1,280,192	14,901,907	40	54	54	48	43	37	32	17	-	-
REC-0945		1,280,054	14,901,916	40	54	54	48	43	38	32	18	-	-
REC-0946		1,279,991	14,901,913	40	54	54	48	43	38	32	18	-	-
REC-0947		1,279,767	14,901,916	40	55	54	48	43	38	32	18	-	-
REC-0948		1,279,665	14,901,912	40	55	54	49	43	38	33	19	-	-
REC-0952		1,279,726	14,902,688	41	55	55	49	44	39	34	20	-	-
REC-0953		1,279,919	14,901,899	40	54	54	48	43	38	32	18	-	-
REC-0954		1,280,188	14,903,119	41	56	55	50	44	39	34	20	-	-
REC-0955		1,295,257	14,928,339	38	53	53	47	42	36	31	16	-	-
REC-0956		1,295,461	14,928,464	39	53	53	47	42	36	31	17	-	-
REC-0957		1,295,540	14,928,460	39	53	53	47	42	36	31	17	-	-
REC-1016		1,295,518	14,928,722	39	53	53	47	42	36	31	17	-	-
REC-1017		1,295,601	14,928,689	39	53	53	47	42	37	31	17	-	-
REC-1018		1,295,679	14,928,962	39	53	53	47	42	37	32	17	-	-
REC-1019		1,295,656	14,929,065	39	53	53	47	42	37	32	17	-	-
REC-1031		1,295,644	14,929,949	39	53	53	48	42	37	32	19	-	-
REC-1032		1,295,659	14,930,106	40	54	53	48	43	37	33	20	-	-
REC-1034		1,295,658	14,930,223	40	54	54	48	43	38	33	20	-	-
REC-1037		1,295,651	14,930,352	40	54	54	48	43	38	33	20	-	-
REC-1039		1,295,653	14,930,478	40	54	54	48	43	38	33	21	-	-
REC-1040		1,295,642	14,930,604	40	54	54	48	43	38	33	21	-	-
REC-1041		1,295,635	14,930,862	40	54	54	48	43	38	33	21	-	-
REC-1042		1,295,665	14,931,027	40	54	54	48	43	38	34	22	-	-
REC-1178		1,279,655	14,902,727	41	55	55	49	44	39	34	21	-	-
REC-1780		1,246,811	14,928,503	21	38	37	31	25	18	9	-	-	-



APPENDIX R – BIRD AND BAT HABITAT STUDY

Tier 2 and Tier 3 Wildlife, Bird, and Bat Study Summary
Heritage Prairie Wind Project
Livingston County, Illinois



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Illinois Generation LLC

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REPORT REFERENCE

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INTRODUCTION

Illinois Generation LLC is considering the development of the Heritage Prairie Wind Project (Project) in Livingston and Kankakee Counties, in Illinois. The Project is located near multiple operating wind farms (Figure 1). This report was prepared as part of the Livingston County permitting process, and only covers the Livingston County portion of the Project. Illinois Generation LLC contracted Western EcoSystems Technology, Inc. (WEST) to assist in creating a biological resources report to summarize the findings of Tier 2 and Tier 3 studies completed at the Project in Livingston County from 2019–2022 (Table 1). WEST followed recommendations of the 2012 US Fish and Wildlife Service (USFWS) *Land-based Wind Energy guidelines*, the 2013 USFWS *Eagle Conservation Plan Guidance, Range-wide Indiana Bat & Northern Long-eared Bat Summer Survey Guidelines* (Guidelines; 2022b), and Illinois Department of Natural Resources (IDNR) recommendations through the Ecological Compliance Assessment Tool (EcoCAT) for all biological surveys and desktop assessments.

METHODS

Biological portions of the 2021 site characterization study (SCS) were evaluated through a desktop review of existing information for the Project and Livingston County and biological resources from publicly available datasets. Available data were reviewed to evaluate the potential for sensitive species and/or habitat to occur in the Project, based on species ranges, distributions, and habitat associations. Data sources included the following:

1. Information about the presence of sensitive species and/or habitat in the Project and 2.0-mile (mi; 3.2-kilometer [km]) buffer according to the USFWS Information for Planning and Consultation (IPaC) Resource List (Appendix A) and IDNR EcoCAT (Appendix A).
2. Habitat Mapping Summary.
3. Post-construction monitoring data from other wind-energy facilities in Illinois and the Midwest.
4. State- or federally protected lands from the US Geological Survey (USGS) Protected Area of the US Database (USGS Gap Analysis Program 2020) and The Nature Conservancy (2021).
5. Records of observations for avian species of concern from the eBird database.
6. The National Audubon Society (Audubon) Important Bird Areas (IBAs; 2023).
7. USFWS Birds of Conservation Concern (BCC; USFWS 2021).
8. USGS Breeding Bird Survey (BBS) route data (USGS 2018b).
9. Bat distribution and locations of maternity roosts and hibernacula from the USFWS, IDNR, and Bats of Illinois (Feldhamer et al. 2015).
10. The Illinois Breeding Bird Atlas (Kleen et al. 2004).
11. Pre-construction surveys completed for the proposed Project.
12. Heritage Prairie Bat Conservation Plan.
13. Published literature regarding wind energy impacts to wildlife.

Tier 2 and Tier 3 studies were completed in Livingston County for the Heritage Prairie Wind Project from 2020–22. The SCS took place in January 2021. WEST completed initial bat activity studies in 2020, and acoustic presence/probable absence bat surveys were completed in 2022. WEST biologists completed raptor nest surveys aerially within the Project boundary and its 10-mi (16-km) buffer in 2020, and ground-based raptor nest surveys in 2021. Year 1 avian use surveys took place in Livingston County from 2019–20, and Year 2 avian use surveys were completed from 2020–2021 (Table 1).

Table 1. Tier 2 and Tier 3 studies completed in Livingston County for the Heritage Prairie Wind Project boundary from 2020–2022.

Study Completed	Tier	Year Completed
Site Characterization Study	2	2021
Bat Activity Acoustic Studies	3	2020
Bat Presence/Probable Absence Acoustic Surveys	3	2022
Year 1 Raptor Nest Surveys	3	2020
Year 2 Raptor Nest Surveys	3	2021
Year 1 Avian Use Surveys	3	2019–20
Year 2 Avian Use Surveys	3	2020–21

PROJECT AREA

Land Cover

The Project is located in northeastern Illinois and encompasses 32,356.8 acres (ac; 13,094.3 hectares [ha]; Table 2, Figure 2). According to the National Land Cover Database (NLCD; 2019), the majority (99.6%) of the Project is comprised of cultivated cropland (95.2%) and developed areas (4.4%). Woody wetlands composed 0.2% of the Project and all other land cover types accounted for 0.1% or less of the Project, individually (NLCD 2019; Table 2, Figure 2).

Table 2. Land cover types, coverage (acres), and percent (%) for the Heritage Prairie Wind Project boundary.

Land Cover Types	Coverage (Acres)	% Composition
Cultivated Crops	30,787.6	95.2
Developed	1,424.4	4.4
Woody Wetlands	50.9	0.2
Mixed Forest	26.2	0.1
Deciduous Forest	23.6	0.1
Hay/Pasture	15.0	<0.1
Open Water	10.2	<0.1
Herbaceous	8.9	<0.1
Emergent Herbaceous Wetland	6.0	<0.1
Barren Land	3.6	<0.1
Evergreen Forest	0.4	<0.1
Total	32,356.8	100

Source: National Land Cover Database 2019.

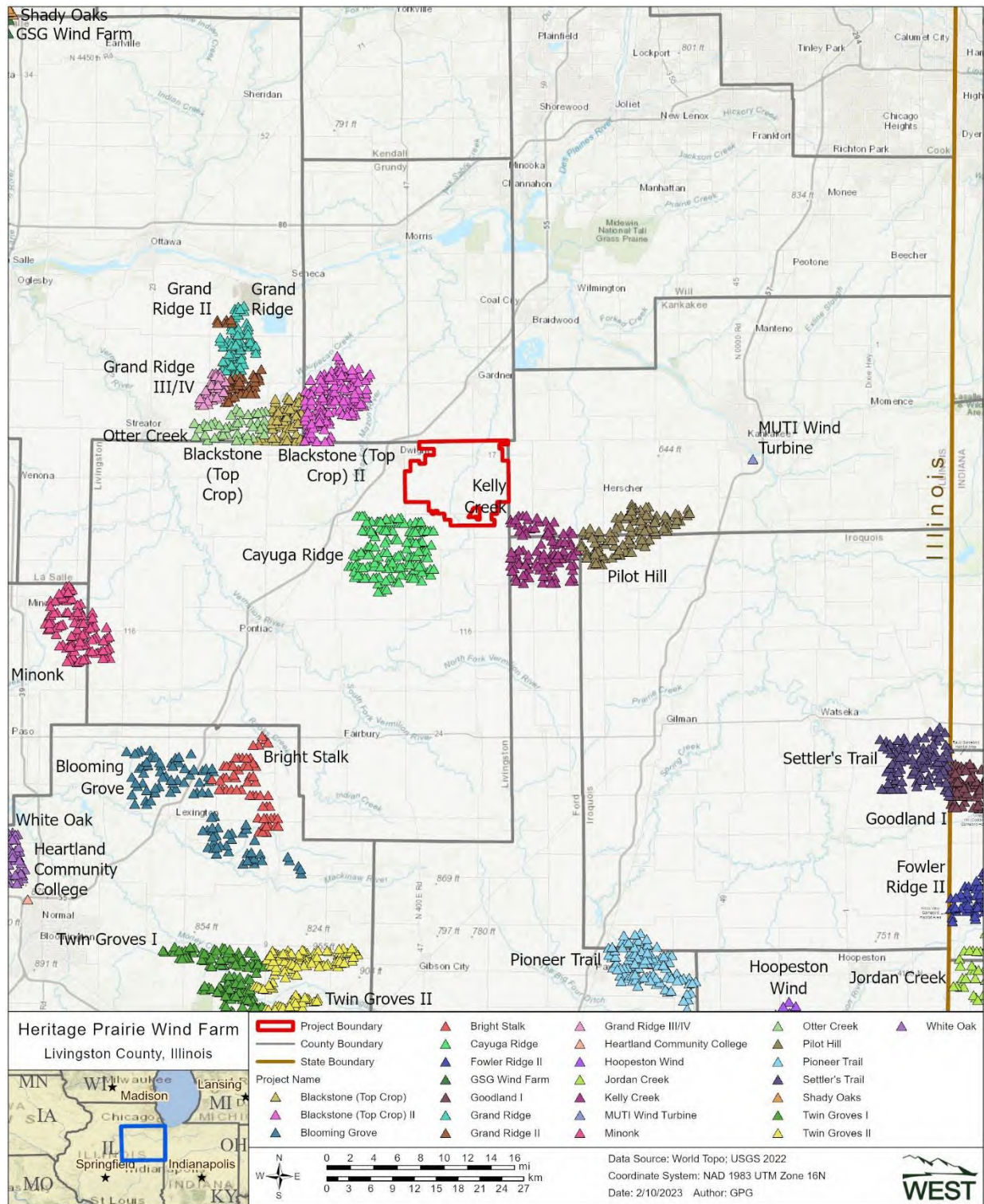


Figure 1. Location of the Heritage Prairie Wind Project in relation to adjacent operating wind farms.

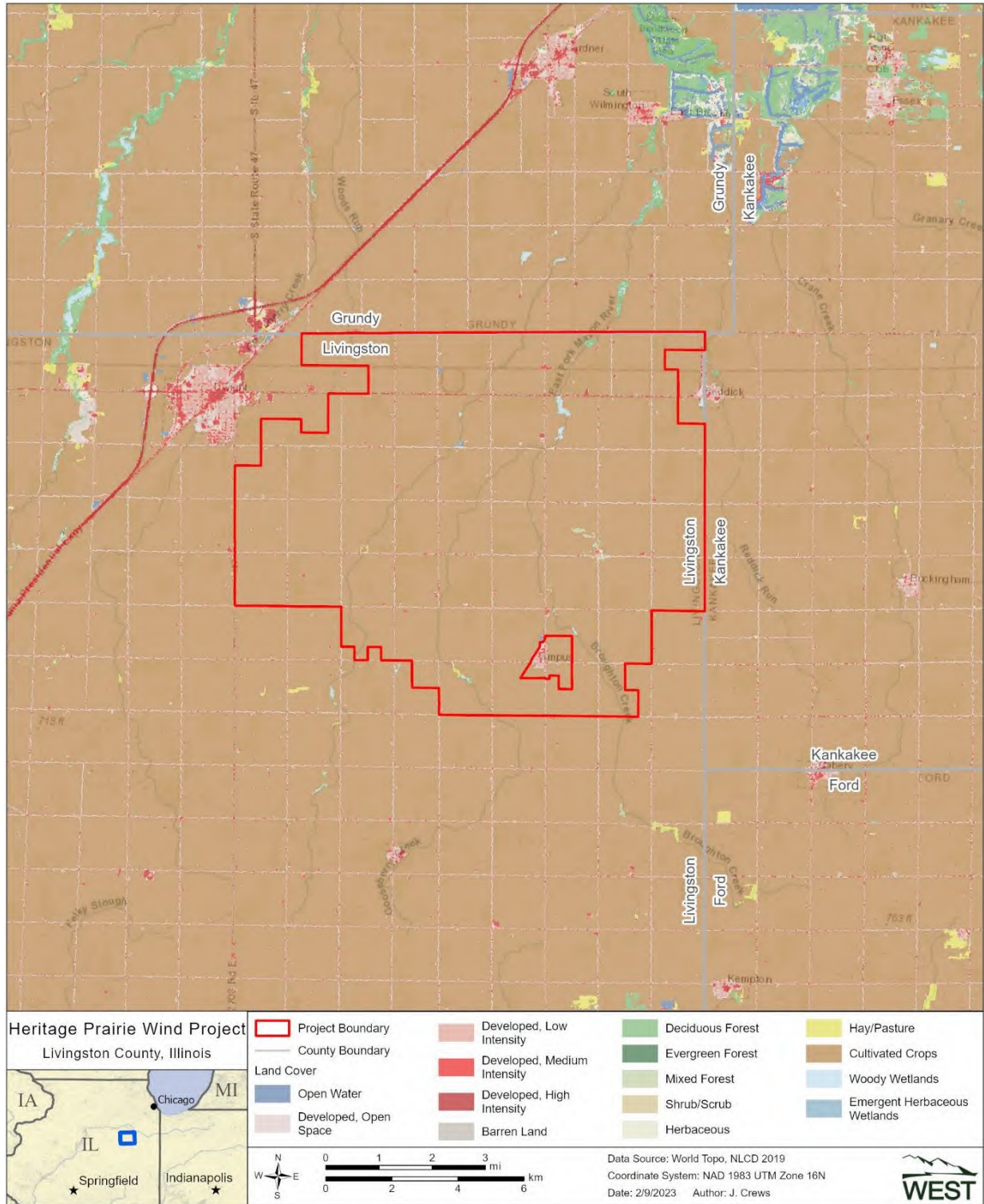


Figure 2. Land cover types for the Heritage Prairie Wind Project.

Protected and High-quality Natural Areas

No IDNR nature preserves or Illinois Natural Area Inventory (INAI) areas occur within the Project (Figure 3; Appendix A). The EcoCAT report identified the Goodrich Railroad Prairie site as an area designated as an INAI site. The Goodrich Railroad Prairie is located 11.05 mi (17.78 km) from the current Project boundary, and beyond the 0.25 mi (0.40 km) setback recommended by the IDNR (Table 3). There are no lands protected by The Nature Conservancy in Livingston County (Mcalexander and Malone 2021). The Mazonia-Braidwood State Fish and Wildlife Area is the closest state-protected land but is located 3.97 mi (6.39 km) north of the Project (Table 3, Figure 3).

IDNR has recommended a 1,000-foot (ft; 305-meter [m]) setback from any forested area five ac (two ha) or larger or forested riparian zones, and a 300-ft (91-m) setback from any perennial streams with a non-forested riparian zone. Current setback recommendations include Broughton Creek and the East Fork Mazon River (Figure 4). Setback recommendations are in place to reduce impacts in areas that have a greater likelihood of harboring greater levels of wildlife diversity within the Project, and turbines were sited by Illinois Generation LLC outside of the setback buffers (Figure 4).

Table 1. Protected and high-quality natural areas identified near the Heritage Prairie Wind Project.

Protected Area	Type	Size (Acres)	Distance from Boundary (Miles)
Mazonia-Braidwood State Fish and Wildlife Area	State land	1,017	3.97
Goodrich Railroad Prairie	INAI	1	11.05

INAI = Illinois Natural Area Inventory

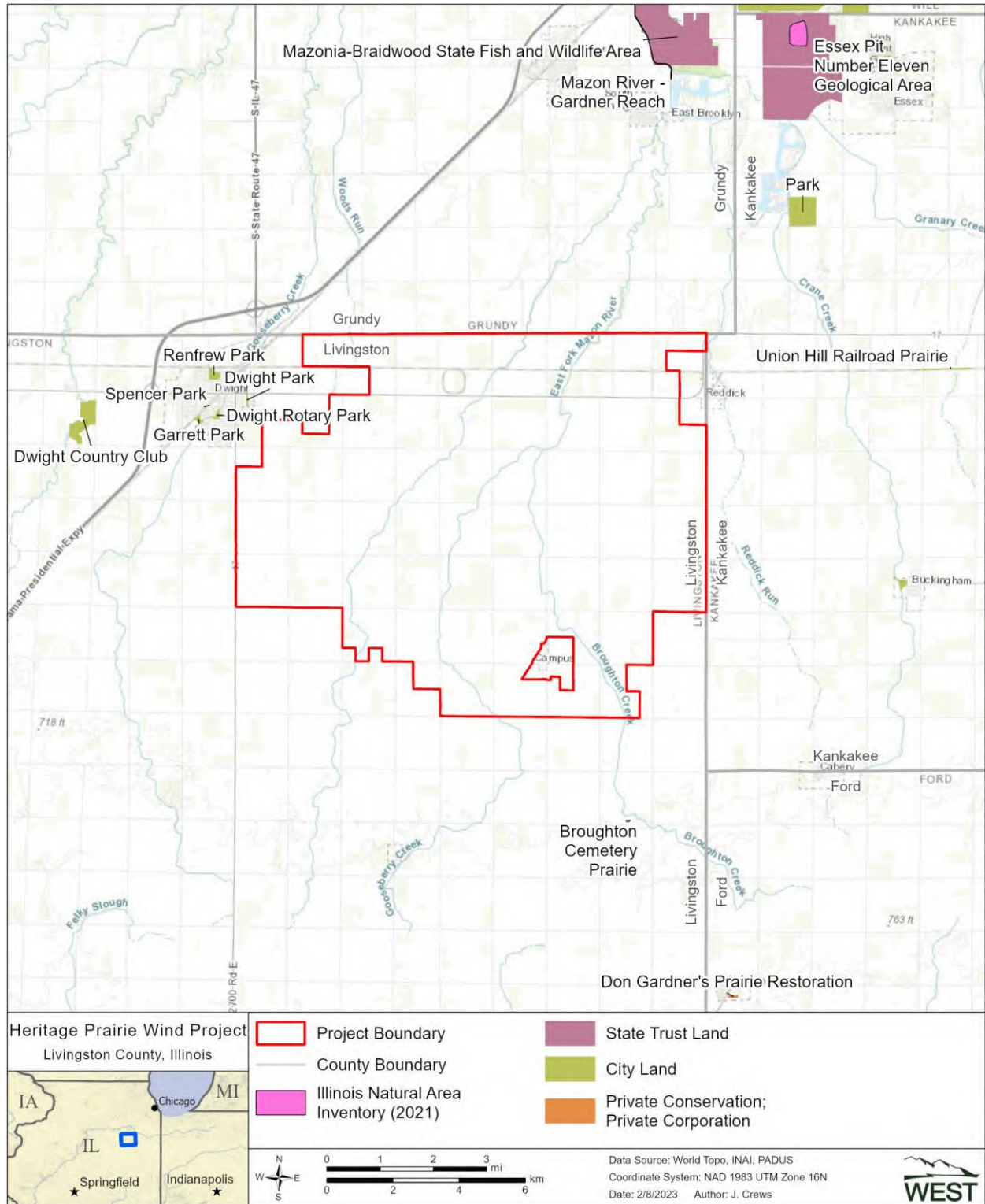


Figure 3. Protected and high-quality natural areas within and near the Heritage Prairie Wind Project.

WILDLIFE AND PLANTS

Federally and State-listed Species

The IPaC planning tool was used to verify if any federally listed plant and animal species (Endangered Species Act [ESA] 1973) could occur within the Project boundary in Livingston County. The IPaC requested on February 3, 2023, included four species federally listed as endangered, threatened, or candidate with the potential to occur within the Project boundary in Livingston County; including the Indiana bat (INBA; *Myotis sodalis*), northern long-eared bat (NLEB; *M. septentrionalis*), monarch butterfly (*Danaus plexippus*), and eastern prairie fringed orchid (*Platanthera leucophaea*; Table 4; Appendix A). According to the IPaC, there were no critical habitats for any federally listed or candidate species with the potential to be located within the Project (Appendix A). Additionally, the USFWS is currently reviewing the status of the tricolored bat (*Perimyotis subflavus*) and little brown bat (*M. lucifugus*; USFWS 2022a). Neither species is currently listed under the ESA (Table 4). No INBA or NLEB calls were recorded during bat studies at the Project, and few calls were recorded from tricolored bat (n=1) and little brown bat (n=7; McAlexander and Sirajuddin 2023). No federally listed species were observed during the site visit in January 2021, or during any Tier 3 studies completed at the Project.

According to the EcoCAT, there were no known records of occurrence of state-listed species within the Project. However, the EcoCAT noted the potential for rattlesnake master borer moth (*Papaipema eryngii*), a state-listed threatened insect, to occur in areas where rattlesnake master (*Eryngium yuccifolium*) is present (Appendix A). This species primarily occurs in native prairie remnants along highways in Illinois; no native prairie remnants are known to occur in the Project, therefore, this species is unlikely to occur. Two state-listed endangered bird species were observed during two years (408 survey hours) of avian use surveys at the Project, including short-eared owl (*Asio flammeus*; n=4) and northern harrier (*Circus hudsonius*; n=24; McAlexander 2021, McAlexander and Kobler 2022).

Birds

Eagles

Bald (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are species protected under the Bald and Golden Eagle Protection Act (1940). Bald eagles typically nest in forested areas adjacent to large bodies of fish-bearing rivers, lakes, and reservoirs. There are no large rivers or lakes within the Project, and forested riparian habitat along the perennial streams in the Project is very limited. The nearest areas containing greater amounts of highly suitable nest habitat are approximately four mi (six km) from the Project along the Kankakee River, its tributaries, and the Mazonia-Braidwood State Fish and Wildlife Area north of the Project.

Only 11 bald eagle observations were recorded over two years of avian use surveys. Thirty-one bald eagle exposure minutes were recorded over 408 hours of avian use surveys. Bald eagles were recorded during fall, winter, and spring; however, use was relatively low in each season.

Table 4. Federally and state-listed threatened and endangered species with records of occurrence or the potential to occur in the Heritage Prairie Wind Project.

Common Name	Status	Habitat	Potential to Occur in the Project
Mammals			
Indiana bat <i>Myotis sodalis</i>	FE, SE	Hibernates in caves and mines during winter. Summer habitat includes a variety of forested/wooded areas and may include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of fields and pastures. Roosts and forages in small stream corridors with well-developed riparian woods, upland forests (USFWS 2022b).	No known occurrences have been documented in the Project and 2.0-mile (mi; 3.2 kilometer [km]) buffer. Suitable summer habitat is limited; only 0.2% of the Project is forested (Table 1), no Indiana bats were recorded during surveys at the Project. Indiana bat may occur during spring and fall migration periods.
northern long-eared bat <i>Myotis septentrionalis</i>	FE, SE	Likely hibernates in caves and mines during winter. Summer habitat includes a variety of forested/wooded areas and may include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of fields and pastures. Roosts and forages in small stream corridors with well-developed riparian woods, upland forests. May also roost in old buildings, barns, bridges (USFWS 2022b).	No known occurrences have been documented in the Project and 2.0-mi buffer. Nearest record of occurrence is 4.0 mi (6.4 km) from the Project (Appendix A). Suitable summer habitat is limited; only 0.2% of the Project is forested (Table 1), and no northern long-eared bats were recorded during surveys at the Project. Northern long-eared bat may occur during spring and fall migration periods.
little brown bat <i>Myotis lucifugus</i>	FC, Under Review	Regional migrants forming nursery colonies in buildings, attics, and other man-made structures. Use a variety of habitats. Hibernates in caves or mines. Forage around trees and in open areas around water (Bat Conservation International [BCI] 2022).	Little brown bats have low potential to occur during summer. Suitable summer habitat is limited; only 0.2% of the Project is forested (Table 1). Little brown bats were rarely recorded during Project surveys; only 7 little brown bat calls were identified out of 8,458 total bat calls recorded at the Project.
tricolored bat <i>Perimyotis subflavus</i>	FC, Under Review	Found in open woods near the edges of water and roost in rock crevices, caves, buildings, and tree foliage during summer. Winter in mines and caves (BCI 2022).	Tricolored bats have low potential to occur during summer. Suitable summer habitat is limited; only 0.2% of the Project is forested (Table 1). One tricolored bat call was recorded out of 8,458 total bat calls during surveys at the Project.

Table 4. Federally and state-listed threatened and endangered species with records of occurrence or the potential to occur in the Heritage Prairie Wind Project.

Common Name	Status	Habitat	Potential to Occur in the Project
Birds			
bald eagle <i>Haliaeetus leucocephalus</i>	BGEPA, MBTA	Mature forested riparian areas near fish-bearing waterbodies and rivers; increasingly using a variety of habitat types in the Midwest, including isolated mature trees in cultivated cropland (Buehler 2022).	Bald eagles rarely occur in the Project. Eleven bald eagle observations were recorded during 408 hours of avian surveys over two years. Bald eagles are not expected to nest within the Project, as more suitable nesting habitat is present along the Kankakee River, its tributaries, and the Mazonia-Braidwood State Fish and Wildlife Area approximately 4 mi north and east of the Project.
golden eagle <i>Aquila chrysaetos</i>	BGEPA, MBTA	Winter habitat consists of open and semi-open areas relatively free from human disturbance such as river valleys, prairies, savannas, and wetlands, but also forested ridges in the eastern US (Katzner et al. 2020, Kochert et al. 2020).	No golden eagles were observed during two years of avian use surveys. Golden eagles are unlikely to occur within the Project, as they are most often observed in the western US. However, they may occur as a rare migrant.
short-eared owl <i>Asio flammeus</i>	SE, MBTA	Large open areas with woodlots, stubble fields, marshes, weedy fields, dumps, gravel pits and rock quarries; prefers grasslands with dense, short grass (Wiggins et al. 2020).	Short-eared owls rarely occur within the Project. Only four observations were recorded during during two years (408 survey hours) of avian use surveys at the Project (McAlexander 2021, McAlexander and Kobler 2023).
northern harrier <i>Circus hudsonius</i>	SE, MBTA	Open marshes, lightly grazed pastures, old fields, upland prairies, croplands, and riparian woodlands (Smith et al. 2020).	Similar to every other wind project in Illinois, northern harriers occur infrequently within the Project. Twenty-four observations were recorded during two years (408 survey hours) of avian use surveys at the Project.
Reptiles and Amphibians			
ornate box turtle <i>Terrapene ornata</i>	ST	Grassland, pasture, field, sandhills, and open woodland; they are terrestrial but sometimes enter shallow streams and creek pools (NatureServe 2021).	Ornate box turtles have not been reported in Livingston County (INHD 2021). Ornate box turtles may use grassy vegetation along transmission lines. The Project lacks suitable habitat for the ornate box turtle.
Insects			
Eastern prairie fringed orchid <i>Platanthera leucophaea</i>	FT, ST	Occurs primarily in remnant wet native prairie, but can also occur in sedge meadows, bogs and fens (Bowles et al. 2005).	No records exist in or near the Project. The Project is composed of over 99% tilled agriculture and developed areas, and lacks native prairies. Suitable habitat is absent from the Project.

FE = federally listed endangered; FT = federally listed threatened; FC = federal candidate; SE = state-listed endangered; ST = state-listed threatened; BGEPA = Bald and Golden Eagle Protection Act; MBTA = Migratory Bird Treaty Act; USFWS = US Fish and Wildlife Service; IDNR = Illinois Department of Natural Resources; IPaC = Information for Planning and Consultation; INHD = Illinois Natural Heritage Database.

Bald eagle observations were recorded near perennial waterways associated with Broughton Creek and East Forth Mazon River (McAlexander 2021, McAlexander and Kobler 2023). Bald eagle nest records were not identified within the Project boundary (T. Porter, IL-USFWS, pers. comm., February 13, 2020; T. Kieninger, IDNR, pers. comm., February 7, 2020). Additionally, no bald eagle nests were identified within the Project boundary during raptor nest surveys conducted at the Project (Schmitt and Wilson 2020). As year-round residents in the region (Fink et al. 2021), there is potential for bald eagles to use the Project throughout the year. However, there is limited habitat present within the Project for nesting and foraging, and, as such, the potential for bald eagles to use the Project for nesting and foraging is greatly reduced (McAlexander and Malone 2021).

Golden eagles favor partially or completely open country, especially around mountains, hills, and cliffs. They are found mostly in the western half of the US and only rarely in the eastern states but may occur as passing migrants through the Project. WEST biologists did not record any golden eagle observations over two years of avian use surveys (McAlexander 2021, McAlexander and Kobler 2023). Non-breeding migratory golden eagles are occasionally observed in Illinois; only five publicly available observations of golden eagles have been previously documented in Livingston County within the past 10 years (eBird 2023). Due to the rarity of golden eagles near the Project, there is a very low risk for impacts to golden eagles.

Potential for Raptor Migration

Several factors influence the migratory pathways of raptors, the most significant of which is geography. Two geographical features are primarily used by raptors during migration, including ridgelines and the shorelines of large bodies of water (Liguori 2005). Raptors tend to follow corridors or pathways, such as prominent ridges with defined edges, during migration. The Project is located on flat to gently rolling agricultural fields that lack defined topographical ridges or large bodies of water that may concentrate raptor migration. There were no large concentrations of migrating raptors observed at the Project over the two years of avian use surveys (McAlexander 2021, McAlexander and Kobler 2023).

General Avian Migration

Similar to other wind-energy projects in Illinois, the Project is located within the Mississippi Flyway, which is used by waterfowl, waterbirds, shorebirds, songbirds, and raptors migrating from breeding grounds in Canada and northern US to wintering grounds along the Gulf of Mexico and in Central and South America (Flyways.us 2017). There is potential for migrating birds to use agricultural fields, forested areas, wetlands, and streams in the Project as stopover habitats.

Sandhill cranes (*Antigone canadensis*; n=753) were recorded during two years of avian use surveys at the Project. Sandhill cranes were observed during their spring and fall migration (McAlexander 2021, McAlexander and Kobler 2023). Sandhill cranes are unlikely to collide with wind turbines during migration because flight altitudes are well above typical turbine heights, and additionally may show some degree of avoidance regarding wind turbines (Stehn 1998, Nagy et al. 2012). However, they may fly at turbine height when ascending and descending during takeoff and landing, or when migrating in poor weather.

American golden-plovers (*Pluvialis dominica*; n =46) were recorded in low numbers during two years of avian use surveys at the Project (McAlexander 2021). American golden-plovers are a species of interest to the USFWS and IDNR due to its use of cropland in the Midwest as staging/stopover areas during spring migration, the only season when this species has the potential to occur in the region (O’Neal and Alessi 2008, Johnson et al. 2021). The USFWS has expressed concern over the potential for wind projects to displace American golden-plover from areas used during spring migration, and are interested in gaining information on landscape-level use by American golden-plover relative to wind energy development (USFWS 2017); however, a study on displacement effects of wind turbines on American golden-plovers was conducted in western Indiana and found no evidence of large scale displacement (Homoya et al. 2017). Collision risk of American golden-plovers is relatively low, with only one American golden-plover documented as a fatality at a wind facility in the US (Good et al. 2017, WEST 2021).

Important Bird Areas

There are no IBAs located within the Project or 2.0-mi buffer. Audubon has identified IBAs that provide essential habitat for breeding, wintering, and/or migrating bird species and are important for the conservation of bird populations (Audubon 2023). The nearest IBAs are the Midewin National Tallgrass Prairie global IBA located approximately 12 mi (19 km) north of the Project, which provides crucial habitat for grassland and shrubland bird communities, the Des Plains State Conservation Area state IBA located approximately 14 mi (23 km) northwest of the Project, which provides habitat for waterbirds, marshbirds, shrubland and forest birds, Goose Lake Prairie State Park global IBA located approximately 14 mi northwest of the Project, which provides important habitat for marshbirds and grassland birds, Bartel Grassland located approximately 40 mi (64 km) northeast of the Project, and Pembroke Township located approximately 20 mi (32 km) east, which provides habitat for shrubland and savanna birds (Figure 5).

The BBS is a collaborative effort between the USGS Patuxent Wildlife Research Center and Canada’s Wildlife Service. The objective of the survey is to monitor the status and trends of North American bird populations via standardized protocol data collected by participants along thousands of randomly established roadside routes throughout the continent (USGS 1998). The Essex BBS route runs along the southern portion of the Project, and the Streator Route intersects the western side of Project (USGS 2018a; Figure 6). Data from these nearest routes may give some indication of the bird species potentially breeding or migrating through the Project. Both of these routes were last surveyed in 2021. During the last 10 years, the bird species most commonly observed on the Essex route were red-winged blackbird (*Agelaius phoeniceus*), common grackle (*Quiscalus quiscula*), American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*; Pardieck et al. 2020). The Streator route lists bird species most commonly observed on the Streator route. The northern harrier, a state-listed endangered species, was observed on this route in 2019, and the red-headed woodpecker (*Melanerpes erythrocephalus*) was observed in 2019 (Pardieck et al. 2020). No federally listed species or eagles have been observed along these routes to date.

During 2021 BBS surveys, there were 34 bird species and 804 individuals observed along the Essex Route. Similarly, 48 species and 1,116 individuals were observed during 2021 BBS surveys on the Streator Route. No additional BCC were observed during surveys on both routes. Additionally, the species composition observed in 2021 is similar to observations recorded on both routes within the last 10 years (USGS 1998).

US Fish and Wildlife Service Birds of Conservation Concern

The Project falls within the USFWS Eastern Tallgrass Prairie Bird Conservation Region (BCR 22), where 25 species of birds are listed as BCC (USFWS 2021). This conservation region was once characterized by lush grasslands, prairie, and savanna, but the landscape is now dominated by agriculture (US North American Bird Conservation Initiative 2016). Historically, 11 of the 25 BCC species have been recorded along the Essex and/or Streator BBS routes (Appendix B). The IPaC resource list includes five BCC species, the Henslow's sparrow (*Centronyx henslowii*), chimney swift (*Chaetura pelagica*), red-headed woodpecker, rusty blackbird (*Euphagus carolinus*), and wood thrush (*Hylocichla mustelina*) with potential to occur within the Project (Appendix A).

Three of the 25 BCC species were recorded over two years of avian use surveys at the Project, including American golden-plover (n=46), northern harrier (n=24), and short-eared owl (n=4; McAlexander 2021, McAlexander and Kobler 2023; Appendix A and B). American golden-plover observations were recorded in the spring and were observed using cropland habitat, which is not considered breeding habitat for this species (Johnson et al. 2021). Northern harrier were observed throughout the Project during two years of avian use surveys. In Illinois, this species is most commonly observed in the fall and winter seasons and is not expected to nest within the Project (Johnson et al. 2021). Short eared-owl observations were recorded during the first year of avian use surveys and were observed during the fall and winter seasons. In Illinois, this species is an uncommon migrant and winter resident (Fink et al. 2021).

Based on the latest publically available data, 20 BCC species were recorded in Livingston County within the last 10 years (eBird 2023). However, only three BCC species, northern harrier (n=2; 2021), Henslow's sparrow (n=3; 2017), and chimney swift (n=28; 2018), were recorded within the Project boundary. All observations within the Project were recorded near Campus, Illinois. Although BCC species were recorded in Livingston County, suitable habitat for is limited within the Project.

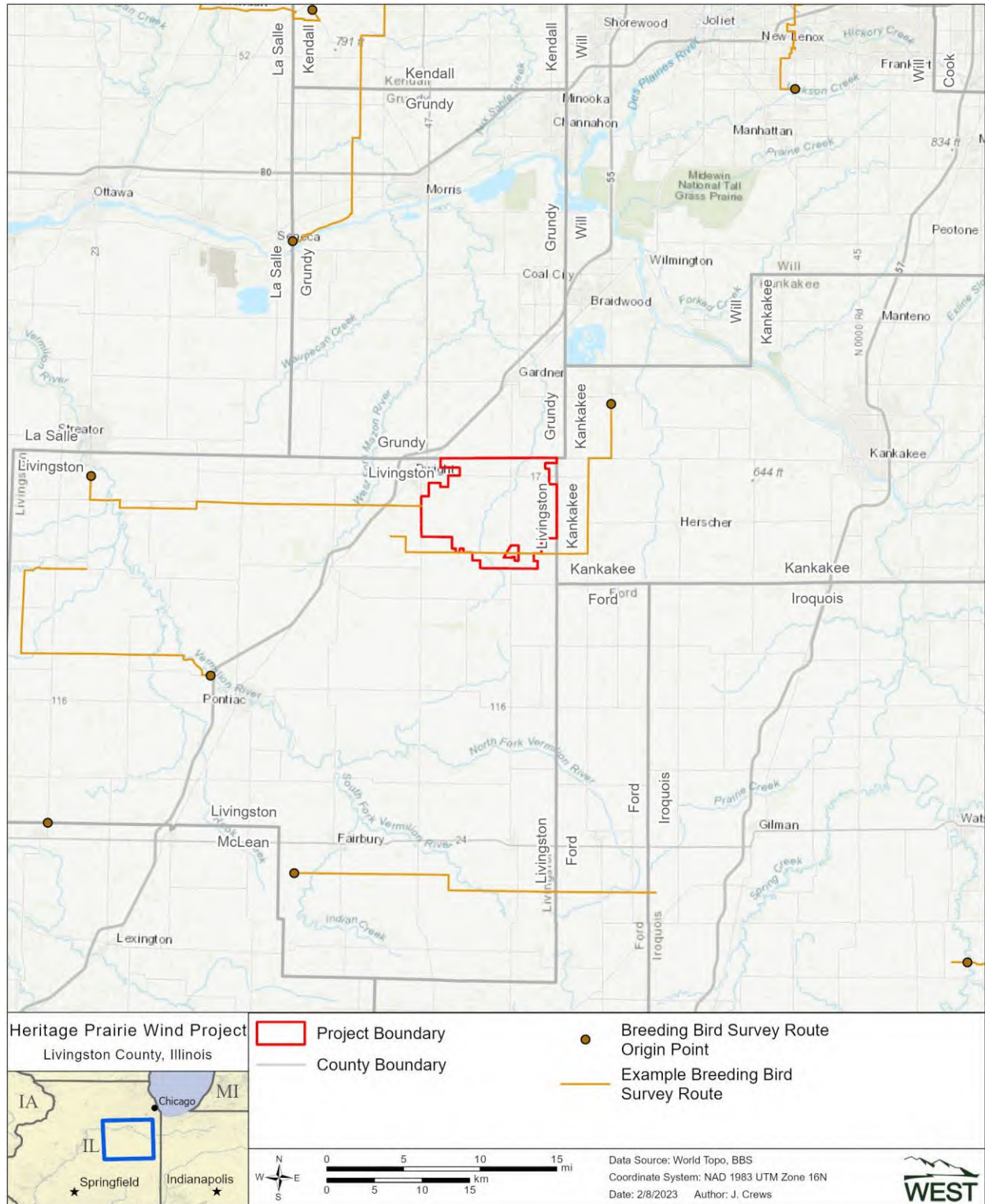


Figure 6. US Geological Survey Breeding Bird Survey (2022b) routes that occur near the Heritage Prairie Wind Project.

Bats

The federally listed as endangered INBA and NLEB have the potential to occur within the Project. The tricolored bat, currently being considered for listing as a threatened species by the USFWS, also could occur in the Project. A Species Status Assessment (SSA) is a scientific and analytical evaluation of species that are being considered for protection under the ESA. An SSA is currently in development/review for the little brown bat, which also could occur in the Project. The USFWS will review the SSA and decide if the species warrants listing under the ESA. If the species is determined to be warranted for either federal listing, as endangered or threatened, the USFWS will develop a proposed rule that will be published in the federal register.

The majority of the Project is composed of cultivated cropland, and there are limited forested and riparian areas that may provide suitable summer habitat for INBA and NLEB. There is a historical record of occurrence of NLEB in Livingston County from July 2011 (INHD 2021). There are no known records of occurrence of INBA in Livingston County (Feldhamer et al. 2015). There are no known INBA hibernacula in Livingston County; the nearest known hibernaculum is Blackball Mine, located approximately 40 mi northwest of the Project along the Illinois River in LaSalle County (USFWS 2007).

INBA within central Illinois are known to follow the Illinois River and tributaries when migrating from Blackball Mine in the spring to summer maternity colony locations. The Project lacks any forested riparian areas that might be used by bats migrating from Blackball Mine, and no INBA were documented by Hicks et al. (2012) to migrate through or form maternity colonies within the Project. The migratory pathways of INBA and NLEB are less well known during the fall, and it is uncertain whether they use landscape features such as rivers or tree lines during fall migration (USFWS 2011).

INBA or NLEB calls were not recorded during any surveys at the Project. Tricolored bat and little brown bat calls were rare, accounting for less than 0.03% of the 18,617 recorded bat calls across all bat surveys. WEST followed the USFWS Guidelines for identification of bat calls, and only one little brown bat call and one tricolored bat call were recorded out of 10,132 bat calls recorded during the 2022 presence/absence surveys. Only six little brown bat calls and no tricolored bat call were recorded out of 8,485 calls recorded during migration surveys (McAlexander and Sirajuddin 2023).

A significant number of post-construction monitoring studies also have been conducted within Illinois at other wind-energy facilities over the past 10 years. Research completed to date has shown the risk of collision for migrating INBA and NLEB is not equal throughout the species range in Illinois; no INBA and NLEB fatalities have been documented at wind energy projects in central Illinois that operated at manufacturer cut-in speeds despite the species occurrence within forested habitats during the summer in central Illinois, including existing wind projects located adjacent to the proposed Project. The reasons for the unequal risk are likely related to the migration habits and pathways of INBA and NLEB. While INBA and NLEB fatalities have been recorded at other

wind-energy facilities that lack forest cover during fall migration (Good et al. 2011), the lack of fatalities in central Illinois suggests the risk to both species is low at the Project.

The majority of bat casualties at wind energy facilities, to date, are migratory tree-roosting species such as eastern red bat (*Lasiurus borealis*), hoary bat (*L. cinereus*), and silver-haired bat (*Lasionycteris noctivagans*) that conduct long migrations between summer maternity roosts and winter hibernacula (Kunz et al. 2007, National Academy of Science 2007, Arnett et al. 2008, Arnett and Baerwald 2013, WEST 2021). Bat mortalities from wind turbine collisions have been documented during spring, summer, and fall, and most bat fatalities have occurred during late summer and fall, suggesting that bats may be particularly susceptible during fall migration (Kunz et al. 2007, Arnett et al. 2008, Baerwald and Barclay 2011, Pruitt and Okajima 2014).

TIER 3 QUESTIONS

A summary of the potential for impacts to sensitive species and/or habitat within the Project is summarized below in response to the Tier 3 questions in the *Land-based Wind Energy Guidelines* (USFWS 2012). Data collected at the Project from 2019–2022 was used to address the Tier 3 questions.

1. Do field studies indicate that species of concern are present on or are likely to use the proposed site?

There is limited suitable habitat for federally and state-listed species within the Project; 99.6% of the Project is composed of cultivated cropland and developed areas, which do not provide primary habitat for threatened and endangered species that could occur in the Project. During two years of avian use surveys at the Project, no federally listed endangered or threatened species were observed. Two state-listed endangered species were observed at the Project (northern harrier and short-eared owl) in low numbers. Likewise, bald eagles were observed during the 2019–21 avian use surveys in the Project in low numbers. The Project does not contain suitable nesting habitat for eagles. Large areas of more suitable nesting habitat is present outside of the Project boundary north of the Project along the Kankakee River, its tributaries, and the Mazonia-Braidwood State Fish and Wildlife Area.

No calls were identified for any federally listed species during bat acoustic surveys (McAlexander and Sirajuddin 2023) at the Project. Calls of two species being considered for listing under the endangered species act, the tricolored and little brown bat, were recorded in low numbers at the Project. Similar to other wind energy facilities, migratory bird and bat species may pass through the Project and utilize portions of the Project for stopover habitat and foraging.

As noted in the IPAC and EcoCAT, eastern prairie fringed orchid and rattlesnake master borer moth were identified to have potential to occur within the Project, if suitable habitat is present. However, the Project lacks native prairie which both species require to occur.

2. Do field studies indicate the potential for significant adverse impacts on an affected population of species of habitat fragmentation concern?

The Project is highly fragmented and dominated by tilled agriculture. Species of habitat fragmentation concern are not expected to occur.

3. What is the distribution, relative abundance, behavior, and site use of species of concern identified in Tiers 1 or 2, and to what extent do these factors expose these species to risk from the proposed wind energy project?

Land cover within the Project consists of 99.6% of cultivated crops and developed areas, which do not provide suitable habitat for most sensitive species. Two state-endangered species (northern harrier, short-eared owl) were observed at the Project (McAlexander 2021, McAlexander and Kobler 2022). The 24 total northern harrier observations occurred primarily during fall and winter with few observations during spring and one observation during summer. Northern harriers nest on the ground in undisturbed wetlands or grasslands with thick vegetation (Smith et al. 2020) which is not present in the Project. Northern harriers typically fly close to the ground, with some studies reporting up to 97% of flights below 66 ft (20 m; Whitfield and Madders 2006). Northern harriers are frequently observed at almost every Illinois wind project. As of 2020, relatively few northern harrier fatalities (20) have been recorded among publicly available studies in the Midwest (American Wind Wildlife Institute [AWWI] 2020); the risk of northern harrier collisions occurring at the Project are low based on their low abundance and low flight heights.

Short-eared owls were observed at low numbers at the Project (four observations). Short-eared owls often occur in the region during non-breeding months (fall through early spring) and prefer open habitats for hunting (Wiggins et al. 2020). As of 2020, relatively few (18) short-eared owl have been recorded as fatalities at operating wind facilities in the US (AWWI 2020). Short-eared owls also fly close to the ground, which reduces potential risk of collision.

The state-listed as endangered insect *Eryngium* stem borer, which has potential to be federally listed, could occur within the Project. The species has historic records within Livingston County; however, this species utilizes only one food source (rattlesnake master) which is not expected to occur given the lack of native prairie habitat within the Project. Turbines will be sited in cultivated croplands and developed areas, therefore, avoiding and minimizing potential impacts to listed plant species and associated insects.

NLEB and INBA calls were not recorded during summer presence absence surveys. (McAlexander and Hammond 2021, McAlexander and Sirajuddin 2023). Both species have potential to migrate through the Project in the spring and fall.

The most common avian species observed during large bird surveys were generally similar across both years of surveys and included Canada geese (*Branta canadensis*) and other species typical of Illinois agricultural landscapes. Aside from migrating waterfowl, the majority of the most commonly observed large bird species occur year-round in Illinois, such as mourning dove (*Zenaidura macroura*), or as migrants and summer residents, such as killdeer (*Charadrius vociferus*). These most commonly observed species are widespread species within the region that are typical of avian communities in agricultural areas of the Midwest (Kleen et al. 2004). Potential collision risk for these species will be restricted to the seasons when they occur.

Bald eagles were rarely observed during surveys. Eleven bald eagles were observed during two years of avian use surveys and incidentally from in Livingston County (McAlexander 2021, McAlexander and Kobler 2023). These bald eagle observations resulted in 31 eagle risk minutes during 408 hours of survey. One eagle was recorded in the spring; all others were recorded in the fall and winter.

Additionally, the IPAC noted that the federally listed threatened eastern prairie fringed orchid have potential to occur within the Project; however, the Project lacks suitable habitat for this species.

4. What are the potential risks of adverse impacts of the proposed wind energy project to individuals and local populations of species of concern and their habitats? (In the case of rare or endangered species, what are the possible impacts to such species and their habitats?)

Due to the limited amount of forested habitat within the Project, impacts to bats are largely limited to collision risk during the fall migration season. There are no known critical areas of congregation for bats within the Project. Suitable summer habitat for bats is very limited (0.3% forested areas) within the Project. Protected bat species are not expected to occur during the summer; occurrence of protected bat species is limited to the migration periods. No calls of INBA and NLEB were recorded during on-site surveys, and calls from little brown and tricolored bats composed less than 0.03% of all calls recorded. There are no known hibernacula in Livingston County (Hicks et al. 2012).

Bird fatality rates in the Midwest and Illinois have typically been low (AWWI 2020, WEST 2021); bird mortality due to building and tower collisions, and cat predation, is orders of magnitude greater than bird mortality due to wind turbines (Loss et al. 2014, North American Bird Conservation Initiative 2014). No IBAs or critical areas of congregation for birds are known to occur within the Project. The nearest IBAs are the Midewin National Tallgrass Prairie global IBA located approximately 12 mi north of the Project, the Des Plains State Conservation Area state IBA located approximately 14 mi northwest of the Project, Goose Lake Prairie State Park global IBA located approximately 14 mi northwest of the Project, Bartel Grassland located approximately 40 mi northeast of the Project, and Pembroke Township located approximately 20 mi east of the Project.

The Project generally lacks suitable nesting and hunting habitat for eagles. Overall use of the Project by bald eagles was low.

In accordance with the recommendations of IDNR, the Project will operate at (16.4 ft [5.0 m] per second), from one hour after sunset to sunrise from July 15 – October 15 to avoid impacts to INBA and NLEB and reduce impacts to non-listed species of migratory bats (Appendix A).

5. How can developers mitigate identified significant adverse impacts?

Illinois Generation LLC has committed to siting turbines and associated infrastructure outside of high-risk areas to mitigate significant impacts at the Project. Specifically, turbines will be sited 300 ft from perennial streams identified by the IDNR, and 1,000 ft from forested areas five ac or larger and forested riparian zones.

Additionally, the Project will curtail turbines below 5.0 meters per second, from one hour after sunset to sunrise from July 15 – October 15, to avoid impacts to INBA and NLEB and reduce impacts to non-listed species of migratory bats.

Illinois Generation LLC will avoid impacts to aquatic species by siting infrastructure to avoid streams and wetlands to the greatest extent possible, repairing drain tiles, using horizontal boring, where practicable, to reduce potential impacts to streams and wetlands, and abiding by erosion control measures and best management practices contained in a Stormwater Pollution Prevention Plan and an Agricultural Impact Mitigation Agreement.

6. Are there studies that should be initiated at this stage that would be continued in post-construction?

In accordance with USFWS and IDNR recommendations, Illinois Generation LLC will conduct five years of post-construction monitoring for avian and bat species. Both of these post-construction studies will be implemented in Tier 4 studies in coordination with the USFWS and IDNR.

Impacts from the Project are expected to be similar to other wind energy facilities in Illinois and the Midwest. Illinois Generation LLC will review the results of the Tier 4 studies with the USFWS and determine if additional avoidance or mitigation measures are necessary, such as if significant adverse impacts are observed.

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**Appendix A. US Fish and Wildlife Service Information for Planning and Consultation
Resource List and Illinois Department of Natural Resources Ecological Compliance
Assessment Tool**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.


Location


Livingston County, Illinois



Local office

Illinois-Iowa Ecological Services Field Office

 (309) 757-5800

 (309) 757-5807

Illinois & Iowa Ecological Services Field Office

Wildlife and Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
<p>Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045</p>	Threatened

Insects

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743</p>	Candidate

Flowering Plants

NAME	STATUS
<p>Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/601</p>	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p>Henslow's Sparrow <i>Ammodramus henslowii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941</p>	Breeds May 1 to Aug 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

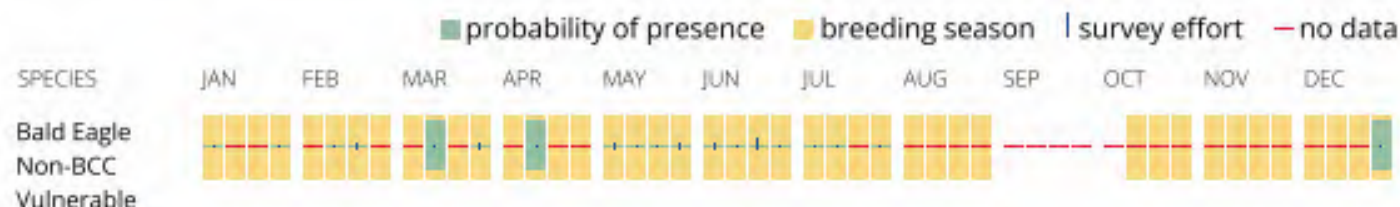
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



April 19, 2023

John Kuba
ConnectGen, LLC
1001 McKinney Street
Suite 700
Houston, TX 77002

**RE: Heritage Prairie Wind
Consultation Program
EcoCAT Review #2312269 [2300366]
Livingston County**

Dear Mr. Kuba:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of updating the previous review issued on March 29th, 2021, for the Heritage Prairie Wind project in eastern Livingston County.

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

State Listed

Eryngium Stem Borer (*Papaipema eryngii*)

Pattern Energy and ConnectGen initiated correspondence with the Department on January 30th, 2023. Correspondence indicated that the following recommendations had been considered and resulted in the following:

- No critical habitat for Eryngium Stem Borer (*Papaipema eryngii*) was identified within the project area.
- Presence/absence surveys were conducted in the area for the state and federally listed Northern Long-eared Bat. No individuals of the species were observed at that time.
- Habitat mapping for the Ornate Box Turtle (*Terrapene ornate*) was conducted and yielded negative results for suitable habitat within the project footprint.

- All turbines will abide by the previously recommended setbacks:
 - Minimum of 300-foot setback from perennial streams with a non-forested zone.
 - Minimum of 1,000-foot setback from any forested area five acres or larger or forested riparian zones.
 - All turbines sited a minimum of 0.25 miles from the Goodrich Prairie Illinois Natural Areas Inventory Site.

During discussion and reviews of similar projects in the surrounding area, the following alterations to the Departments recommended curtailment were proposed:

- Turbine operations below wind speeds of 5.0 meters/second, 1 hour after sunset to sunrise, between July 15th and October 15th.

Given the evidence provided, the Department concurs with the alterations to the recommended curtailment. However, the Department maintains that cut-in speeds of 6.9 meters/second is the best recommendations for total avoidance of Take.

The Department recommends the following be considered:

- Post construction monitoring reports be forwarded to the Department annually.
- If Take of a state or federally listed species occurs, the Applicant apply for Incidental Take Authorization.
- Please note that due to the federal status of the Northern-long Eared Bat, and its potential occurrence in the project area, coordination with the U.S. Fish and Wildlife Service may be necessary and is separate from this consultation and Illinois State regulations.

In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.

Consultation on the part of the Department is closed, unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal and should not be regarded as a final statement on the project being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take

Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

If temporary or permanent lighting is required, the Department recommends the following lighting recommendation to minimize adverse effects to wildlife:

- All lighting should be fully shielded fixtures that emit no light upward.
- Only “warm-white” or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) should be used to minimize blue emission.
- Only light the exact space with the amount (lumens) needed to meet facility safety requirement.
- If LEDs are to be used, avoid the temptation to over-light based on the higher luminous efficiency of LEDs.

If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

Please contact me with any questions about this review.

Sincerely,

Kyle Burkwald

Kyle Burkwald
Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Kyle.Burkwald@Illinois.gov
Phone: (217) 785-4984

CC Bradley Hayes – IDNR
Heather Osborn – IDNR
Amber Schorge – USFWS
Chuck Schoop – Livingston County Zoning Commission

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**IL Department of Natural Resources
Contact**

Impact Assessment Section
217-785-5500
Division of Ecosystems & Environment

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



EcoCAT Receipt	Project Code 2310410
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APPLICANT	DATE
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Allen Wynn
Allen Wynn
1201 Louisiana Street
Suite 3201
Houston, TX 77002

2/17/2023

DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
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EcoCAT Consultation	\$ 25.00	\$ 1.00	\$ 26.00
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TOTAL PAID \$ 26.00

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

Appendix B. US Fish and Wildlife Service Bird Conservation Region 22 – Eastern Tallgrass Prairie – Species List and Records of Occurrence on Breeding Bird Survey



In Partnership with:



Environment Canada Canadian Wildlife Service / Environnement Canada Service canadien de la faune



Comisión Nacional para el Conocimiento y Uso de la Biodiversidad



North American Breeding Bird Survey

Breeding and Non-breeding Species List By Route

BBS Route 34015 (ESSEX,IL) 101

Query date: 02/01/2024

This list contains all historical records of breeding and migrants bird species detected at sample locations along this route.

Species List	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
(Yellow-shafted Flicker)	0	0	0	0	0	-	0	0	1	1	0	0	0	0	0	1	0	-	-	-	-	0	1	1	1	0	0	-	0	0
Northern Flicker	18	20	17	38	5	-	12	7	20	19	7	2	13	13	7	7	2	-	-	-	-	8	3	6	3	4	3	-	4	5
American Crow	3	5	11	2	2	-	19	8	9	10	4	11	5	9	10	25	15	-	-	-	-	5	9	4	5	14	3	-	6	5
American Goldfinch	1	5	2	1	0	-	1	0	1	6	0	1	0	3	1	0	0	-	-	-	-	3	1	1	1	1	0	-	2	0
American Kestrel	40	58	67	75	53	-	81	66	107	77	97	75	72	75	66	104	92	-	-	-	-	69	71	64	60	84	62	-	116	83
American Robin	1	0	0	1	0	-	0	0	1	1	0	0	0	0	0	1	0	-	-	-	-	1	0	0	0	0	0	-	0	13
Baltimore Oriole	0	0	0	0	0	-	0	0	2	0	0	0	0	2	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Bank Swallow	5	16	9	10	6	-	17	12	12	14	15	24	10	12	16	9	5	-	-	-	-	21	19	23	32	25	17	-	22	3
Barn Swallow	0	1	0	1	2	-	0	1	7	2	0	0	0	1	0	0	0	-	-	-	-	0	2	0	0	1	2	-	3	0
Blue Jay	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	1	0	-	0	0
Blue-gray Gnatcatcher	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	1	0	-	0	0
Bobolink	4	1	0	6	0	-	1	0	3	0	0	0	0	0	0	0	0	-	-	-	-	0	0	1	0	0	1	-	0	1
Brown Thrasher	1	5	2	6	4	-	0	1	0	0	1	1	0	1	0	3	0	-	-	-	-	3	1	5	1	0	2	-	1	0
Brown-headed Cowbird	6	21	5	11	18	-	24	8	37	10	8	26	28	45	48	37	14	-	-	-	-	15	31	21	17	37	16	-	42	36
Cedar Waxwing	0	0	0	0	0	-	0	0	0	0	0	0	0	1	1	0	0	-	-	-	-	1	0	4	1	0	4	-	0	0
Chimney Swift	15	4	11	10	14	-	8	6	5	11	11	9	6	6	5	16	11	-	-	-	-	7	8	10	22	3	12	-	0	3
Chipping Sparrow	10	16	8	2	2	-	11	10	15	14	16	15	12	26	18	14	16	-	-	-	-	25	12	20	21	19	21	-	10	9
Cliff Swallow	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	25	50	25	2	3	34	-	1	25
Common Grackle	179	99	87	150	133	-	70	68	137	159	226	483	125	82	53	115	94	-	-	-	-	119	158	127	175	256	92	-	112	64
Common Nighthawk	0	0	0	0	0	-	1	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Common Yellowthroat	2	4	3	3	0	-	4	3	3	1	1	1	1	0	3	2	3	-	-	-	-	2	4	5	4	4	2	-	1	2
Cooper's Hawk	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	1	0	0	0	1	0	-	0	0
Dickcissel	8	2	2	12	1	-	4	4	3	1	0	6	5	13	11	10	11	-	-	-	-	3	18	19	38	33	73	-	25	21
Downy Woodpecker	0	0	0	0	0	-	0	0	1	0	0	0	0	0	1	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Eastern Bluebird	0	0	0	0	0	-	0	0	0	0	0	2	0	0	0	0	0	-	-	-	-	0	2	7	0	1	0	-	0	0
Eastern Kingbird	1	5	0	0	0	-	0	0	0	4	1	2	0	0	1	2	1	-	-	-	-	1	1	1	1	2	1	-	0	2
Eastern Meadowlark	16	1/	9	21	2/	-	6	20	25	14	14	24	20	12	26	33	31	-	-	-	-	26	16	22	15	13	29	-	19	1/
Eastern Phoebe	0	0	0	0	1	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	1	1	2	2	2	2	-	0	0
Eastern Wood-Pewee	0	1	1	0	0	-	0	0	1	0	0	0	0	0	1	1	0	-	-	-	-	1	1	0	2	0	2	-	0	0
Eurasian Collared-Dove	0	0	0	0	0	-	0	0	0	0	0	0	2	1	0	0	0	-	-	-	-	1	4	5	1	8	6	-	3	3
European Starling	98	46	61	225	128	-	57	317	119	186	105	106	105	62	43	44	25	-	-	-	-	68	91	51	126	34	92	-	31	51
Field Sparrow	0	0	0	0	1	-	0	2	0	0	0	0	0	0	0	0	0	-	-	-	-	1	0	2	0	0	1	-	0	0
Grasshopper Sparrow	3	0	1	0	0	-	0	0	2	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Gray Catbird	0	1	0	0	1	-	1	0	0	0	0	0	0	0	0	0	0	-	-	-	-	2	0	0	1	1	1	-	1	0
Great Blue Heron	0	0	0	2	0	-	0	0	2	0	0	0	0	0	0	0	0	-	-	-	-	0	0	4	1	0	1	-	0	0
Great Crested Flycatcher	0	0	0	0	0	-	0	1	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Great Horned Owl	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	1	0	-	0	0
Green Heron	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	1	0	0	-	0	0
Horned Lark	33	22	28	49	73	-	32	43	35	13	37	34	55	50	50	34	37	-	-	-	-	26	18	33	16	4	15	-	14	9
House Finch	0	2	16	5	0	-	0	0	0	1	0	1	0	3	0	1	0	-	-	-	-	1	1	1	1	0	1	-	2	4
House Sparrow	34	71	36	146	16	-	10	35	12	47	83	13	36	38	40	36	49	-	-	-	-	17	31	37	14	23	36	-	95	17
House Wren	3	3	8	2	0	-	3	3	7	11	4	4	8	5	4	8	2	-	-	-	-	7	3	6	4	11	11	-	7	7
Indigo Bunting	10	12	5	4	2	-	2	2	2	3	1	5	1	2	1	5	3	-	-	-	-	3	3	4	0	11	4	-	8	4

Killdeer	10	22	16	21	21	-	15	17	15	19	13	8	18	11	17	21	14	-	-	-	-	20	20	30	24	48	28	-	33	31
Mallard	1	0	4	4	2	-	0	1	0	0	0	0	0	0	0	0	0	-	-	-	-	0	2	8	1	1	2	-	0	0
Mourning Dove	8	16	12	32	11	-	17	16	9	25	29	37	40	41	31	26	17	-	-	-	-	16	16	5	26	34	18	-	26	16
Northern Bobwhite	0	0	0	0	0	-	1	0	0	0	0	1	0	0	0	0	0	-	-	-	-	2	0	0	0	0	0	-	0	0
Northern Cardinal	2	1	3	9	0	-	4	6	2	6	3	5	6	3	3	3	5	-	-	-	-	5	7	7	6	6	2	-	7	5
Northern Harrier	0	0	2	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	1	-	0	0
Northern Mockingbird	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	1	0	0	-	0	0
Northern Rough-winged Swallow	0	2	0	1	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	4	11	8	3	1	2	-	2	0
Red-bellied Woodpecker	0	0	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Red-eyed Vireo	0	0	0	0	0	-	0	1	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	1	1	1	-	0	0
Red-headed Woodpecker	0	0	0	0	0	-	0	0	0	0	1	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	1	-	0	0
Red-tailed Hawk	0	1	2	0	0	-	0	0	1	2	0	3	1	2	2	0	0	-	-	-	-	2	1	4	3	5	2	-	5	4
Red-winged Blackbird	65	62	74	286	136	-	105	81	45	126	210	102	135	87	57	67	97	-	-	-	-	185	188	208	187	155	189	-	163	140
Ring-necked Pheasant	19	27	22	21	4	-	7	3	5	0	6	6	10	13	8	3	7	-	-	-	-	3	2	9	3	3	5	-	8	5
Rock Pigeon	11	6	3	17	17	-	3	22	0	23	3	2	13	11	3	12	0	-	-	-	-	8	10	14	13	28	12	-	4	3
Rose-breasted Grosbeak	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	1	-	-	-	-	0	0	0	0	0	0	-	0	0
Ruby-throated Hummingbird	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	1	0	0	0	-	0	0
Savannah Sparrow	0	2	0	0	2	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	2	0	0	0	0	0	-	0	0
Sedge Wren	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	1	0	-	0	0
Song Sparrow	16	24	26	29	8	-	36	22	38	52	35	45	38	37	37	28	29	-	-	-	-	9	21	9	7	14	17	-	7	12
Tree Swallow	1	0	0	0	0	-	0	0	0	0	0	3	3	4	0	6	2	-	-	-	-	11	22	4	4	9	7	-	4	3
Turkey Vulture	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	1	1	1	0	0	-	0	0
Vesper Sparrow	9	20	15	15	2	-	13	6	6	11	1	8	13	5	11	7	16	-	-	-	-	25	26	35	26	23	19	-	19	14
Warbling Vireo	0	0	0	0	0	-	0	2	0	1	0	0	0	0	0	0	0	-	-	-	-	0	1	1	2	1	7	-	0	1
Western Meadowlark	4	2	4	1	0	-	0	0	0	0	0	1	0	0	0	0	0	-	-	-	-	2	0	4	2	0	0	-	1	0
White-breasted Nuthatch	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	1	0	-	0	0
Willow Flycatcher	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	1	-	-	-	-	0	1	2	0	0	0	-	0	0
Wood Duck	0	0	5	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	-	0	0
Yellow Warbler	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	1	0	0	0	0	-	0	0
Yellow-billed Cuckoo	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0	1	0	0	2	0	-	0	0
Total Species	33	36	35	34	28	0	29	31	34	31	26	33	27	32	30	31	27	0	0	0	0	43	44	46	45	44	45	0	34	33
Total individuals	637	622	578	1218	692	0	565	794	690	870	932	1066	781	676	575	681	600	0	0	0	0	757	891	861	878	930	859	0	804	618



In Partnership with:



Environment Canada Canadian Wildlife Service / Environnement Canada Service canadien de la faune



Comisión Nacional para el Conocimiento y Uso de la Biodiversidad



North American Breeding Bird Survey

Breeding and Non-breeding Species List By Route

BBS Route 34013 (STREATOR,IL) 101

Query date: 02/01/2024

This list contains all historical records of breeding and migrants bird species detected at sample locations along this route.

Species List	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
(Yellow-shafted Flicker)	0	0	0	0	0	0	1	0	0	-	-	-	1	1	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	
Northern Flicker	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	
American Crow	24	42	50	23	34	32	39	30	27	-	-	-	19	27	18	-	14	27	21	33	20	14	24	24	24	12	12	-	13	1	
American Goldfinch	2	2	1	1	3	7	2	4	2	-	-	-	14	7	10	-	15	5	0	13	6	4	18	6	21	10	4	-	3	4	
American Kestrel	4	7	5	1	4	1	3	8	12	-	-	-	3	3	7	-	2	7	0	0	2	2	3	2	1	1	1	-	2	0	
American Robin	46	59	43	53	56	48	41	40	50	-	-	-	148	133	148	-	158	169	175	100	144	95	121	158	146	101	91	-	82	102	
American White Pelican	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	0	0	0	1	0	0	0	0	0	-	0	0	
Baltimore Oriole	5	0	0	0	0	0	0	1	0	-	-	-	1	1	0	-	1	0	0	0	0	0	1	0	0	0	0	-	2	0	
Barn Swallow	33	16	11	8	16	18	5	13	18	-	-	-	42	53	74	-	57	54	32	50	14	15	22	40	25	39	25	-	29	16	
Black-capped Chickadee	0	0	1	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	1	0	2	2	1	1	1	1	1	0	-	0	2
Blue Grosbeak	0	0	0	0	0	0	0	0	0	-	-	-	0	0	1	-	0	0	0	1	0	0	1	1	1	0	1	0	-	1	1
Blue Jay	3	0	5	2	0	7	1	2	1	-	-	-	5	3	3	-	2	2	6	4	2	2	3	1	0	6	3	-	2	3	
Blue-gray Gnatcatcher	0	0	0	0	0	0	0	0	0	-	-	-	0	0	1	-	2	0	0	0	0	0	0	0	0	1	1	-	0	0	
Bobolink	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	1	0	
Brown Thrasher	0	1	0	0	3	1	2	2	3	-	-	-	4	6	5	-	7	7	1	0	5	0	2	4	2	5	1	-	5	5	
Brown-headed Cowbird	3	9	17	22	14	3	5	8	9	-	-	-	46	74	81	-	57	52	6	14	29	9	2	19	23	13	22	-	16	46	
Canada Goose	0	0	0	0	0	0	0	0	0	-	-	-	0	23	0	-	0	0	0	1	0	0	0	0	0	0	0	-	5	55	
Carolina Wren	0	0	0	0	0	0	0	0	0	-	-	-	1	0	0	-	0	0	0	0	2	0	0	0	0	0	0	-	0	0	
Cedar Waxwing	0	1	0	0	1	0	0	0	0	-	-	-	5	8	2	-	0	3	0	0	0	7	7	0	0	2	0	-	0	0	
Chimney Swift	2	7	0	4	1	3	1	3	4	-	-	-	9	2	2	-	0	2	1	0	3	3	2	0	2	2	0	-	0	1	
Chipping Sparrow	0	7	5	9	12	2	11	5	11	-	-	-	31	30	42	-	45	43	19	14	14	9	19	12	10	3	8	-	4	4	
Cliff Swallow	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	0	2	0	0	0	0	0	0	0	-	3	4	
Common Grackle	27	50	52	21	44	45	21	50	53	-	-	-	181	164	134	-	297	271	127	112	45	92	79	170	120	134	176	-	162	92	
Common Nighthawk	0	0	0	0	0	0	0	0	0	-	-	-	1	1	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	
Common Yellowthroat	1	3	1	2	5	7	3	0	2	-	-	-	3	5	5	-	6	2	6	2	3	4	4	3	3	4	4	-	1	5	
Cooper's Hawk	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	1	0	0	0	-	0	1	
Dickcissel	9	5	9	3	2	4	8	7	8	-	-	-	29	52	34	-	44	56	47	49	47	22	48	43	51	44	61	-	40	46	
Downy Woodpecker	0	0	0	0	0	1	0	0	0	-	-	-	0	0	1	-	0	0	0	0	0	1	1	0	0	0	0	-	0	0	
Eastern Bluebird	0	0	0	1	0	0	0	0	0	-	-	-	0	1	0	-	0	0	0	1	0	0	1	0	0	0	0	-	0	0	
Eastern Kingbird	1	0	0	3	0	0	0	0	1	-	-	-	3	6	5	-	2	2	0	0	6	1	0	1	1	1	3	3	-	1	2
Eastern Meadowlark	24	35	57	33	36	45	52	21	15	-	-	-	76	71	63	-	51	59	52	34	58	41	40	36	34	36	34	-	23	28	
Eastern Phoebe	0	0	0	0	0	0	0	0	0	-	-	-	4	2	2	-	3	3	3	1	1	0	2	2	2	0	1	-	0	0	
Eastern Towhee	0	0	0	0	0	0	1	0	0	-	-	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	0	
Eastern Wood-Pewee	0	2	0	2	1	2	1	0	2	-	-	-	2	3	0	-	0	1	1	2	0	1	1	2	0	3	1	-	0	1	
Eurasian Collared-Dove	0	0	0	0	0	0	0	0	0	-	-	-	0	0	0	-	0	0	2	3	1	1	6	2	2	4	3	-	7	1	
European Starling	199	86	122	81	59	151	58	114	61	-	-	-	223	134	265	-	291	327	97	112	62	78	51	42	83	52	158	-	44	47	
Field Sparrow	2	1	7	0	2	3	2	2	3	-	-	-	2	2	4	-	6	7	2	2	8	2	3	2	3	2	2	-	5	2	
Grasshopper Sparrow	2	1	0	4	1	0	1	0	0	-	-	-	4	1	1	-	1	1	0	0	0	0	0	0	0	0	0	-	0	0	
Gray Catbird	1	1	1	0	3	0	1	0	1	-	-	-	0	4	2	-	7	2	5	6	2	7	3	2	3	4	0	-	1	2	
Great Blue Heron	0	1	0	0	0	0	0	0	0	-	-	-	2	1	11	-	2	0	0	2	2	1	3	0	1	3	0	-	2	1	
Great Crested Flycatcher	0	0	0	0	0	0	0	0	0	-	-	-	0	1	0	-	0	0	2	0	0	0	0	1	0	0	1	-	2	2	

APPENDIX S – NATURAL RESOURCE INVENTORY REPORT

Natural Resource Information Report

Compiled by

The Livingston County Soil and Water Conservation District

Project Information

Natural Resource Information File Number	#032
Date the SWCD Board Reviews Report	December 13, 2023
Name of Petitioner	Illinois Generation LLC, Heritage Prairie Wind
Size of Parcel	89 turbines
Current Zoning	Agriculture
Proposed Zoning	Special Use - Wind
Parcel Number(s)	
Contact Person	Allen Wynn

Copies of this report and notification of the proposed land use changes were provided to:	Yes	No
The Petitioner	X	
The Petitioners Legal Representation		X
Livingston County Zoning Board of Appeals	X	
Livingston County SWCD District Files	X	
Report Prepared By: <i>Rebecca Taylor</i> Position: <i>Resource Conservationist</i>		

Purpose and Intent of This Report

The purpose of this report is to inform officials of the local governing body and other decision-makers with natural resource information. This information may be useful when undertaking land use decisions concerning variations, amendments or relief of local zoning ordinances, proposed subdivision of vacant or agricultural lands and the subsequent development of these lands. This report is a requirement under Section 22.02a of the Illinois Soil and Water Conservation Districts Act.

The intent of this report is to present the most current natural resource information available in a readily understandable manner. It contains a description of the present site conditions, the present resources, and the potential impacts that the proposed change may have on the site and its resources. The natural resource information was gathered from standardized data, on-site investigations and information furnished by the petitioner. This report must be read in its entirety so that the relationship between the natural resource factors and the proposed land use change can be fully understood.

Due to the limitations of scale encountered with the various resource maps, the property boundaries depicted in the various exhibits in this report provide a generalized representation of the property location and may not precisely reflect the legal description of the PIQ (Parcel in Question).

This report, when used properly, will provide the basis for proper land use change decisions and development while protecting the natural resource base of the county. It should not be used in place of detailed environmental and/or engineering studies that are warranted under most circumstances, but in conjunction with those studies.

The conclusions of this report in no way indicate that a certain land use is not possible, but it should alert the reader to possible problems that may occur if the capabilities of the land are ignored. Any questions on the technical data supplied in this report, or if anyone feels that they would like to see more additional specific information to make the report more effective, please contact:

Livingston County Soil and Water Conservation District
1510 W. Reynolds St.
Pontiac, IL 61764
Phone: 815-844-6127, ext. 3
E-mail: rebecca.m.taylor@il.nacdnet.net

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Executive Summary

Natural Resource Information File Number	#032
Petitioners Name	Illinois Generation LLC, Heritage Prairie Wind
Contact Person	Allen Wynn
Unit of Government Responsible for Land Use Change	Livingston County Zoning Board of Appeals
Location of Parcel	Round Grove, Dwight, and Broughton Townships
Property Address, PIN Number	Multiple
Existing Land Use	Agriculture
Surrounding Land Use	Agriculture
Proposed Land Use	Special Use – Wind
Proposed Water Supply	N/A
Proposed Wastewater Treatment	N/A

Highlights of the Natural Resource Concerns

Land Evaluation and Site Assessment (LESA): LE 88 + SA 153 = 241. This is a high impact to agriculture.

Prime Farmland: Prime farmland soils are an important resource for Livingston County. Each soil type is assigned a rating, which is then used to determine the LESA score for the site. The soils in the project area are either prime farmland, prime farmland if drained, or farmland of statewide importance.

Sediment and Erosion Control: Development of this site should include a sedimentation and erosion control plan which is required by the Illinois EPA. The Livingston County Soil and Water Conservation District recommends the use of NRCS guidelines and the Illinois Urban Manual in selecting the proper Best Management Practices for each development site.

Aquifer Sensitivity: According to the Illinois State Geological Survey, there is a major sand and gravel aquifer located in the Southwest corner of the project area in Round Grove Township and the Southern part of the project area in Dwight Township. The potential for aquifer contamination would be high in these areas. The rest of the project area has no aquifer material within 50 feet of the surface area. The potential for aquifer contamination would be low in these areas.

Wetlands: The National Wetland Inventory *does identify* wetland areas in the project area. At least one wetland has construction planned to cross it. Other identified wetland areas are very close to construction. A wetland delineation should be completed by a certified delineations specialist to determine exact locations so they can be protected during development.

Floodplain: Some sites in the project area are in the floodplain. Because of the type of construction planned for these sites, it would probably be better if they were moved. If the sites are not moved, Best Management Practices should be utilized during development of these sites and special permitting may be required. More information can be found on the maps for each site.

Hydric Soils: Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil. The project area does have some hydric soils or soils that have hydric components included in them.

Ponding/Flooding Frequency: Some of the soils in this project are poorly drained or very poorly drained and will frequently flood or pond. The rating of "frequent" means that flooding or ponding occurs, on average, more than once in two years and the chance of flooding or ponding is more than 50% in any year. Planners need to take this into consideration as they

develop the project area. More information can be found on the soil information sheets for each site.

Conservation Concepts for Development

- Encourage Common Open Space: (a common area without property lines and managed by professionals contracted by a homeowners association). Common areas may also protect rivers, lakes, streams, wetlands, wildlife, and water quality.
- Surface Ground Water Quality: Minimize impacts of runoff by using best management practices (BMPs) such as: buffers, vegetative swales (instead of curb and gutter), constructed wetlands and wetland bottom detention to improve the quality of runoff, and protect environmentally sensitive areas (wetlands, rivers, and streams).
- Groundwater Quantity: reducing impervious areas in groundwater recharge soils maximizes infiltration.
- Maintain existing vegetation throughout the development process: BMPs such as eliminating mass grading, protecting existing trees, wooded fence rows and odd areas, vegetated hillsides and wetlands.
- Permanently stabilize all cropland going to development: BMPs such as permanent or temporary vegetative cover. Using perennial grasses and legumes would provide a filter for erosion, wildlife habitat during development, and stabilize the highly erodible land from the erosive forces of rainfall.
- Permanently stabilize all stormwater and drainage: conveyance easements prior to their use.
- Plan for the establishment of native vegetation in all common areas, drainage areas and conservation areas: Utilize native vegetation that improves biological diversity for water quality and wildlife habitat, and prohibits the use of fertilizers, pesticides and mowing.
- Minimize disturbance of sensitive highly erodible soils: to preserve the hydrologic condition of the soil profile for improving permeability and infiltration that promotes groundwater recharge.
- Restore existing vegetation: to improve wildlife habitat, stormwater runoff, and water quality.
- Maintenance: Maintain all land for long-term benefits.
- Use buffers: for esthetics, water quality and natural resource protection.
- Eliminate stormwater detention drainage into agricultural drain tile.
- Erosion and Sediment Control Plan: highly erodible soils require a well-planned and implemented erosion and sediment control plan utilizing the above referenced BMPs.

Livingston County SWCD Land Use Opinion

Land Use Opinion: The Livingston County Soil and Water Conservation District (SWCD) has reviewed the natural resource information for a proposed wind farm in Round Grove, Dwight, and Broughton Townships in Livingston County.

The Livingston County SWCD has always been an advocate for preserving prime farmland whenever feasible. The project area does contain prime farmland soils based on the soil survey. Once these soils have been disturbed, it may be difficult to bring them back to the productive level they currently have.

A Land Evaluation and Site Assessment (LESA) was conducted for the project area. The land evaluation indicates that these are very productive soils. The site assessment portion of the evaluation looks at items such as roads and infrastructure, and the degree to which the affected local government can bear the additional costs the development may generate. A summary of the LESA score information indicates that this project area has a high impact on agriculture from the proposed development.

A soil erosion and sediment control plan needs to be in place. Sediment leaving the area can damage streams, ponds, and wetlands. Best Management Practices will need to be in place to protect the site and surrounding areas from erosion and sedimentation.

The Livingston County SWCD would recommend a sub-surface drainage tile investigation be completed before the project sites are disturbed. If drainage tile is damaged during the implementation of this project, it should be replaced or repaired according to the included specifications. The damage to drainage tile on these project sites could have an adverse effect on neighboring properties.

The Livingston County SWCD would like for the developer to have a comprehensive decommissioning plan in place to ensure that this property could again be productive after the project has ended. Finally, all buried utility lines need to be identified and avoided.

The information that is included in this Natural Resources Information Report is to assure the Land Developers take into full consideration the limitations of the land that they wish to develop. Guidelines and recommendations are also a part of this report and should be considered in the planning process. The Natural Resources Information Report is required by the Illinois Soil and Water Conservation District Act (Ill Compiled Statutes, Ch. 70 Par 405/22.02a)

Lee Bunting
Livingston County SWCD Chairman

Heritage Prairie Wind Farm NRI Report

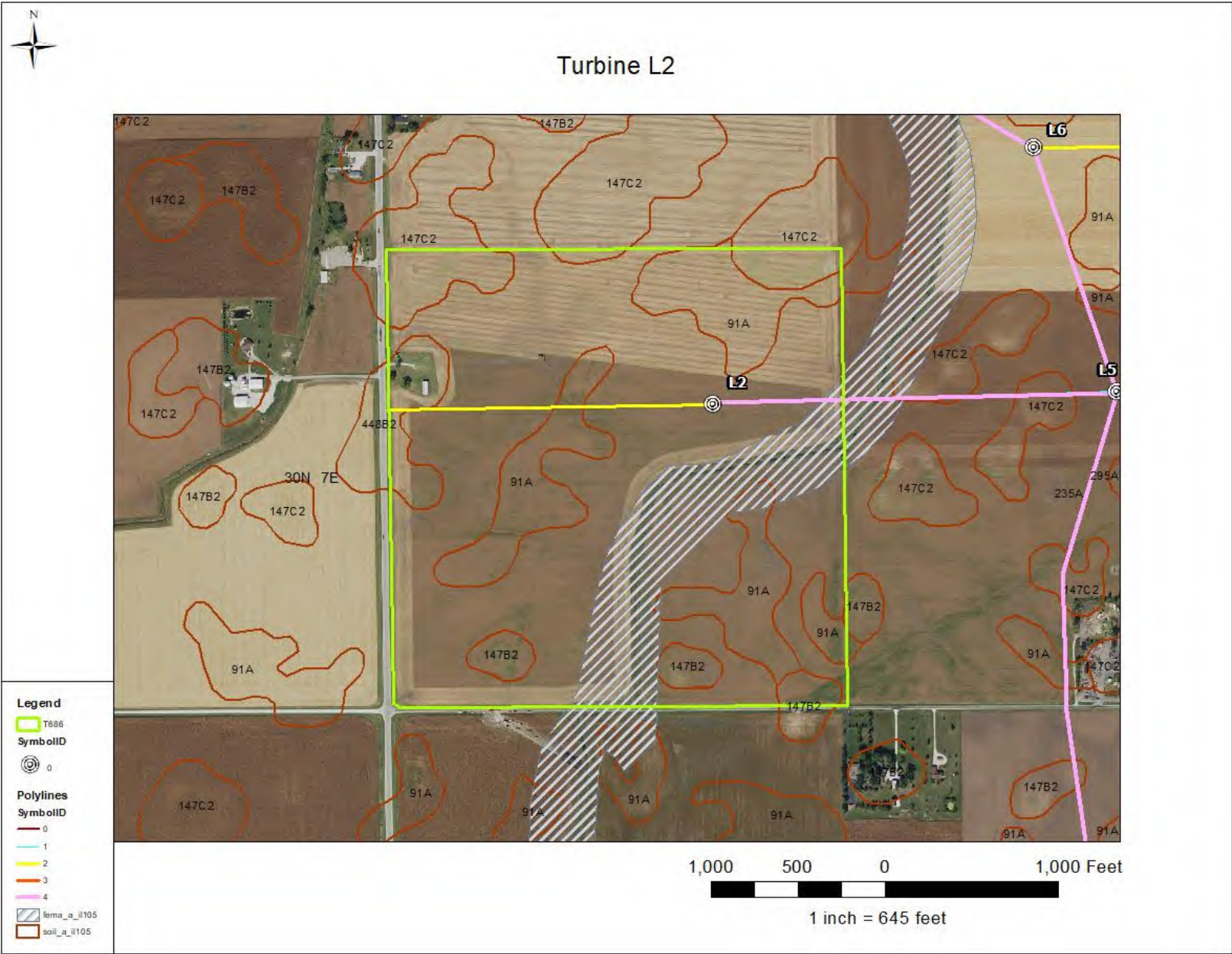
Site Summary

Turbine Number: L2

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
91A	Swygert silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 158 Soybeans - 52
147B2	Clarence silty clay loam, 2-4% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 130 Soybeans - 46
147C2	Clarence silty clay loam, 4-6% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 127 Soybeans - 45
235A	Bryce silty clay, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 162 Soybeans - 54
448B2	Mona silt loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 152 Soybeans - 48

Notes: These soils can be wet and are prone to rutting. There are limitations on construction of roads and trenches, so caution should be exercised. The crane path and collection lines will pass through the 100-year floodplain and cross a waterbody with trees. Site is in the Gooseberry Creek Watershed.



Heritage Prairie Wind Farm NRI Report

Site Summary

Turbine Number: L4

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
69A	Milford silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 171 Soybeans - 57
91A	Swygert silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 158 Soybeans - 52
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
235A	Bryce silty clay 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 162 Soybeans - 54
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. The crane path and collection lines to the South will pass through the 100-year floodplain and cross a

waterbody. Also, the crane path and collection lines to the South also go through an area that is prone to ponding. The turbine is located in the Gooseberry Creek watershed and the access road crosses into the Woods Run-Gooseberry Creek watershed.

Heritage Prairie Wind Farm NRI Report

Site Summary

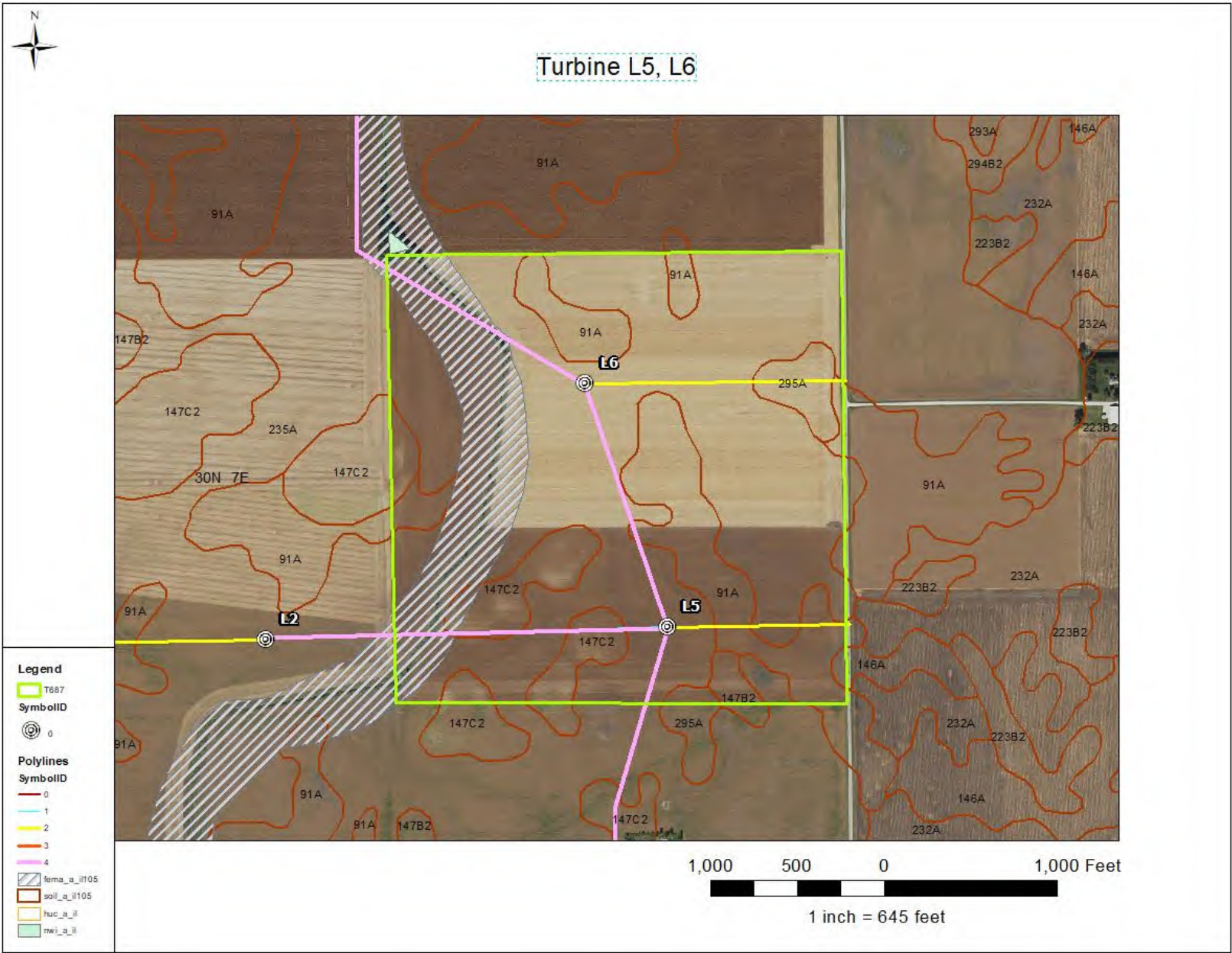
Turbine Number: L5, L6

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
91A	Swygert silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 158 Soybeans - 52
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
147B2	Clarence silty clay loam, 2-4% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 130 Soybeans - 46
147C2	Clarence silty clay loam, 4-6% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 127 Soybeans - 45
235A	Bryce silty clay 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 162 Soybeans - 54
295A	Mokena silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 172 Soybeans - 54

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. The crane paths and the collection lines will cross the 100-year floodplain and a waterbody. The crane

path and collection lines to the North will also pass close to a possible wetland, based on the National Wetland Inventory. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

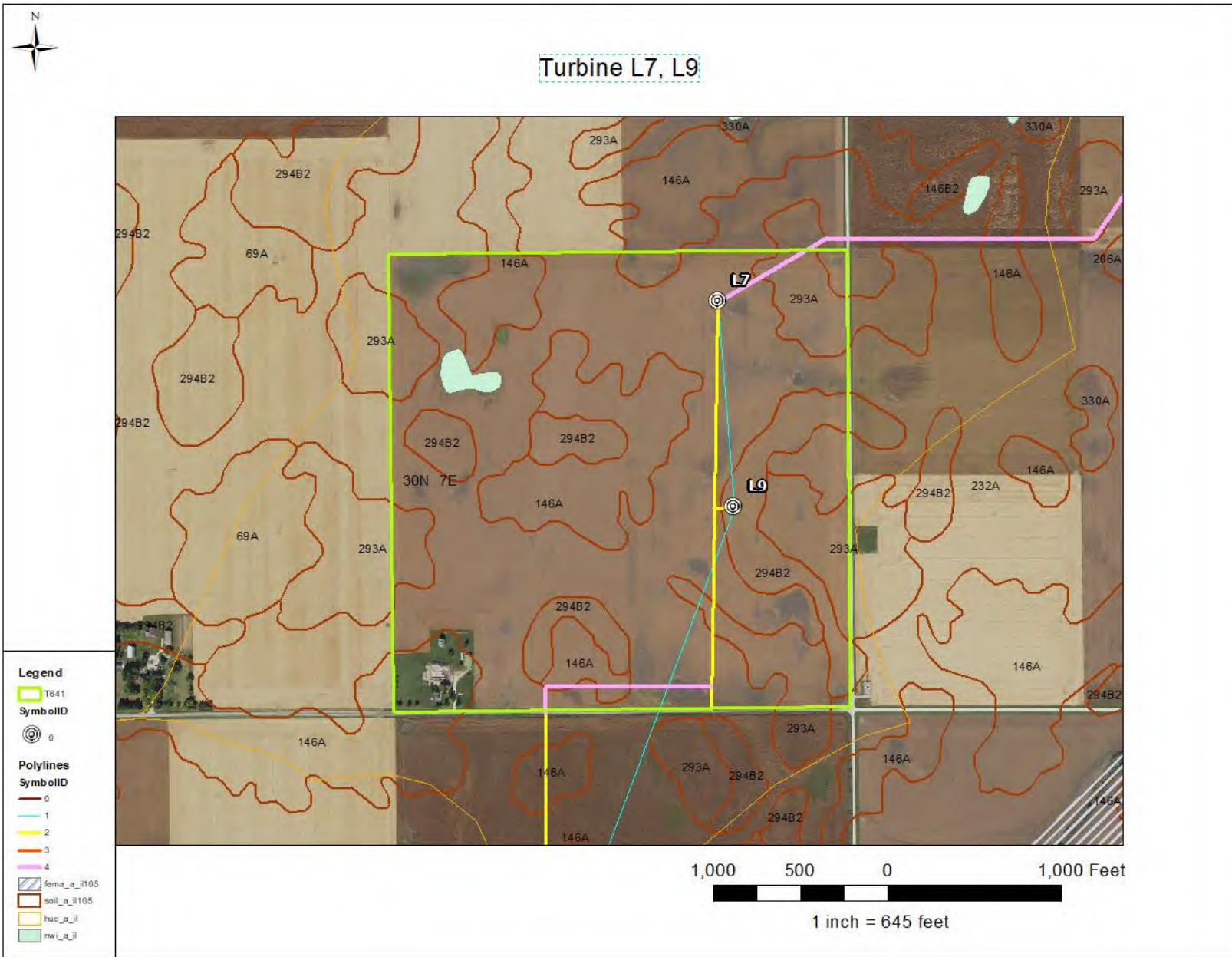
Site Summary

Turbine Number: L7, L9

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution is advised. The crane paths, access roads, and collection lines all pass through areas prone to ponding. Site is in the Woods Run-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

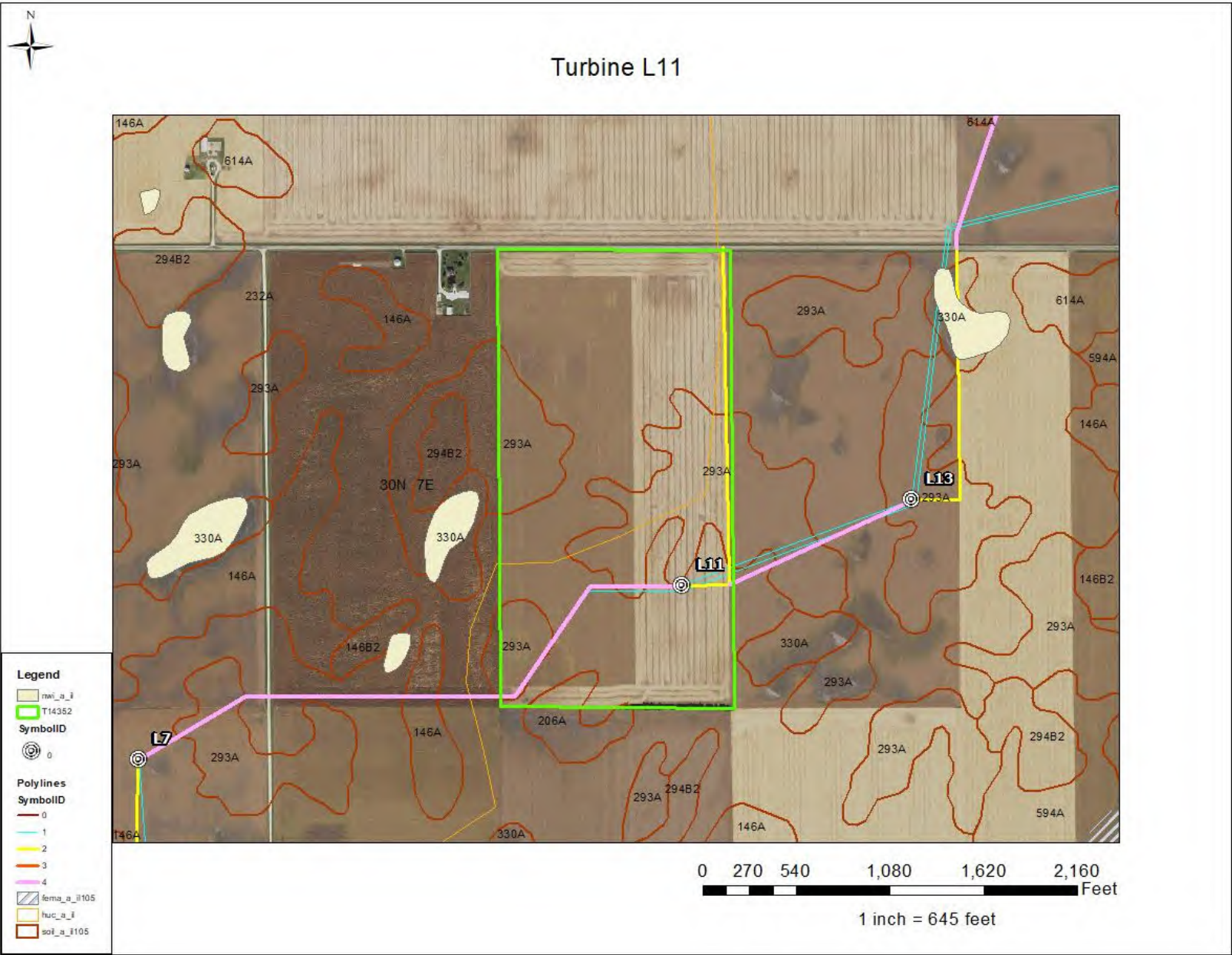
Site Summary

Turbine Number: L11

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
206A	Thorp silt loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

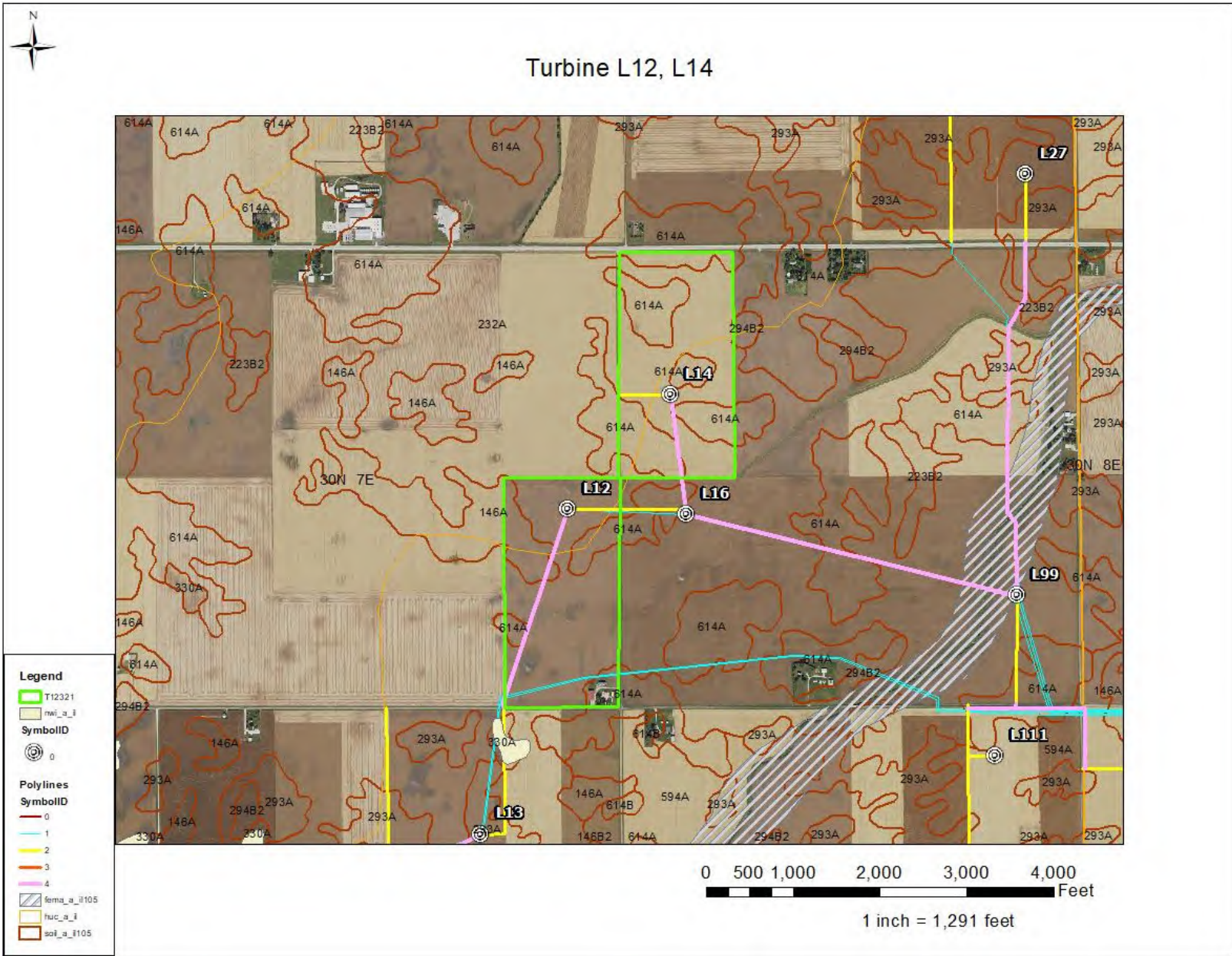
Site Summary

Turbine Number: L12, L14

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Crane path from Turbine L12 will pass through areas that are prone to ponding. Sites are in the Woods Run-Gooseberry Creek and Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

Site Summary

Turbine Number: L13

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
330A	Peotone silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Very poorly drained	NHEL	Frequent ponding	Corn - 164 Soybeans - 55

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. The access road and collection lines going North will pass through an identified wetland. These will need to be moved to not affect the wetland. The access road, crane path and collection lines also pass through areas prone to ponding. Site is in the Gooseberry Creek watershed.

Heritage Prairie Wind Farm NRI Report

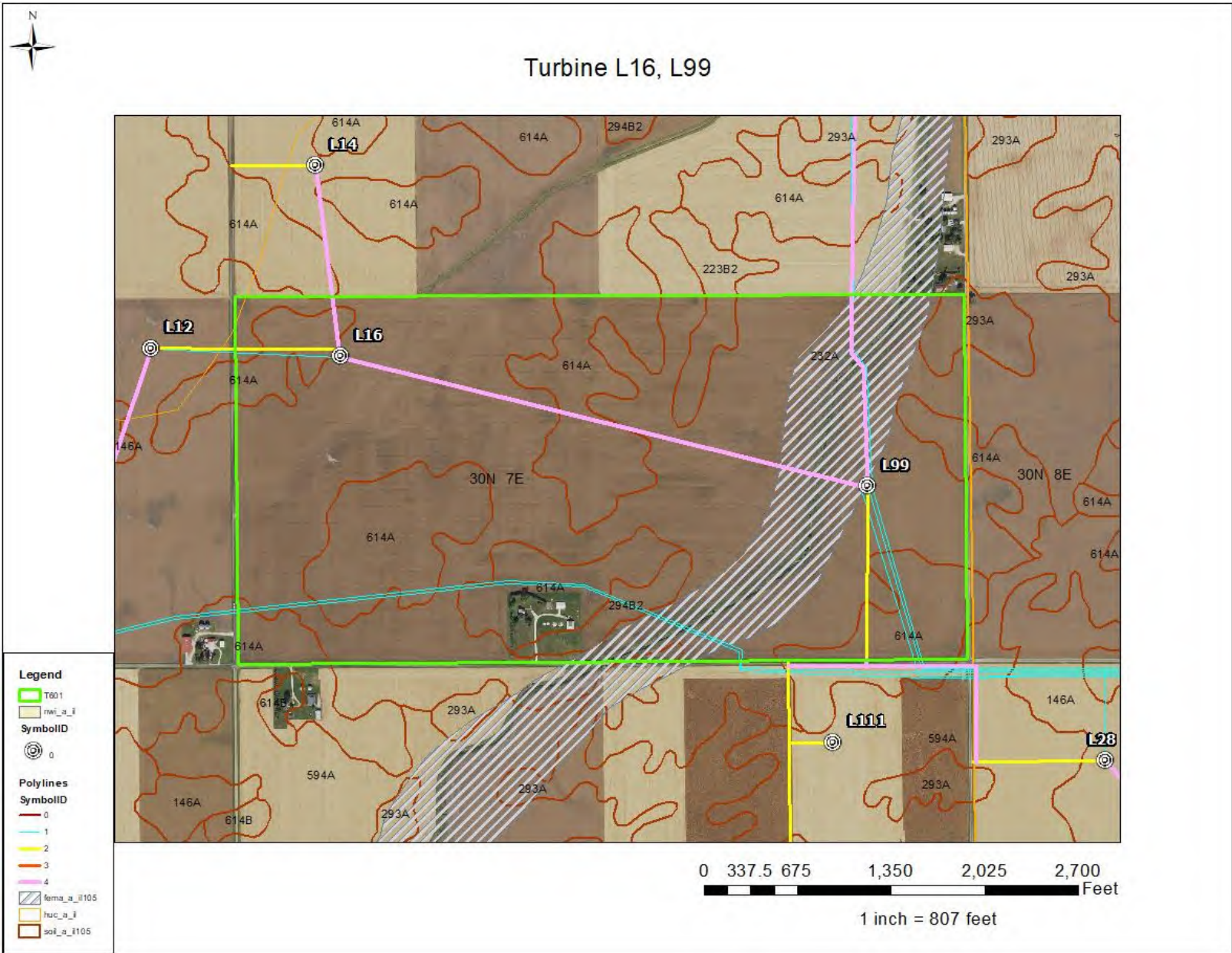
Site Summary

Turbine Number: L16, L99

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
223B2	Varna silt loam, 2-4% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 150 Soybeans - 48
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Turbine L99 is on the edge of the 100-year floodplain. The crane paths and collection lines cross the 100-year floodplain, which is along a waterbody that would also be crossed. One of the crane pats and collection lines also crosses an area of concentrated flow on the west side of the parcel. Sites are in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

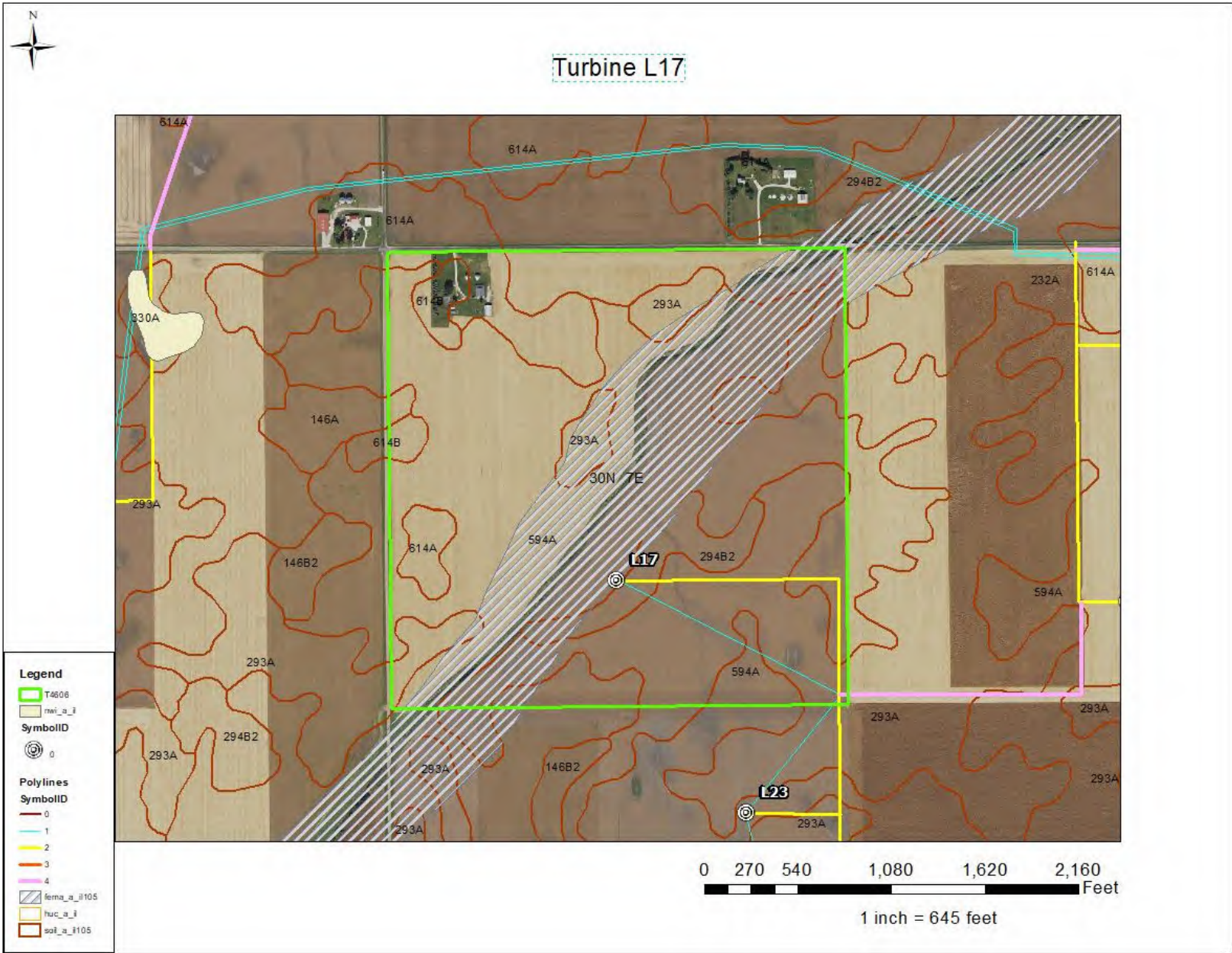
Site Summary

Turbine Number: L17

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	NHEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57
614B	Chenoa silty clay loam, 2-5% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 172 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. The turbine site is right on the edge of the 100-year floodplain. Collection lines will go through areas prone to ponding. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

Site Summary

Turbine Number: L18

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
150B	Onarga fine sandy loam, 2-5% slopes	All areas are prime farmland	No	A	Well drained	NHEL	None	Corn - 147 Soybeans - 48
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. The crane path and collection lines will pass through areas that are prone to ponding. Site is in the Gooseberry Creek watershed.

Heritage Prairie Wind Farm NRI Report

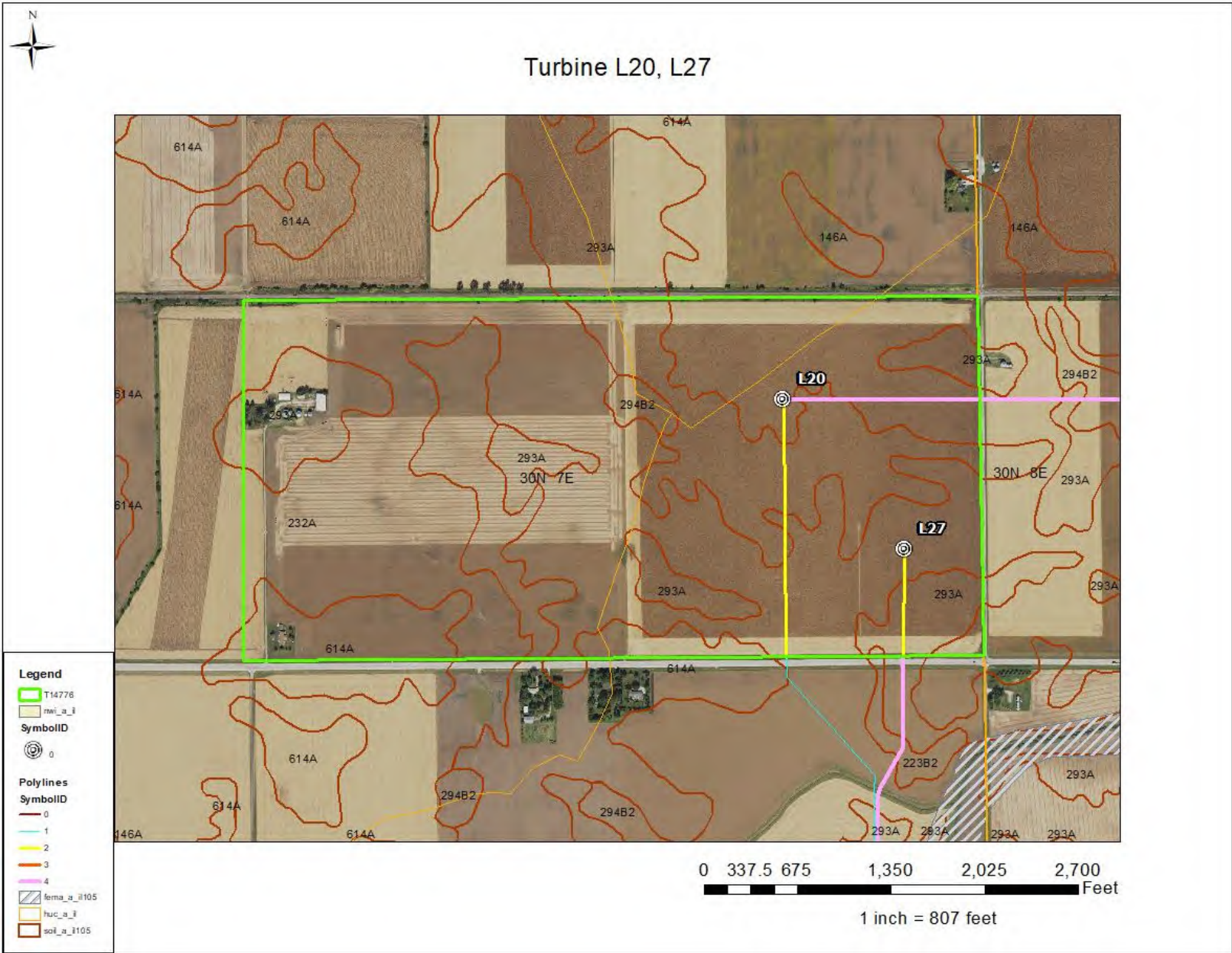
Site Summary

Turbine Number: L20, L27

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
223B2	Varna silt loam, 2-4% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 150 Soybeans - 48
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Sites are in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

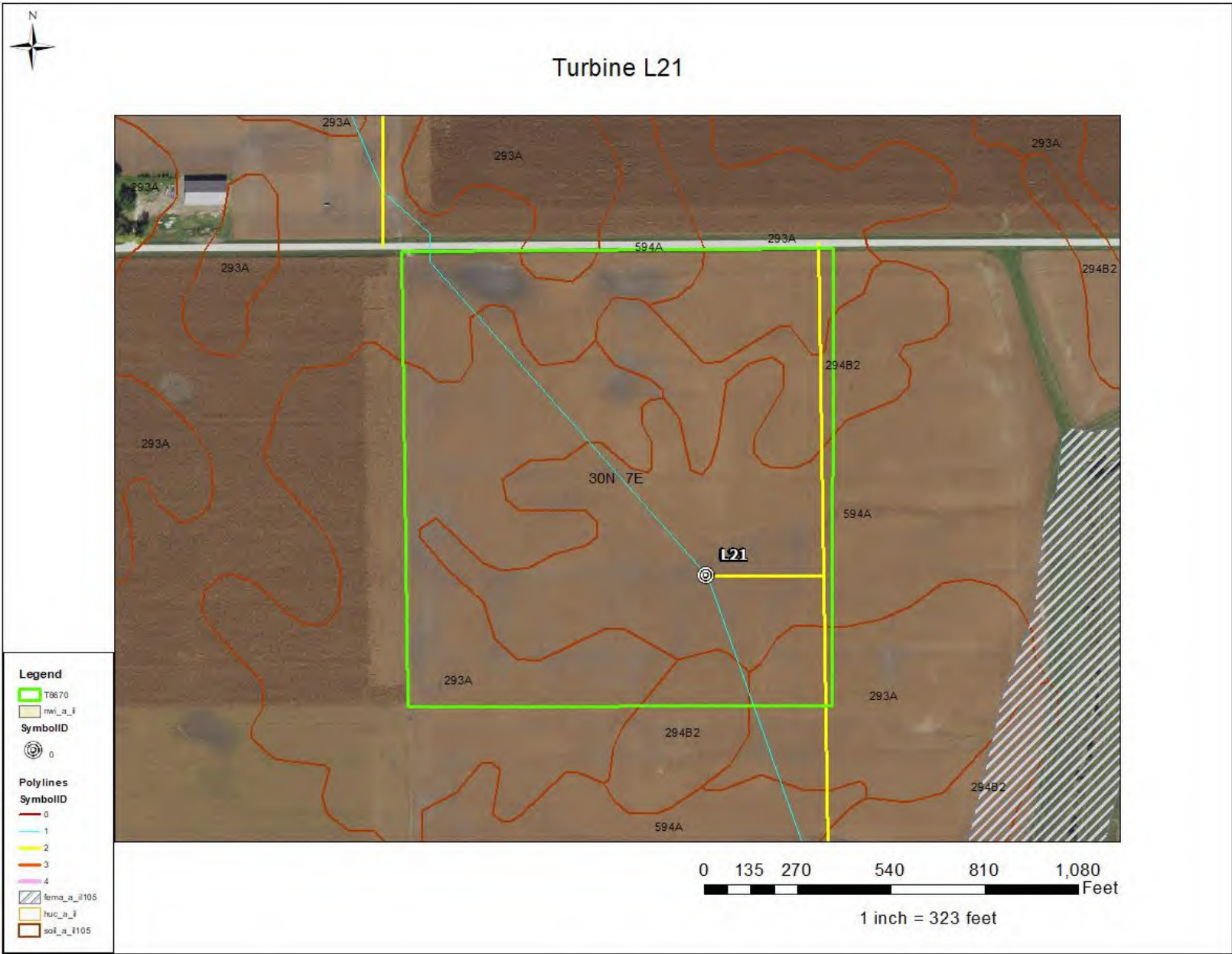
Site Summary

Turbine Number: L21

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on construction of roads and trenches, so caution should be exercised. The collection lines to the North will run through areas that are prone to ponding. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

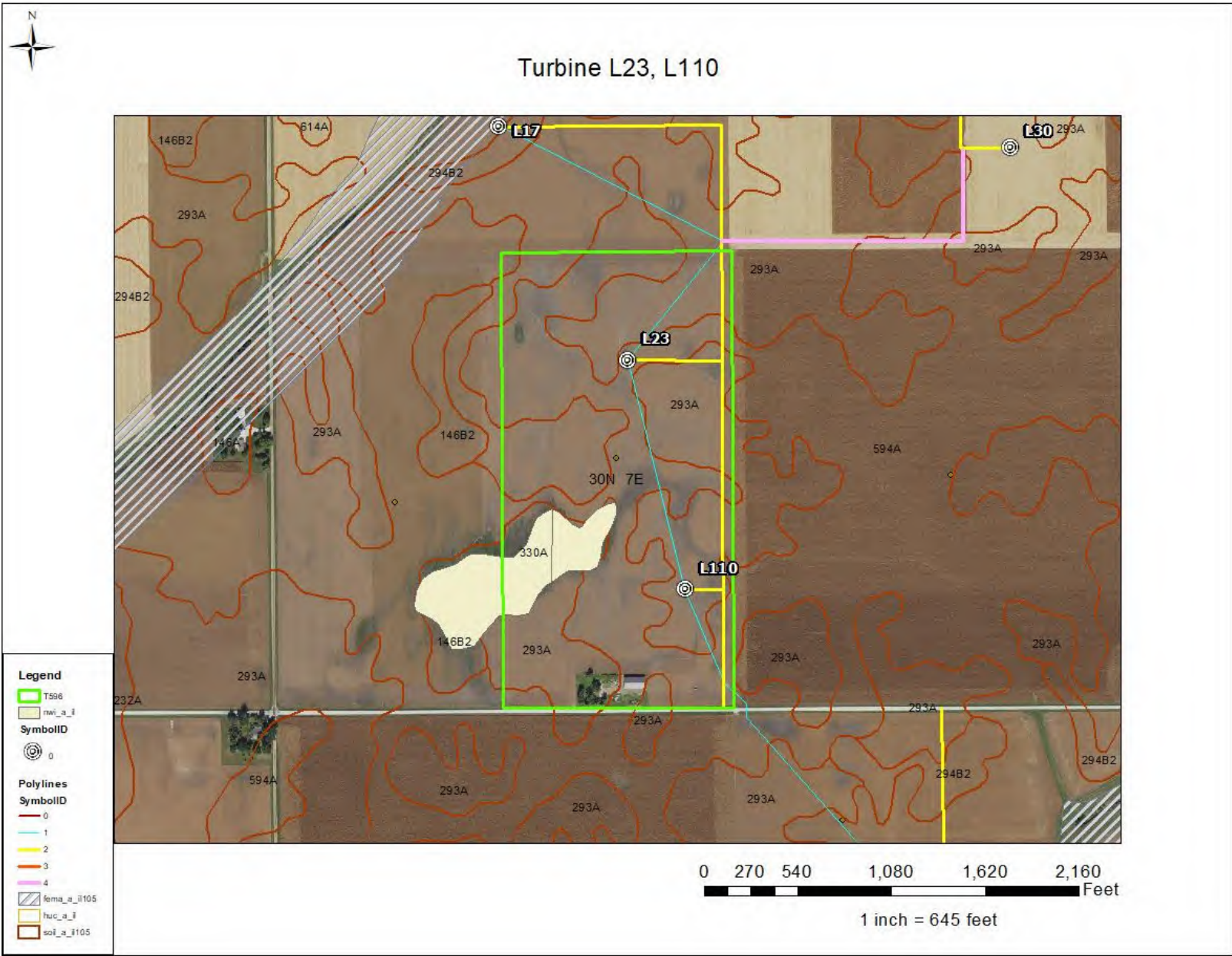
Site Summary

Turbine Number: L23, L110

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
330A	Peotone silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Very poorly drained	NHEL	Frequent ponding	Corn - 164 Soybeans - 55
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on construction of roads and trenches, so caution should be exercised. Access roads and collection lines run through areas that are prone to ponding. There is an identified wetland on the parcel about 275 feet from the proposed collection lines. Sites are in the Gooseberry Creek watershed.

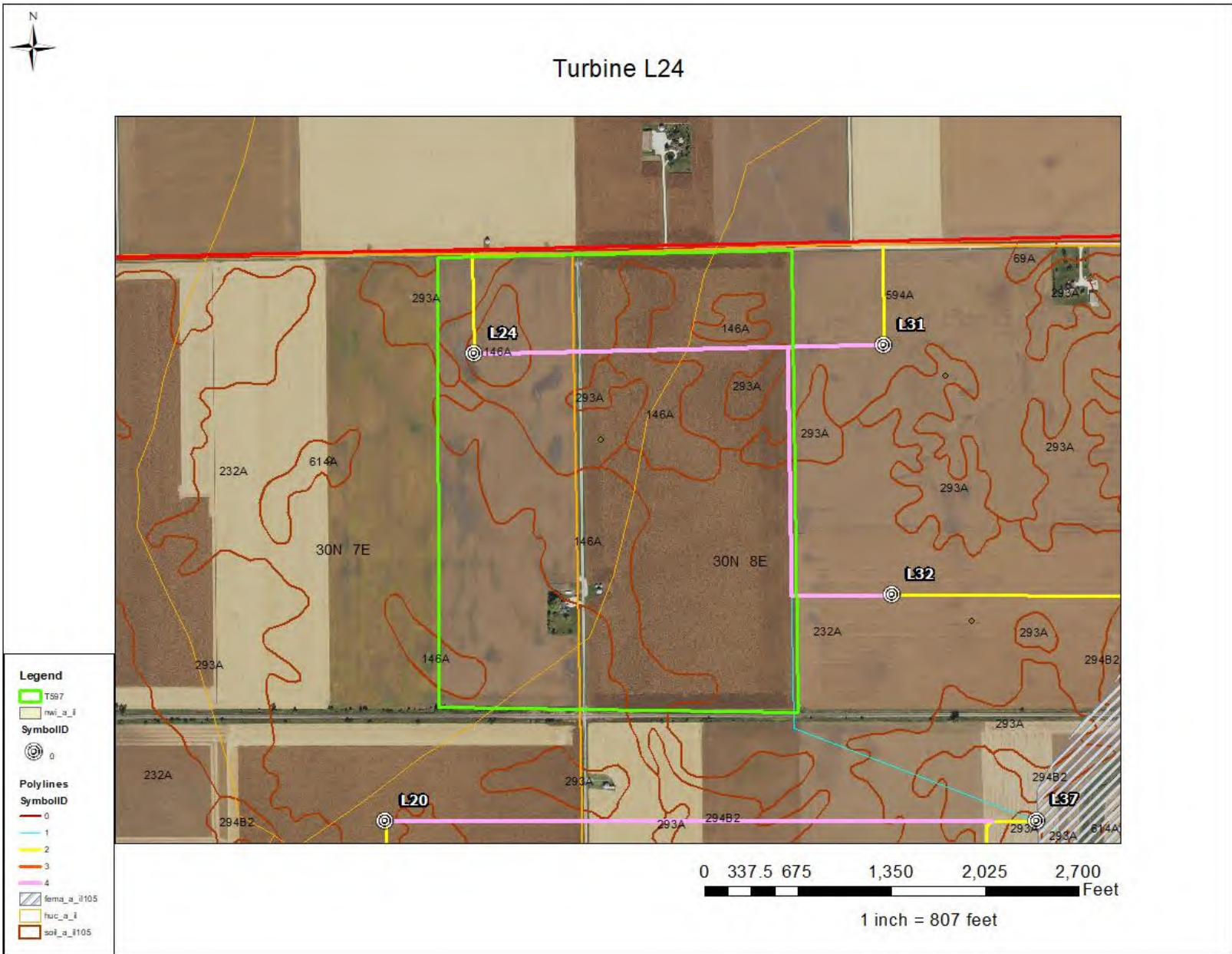


Heritage Prairie Wind Farm NRI Report
Site Summary
Turbine Number: L24

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Turbine is sited in an area that is prone to ponding. Site is in the Jackson Creek-Mazon River and Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

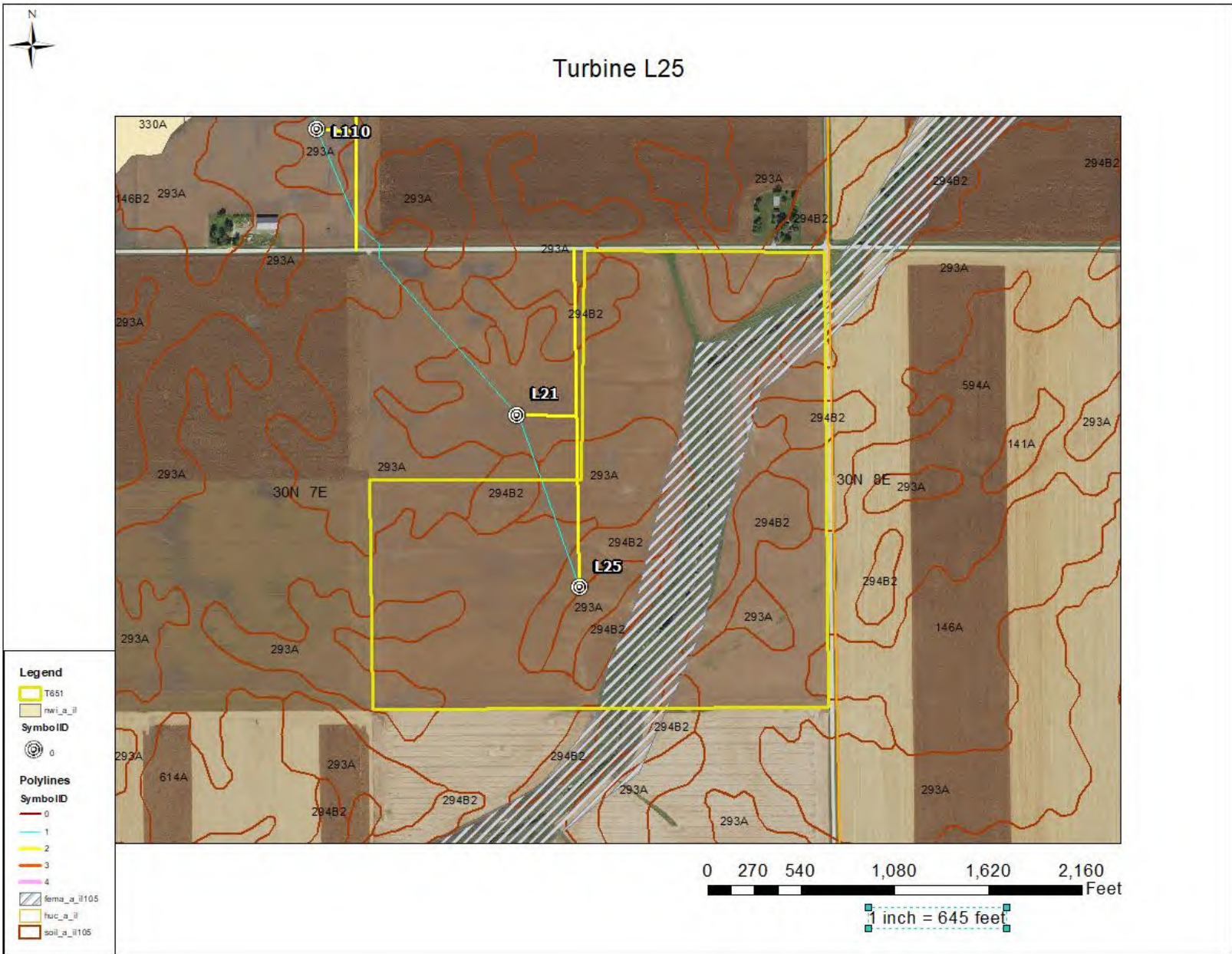
Site Summary

Turbine Number: L25

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Access road does cross an area of concentrated flow. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

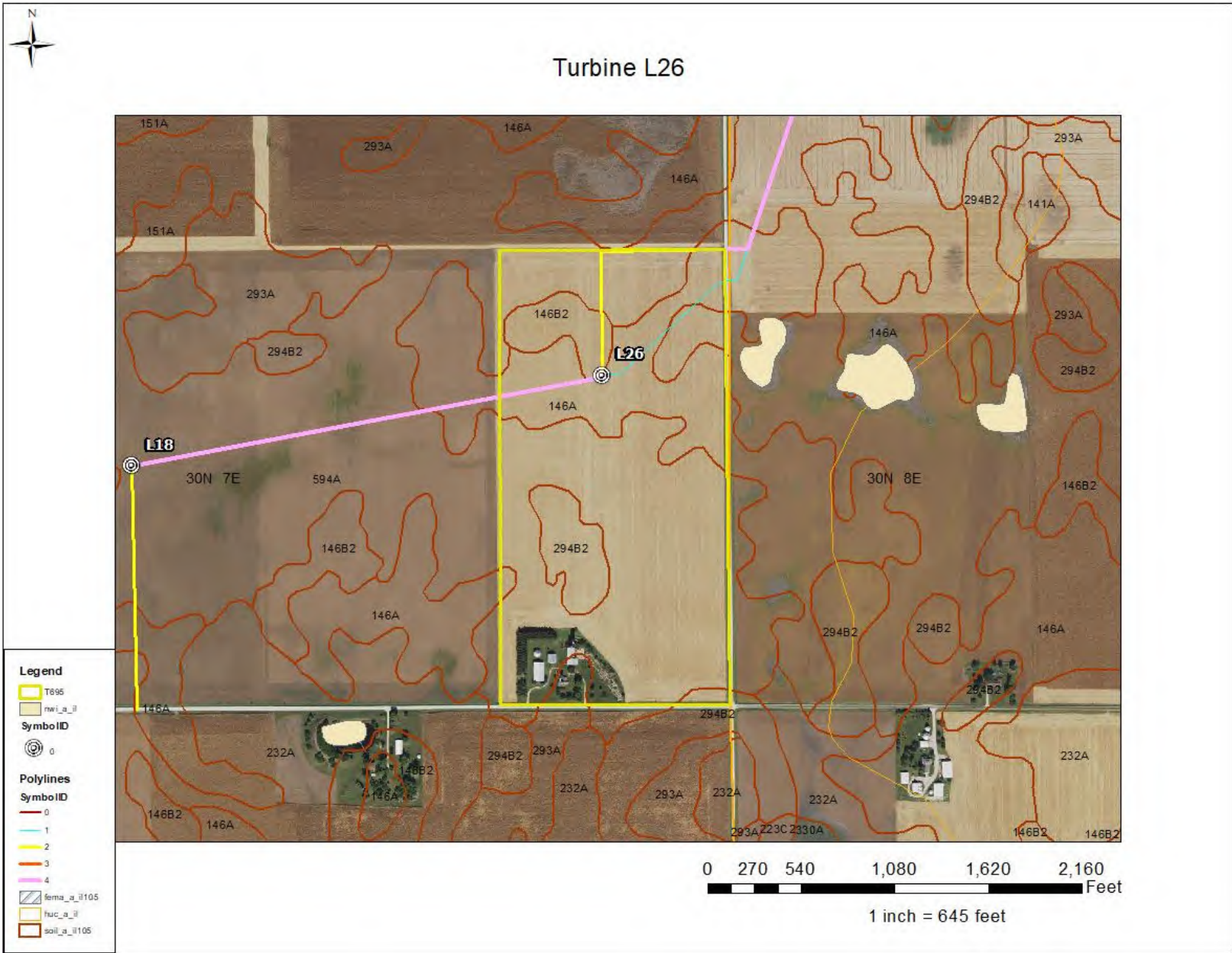
Site Summary

Turbine Number: L26

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

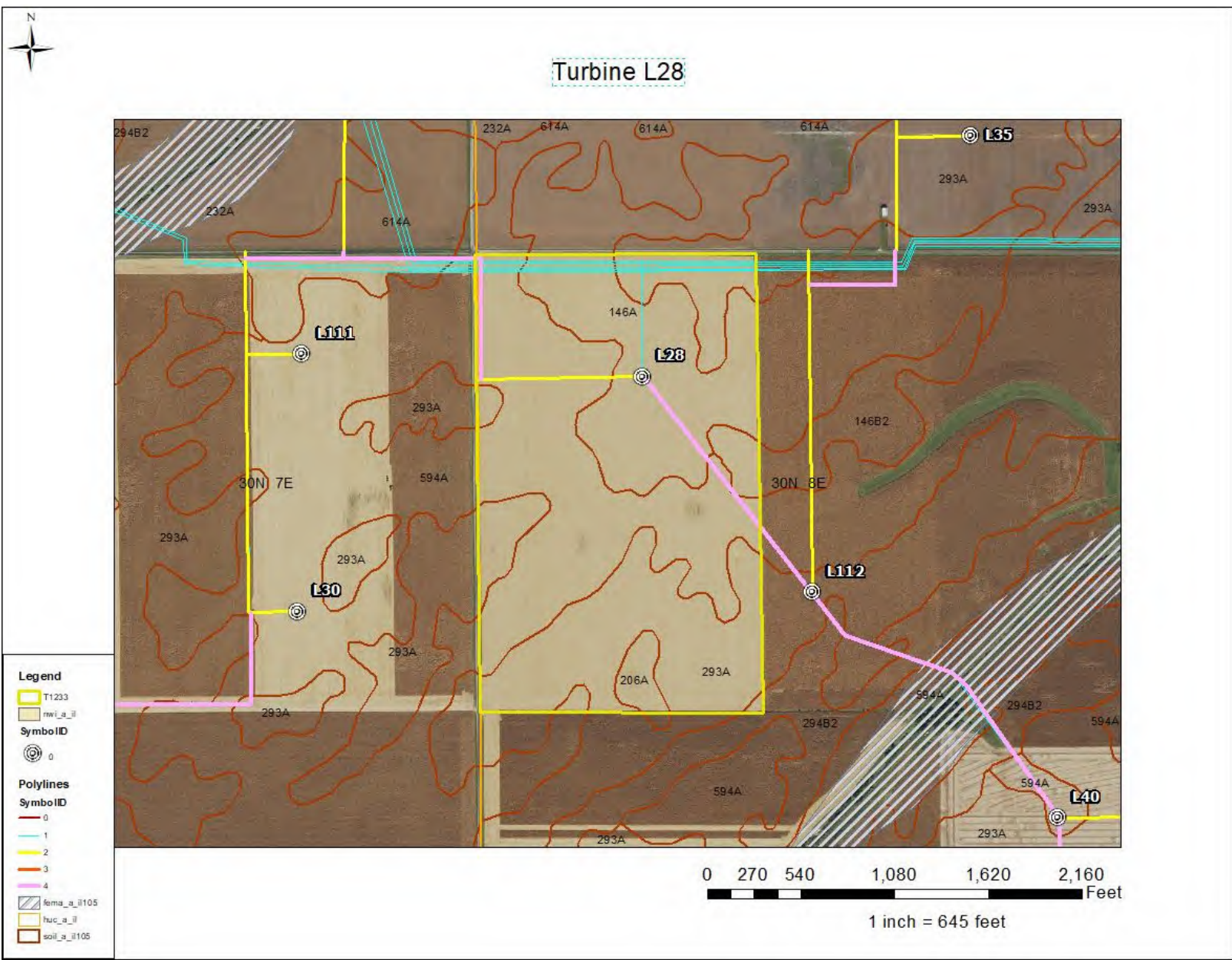
Site Summary

Turbine Number: L28

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
206A	Thorp silt loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

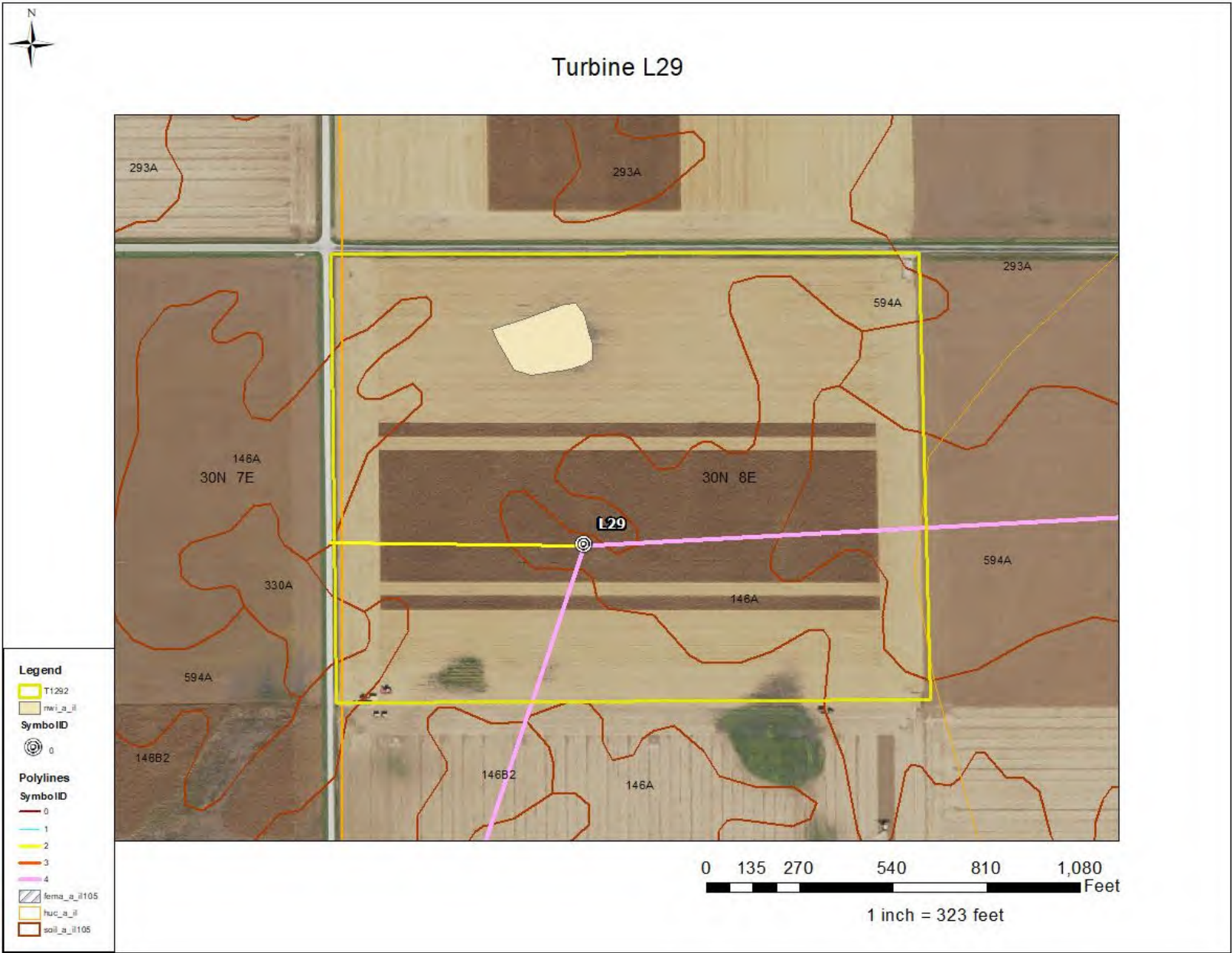
Site Summary

Turbine Number: L29

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
330A	Peotone silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Very poorly drained	NHEL	Frequent ponding	Corn - 164 Soybeans - 55
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

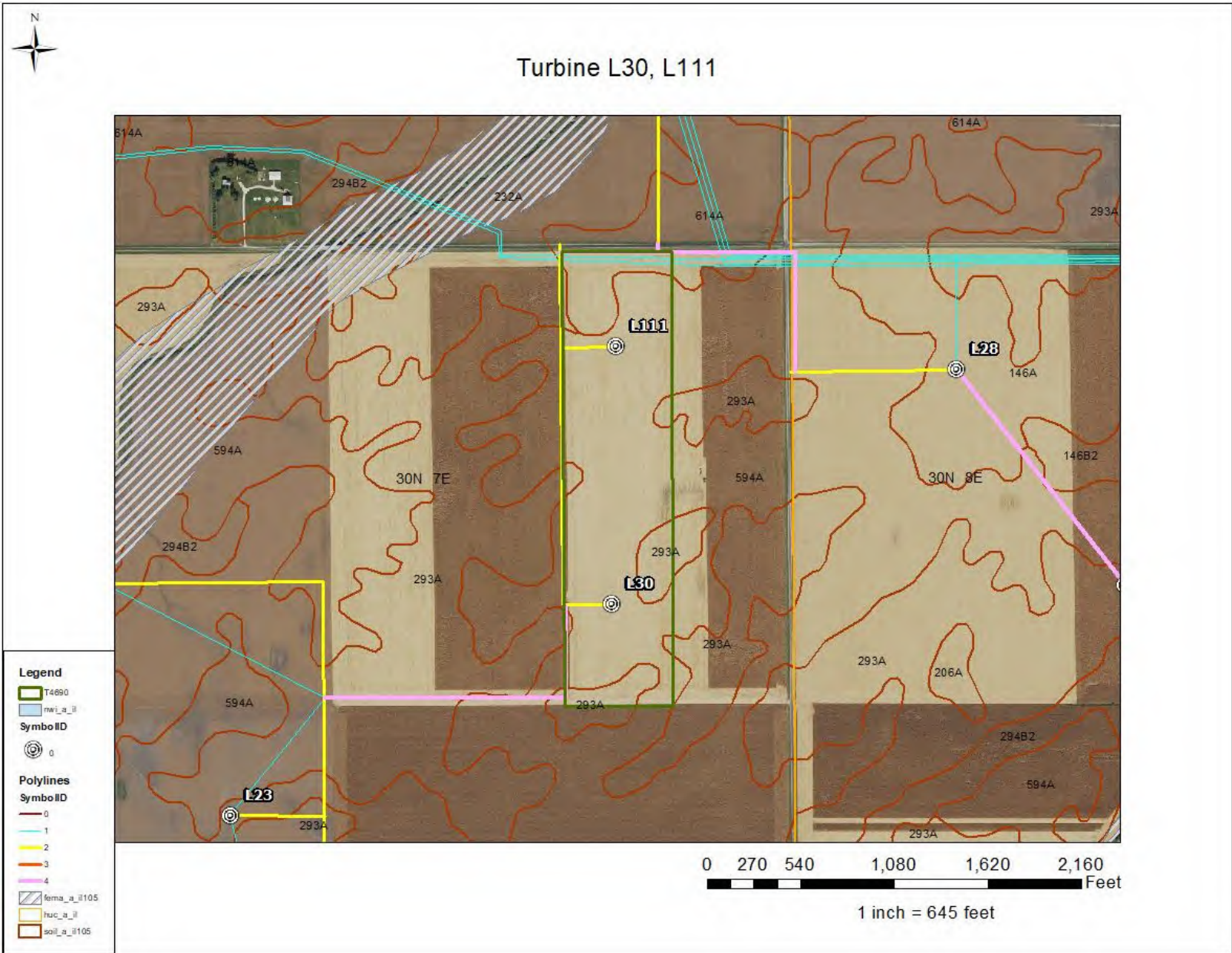
Site Summary

Turbine Number: L30, L111

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

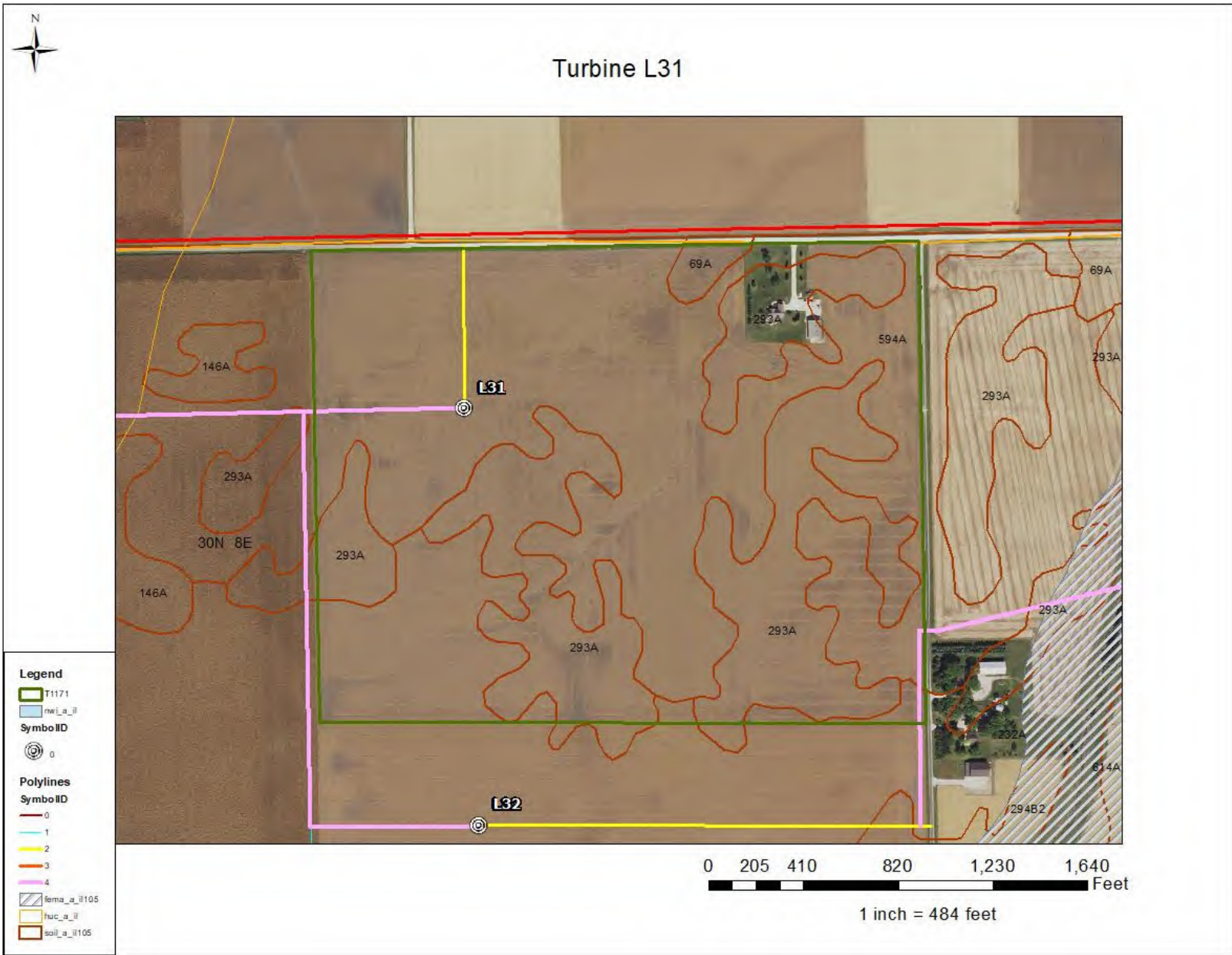
Site Summary

Turbine Number: L31

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
69A	Milford silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 171 Soybeans - 57
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

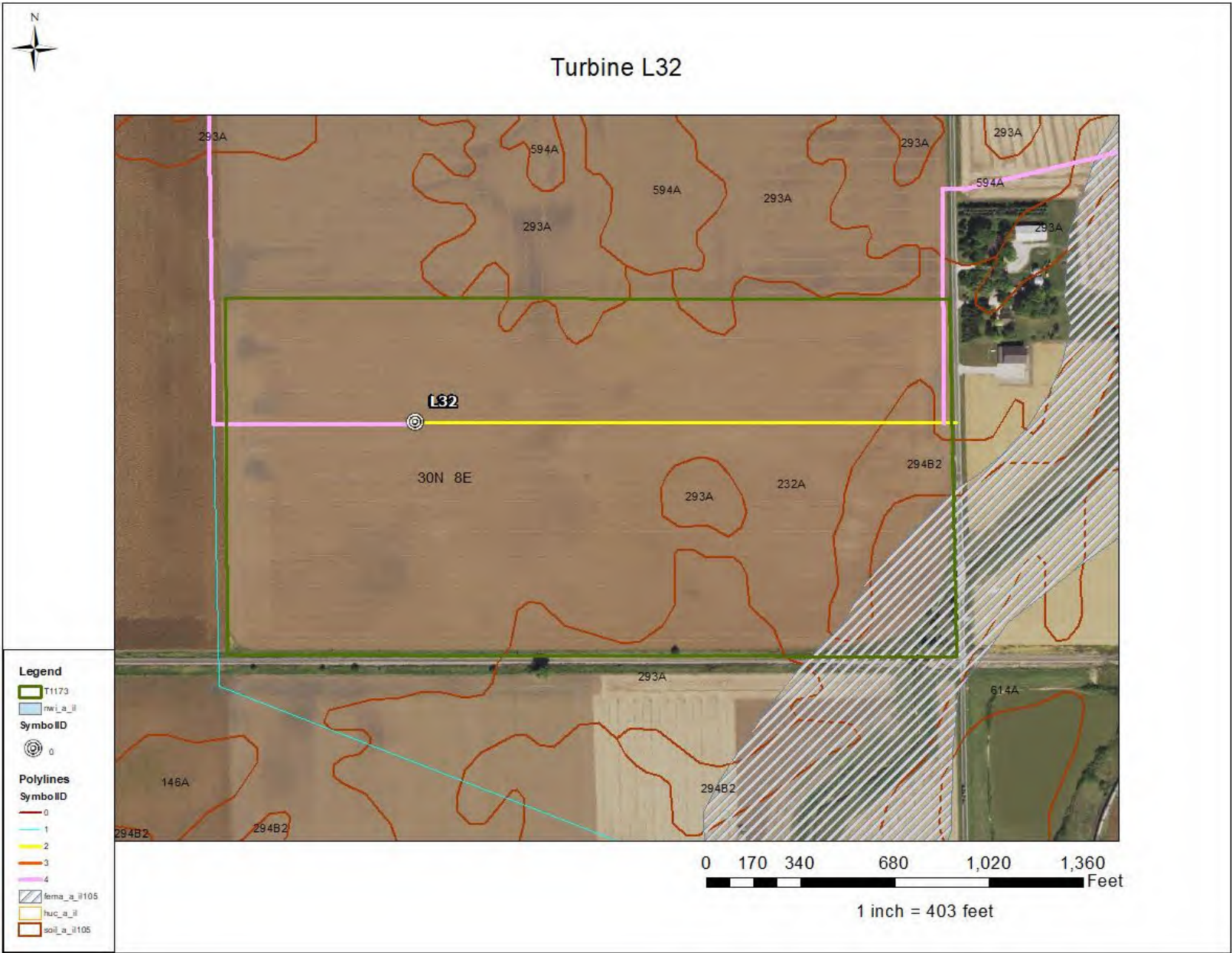
Site Summary

Turbine Number: L32

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. There was an area of concentrated flow on the East side of the site that the proposed access road and collection lines will cross. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

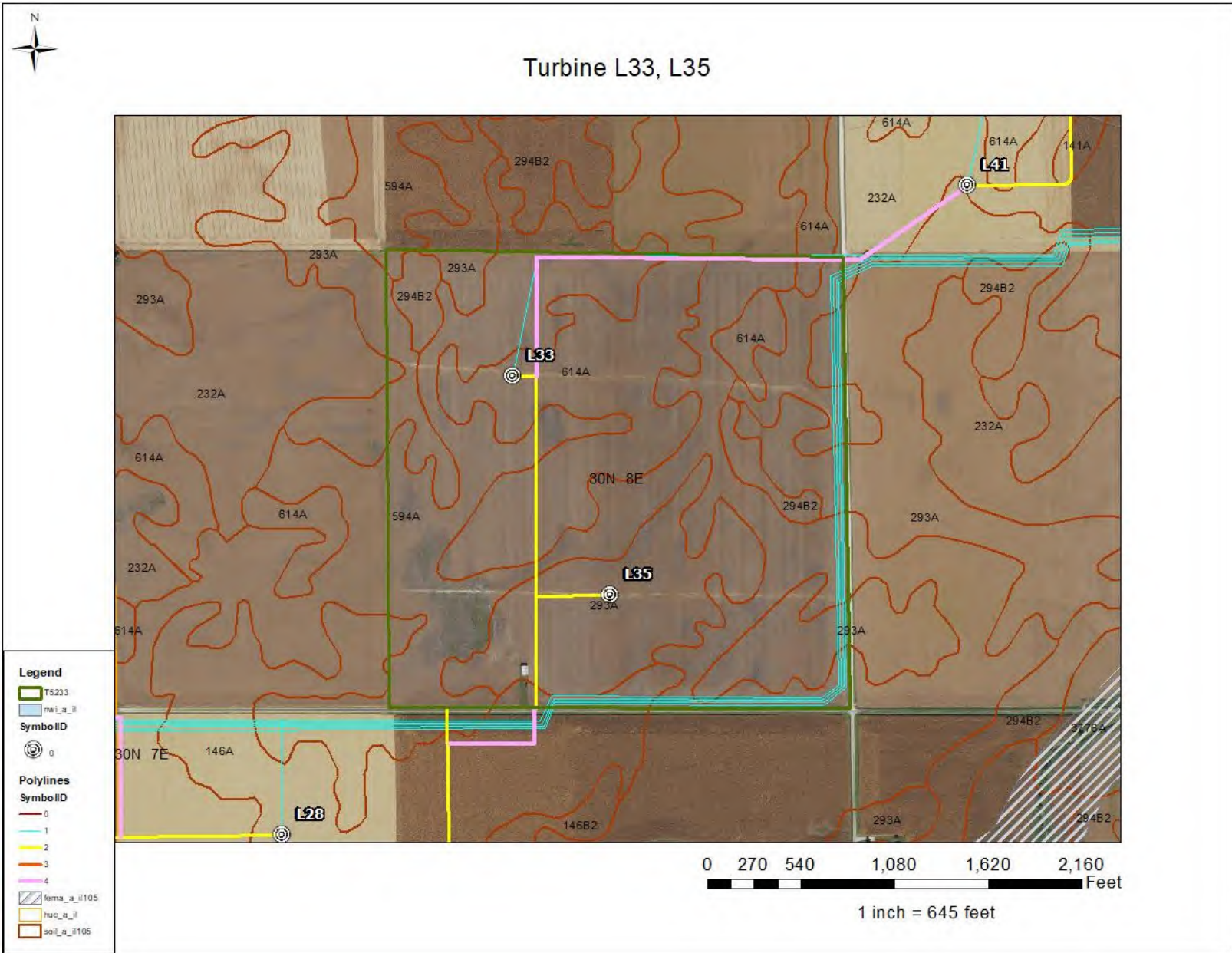
Site Summary

Turbine Number: L33, L35

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

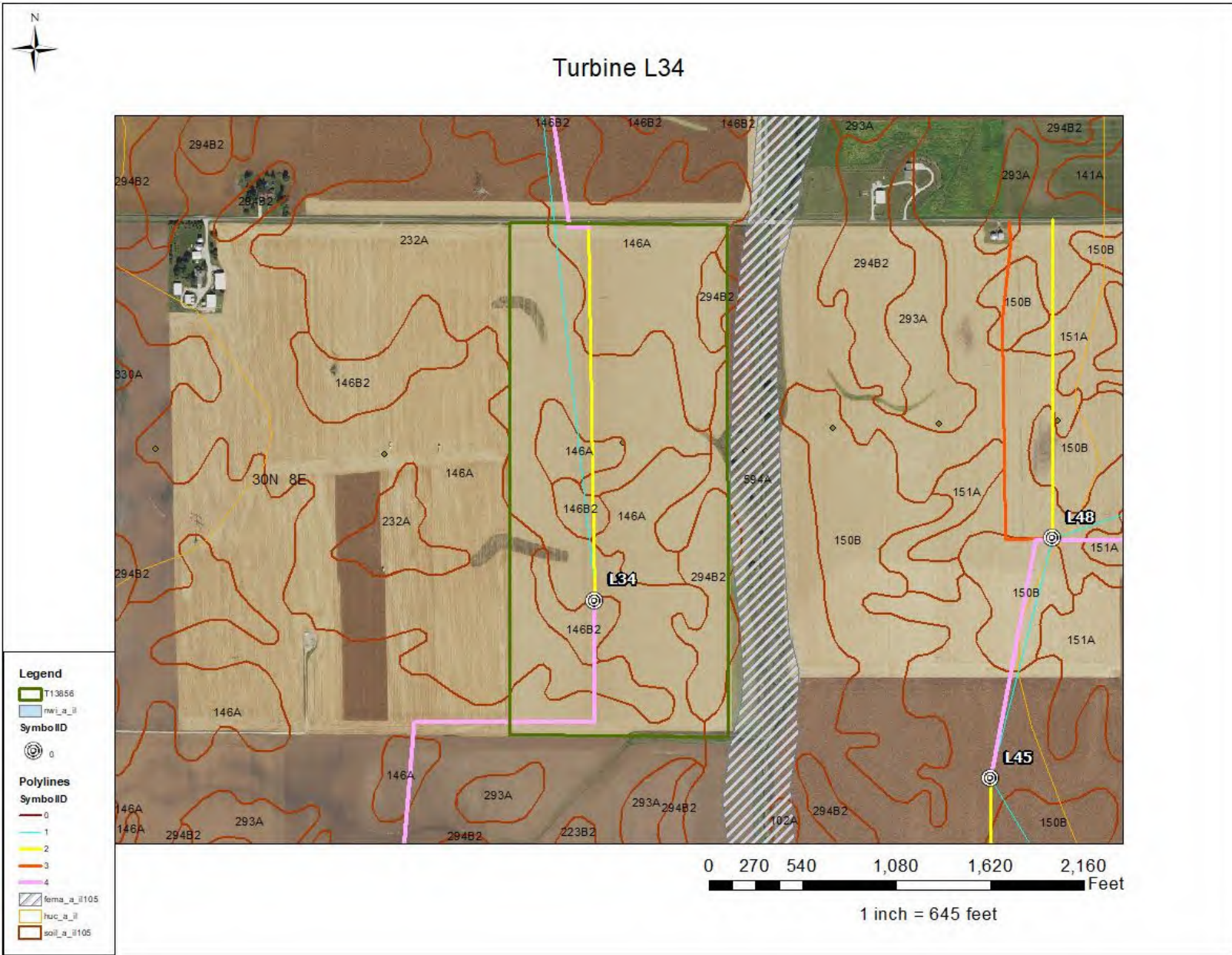
Site Summary

Turbine Number: L34

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

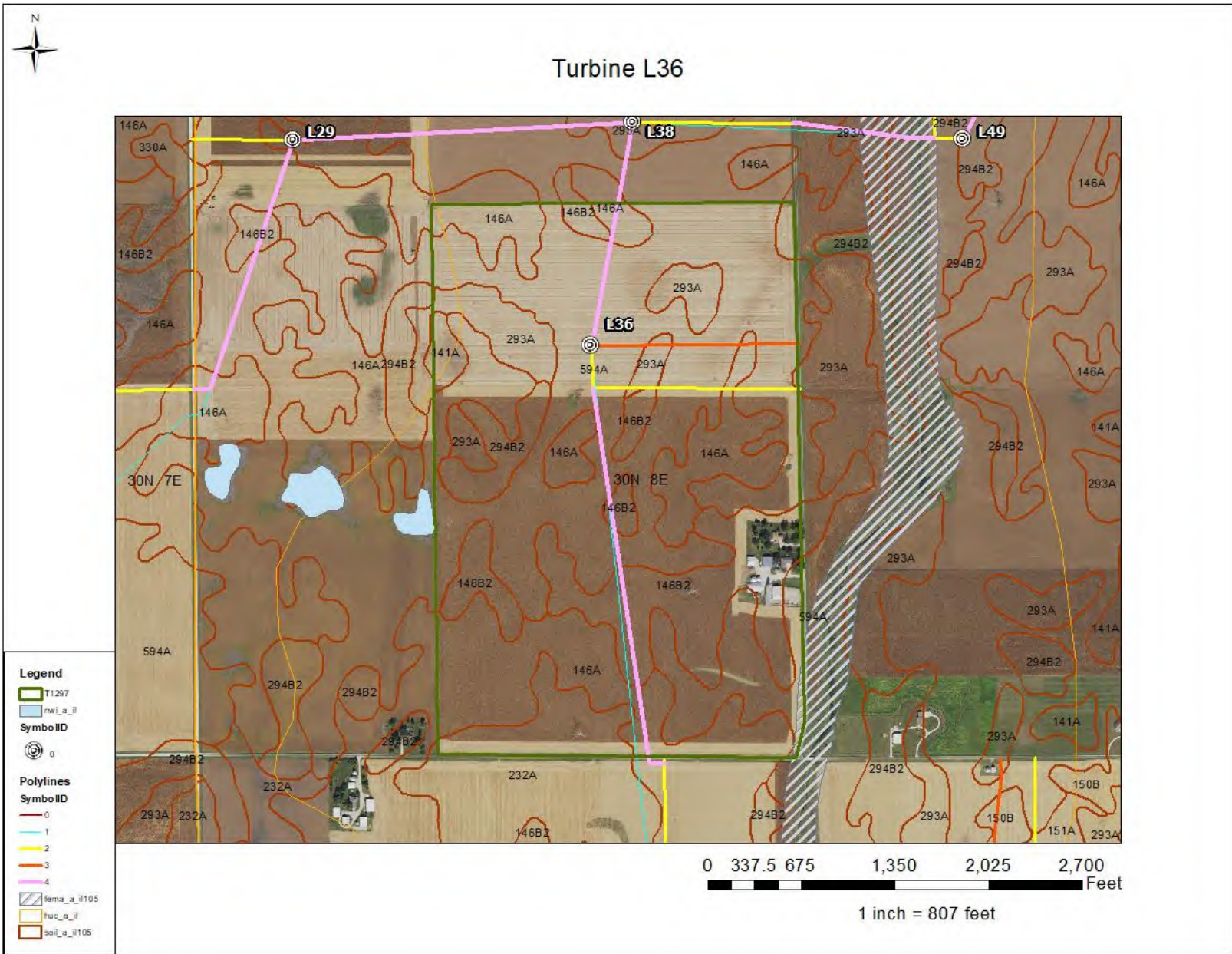
Site Summary

Turbine Number: L36

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There is a low, concentrated flow area in the Northeast corner of the site that the access road will cross. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

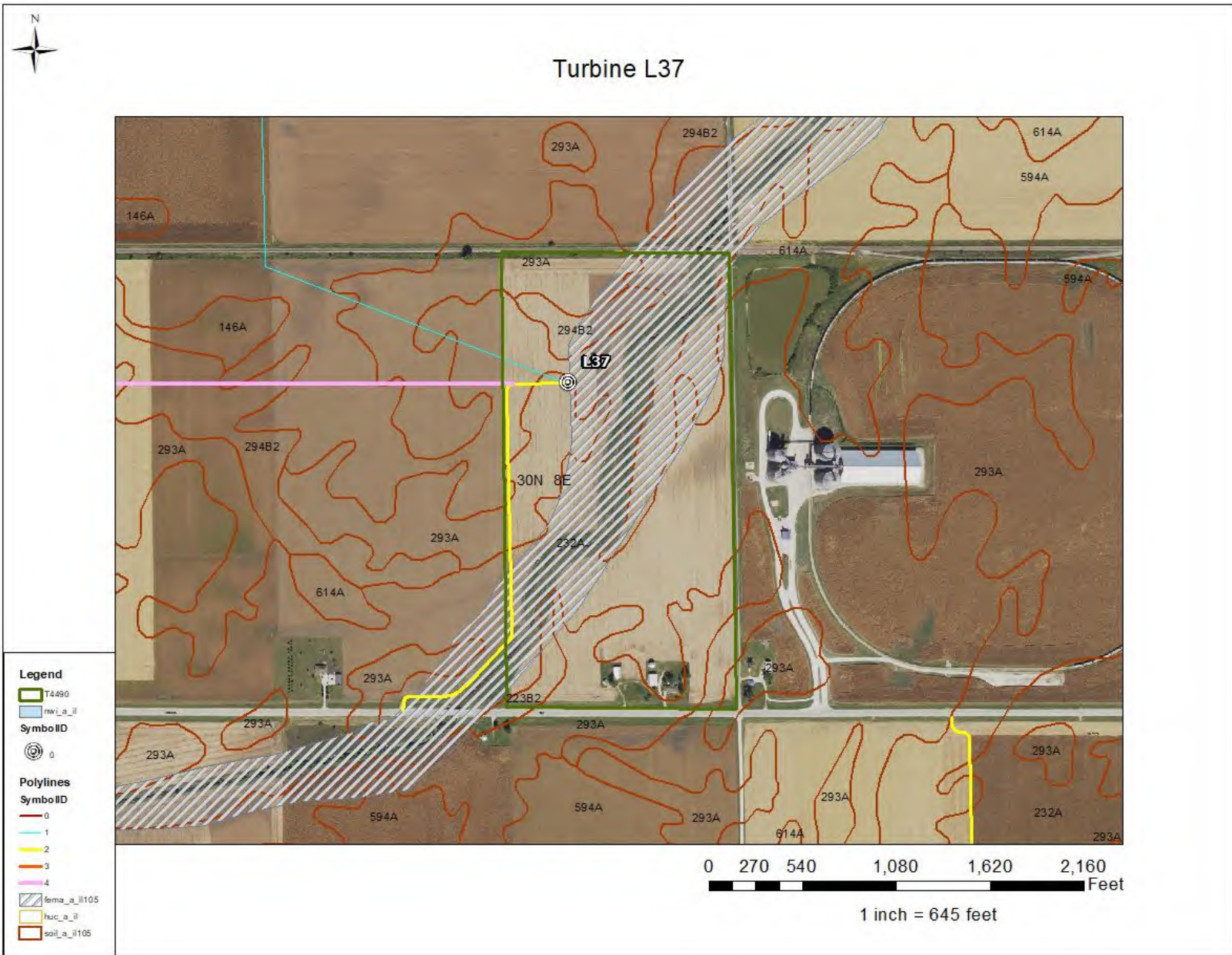
Site Summary

Turbine Number: L37

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
223B2	Varna silt loam, 2-4% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 150 Soybeans - 48
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The turbine site is located on the edge of the 100-year floodplain and the access road is sited to be built through the 100-year floodplain. Would recommend moving the site of the turbine and the access road to avoid the floodplain. The access road will also be either in or right next to current CRP ground. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

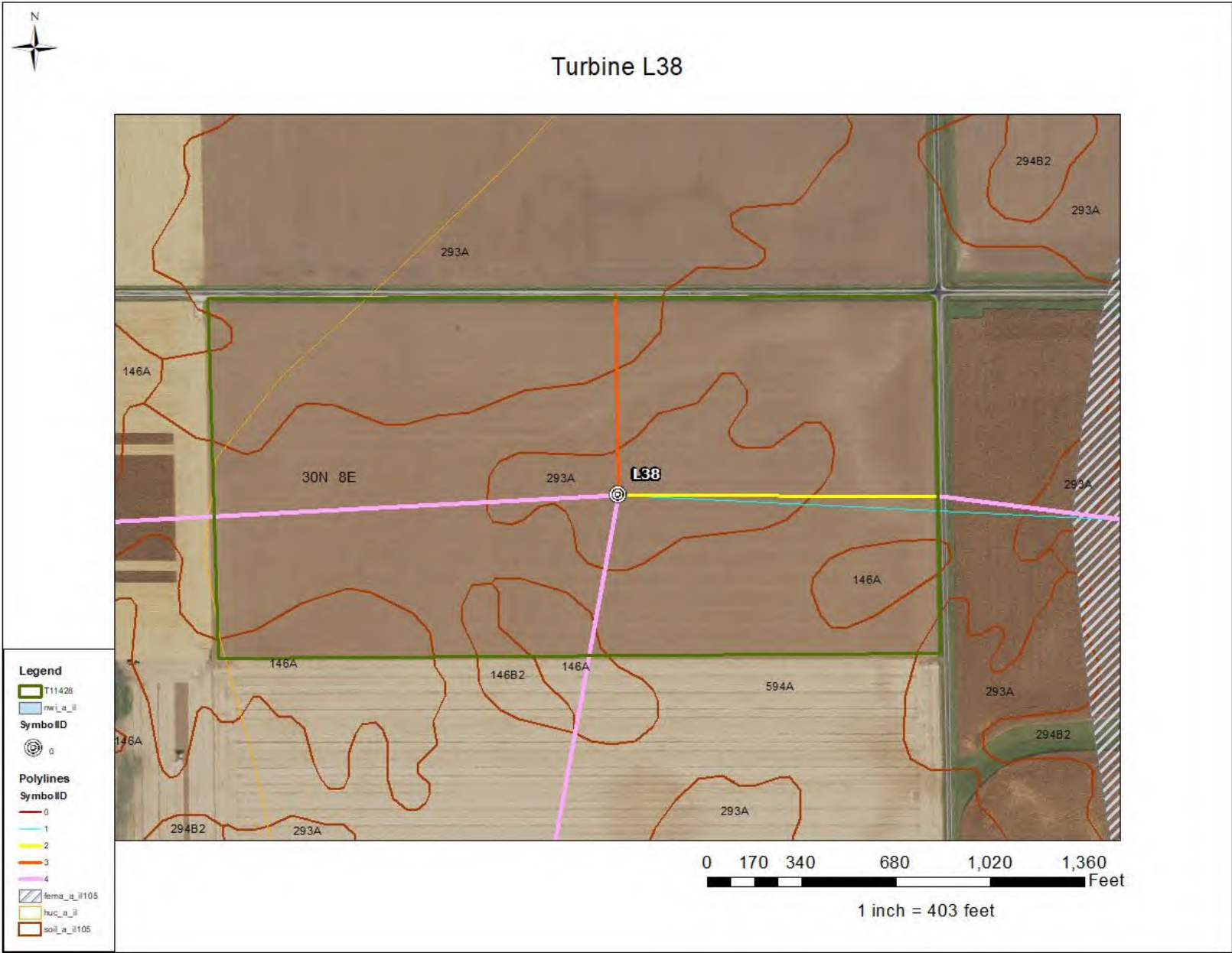
Site Summary

Turbine Number: L38

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

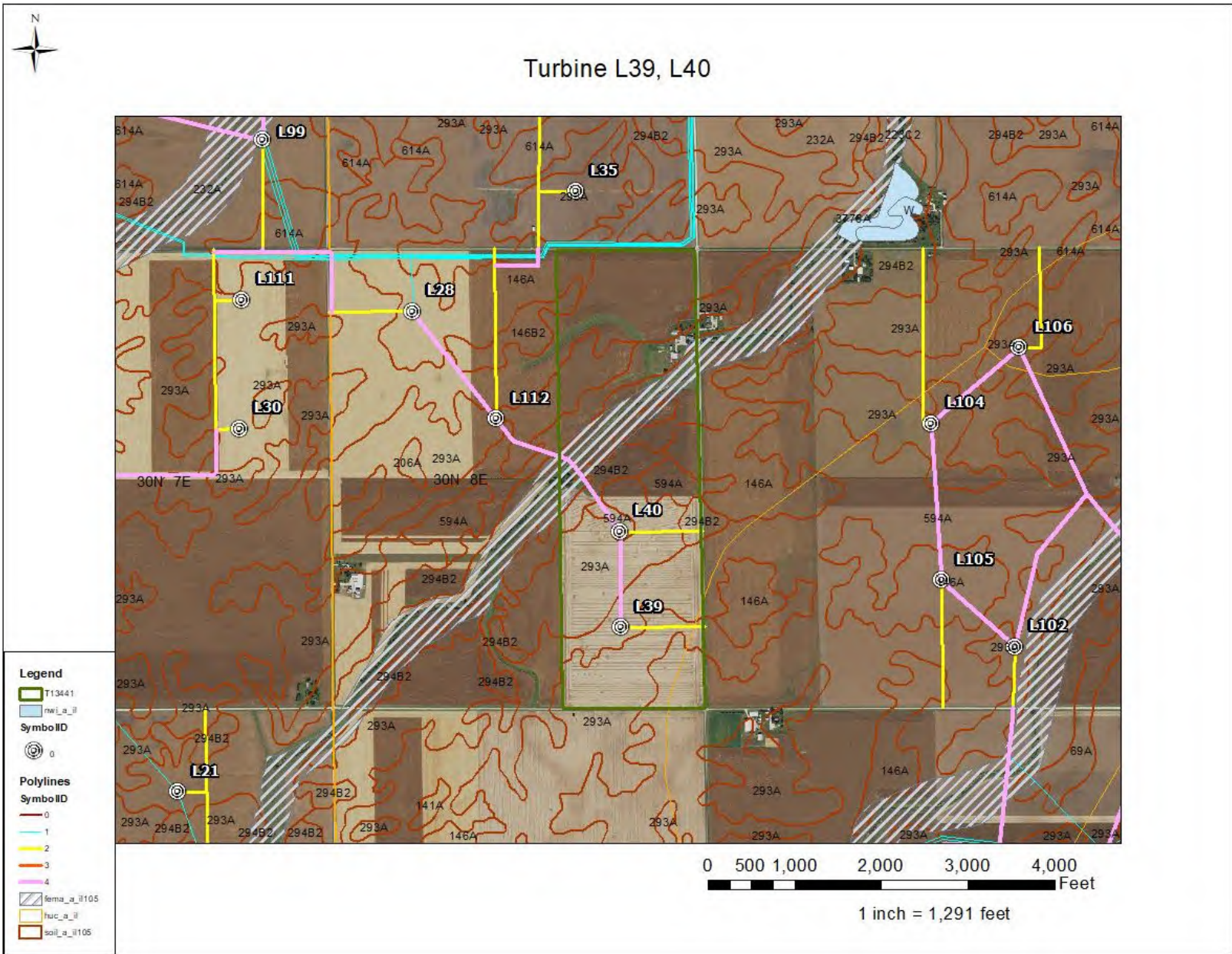
Site Summary

Turbine Number: L39, L40

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path and collection lines will cross the 100-year floodplain and Gooseberry Creek and should be moved. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

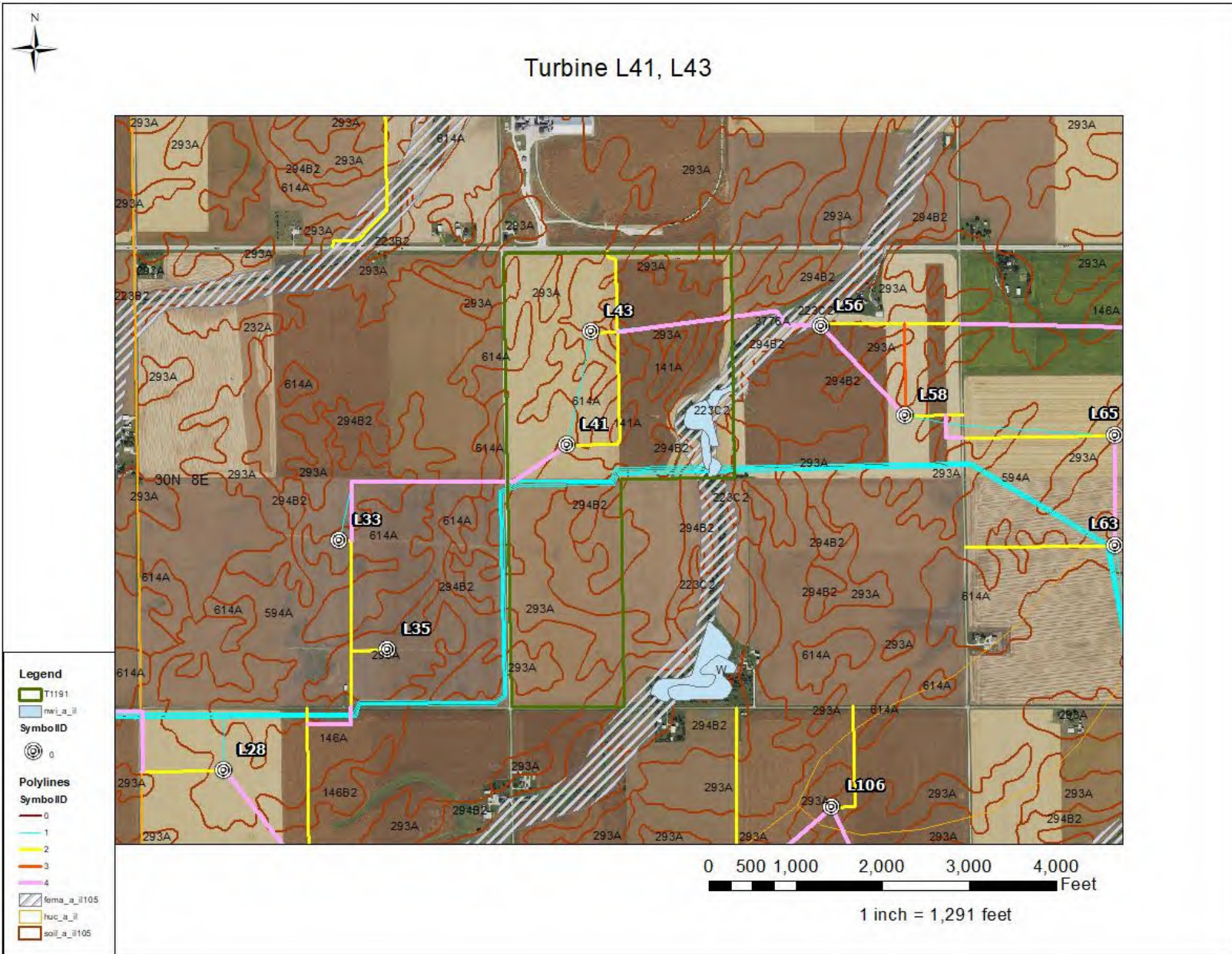
Site Summary

Turbine Number: L41, L43

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
223C2	Varna silt loam, 4-6% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 149 Soybeans - 47
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57
3776A	Comfrey loam, 0-2% slopes, frequently flooded	Prime farmland if drained	Yes	B/D	Poorly drained	NHEL	Frequent ponding/ flooding	Corn - 166 Soybeans - 55

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Collection lines will cross the 100-year floodplain, Gooseberry Creek, and identified wetlands. These collection lines will need to be moved. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

Site Summary

Turbine Number: L42, L46, L49, L50

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Crane paths and collection lines cross the 100-year floodplain and Gooseberry Creek multiple times. Also, the access road for Turbine L49 is sited in the 100-year floodplain and right alongside Gooseberry Creek. All of these need to be moved. Site is in the Town of Emington-Gooseberry Creek watershed.

Heritage Prairie Wind Farm NRI Report

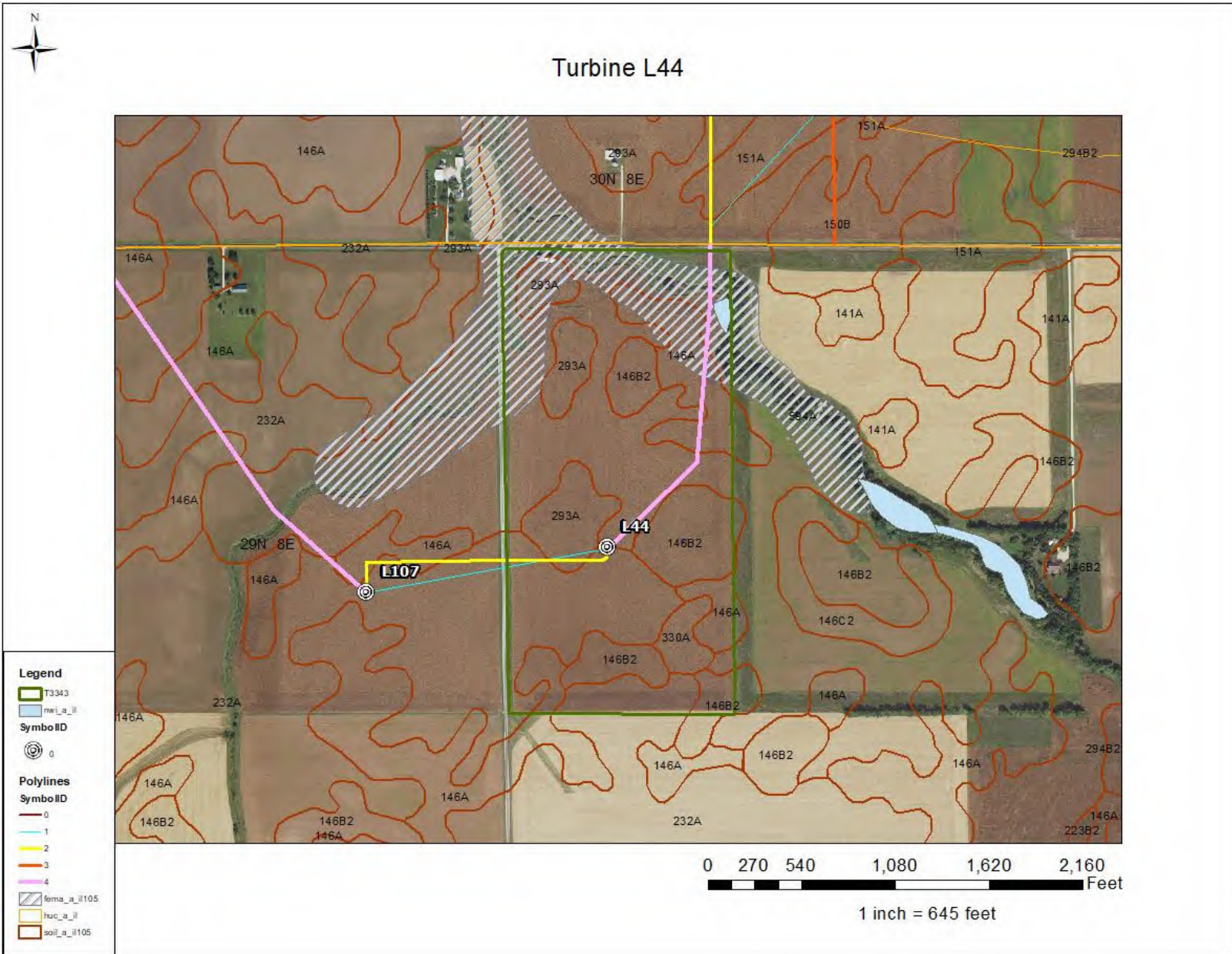
Site Summary

Turbine Number: L44

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
330A	Peotone silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Very poorly drained	NHEL	Frequent ponding	Corn - 164 Soybeans - 55
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Crane path and collection lines will cross the 100-year floodplain, Gooseberry Creek, and CRP ground. They will also pass approximately 25 feet from an identified wetland. The crane path and collection lines need to be moved. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

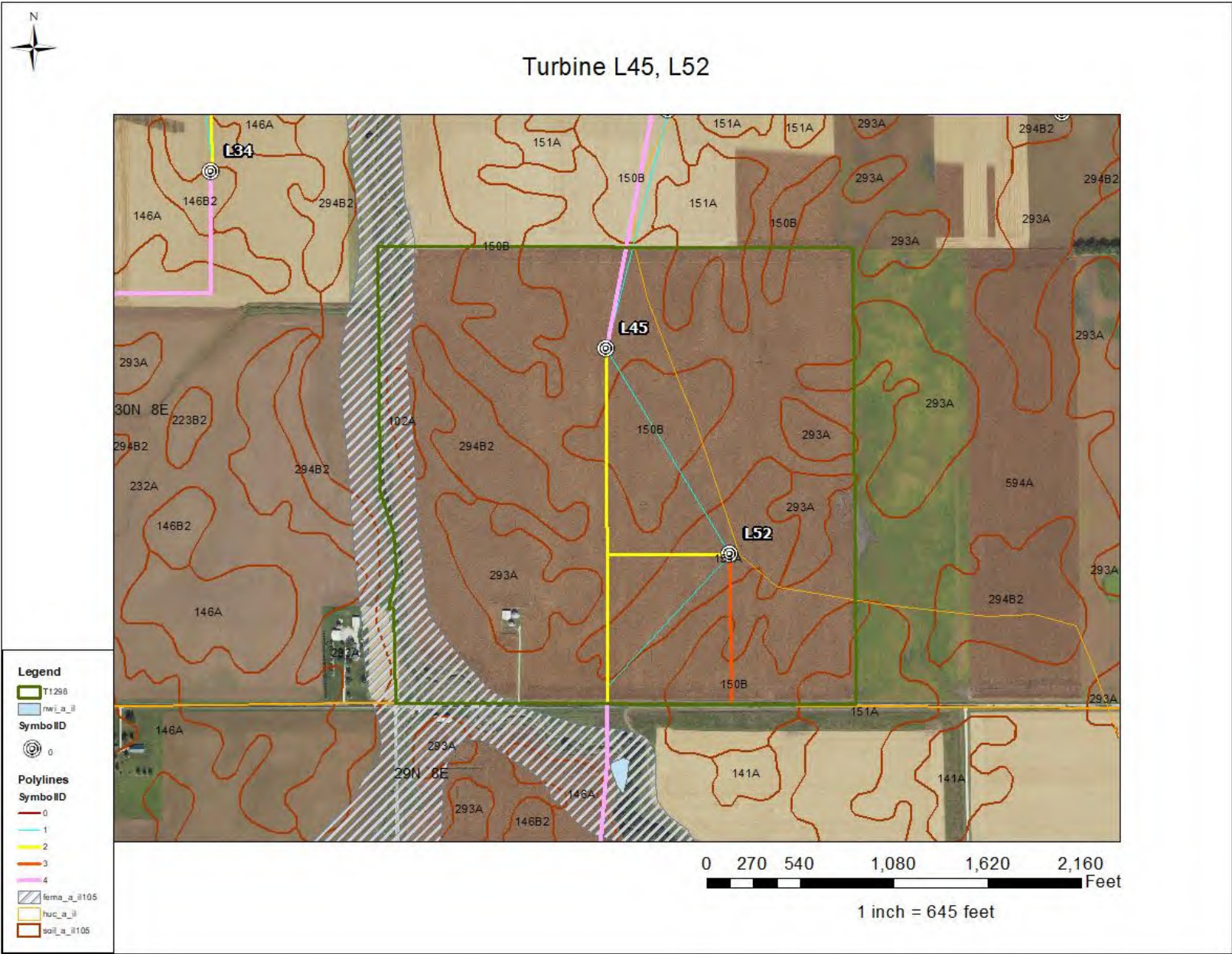
Site Summary

Turbine Number: L45, L52

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
102A	La Hogue loam, 0-2% slopes	All areas are prime farmland	No	B/D	Somewhat poorly drained	NHEL	None	Corn - 162 Soybeans - 52
150B	Onarga fine sandy loam, 2-5% slopes	All areas are prime farmland	No	A	Well drained	NHEL	None	Corn - 147 Soybeans - 48
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

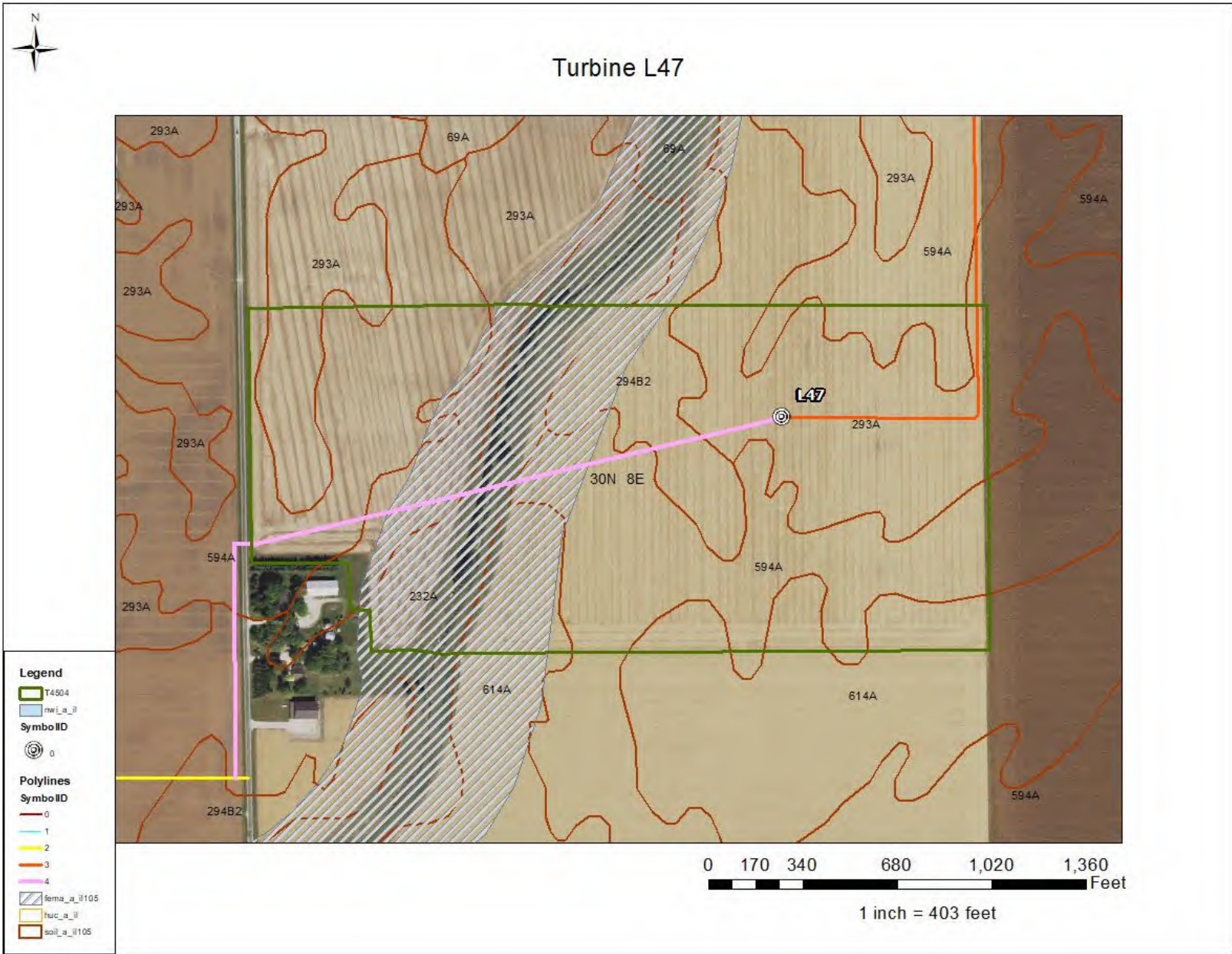
Site Summary

Turbine Number: L47

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path and collection lines will cross the 100-year floodplain, small creek, and CRP. The creek also has trees growing alongside that are where the crane path and collection lines are sited. The crane path and collection lines will need to be moved. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

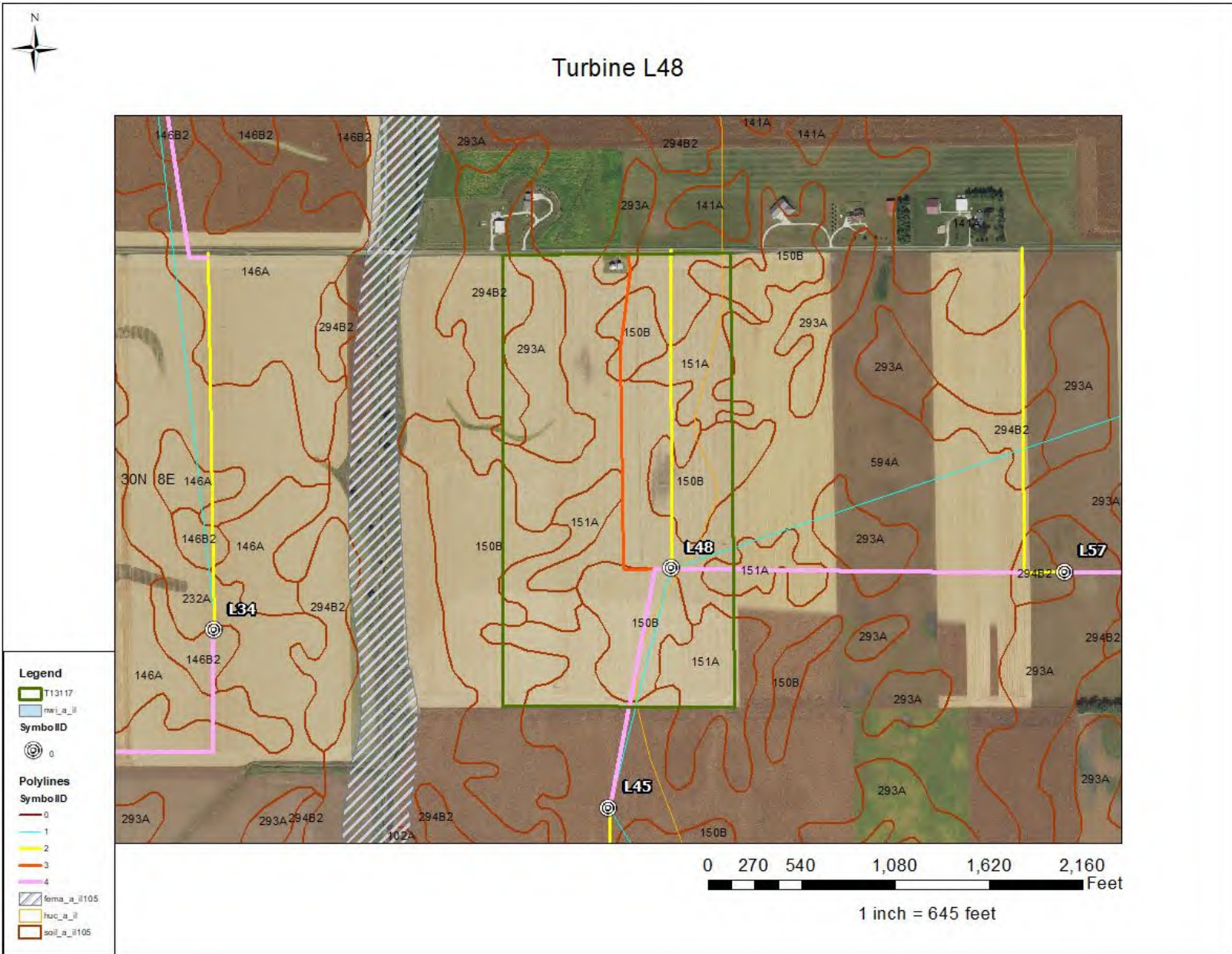
Site Summary

Turbine Number: L48

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
150B	Onarga fine sandy loam, 2-5% slopes	All areas are prime farmland	No	A	Well drained	NHEL	None	Corn - 147 Soybeans - 48
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on construction of roads and trenches, so caution should be exercised. Site is in the Town of Emington-Gooseberry Creek and East Fork Mazon River watersheds.



Heritage Prairie Wind Farm NRI Report

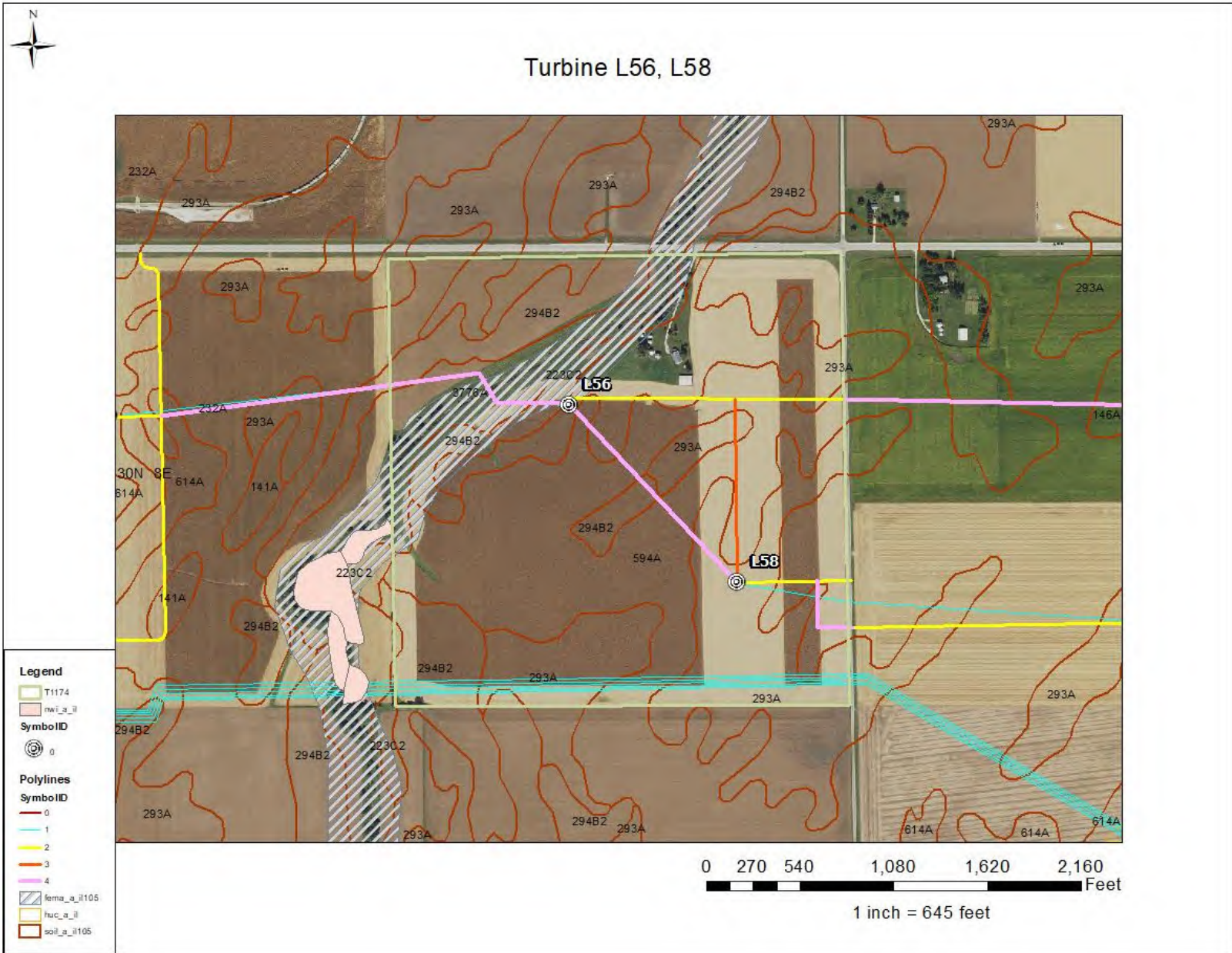
Site Summary

Turbine Number: L56, L58

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
223C2	Varna silt loam, 4-6% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 149 Soybeans - 47
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
3776A	Comfrey loam, 0-2% slopes, frequently flooded	Prime farmland if drained	Yes	B/D	Poorly drained	NHEL	Frequent ponding/ flooding	Corn - 166 Soybeans - 55

Notes: These soils can be wet and are prone to rutting. There are severe limitations on construction of roads and trenches, so caution should be exercised. Turbine L56 is sited in the 100-year floodplain. Also, the crane path and collection lines that run West from Turbine L56 cross the 100-year floodplain, Gooseberry Creek, and CRP fields. This turbine and the crane path and collection lines need to be moved. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

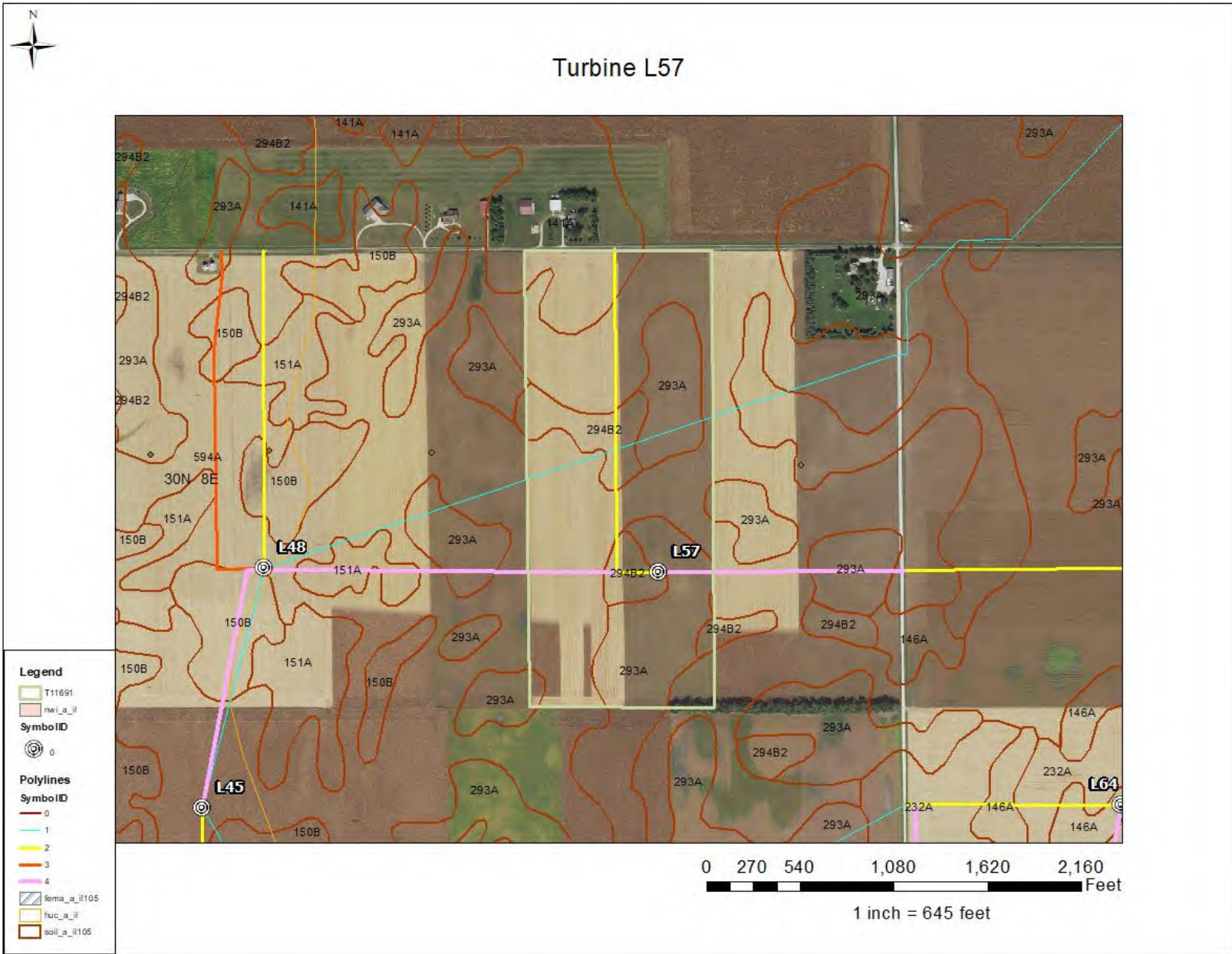
Site Summary

Turbine Number: L57

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

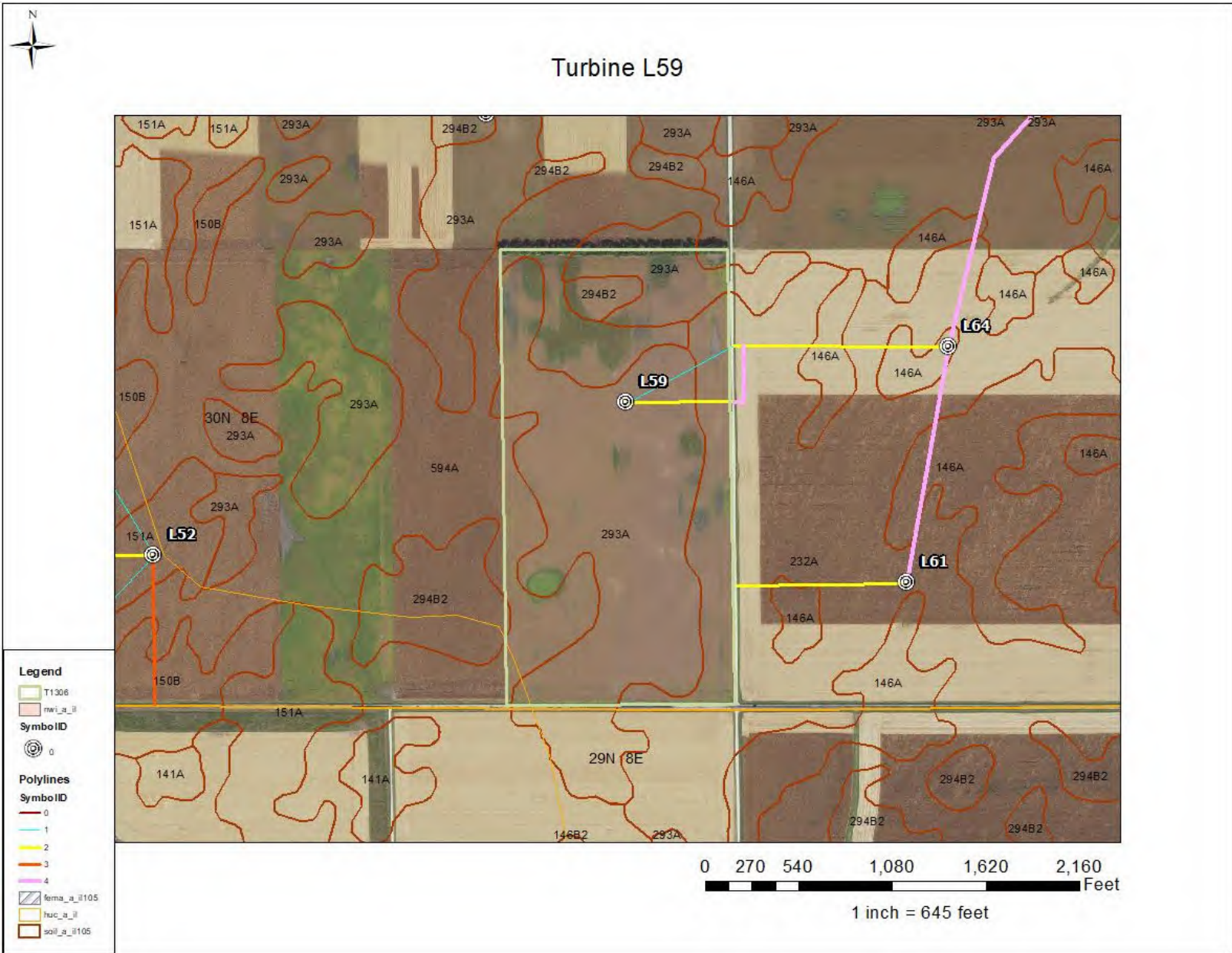
Site Summary

Turbine Number: L59

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on construction of roads and trenches, so caution should be exercised. The collection lines will run through a low, ponded area in the field. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

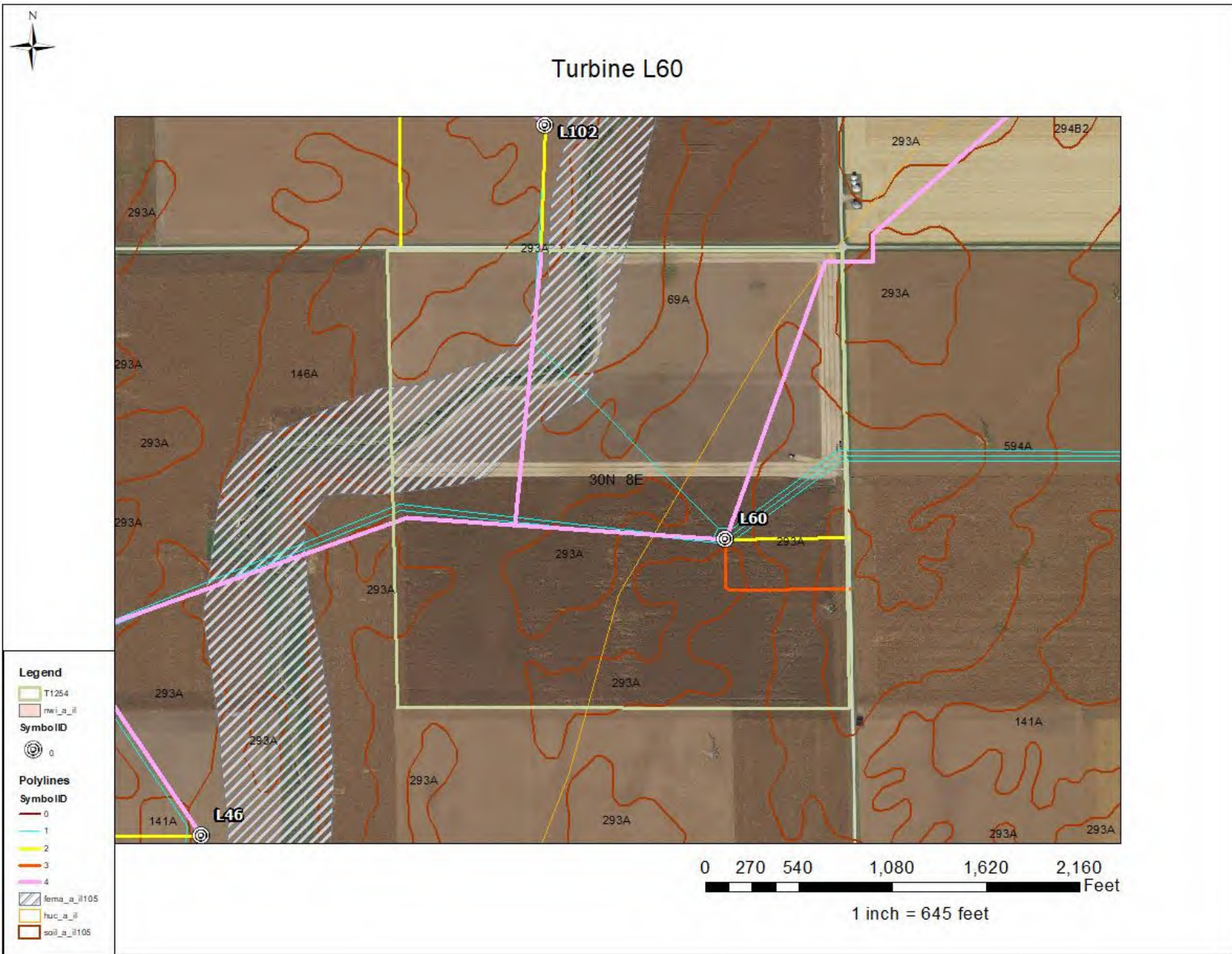
Site Summary

Turbine Number: L60

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
69A	Milford silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 171 Soybeans - 57
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Collection lines and a crane path cross the 100-year floodplain and Gooseberry Creek. These need to be moved. Site is in the East Fork Mazon River and Town of Emington-Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

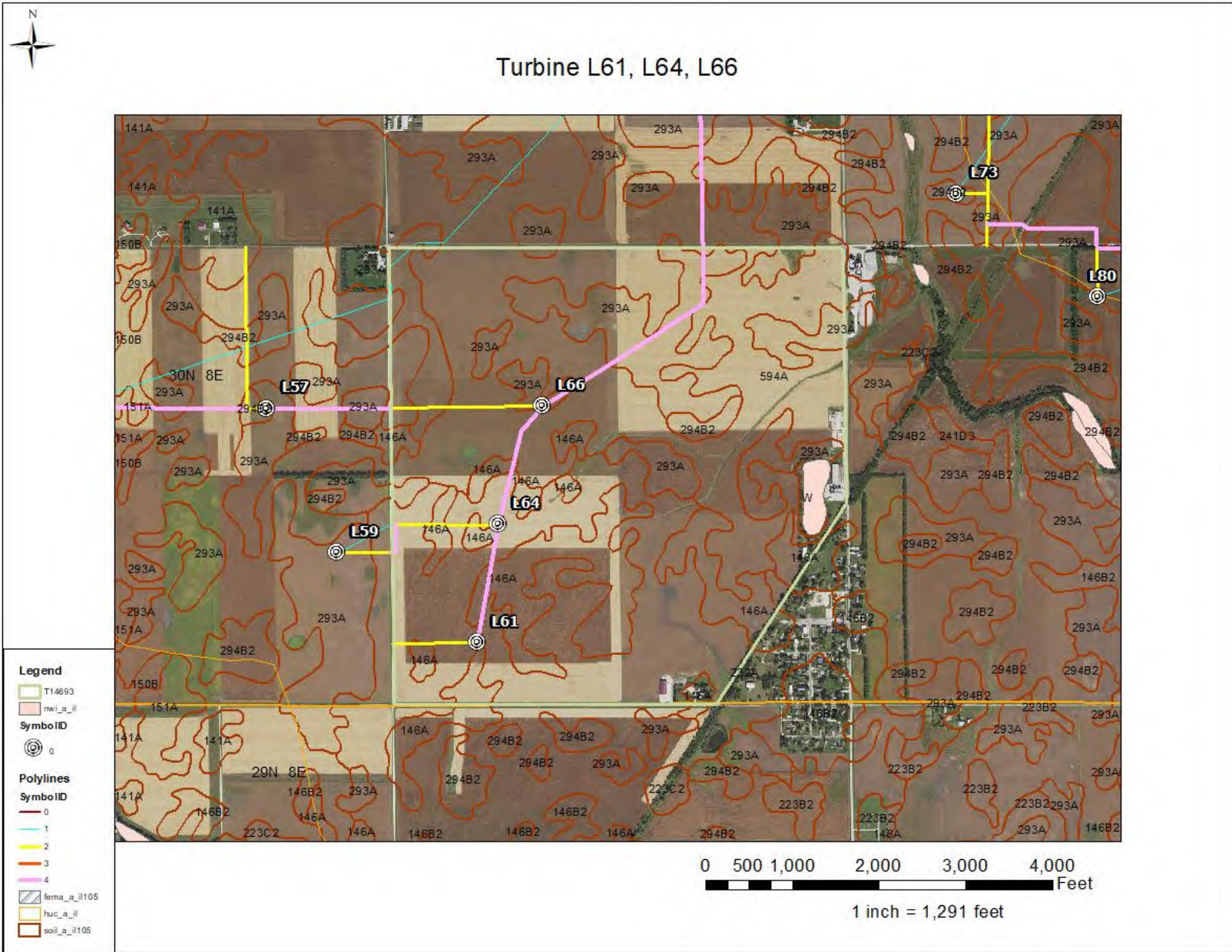
Site Summary

Turbine Number: L61, L64, L66

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

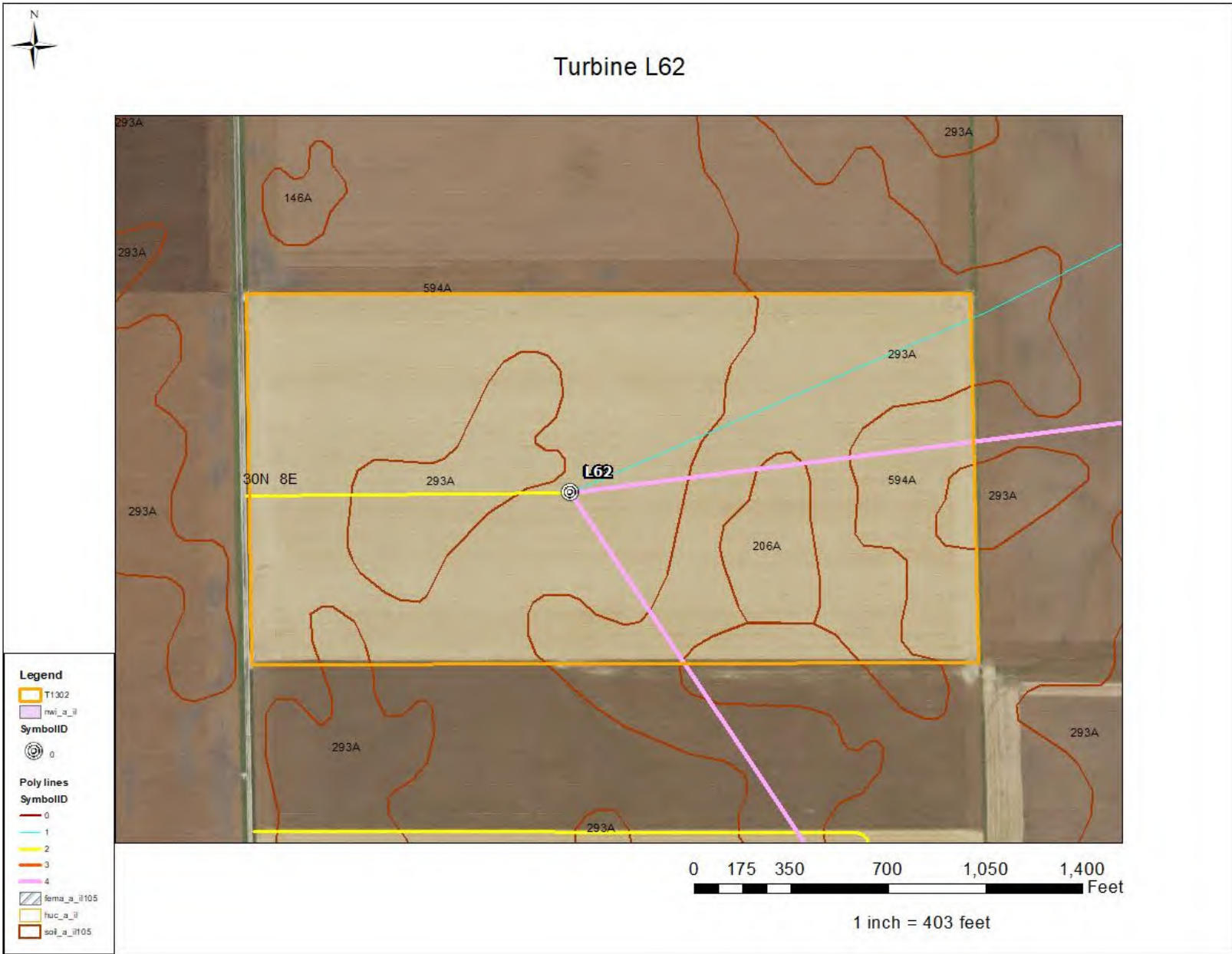
Site Summary

Turbine Number: L62

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
206A	Thorp silt loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

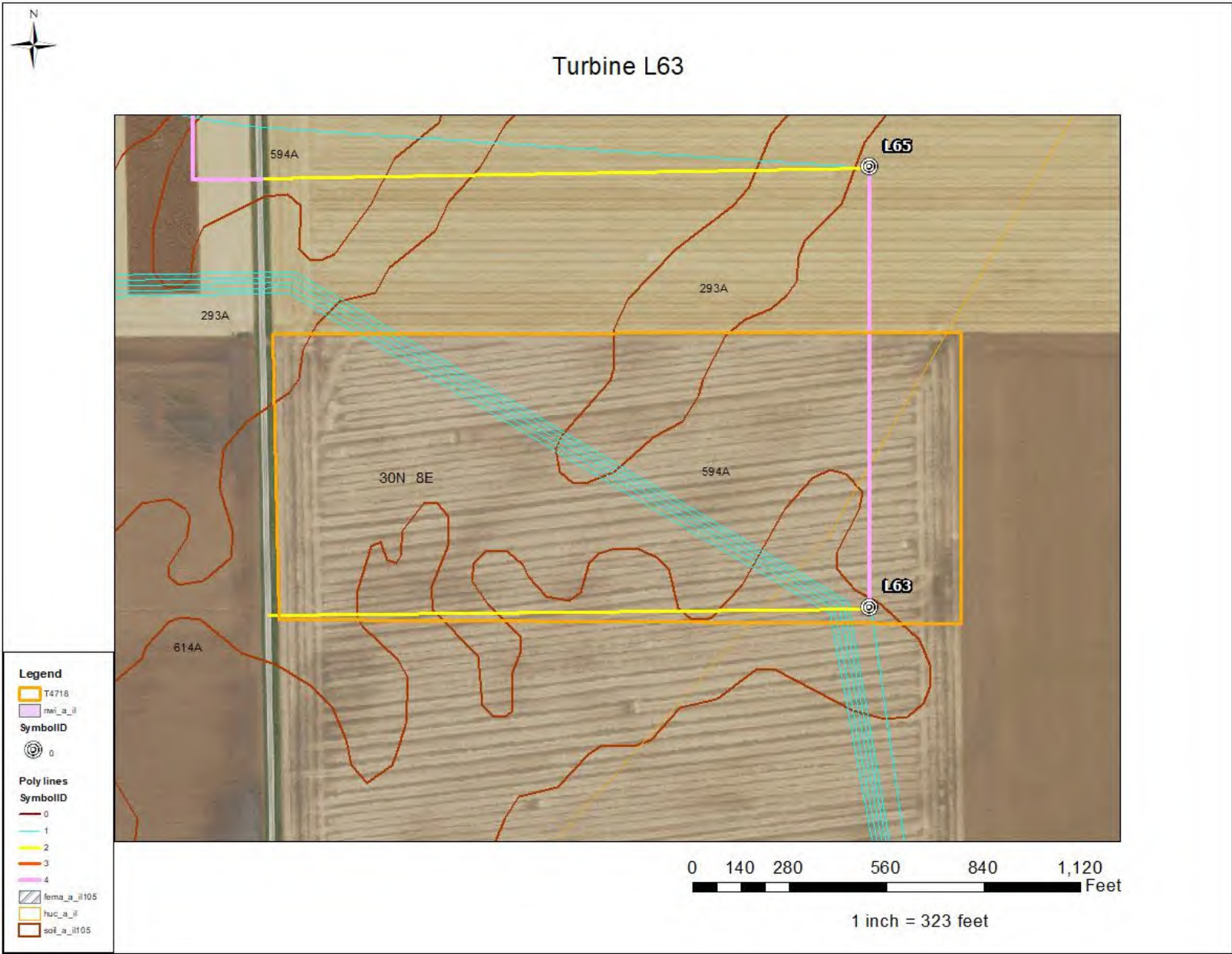
Site Summary

Turbine Number: L63

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There is a noticeable low, wet area in the Northwest corner of the parcel that may affect the placement of the connection lines. Site is in the East Fork Mazon River and Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

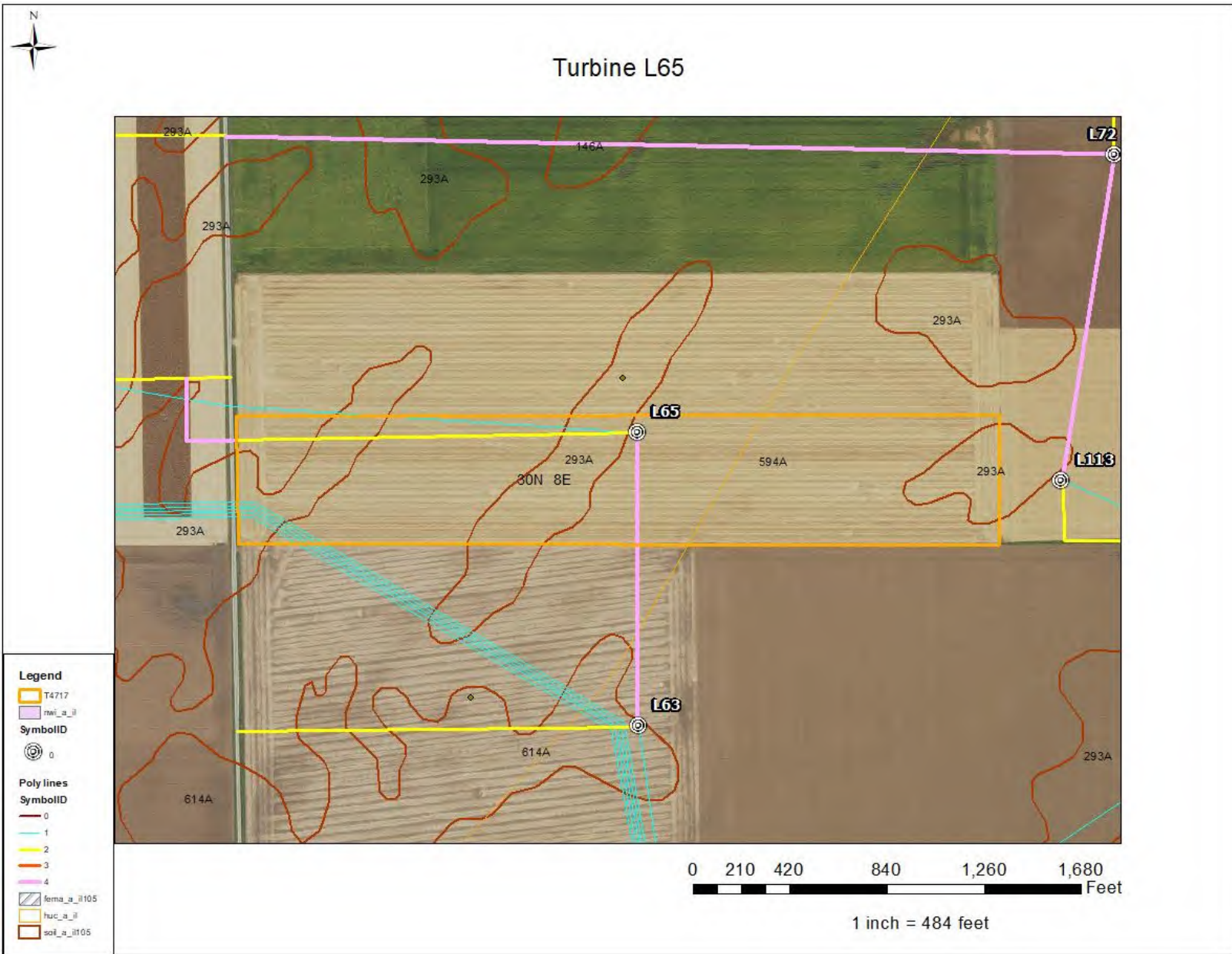
Site Summary

Turbine Number: L65

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

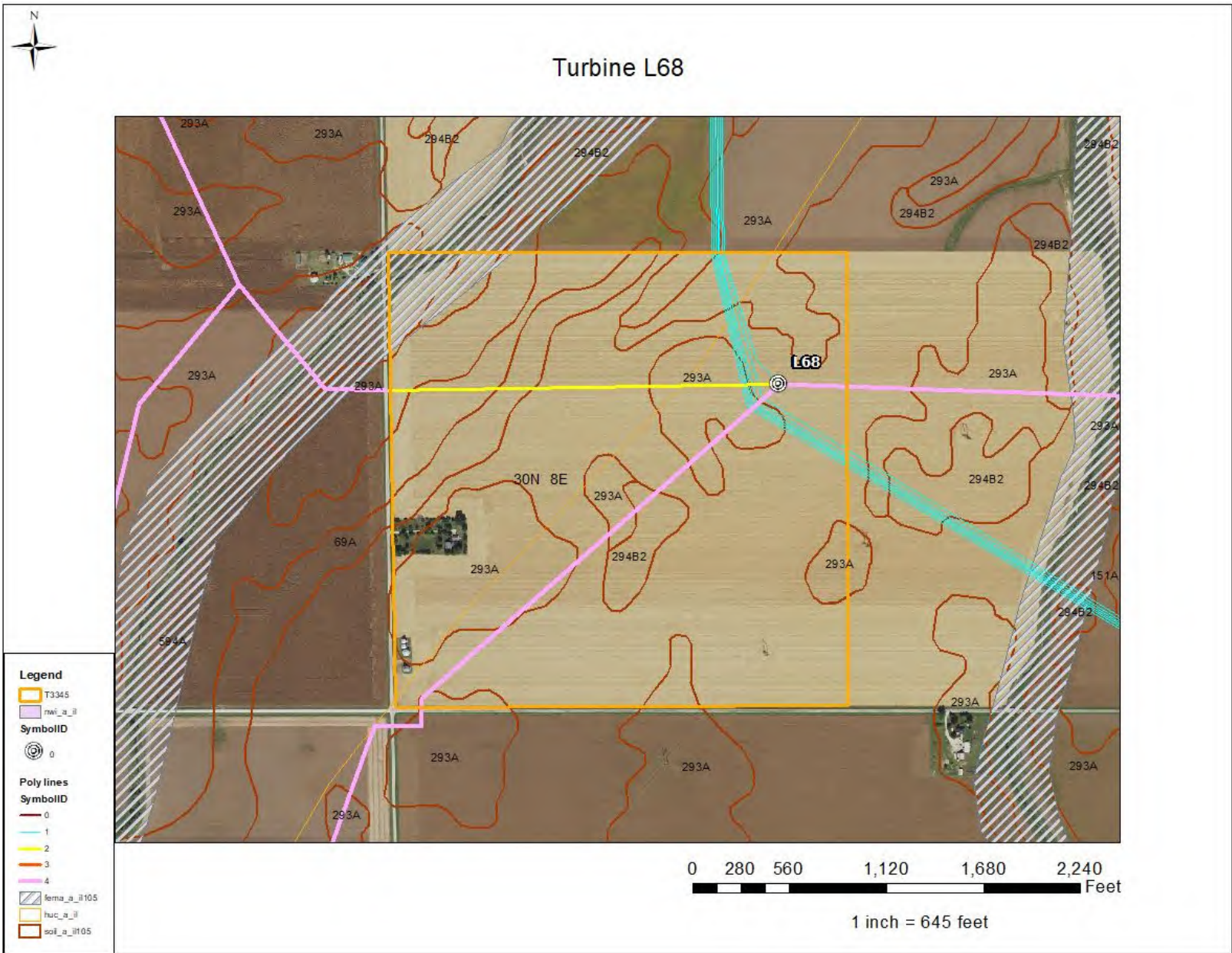
Site Summary

Turbine Number: L68

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
69A	Milford silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 171 Soybeans - 57
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane paths and collection lines will cross areas of concentrated flow throughout the field. Site is in the East Fork Mazon River and Town of Emington-Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

Site Summary

Turbine Number: L69

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River watershed.

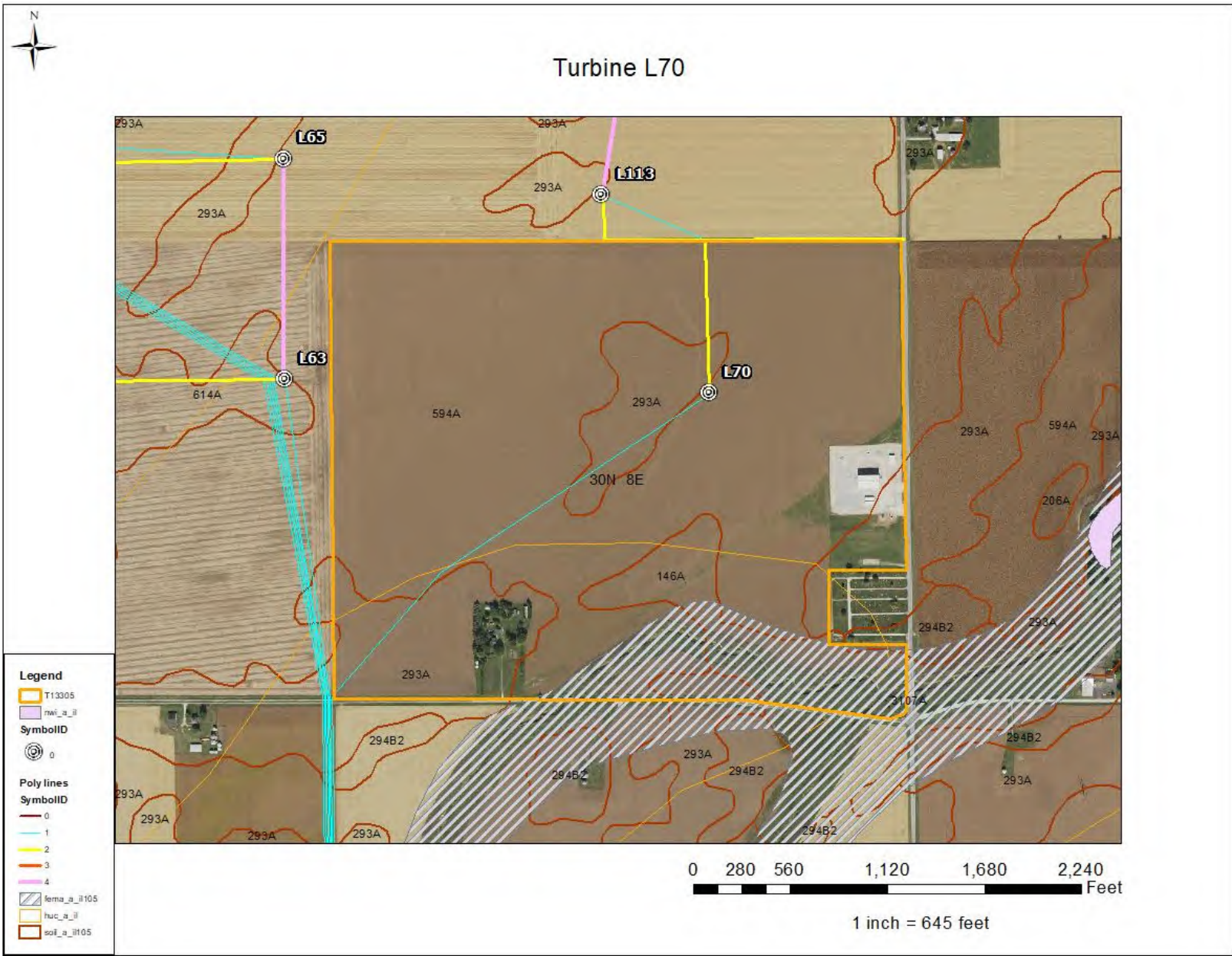


Heritage Prairie Wind Farm NRI Report
Site Summary
Turbine Number: L70

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
3107A	Sawmill silty clay loam, heavy till plain, 0-2% slopes, frequently flooded	Prime farmland if drained	Yes	B/D	Poorly drained	NHEL	Frequent ponding/ flooding	Corn - 170 Soybeans - 54

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The collection lines will cross and area of concentrated flow. Site is in the East Fork Mazon River and Town of Emington-Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

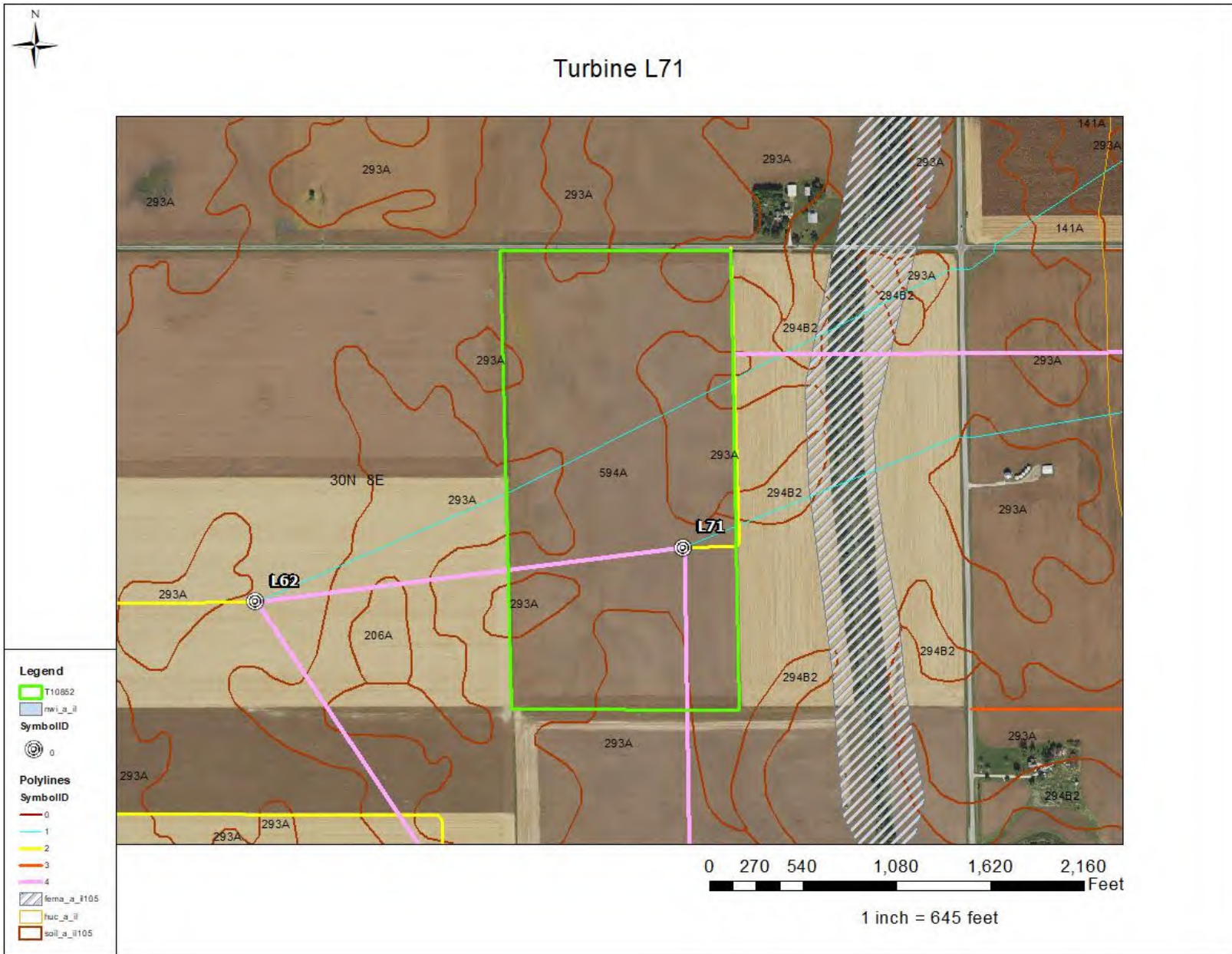
Site Summary

Turbine Number: L71

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There was evidence of trenching along the Northern property line, which the access road would currently cross. Site is in the East Fork Mazon River watershed.

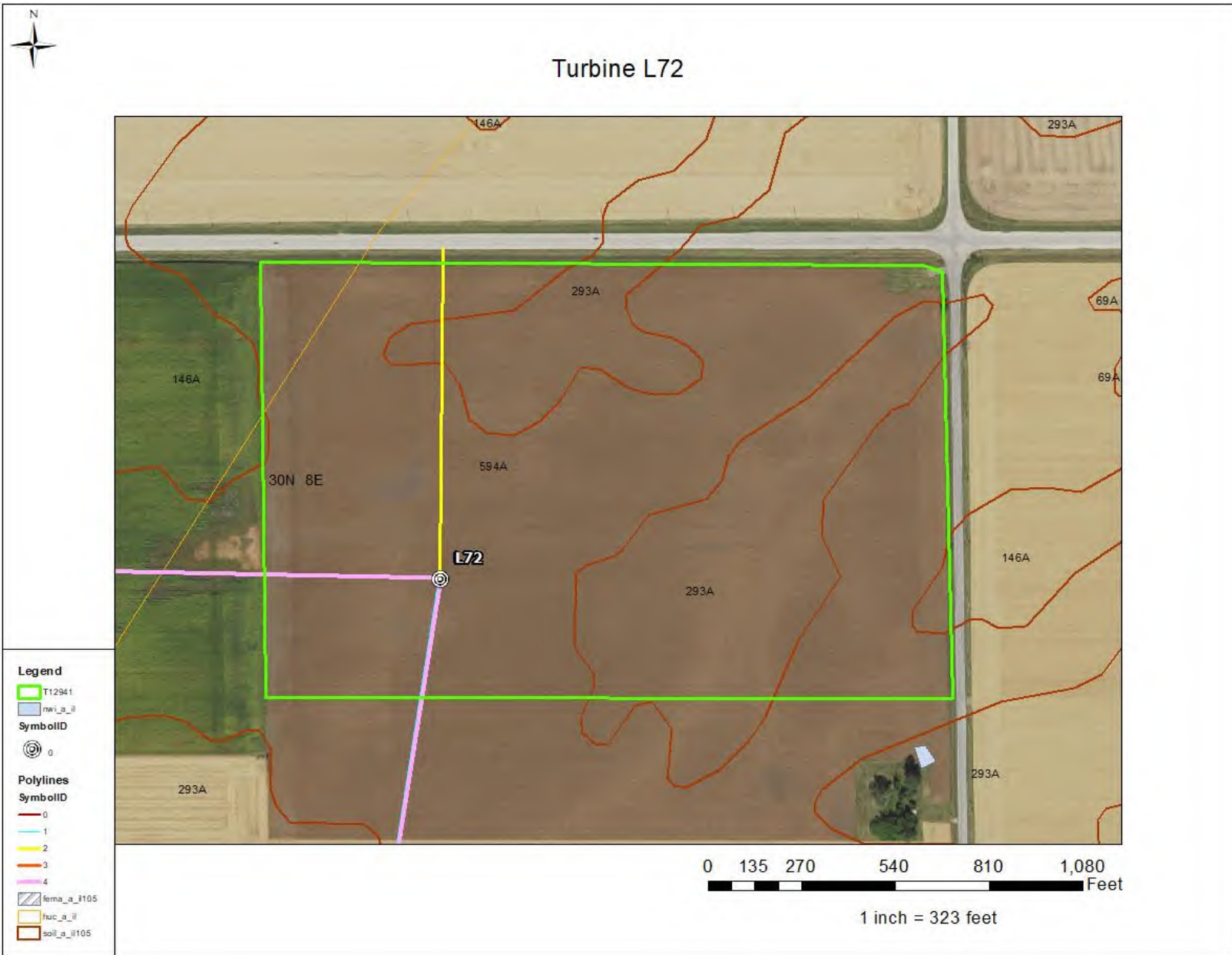


Heritage Prairie Wind Farm NRI Report
Site Summary
Turbine Number: L72

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There is a ponded area that the crane path to the west will cross. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

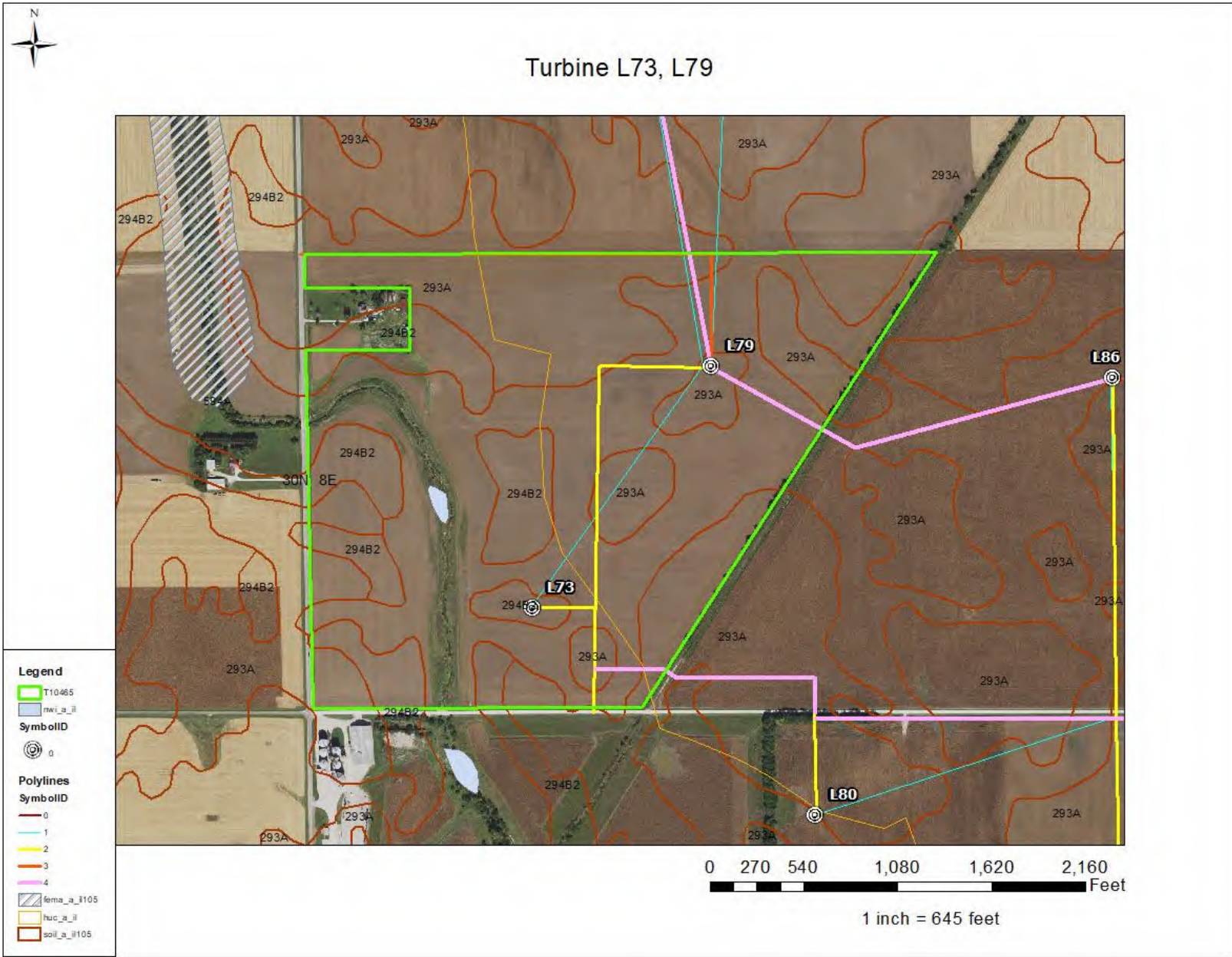
Site Summary

Turbine Number: L73, L79

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River and the Reddick Run watersheds.



Heritage Prairie Wind Farm NRI Report

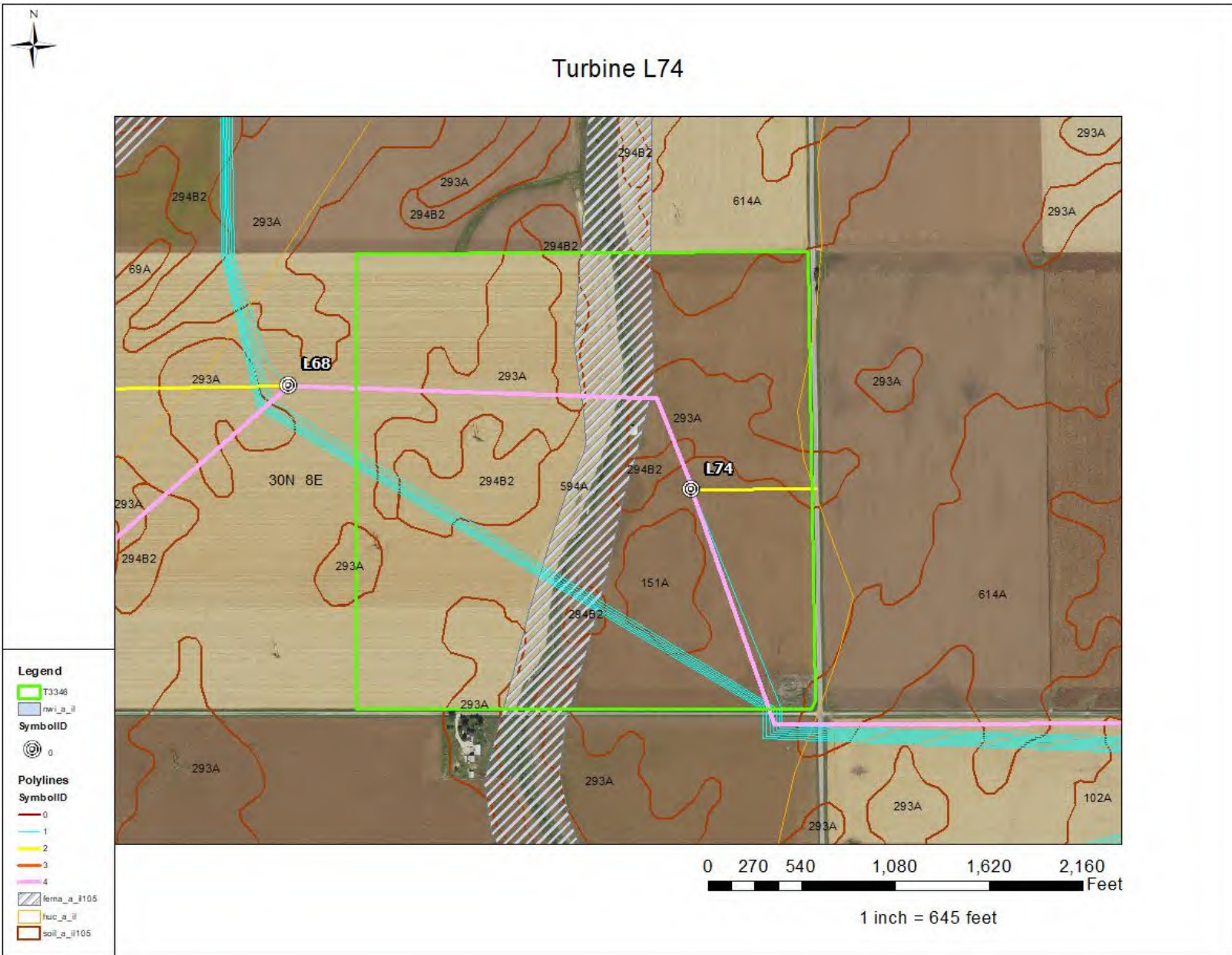
Site Summary

Turbine Number: L74

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path and collection lines cross the 100-year floodplain and Broughton Creek. These need to be moved. Site is in the East Fork Mazon River watershed.



Heritage Prairie Wind Farm NRI Report

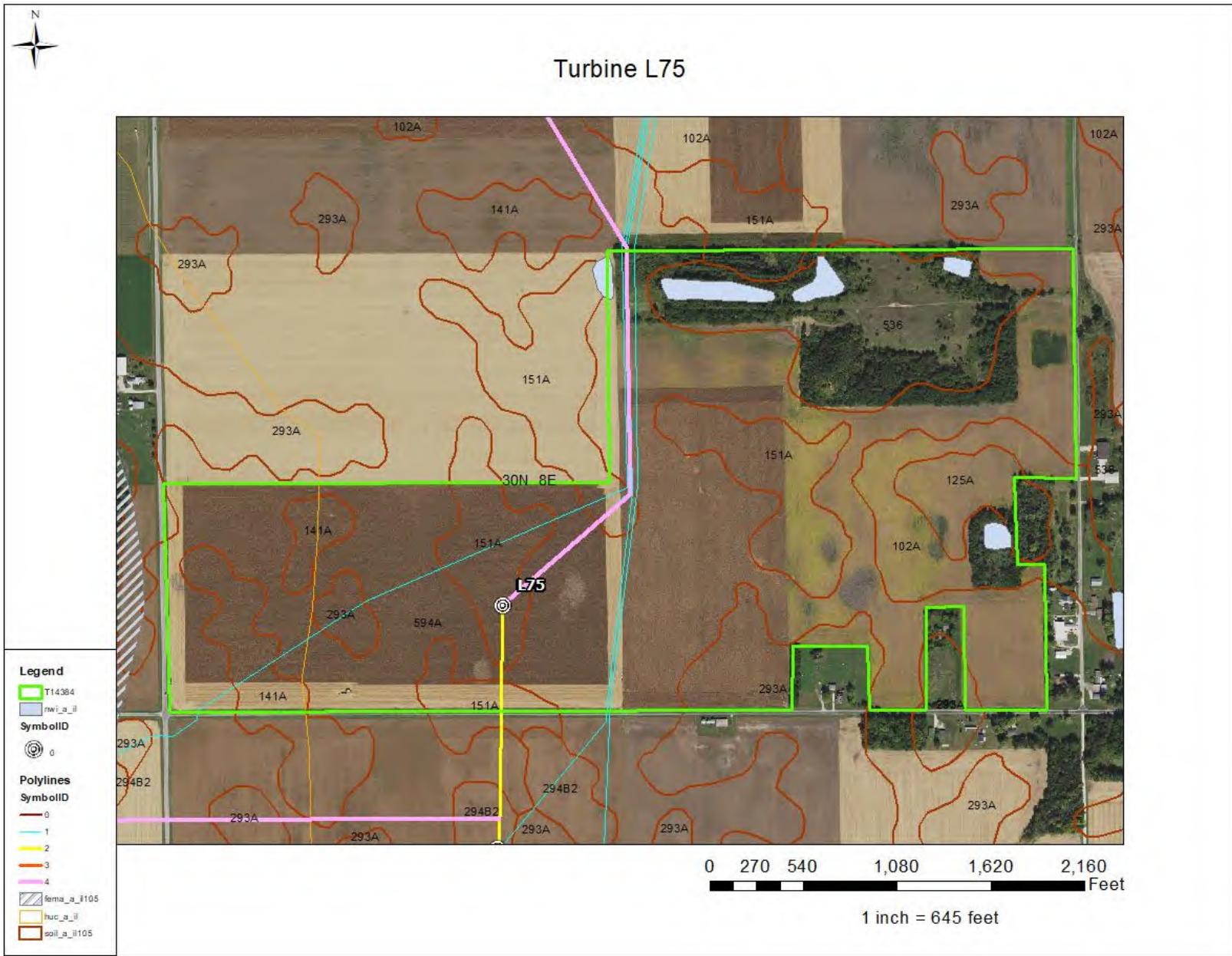
Site Summary

Turbine Number: L75

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
102A	La Hogue loam, 0-2% slopes	All areas are prime farmland	No	B/D	Somewhat poorly drained	NHEL	None	Corn - 162 Soybeans - 52
125A	Selma loam, 0-2% slopes	Prime farmland if drained	Yes	B/D	Poorly drained	NHEL	Frequent ponding	Corn - 176 Soybeans - 57
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
536	Dumps, mine	Not prime farmland	No	N/A	N/A	NHEL	N/A	N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path and collection lines to the North will run approximately 70 feet from a possible identified wetland, so special considerations may be needed. This site is in the Reddick Run and the East Fork Mazon River watersheds.



Heritage Prairie Wind Farm NRI Report

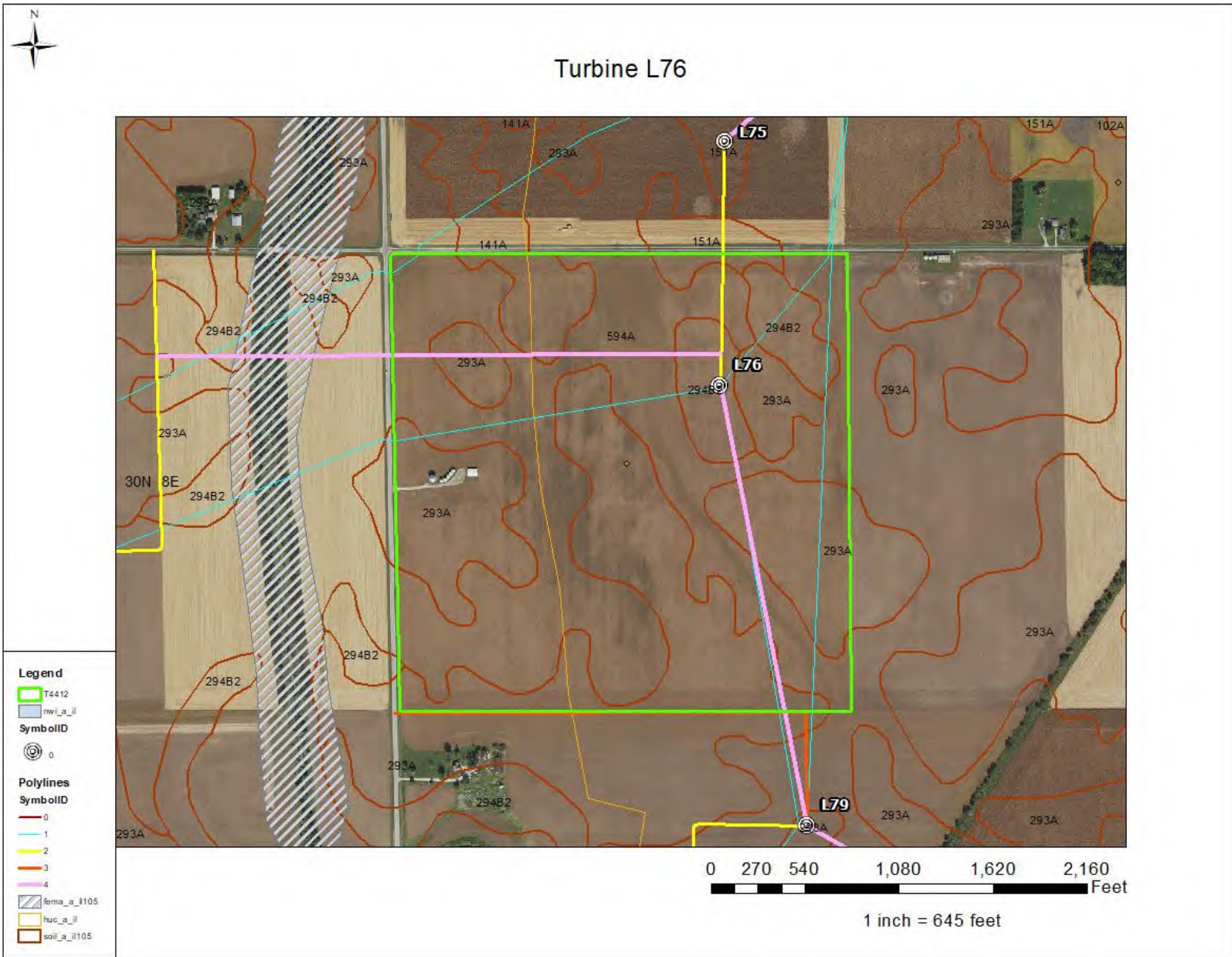
Site Summary

Turbine Number: L76

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are limitations on the construction of roads and trenches, so caution should be exercised. The crane paths and collection lines pass over areas of concentrated flow. Site is in the Reddick Run and East Fork Mazon River watersheds.



Heritage Prairie Wind Farm NRI Report

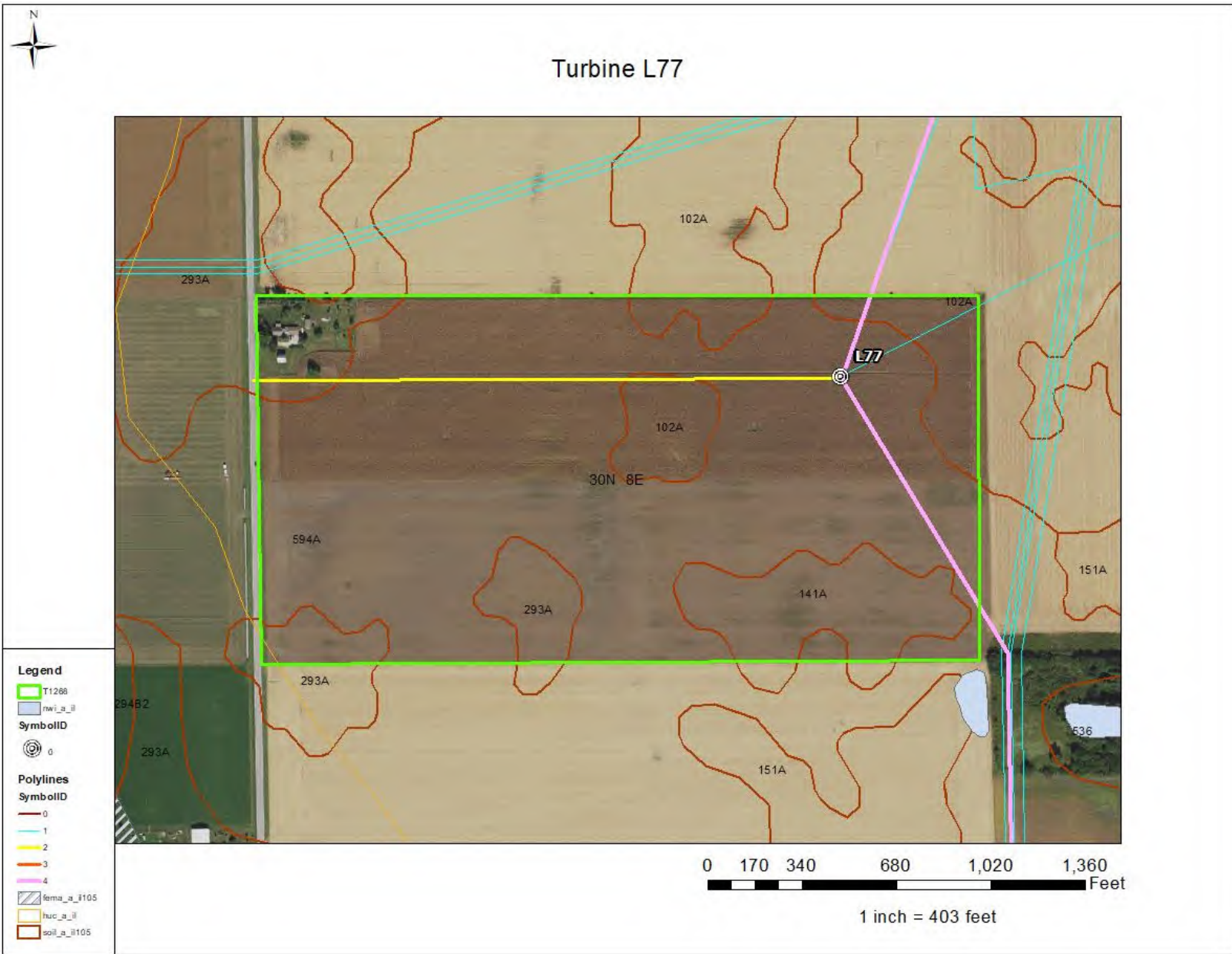
Site Summary

Turbine Number: L77

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
102A	La Hogue loam, 0-2% slopes	All areas are prime farmland	No	B/D	Somewhat poorly drained	NHEL	None	Corn - 162 Soybeans - 52
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to flooding. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

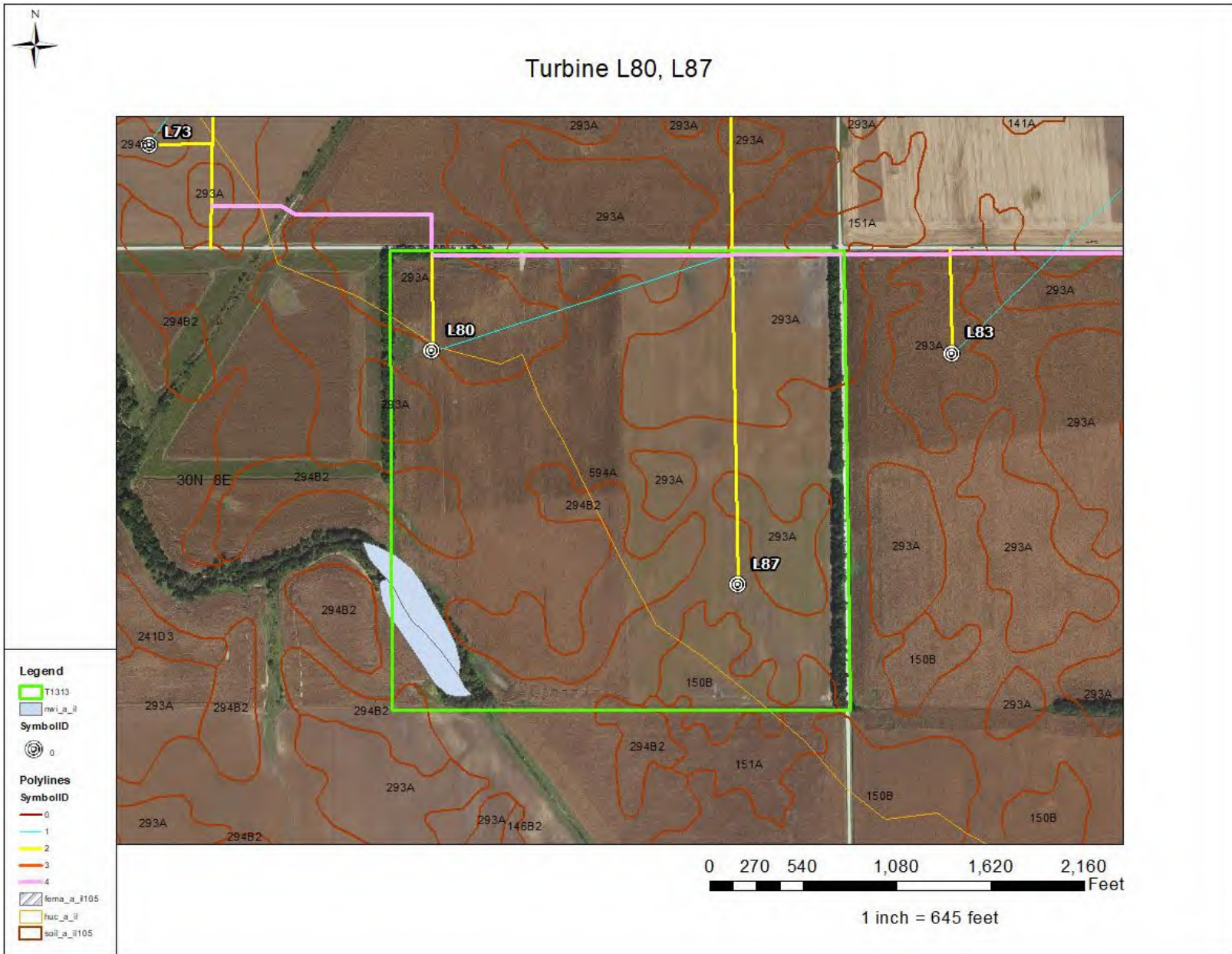
Site Summary

Turbine Number: L80, L87

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
150B	Onarga fine sandy loam, 2-5% slopes	All areas are prime farmland	No	A	Well drained	NHEL	None	Corn - 147 Soybeans - 48
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to flooding. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The access road for Turbine L80 is sited to go through a row of established trees. It would be advisable to move the access road to preserve the trees. Site is in the East Fork Mazon River and Reddick Run watersheds.



Heritage Prairie Wind Farm NRI Report

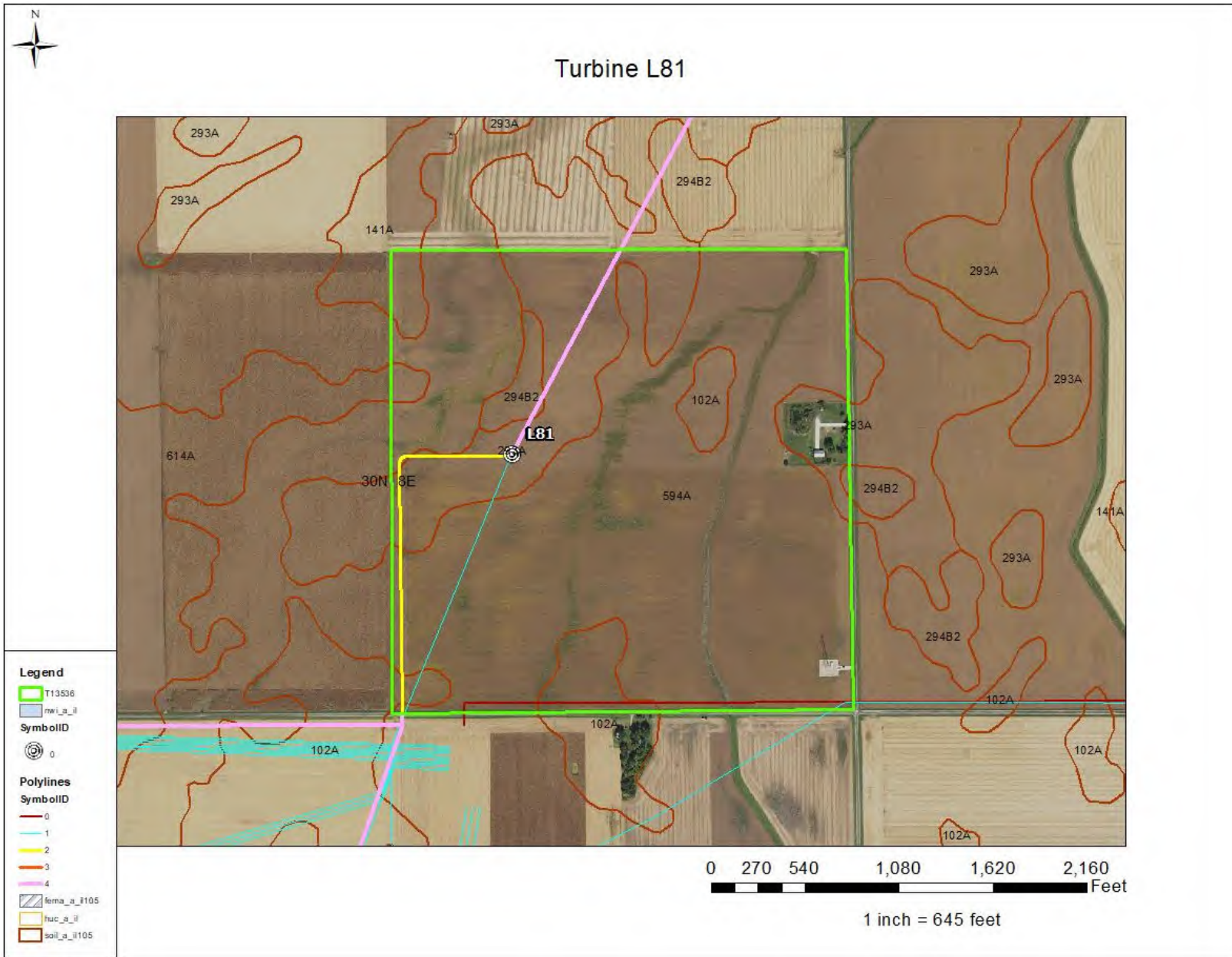
Site Summary

Turbine Number: L81

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
102A	La Hogue loam, 0-2% slopes	All areas are prime farmland	No	B/D	Somewhat poorly drained	NHEL	None	Corn - 162 Soybeans - 52
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There are numerous concentrated flow areas throughout the field that may affect construction. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

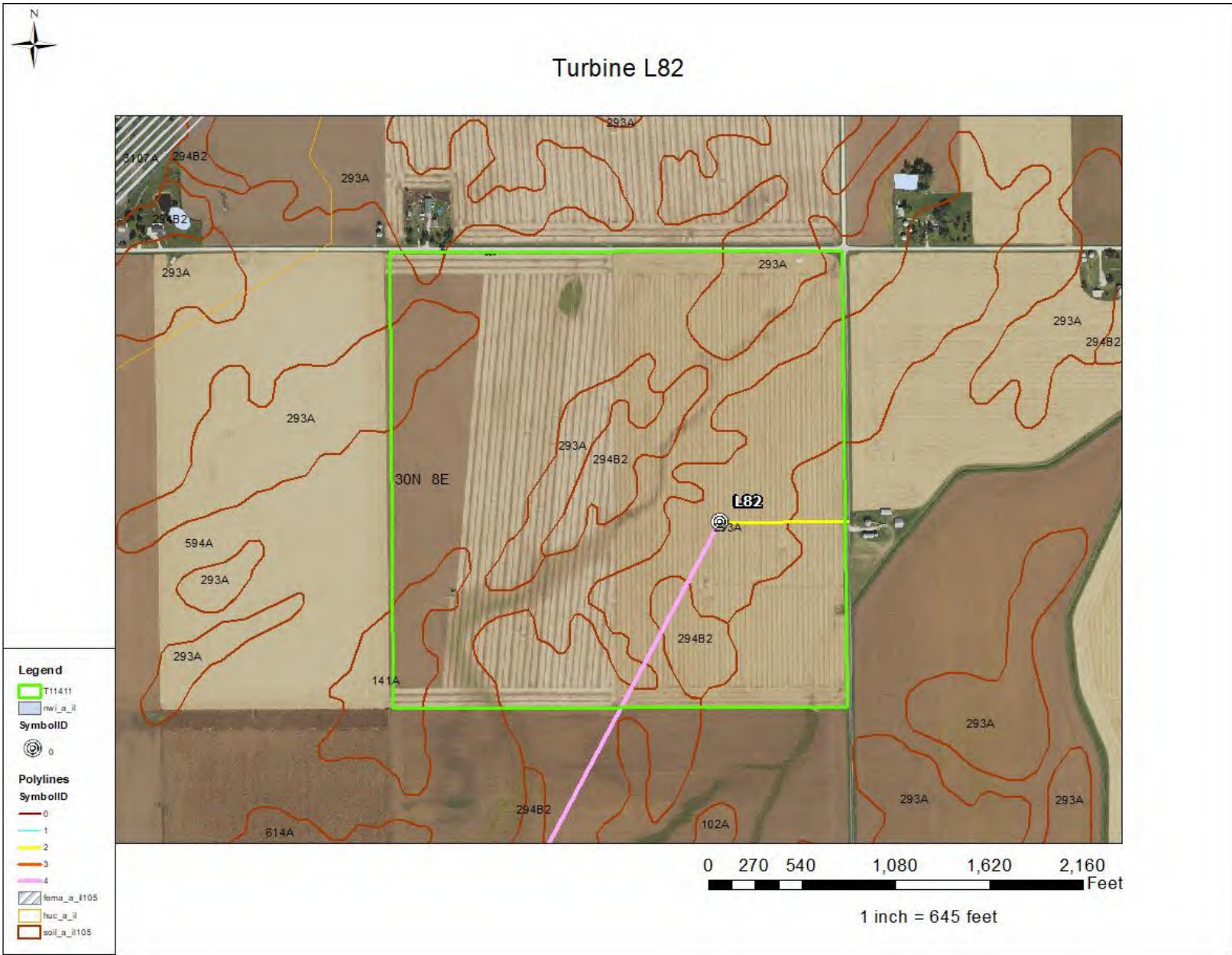
Site Summary

Turbine Number: L82

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

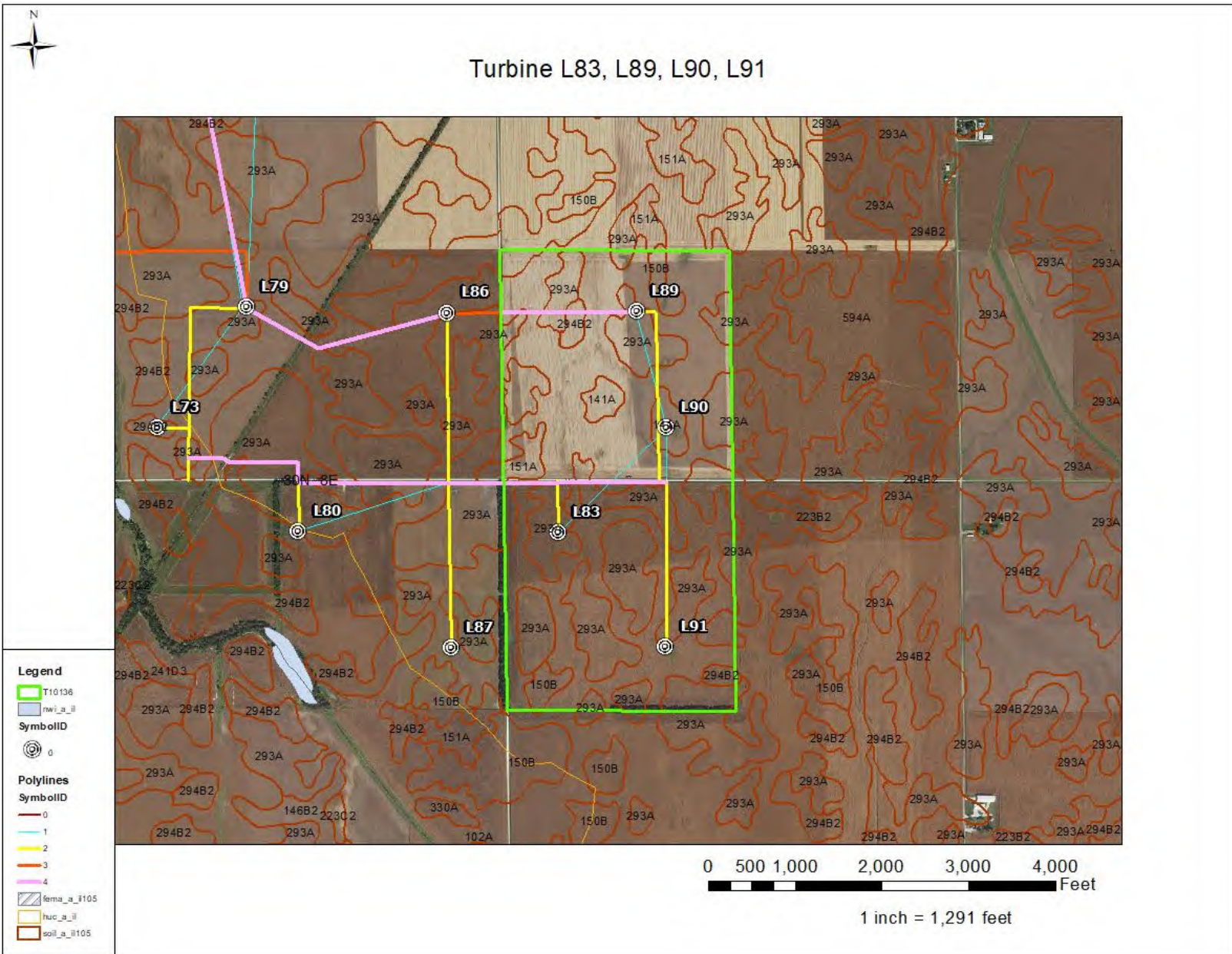
Site Summary

Turbine Number: L83, L89, L90, L91

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
150B	Onarga fine sandy loam, 2-5% slopes	All areas are prime farmland	No	A	Well drained	NHEL	None	Corn - 147 Soybeans - 48
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There are low, ponded areas on both the North and South side of 2800 North Road that could affect access roads and crane paths. There are also low depressional areas very near to where Turbines L90 and L91 are sited. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

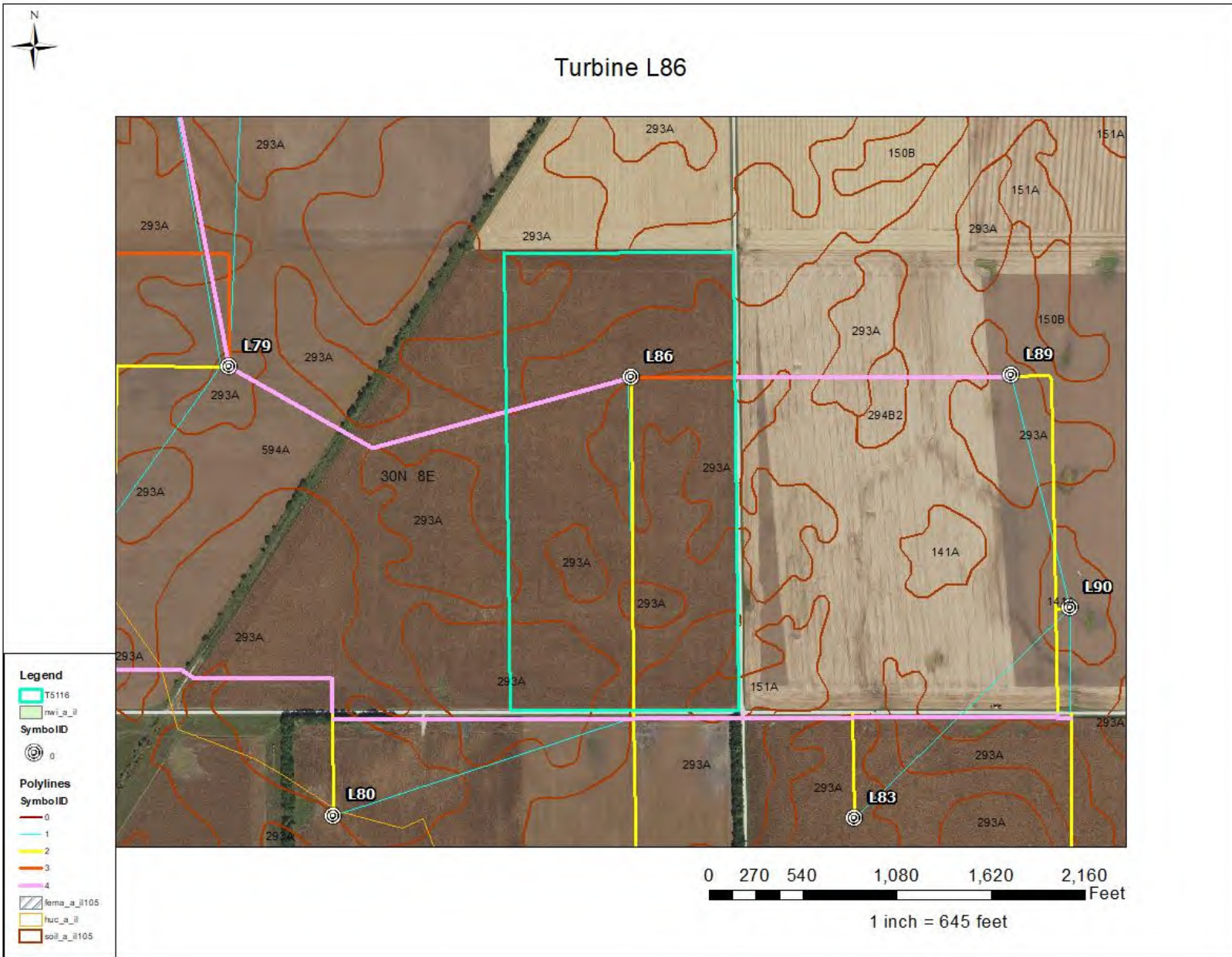
Site Summary

Turbine Number: L86

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
151A	Ridgeville fine sandy loam, 0-2% slopes	All areas are prime farmland	No	A/D	Somewhat poorly drained	NHEL	None	Corn - 151 Soybeans - 51
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

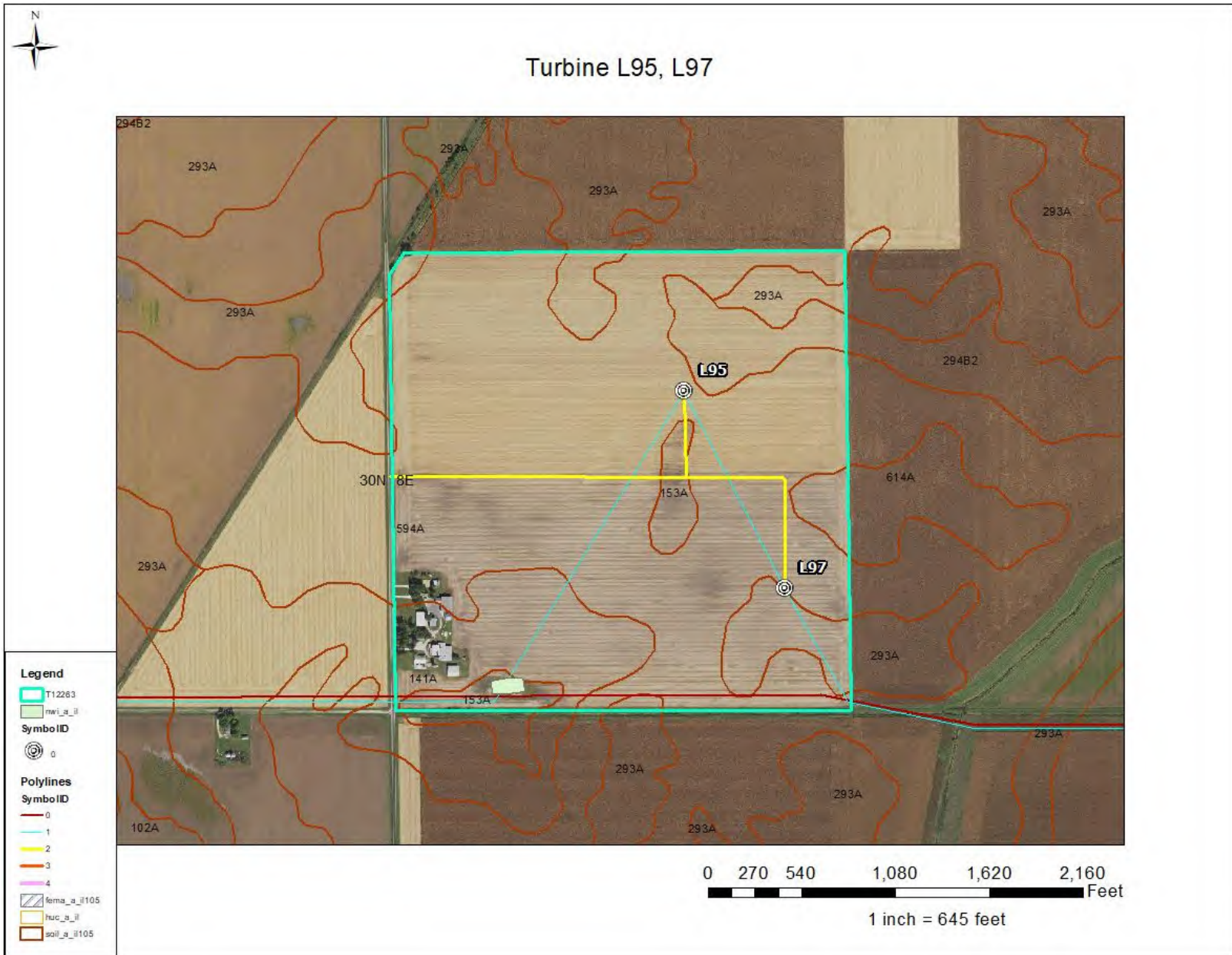
Site Summary

Turbine Number: L95, L97

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
141A	Wesley fine sandy loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 152 Soybeans - 49
153A	Pella silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 153 Soybeans - 60
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. There is an identified wetland on the South side of the property that the collection lines and transmission lines will run through. These lines will need to be moved to not affect the wetland. The access road to Turbine L95 runs through an area that easily ponds and holds water. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

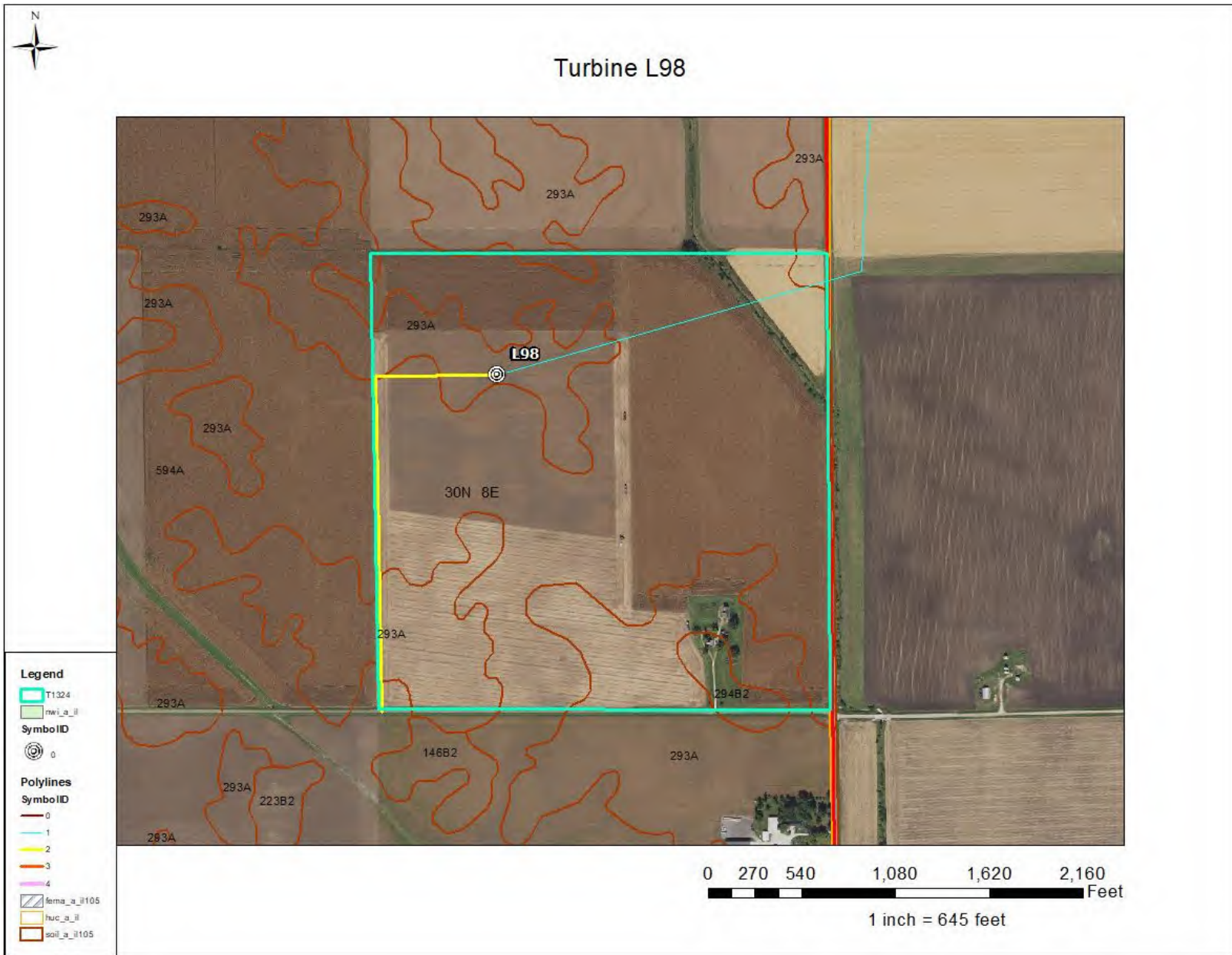
Site Summary

Turbine Number: L98

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Collection lines cross a ditch/stream and will need to be moved. Site is in the Reddick Run watershed.



Heritage Prairie Wind Farm NRI Report

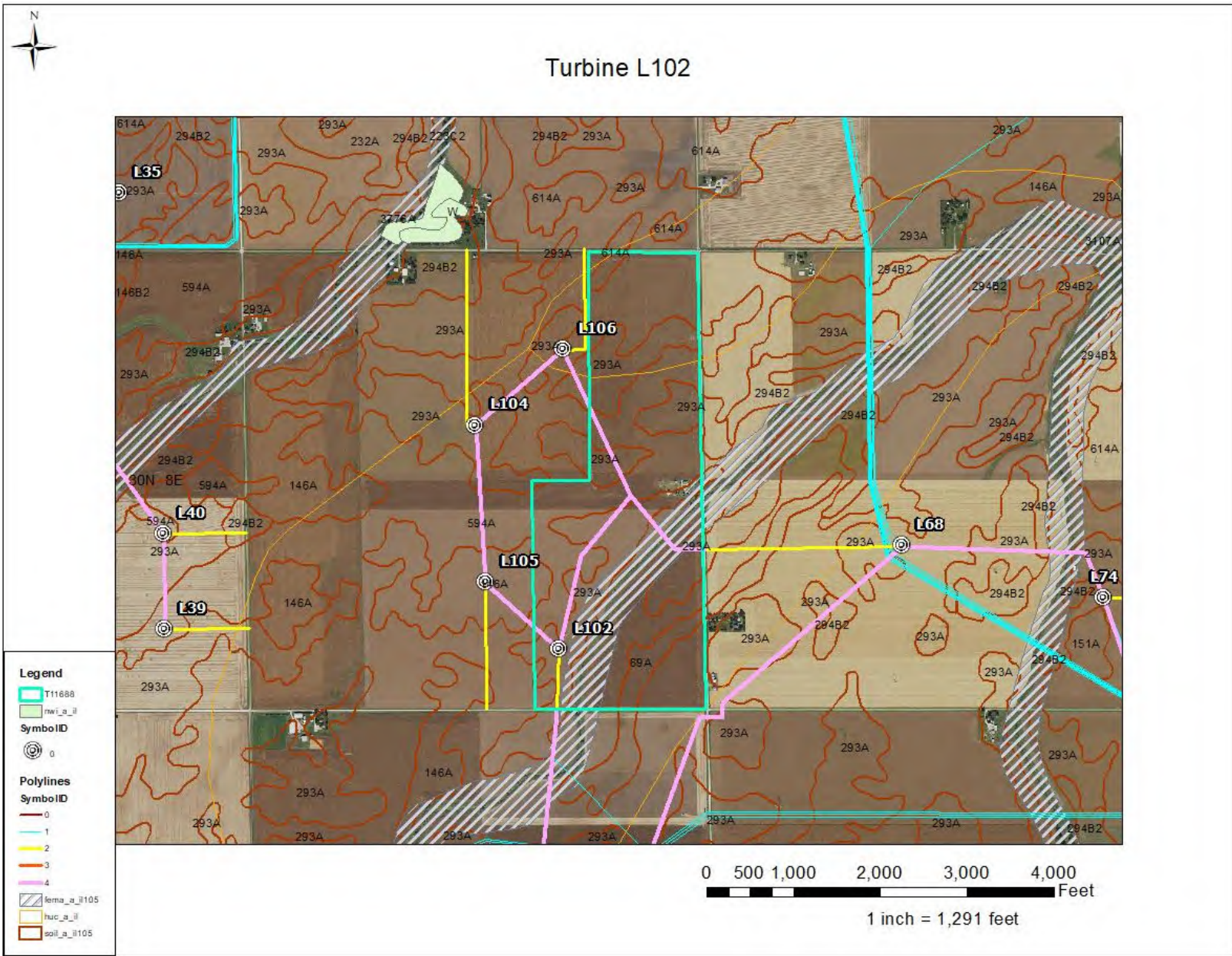
Site Summary

Turbine Number: L102

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
69A	Milford silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 171 Soybeans - 57
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path crosses the 100-year floodplain and Gooseberry Creek and needs to be moved. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

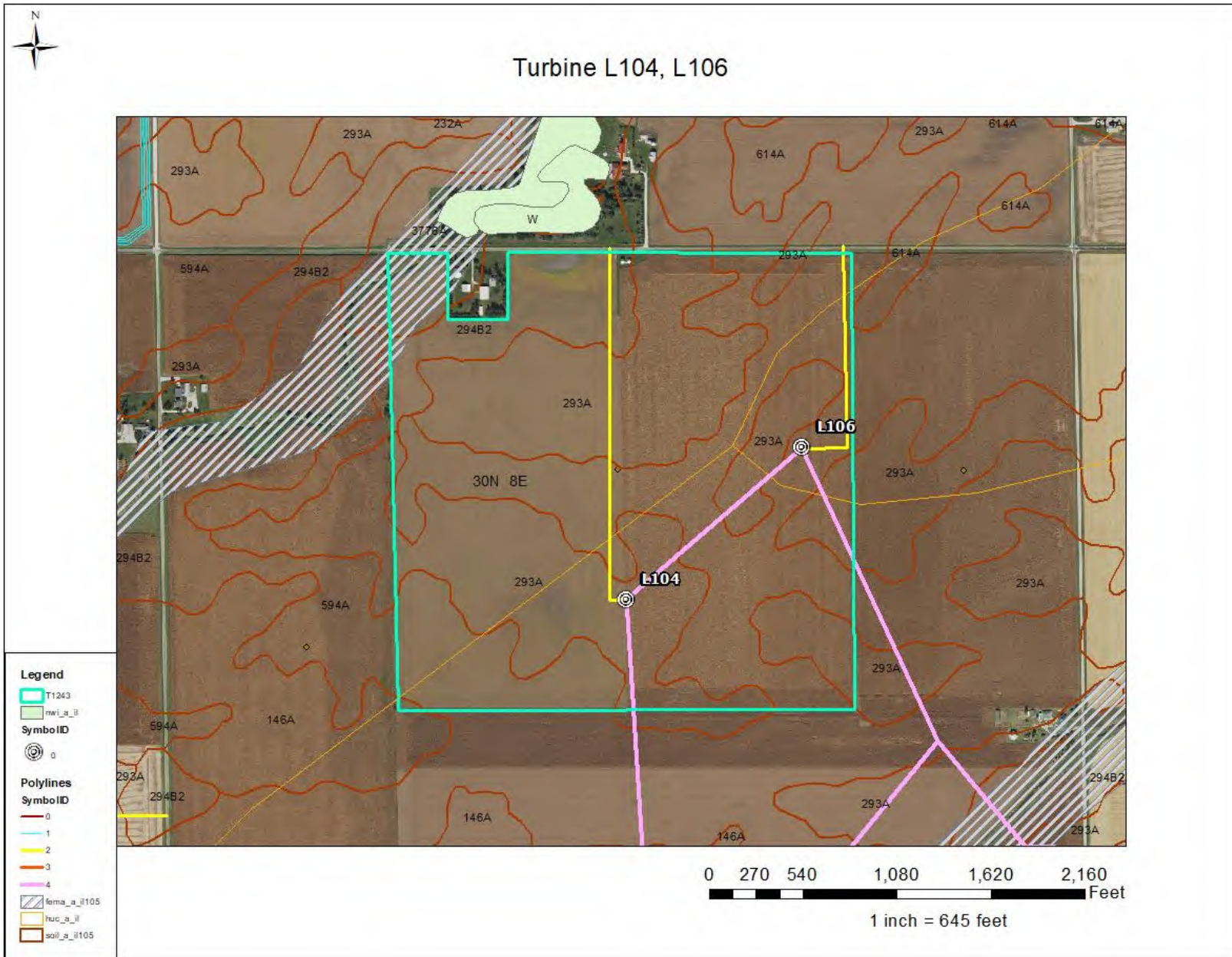
Site Summary

Turbine Number: L104, L106

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56
614A	Chenoa silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 174 Soybeans - 57
3776A	Comfrey loam, 0-2% slopes, frequently flooded	Prime farmland if drained	Yes	B/D	Poorly drained	NHEL	Frequent ponding/ flooding	Corn - 166 Soybeans - 55

Notes: These soils can be wet and are prone to rutting. There are limitations on the construction of roads and trenches, so caution should be exercised. Site is in the Town of Emington-Gooseberry Creek, East Fork Mazon River, and Gooseberry Creek watersheds.



Heritage Prairie Wind Farm NRI Report

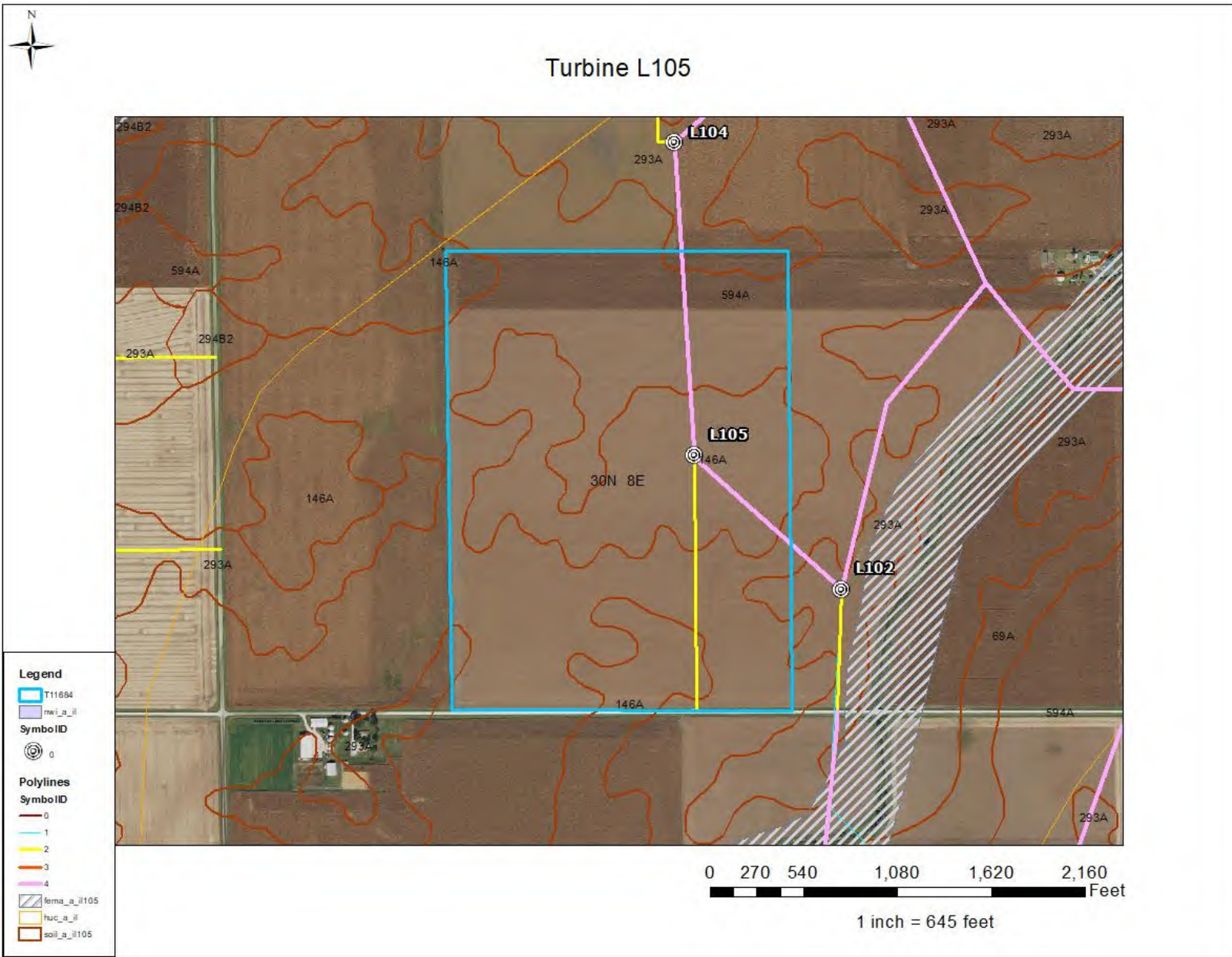
Site Summary

Turbine Number: L105

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Based on aerial imagery, there is some type of utility line/pipeline that the crane path and collection lines will cross. Site is in the Town of Emington-Gooseberry Creek watershed.

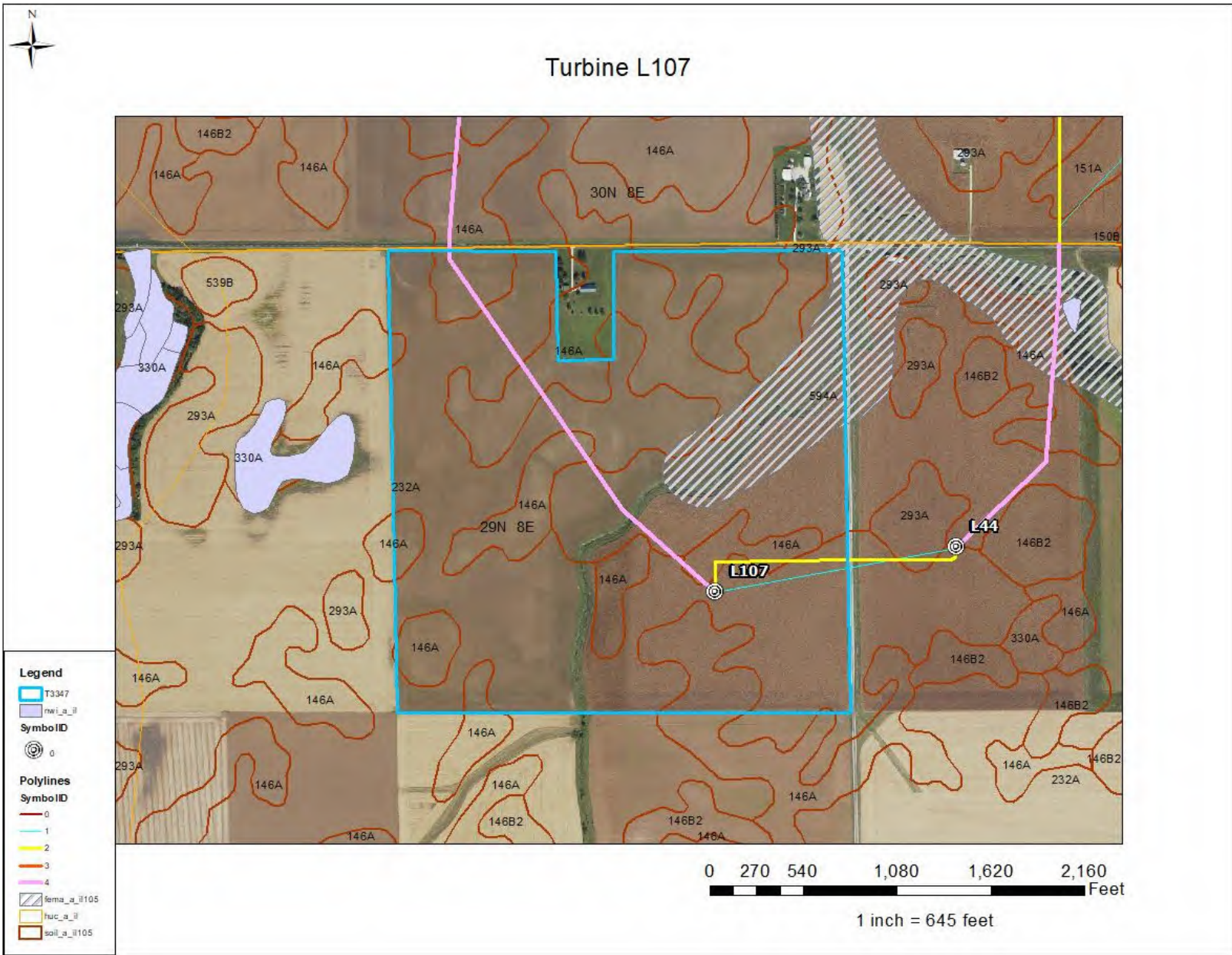


Heritage Prairie Wind Farm NRI Report
Site Summary
Turbine Number: L107

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
232A	Ashkum silty clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 170 Soybeans - 56
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path crosses a ditch/small stream and should either be moved or special construction design modifications will need to be made. Site is in the Town of Emington-Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

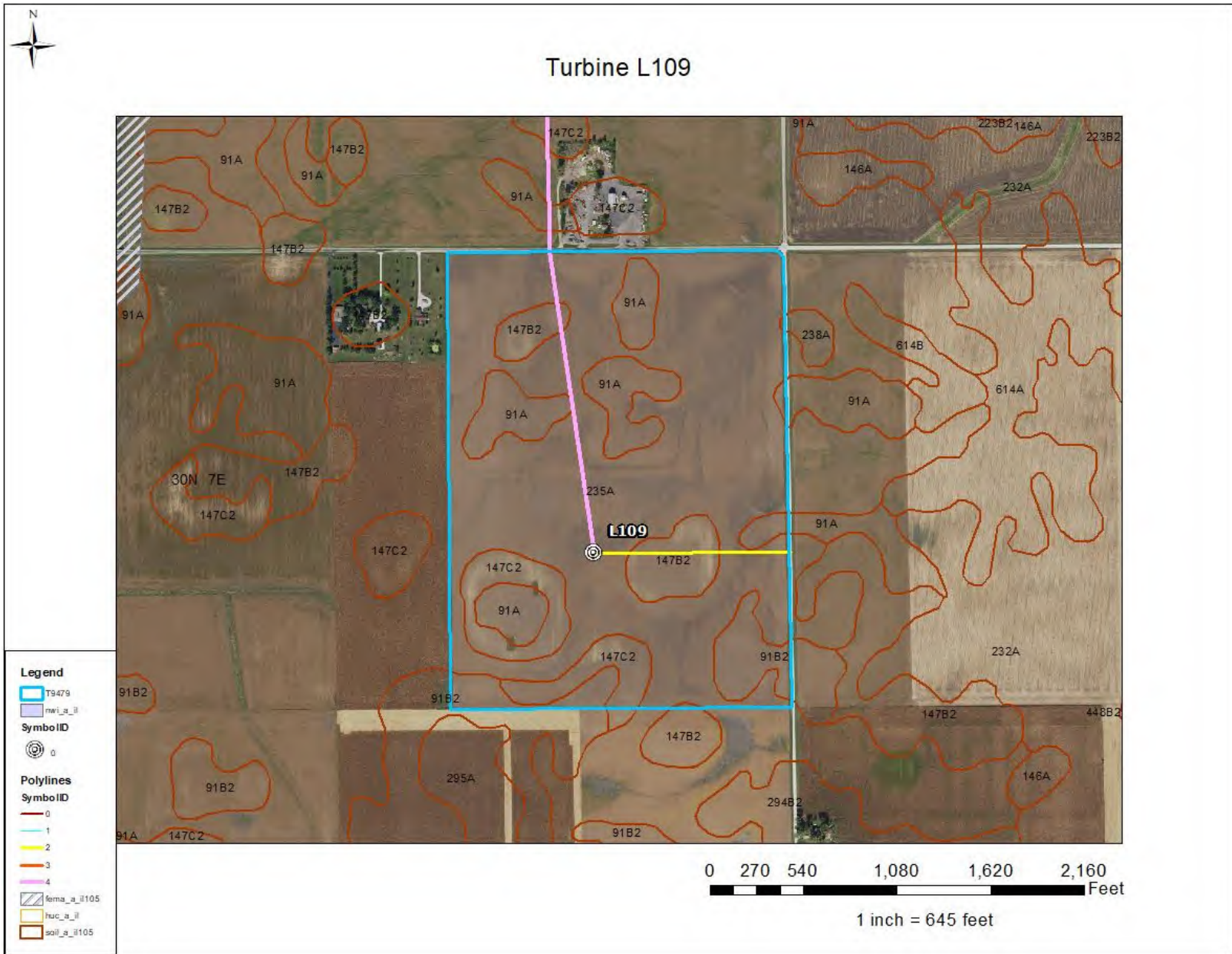
Site Summary

Turbine Number: L109

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
91A	Swygert silty clay loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 158 Soybeans - 52
91B2	Swygert silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 147 Soybeans - 48
147B2	Clarence silty clay loam, 2-4% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 130 Soybeans - 46
147C2	Clarence silty clay loam, 4-6% slopes	Farmland of statewide importance	No	D	Somewhat poorly drained	NHEL	None	Corn - 127 Soybeans - 45
235A	Bryce silty clay 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 162 Soybeans - 54
238A	Rantoul silty clay, 0-2% slopes	Farmland of statewide importance	Yes	D	Very poorly drained	NHEL	Frequent ponding	Corn - 144 Soybeans - 49

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The topography of the site is somewhat rolling. Site is in the Gooseberry Creek watershed.

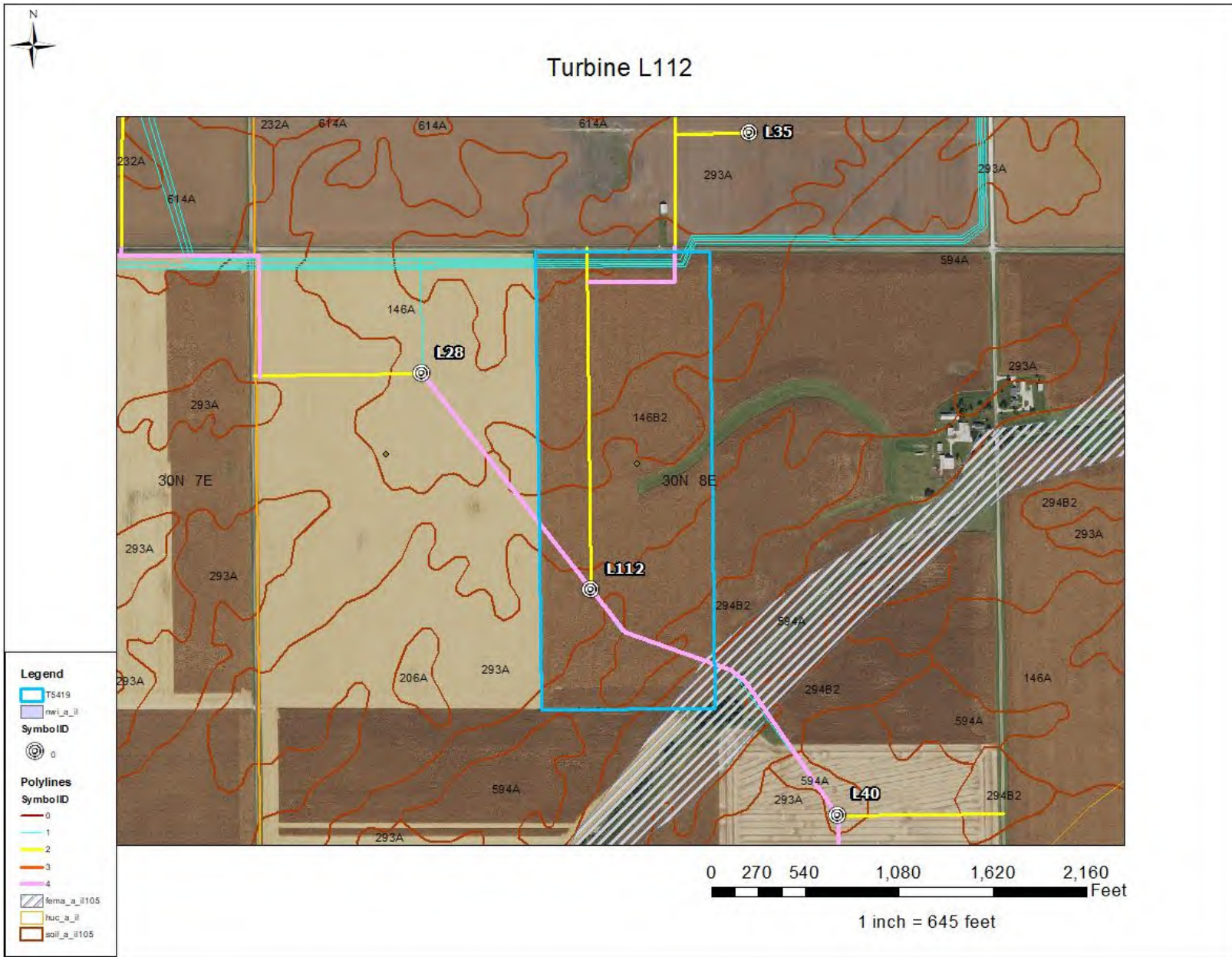


Heritage Prairie Wind Farm NRI Report
Site Summary
Turbine Number: L112

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
146A	Elliott silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 168 Soybeans - 55
146B2	Elliott silty clay loam, 2-4% slopes, eroded	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - 160 Soybeans - 52
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
294B2	Symerton loam, 2-5% slopes, eroded	All areas are prime farmland	No	C	Moderately well drained	NHEL	None	Corn - 170 Soybeans - 53
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. The crane path and collection lines will cross the 100-year floodplain and Gooseberry Creek and needs to be moved. Site is in the Gooseberry Creek watershed.



Heritage Prairie Wind Farm NRI Report

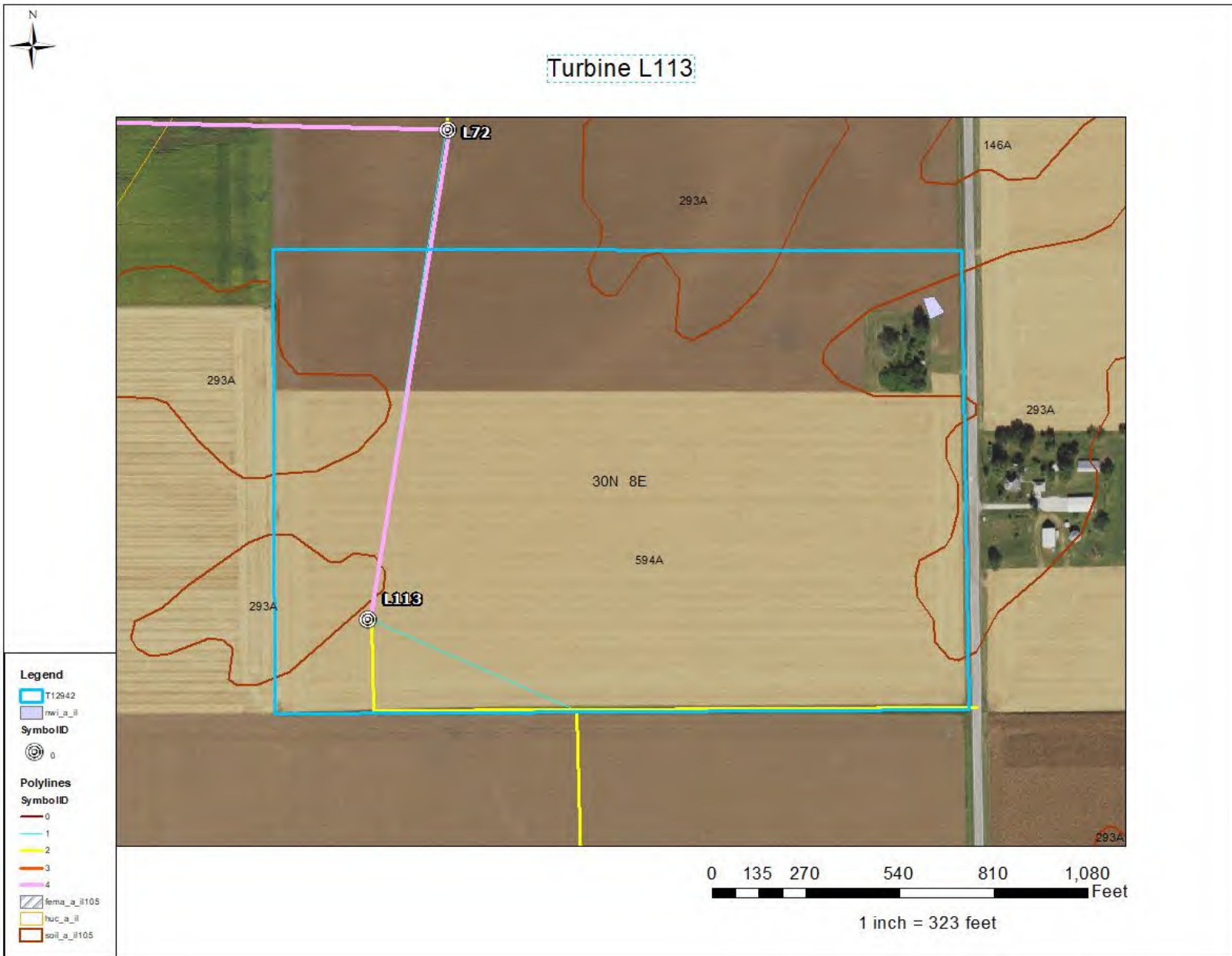
Site Summary

Turbine Number: L113

Soils Present in Turbine Site, Access Road, and Construction Areas:

Symbol	Name	Prime	Hydric	Hydrologic Group	Drainage	HEL	Flooding/ Ponding	Crop Productivity (Bu)
293A	Andres silt loam, 0-2% slopes	All areas are prime farmland	No	C/D	Somewhat poorly drained	NHEL	None	Corn - N/A Soybeans - N/A
594A	Reddick clay loam, 0-2% slopes	Prime farmland if drained	Yes	C/D	Poorly drained	NHEL	Frequent ponding	Corn - 177 Soybeans - 56

Notes: These soils can be wet and are prone to rutting. There are severe limitations on the construction of roads and trenches, so caution should be exercised. Site is in the East Fork Mazon River watershed.



Archaeological/Cultural Resources

Cultural resources are all the past activities and accomplishments of people. They include the following: building, objects made or used by people, and locations of human activity. The Soil and Water Conservation District most often encounters cultural resources as archaeological sites. These sites often extend below the soil surface and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are non-renewable because there is no way to “grow” a site to replace a disrupted site.

Those sites deemed to be significant and eligible for listing on the National Register of Historical Places are referred to as “historic properties.” These may be prehistoric (before written history) or from the historic period, which in Illinois is after 1673. Anything older than 50 years needs to be evaluated for historic significance.

Landowners with historical properties on their land have ownership of that historical property and may choose to collect or disturb a historical property on their own land. However, human remains, grave markers, burial mounds, and artifacts associated with graves and human remains over 100 years old are protected by state law, regardless of private or public property. If an earth moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

Historic Preservation Legislation: The National Historic Preservation Act of 1966 (NHPA Section 106) requires all Federal Agencies’ “undertakings” to “take into account” their effect on historic properties. As of January 1, 1990, the State Agency Historic Resources Preservation Act (Public Act 86-707) requires the same for all private or public undertakings involving state agencies. An “undertaking” is defined to cover a wide range of Federal or State permitting, funding, and licensing activities. It is the responsibility of Federal/State Agencies to ensure the protection of historic resources and the State Historic Preservation Office (SHPO) regulates this effort.

Due to the size of the planned project area and to the nature of this project being subject to compliance with State Historic Preservation Agency regulations, a cultural resources review was not conducted by our NRCS Archaeologist. The applicant should contact the Archaeology Section, Preservation Services Division, Illinois Historic Preservation Agency, for information about compliance with Federal and State regulations.
www2.illinois.gov/dnrhistoric

Ecologically Sensitive Areas

What is biological diversity and why should it be conserved?

Biological diversity, or biodiversity, is the range of life on our planet. A more thorough definition is presented by botanist Peter H. Raven: "At the simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all of the interactions between them. It is the set of living organisms that make up the fabric of the planet Earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life's processes; by forming communities of organisms that have, through the several billion years of life's history on Earth, altered the nature of the atmosphere, the soil and the water of our Planet; and by making possible the sustainability of our planet through their life activities now." (Raven 1994)

It is not known how many species occur on our planet. Presently, about 1.4 million species have been named. It has been estimated that there are perhaps 9 million more that have not been identified. What is known is that they are vanishing at an unprecedented rate. Reliable estimates show extinction occurring at a rate several orders above "background" in some ecological systems. (Wilson 1992, Hoose 1981)

The reasons for protecting biological diversity are complex, but they fall into four major categories.

First, loss of diversity generally weakens entire natural systems. Healthy ecosystems tend to have many natural checks and balances. Every species plays a role in maintaining this system. When simplified by the loss of diversity, the system becomes more susceptible to natural and artificial perturbations. The chances of a system-wide collapse increase. In parts of the Midwestern United States, for example, it was only the remnant areas of natural prairies that kept soil intact during the dust bowl years of the 1930s. (Roush 1982).

Simplified ecosystems are almost always expensive to maintain. For example, when synthetic chemicals are relied upon to control pests, the target species are not the only ones affected. Their predators are almost always killed or driven away, exasperating the pest problem. In the meantime, people are unintentionally breeding pesticide-resistant pests. A process has begun where people become perpetual guardians of the affected area, which requires the expenditure of financial resources and human ingenuity to keep the system going.

A second reason for protecting biological diversity is that it represents one of our greatest untapped resources. Great benefits can be reaped from a single species. About 20 species provide 90% of the world's food. Of these 20, just three, wheat, maize and rice, supply over one half of that food. American wheat farmers need new varieties every five to 15 years to

compete with pests and diseases. Wild strains of wheat are critical genetic reservoirs for these new varieties.

Further, every species is a potential source of human medicine. In 1980, a published report identified the market value of prescription drugs from higher plants at over \$3 billion. Organic alkaloids, a class of chemical compounds used in medicines, are found in an estimated 20% of plant species. Yet only 2% of plant species have been screened for these compounds. (Hoose 1981)

The third reason for protecting diversity is that humans benefit from natural areas and depend on healthy ecosystems. The natural world supplies our air, our water, our food and supports human economic activity. Further, humans are creatures that evolved in a diverse natural environment between forest and grasslands. People need to be reassured that such places remain. When people speak of “going to the country,” they generally mean more than getting out of town. For reasons of their own sanity and well-being, they need a holistic, organic experience. Prolonged exposure to urban monotony produces neuroses, for which cultural and natural diversity cure.

Historically, the lack of attention to biological diversity, and the ecological processes it supports, has resulted in economic hardships for segments of the basin’s human population.

The final reason for protecting biological diversity is that species and natural systems are intrinsically valuable. The above reasons have focused on the benefits of the natural world to humans. All things possess intrinsic value simply because they exist.

Biological Resources Concerning the Subject Parcel

As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves are in the general vicinity of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include, but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

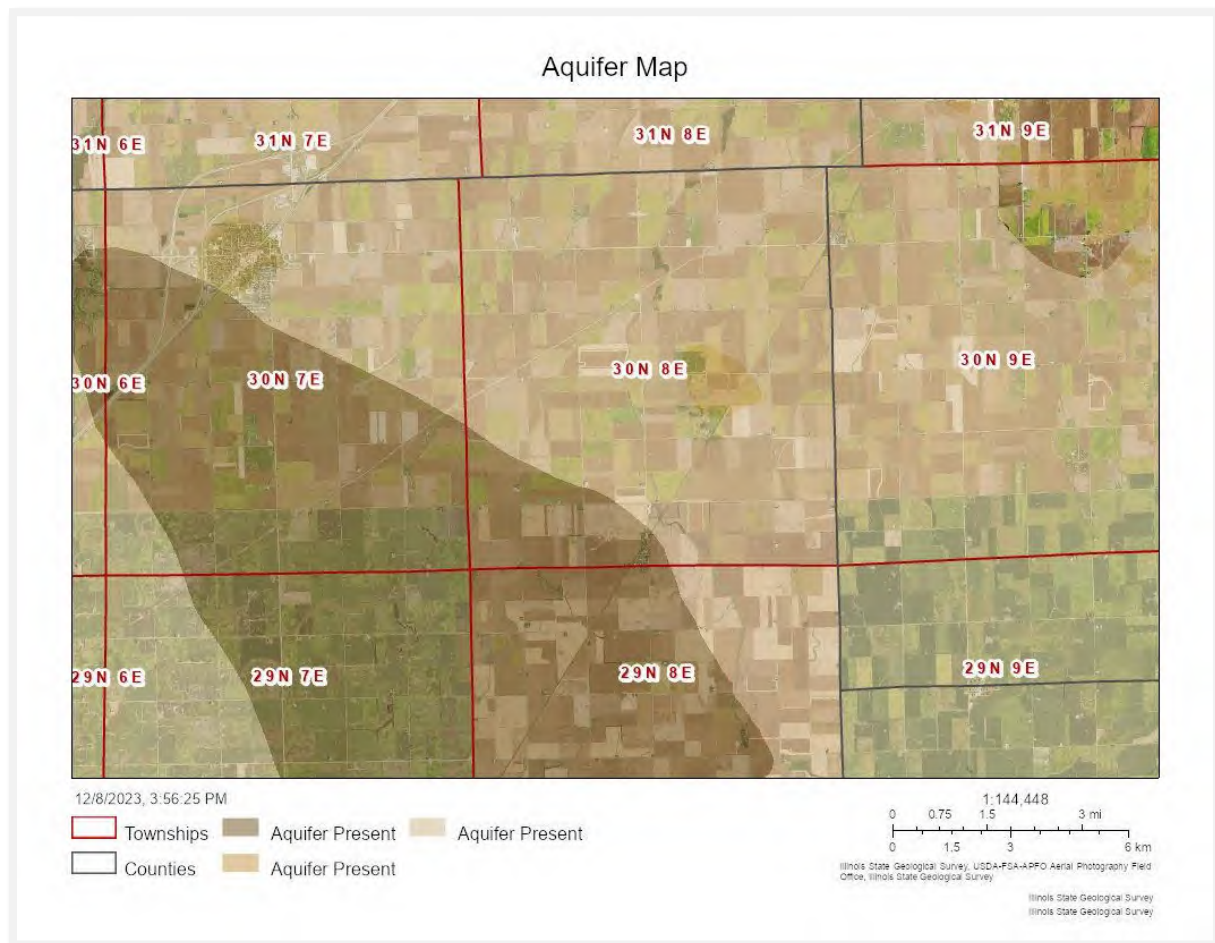
Office maps indicated that there are no ecologically sensitive areas in the general vicinity of the Parcel in Question (PIQ). It is recommended that an IDNR EcoCat Report be completed by the petitioner to make sure.

Geologic/Aquifer Information

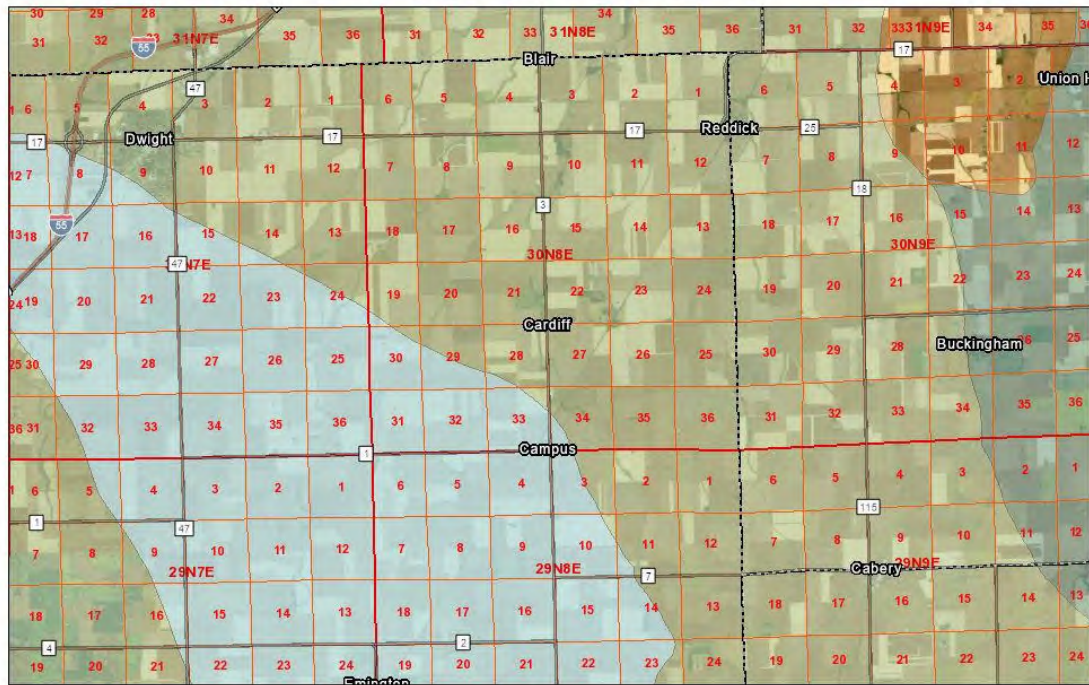
Geology and the Proposed Land Use

Local geology plays an important role in determining the pollution potential. Groundwater pollution potential is an important element of the natural resource base. This information, when compared to soils information, gives a clearer picture of conditions on this parcel.

The potential for aquifer contamination is high in the Southwest part of Round Grove Township and the Southern part of Dwight Township in the project area. These areas are located in areas with major sand and gravel aquifers. The rest of the project area is in areas of low aquifer contamination potential.



Groundwater Resources in Illinois



12/8/2023, 3:59:46 PM

- Sections
- Townships
- Counties
- Major Sand and Gravel Aquifers
- Shallow Bedrock Aquifers (<500ft)
- Minor Pennsylvanian-Devonian Units
- Mahomet Aquifer
- Galena-Platteville Dolomites
- St. Peter Sandstone
- Lower Ordovician-Cambrian Units
- Devonian-Silurian Carbonates
- Bedrock Fault

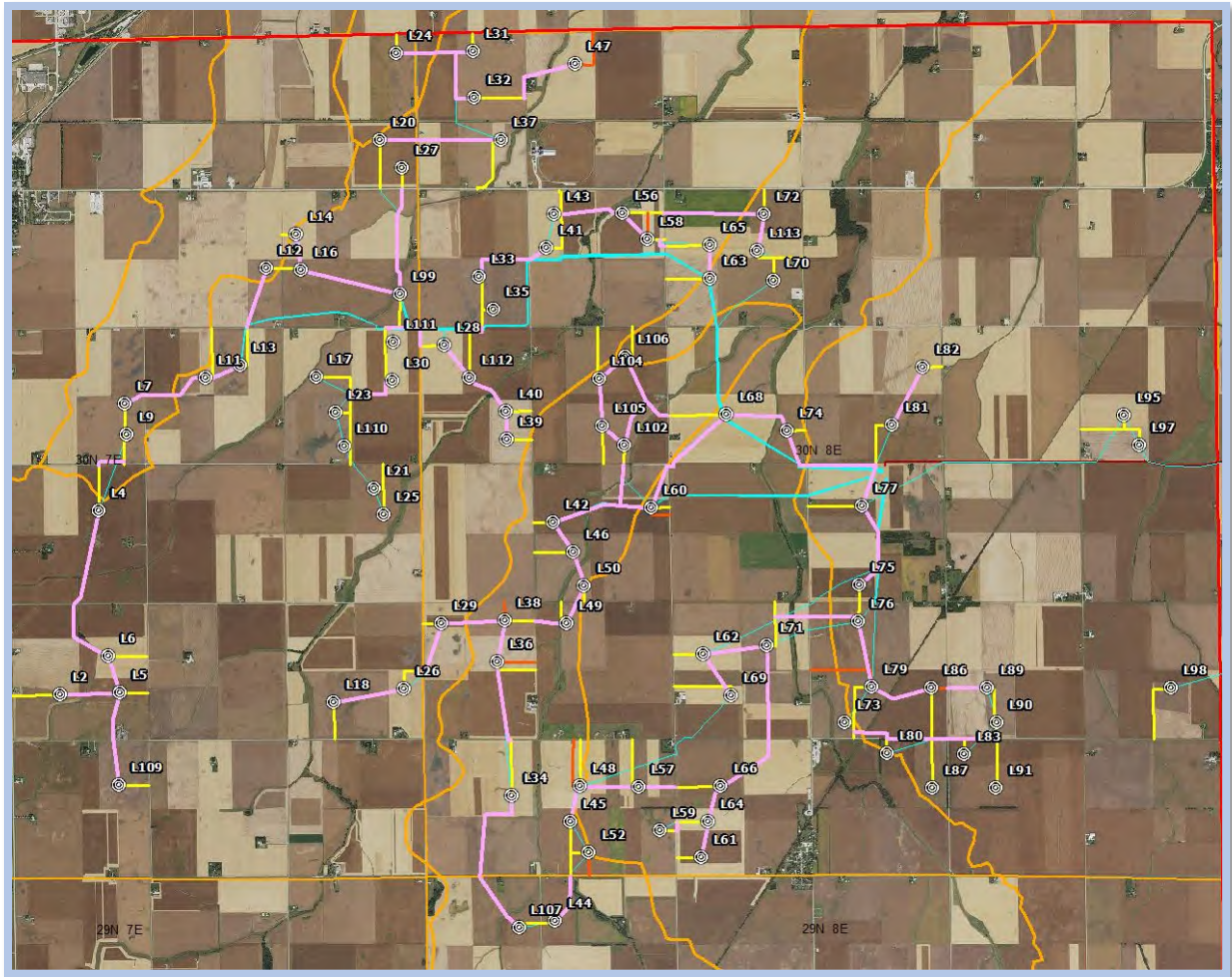
1:144,448
 0 0.75 1.5 3 6 km
 0 0.75 1.5 3 6 mi
 IGGI, ISWS. Source: Esri, USDA FSA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, USDA. Source: Esri.
 Illinois State Water Survey, Groundwater Science Section
 Illinois State Water Survey, Groundwater Science Section

Watershed Information

Watershed and Subwatershed Information

A watershed is the area of land that drains into a specific point including a stream, lake or other body of water. High points on the Earth's surface, such as hills and ridges, define watersheds. When rain falls in the watershed, it flows across the ground towards a stream or lake. Rainwater carries any pollutants it comes in contact with such as oils, pesticides, and soil. Everyone lives in a watershed. Their actions can impact natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and implication of their activities, implementing practices recommended in watershed plans and educating others about their watershed. This project is in the Gooseberry Creek, Town of Emington-Gooseberry Creek, Reddick Run, East Fork Mazon River, Woods Run-Gooseberry Creek, Town of Dwight-Gooseberry Creek, and Jackson Creek-Mazon River watersheds of the Mazon River watershed.

It is recommended that developments incorporate the Best Management Practices to protect and enhance overall surface and groundwater quality, reduce existing flood damage, prevent flooding from worsening, improve aquatic and wildlife habitat, along with developing open space and recreational opportunities. More information can be found about the Best Management Practices by visiting the Livingston County Soil and Water Conservation District.



Topographic/FEMA Information

Due to the size and scope of the project, an overall topographic map was not generated. Individual topographic maps for each site will be available upon request.

Importance of Flood Information

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas demanding protection since they have water storage and conveyance functions which affect upstream and downstream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is both dangerous to people and destructive of their properties. The following maps, when combined with wetland and topographic information, can help developers and future homeowners to “sidestep” potential flooding or ponding problems.

FIRM is the acronym for the Flood Insurance Rate Map, produced by the Federal Emergency Management Agency. These maps define flood elevation adjacent to tributaries and major bodies of water, and superimpose that onto a simplified USGS topographic map. The scale of the FIRM maps is generally dependent of the size and density of parcels in that area. (This is to correctly determine that parcel location and flood plain location). The FIRM map has three (3) zones. A is the zone of 100 year flood, zone B is the 100 to 500 year flood, and zone C is outside the flood plain.

The Hydrologic Atlas (H.A.) Series of the Flood of Record Map is also used for the topographic information. This map is different from the FIRM map mainly because it will show isolated, or pocketed, flooded areas. Livingston County uses both of these maps in conjunction with each other for flooded area determinations. The Flood of Record maps show the areas of flood for various years. Both of these maps stress that the recurrence of flooding is merely statistical. That is to say a 100-year flood may occur twice in one year, or twice in one week, for that matter.

It should be noted that greater floods than those shown on the two maps are possible. The flood boundaries indicated provide a historic record only until the map publication date. Additionally, these flood boundaries are a function of the watershed conditions existing when the maps were produced. Cumulative changes in runoff characteristics caused by urbanization can result in an increase in flood height of future flood episodes.

Floodplains play a vital role in reducing the flood damage potential associated with an urbanizing area and, when left in an undisturbed state, also provide valuable wildlife habitat benefits. If it is the petitioner's intent to conduct floodplain filling or modification activities, the petitioner and the Unit of Government responsible need to consider the potentially adverse effects this type of action could have on adjacent properties. The change or loss of natural floodplain storage often increases the frequency and severity of flooding on adjacent property.

If the available maps indicate the presence of a floodplain on the PIQ, the petitioner should contact the IDOT-DWR and FEMA to delineate a floodplain elevation for the parcel. If a portion of the property is indeed floodplain, applicable state, county and local regulations will need to be reflected in the site plans.

Another indication of flooding potential can be found in the soils information. Hydric soils indicate the presence of drainageways, areas subject to ponding, or naturally occurring high water table. These need to be considered along with the floodplain information when developing the site plan and the stormwater management plan. If the site does include these hydric soils and the development occurs, thus raising the concerns of the loss of water storage in these soils and the potential for increased flooding in the area.

Soil Erosion and Sediment Control

Erosion is the wearing away of the soil by water, wind, and other forces. Soil erosion threatens the Nation's soil productivity and contributes the most pollutants in our waterways. Water causes about two thirds of erosion on agricultural land. Four properties, mainly, determine a soil's erodibility:

1. Texture
2. Slope
3. Structure
4. Organic Matter Content

Slope has the most influence on soil erosion potential when the site is under construction. Erosivity and runoff increase as slope grade increases. The runoff then exerts more force on the particles, breaking their bonds more readily and carrying them farther before deposition. The longer water flows along a slope before reaching a major waterway, the greater the potential for erosion.

Soil erosion during and after this proposed construction can be a primary non-point source of water pollution. Eroded soil during the construction phase can create unsafe conditions on roadways, decrease the storage capacity of lakes, clog streams and drainage channels, cause deterioration of aquatic habitats, and increase water treatment costs. Soil erosion also increases the risk of flooding by choking culverts, ditches, and storm sewers, and by reducing the capacity of natural and man-made detention facilities.

The general principles of erosion and sediment control measures include:

- Reducing or diverting flow from exposed areas, storing flows, or limiting runoff from exposed areas,
- Staging construction to keep disturbed areas to a minimum,
- Establishing or maintaining of temporary or permanent groundcover,
- Retaining sediment on site, and
- Properly installing, inspecting, and maintaining control measures.

Erosion control practices are useful controls only if they are properly located, installed, inspected, and maintained.

The SWCD recommends an erosion control plan for all building sites, especially if there is a wetland or stream nearby.

Wetland Information

Importance of Wetland Information

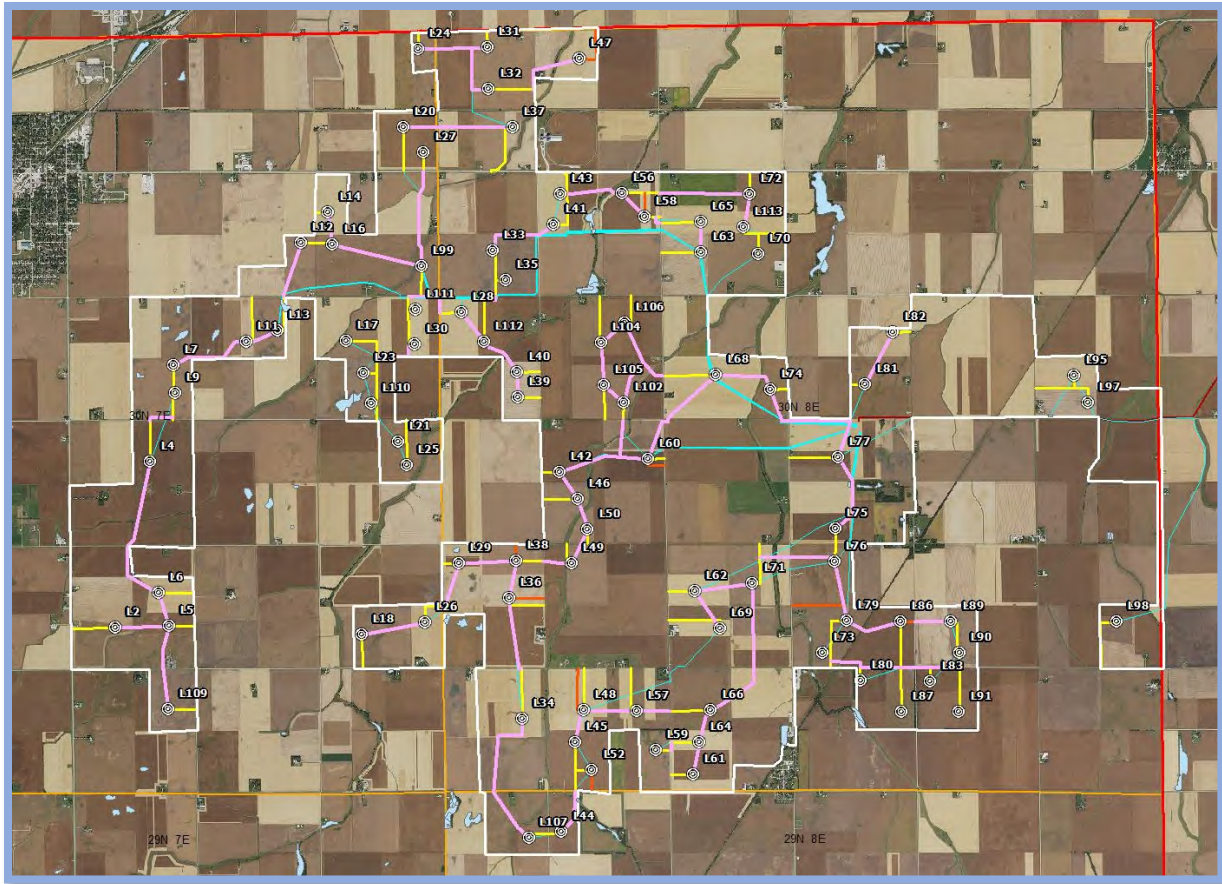
Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants, and can function as rechargers of our valuable groundwater. They also are essential breeding, rearing, and feeding grounds for many species of wildlife.

These benefits are particularly valuable in urbanizing areas as development activity typically adversely affects water quality, increases the volume of stormwater runoff, and increases the demand for groundwater. In an area where many individual homes rely on shallow groundwater wells for domestic water supplies, activities that threaten potential groundwater recharge areas are contrary to the public good. The conversion of wetlands, with their sediment trapping and nutrient absorbing vegetation, to biologically barren stormwater detention ponds can cause additional degradation of water quality in downstream or adjacent areas.

It has been estimated that over 95% of the wetlands that were historically present in Illinois have been destroyed while only recently has the true environmental significance of wetlands been fully recognized. America is losing 100,000 acres of wetland a year, and has saved 5 million acres total (since 1934). One acre of wetland can filter 7.3 million gallons of water a year. These are reasons why our wetlands are high quality and important.

This section contains the NRCS (Natural Resources Conservation Service) Wetlands Inventory, which is the most comprehensive inventory to date. The NRCS Wetlands Inventory is reproduced from an aerial photo at a scale of 1" equals 660 feet. The NRCS developed these maps in cooperation with U.S. EPA (Environmental Protection Agency) and the U.S. Fish and Wildlife Service, using the National Food Security Act Manual, 3rd Edition. The main purpose of these maps is to determine wetland areas on agricultural fields and areas that may be wetlands but are in a non-agricultural setting.

The NRCS Wetlands Inventory in no way gives an exact delineation of the wetlands, but merely an outline, or the determination that there is a wetland within the outline. For the final, most accurate wetland **determination** of a specific wetland, a wetland **delineation** must be certified by NRCS staff using the National Food Security Act Manual (on agricultural land). On urban land, a certified wetland delineator must perform the delineation using the ACOE 1987 Manual. *See the glossary section for the definitions of "delineation" and "determination."*



There are identified wetlands in the project area. A certified wetland determination will need to be done.

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against flood way encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and adversely impact the public. Therefore, please contact the proper regulatory authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, flood plain or flood way subject to State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES

- **Wetlands or U.S. Waters: U.S. Army Corps of Engineers**, Rock Island District, Clock Tower Building, P.O. Box 2004, Rock Island, IL 61204-2004. Phone (309) 794-5379.
- **Flood plains: Illinois Department of Natural Resources\Office of Water Resources**, Natural Resources Way, Springfield, IL 62702-1270.
- **Water Quality\Erosion Control: Illinois Environmental Protection Agency**, Division of Water Pollution Control, Permit Section, Watershed Unit, 2200 Churchill Road, Springfield, IL 62706. Phone (217) 782-0610.

COORDINATION

We recommend early coordination with the regulatory agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. Also, the agency can make possible environmental enhancement provisions early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers is strongly advised before commencement of any work in or near a water of the United States. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River and Harbor Act of 1899 or Section 404 of the Federal Water Pollution Control Act are subject to fines ranging up to \$27,500 per day of violation and imprisonment for up to one year or both.

Woodlands

There are no woodlands on the turbine sites; however, there are tree lines that access roads or connection lines will cross and there are wooded areas near some of the sites.

Native woodlands are no longer a common occurrence throughout much of Livingston County. Although forests originally covered nearly 40% of Illinois, today only about 12% of the state is forested, with most of this being secondary growth (Ill. Natural History Survey Reports, Nov/Dec 1993, no. 324). The composition of Illinois forests has changed markedly over the past three decades. 97% of the timberland is classified as hardwood forest. The forest acreage continues to increase from 4.2 million acres in 1985 to 4.3 million acres in 1998 (IL Forest Development Council News, IL DNR, Winter 2001/Volume 2, No. 1). Oak-hickory forests, which had made up half of the acreage, have declined by 14% and make up 2.1 million acres. This decline is largely a result of wildfire suppression that allows maples to take over. Thus, the acres of maple-beech forest have risen more than 40-fold from 1962 to 1985, to one quarter of the total forest area, 696 thousand acres. Dutch elm disease and the conversion of forested bottomlands to agriculture have resulted in huge declines in the elm-ash-cottonwood forests, 906 thousand acres, falling from one third – one sixth of the Illinois forest area. Elm accounts for the greatest number of individual trees – 412 million. Other species groups with more than 100 million trees include hickory, red oak, sugar/black maple, ash, hackberry, and black cherry.

Woodlands provide many benefits such as wildlife habitat, erosion control, air and water quality improvement, and aesthetic values. Forests are responsible for much of the biological diversity in the state. Many species are dependent upon forests for food and shelter, including threatened and endangered species.

One of the most serious problems facing Illinois forests is the invasion of exotic plants and animals. Some of the most damaging plants include European buckthorn, multiflora rose, honeysuckle, purple loosestrife, and garlic mustard.

Many trees, particularly hardwoods (especially oaks) are extremely sensitive to construction-induced disturbances. The area most susceptible to damage is within the “drip radius,” the ground surface directly beneath the leafy canopy of the tree. Many trees have an extensive system of feeder roots, located within one foot of the surface, and supply the tree with the majority of its moisture and nutrient needs.

Construction activities can negatively impact trees in several different ways. Earth-moving activities that stockpile soil near trees can suffocate tree roots that, although buried, require oxygen. Vehicle traffic can compact the soil to a point where the roots no longer function

effectively. Grading activities for road cuts and foundations can cause a localized drop in the water table, placing the trees under stress. The placement of pavement or stormwater management facilities near established trees can also radically change soil moisture. The removal of accumulated organic materials normally present on a woodland floor, and the subsequent establishment of turf lawns, can drastically affect the soil temperature and nutrient balance. Injury to the bark of a tree can increase the chance of the tree being subjected to a potentially harmful disease.

If existing trees are to be maintained in a healthy state, the appropriate planning is necessary. Someone with a working knowledge of forestry should assess existing trees to determine which trees should be protected. Some tree species are not considered desirable due to their aggressive growth, behavior, and limited value to local wildlife. Proper management of woodlands and open space includes the selective elimination of such trees and replacement by more desirable species. **Trees that are to be saved should be marked and protected with snow fencing or similar material, installed around the drip radius, to prevent root damage,** and vehicle traffic should be minimized around the drip line. Contractors should be informed of the intention to preserve trees and be expected to conduct their work accordingly.

Tree damage resulting from construction activities may not be apparent for a number of years. While it is recognized that some tree loss is unavoidable, this should be minimized to the extent possible. It is highly recommended that trees lost to development activity should be replaced by younger specimens of native trees now found on the PIQ.

Land Evaluation Site Assessment

The Livingston County Land Evaluation and Site Assessment System (LESA) is designed to evaluate the viability of a site for agricultural uses. Although the framework of the system was developed by the Natural Resources Conservation Service of the U.S. Department of Agriculture, the contents of the county's LESA System were prepared locally to utilize soil survey information and interpretations and to incorporate local values and objectives regarding the protection of agricultural land use and the coordination of growth, affecting land development.

The System consists of two parts, the Land Evaluation and the Site Assessment, with a maximum of 300 points. The Land Evaluation has a maximum of 100 points and is used to rate farmland for its agricultural productivity and its prime farmland category. The data for formulating the land evaluation is derived from the soil survey of Livingston County. Generally, the Land Evaluation arranges the County's soils by their relative values, represented by a score of 0 to 100, with 0 being the worst for agriculture and 100 the best. The Site Assessment considers important factors other than soils relative to a specific parcel, which determine viability for agricultural use. The maximum number of points for the Site Assessment is 200. If a parcel were to receive a total of 201 points or more for the completed evaluation, that would indicate that the site has a high rating for agriculture. In utilizing the LESA System, the higher the point value, the greater the productivity and the more viable the site for agricultural use.

The Livingston County LESA System is a valuable tool to guide land use decisions for the County. It does not take away the power of local officials to make land use decisions; rather, it assists them in making rational, consistent, and supportable land use decisions. Applications of the LESA System will generally fall under two types of requests involving conversion of land from agricultural use to non-agricultural use. The most frequent application of LESA will be when a request is made to rezone a tract of land from the County's agricultural districts to another zoning district, district, districts, or for special uses. The LESA System can also be used to review state and federal projects for compliance with the Illinois Farmland Preservation Act and the Federal Farmland Protection Policy Act and their impact on important farmland.

Livingston County Land Evaluation and Site Assessment System
Land Evaluation Worksheet

Project: Heritage Prairie Wind
 Round Grove, Dwight, Broughton
 Site Location Twp/Sec: Townships
 Date Evaluation Completed: 12/11/2023
 Reviewer/Reviewers: Rebecca Taylor

Soil	AG Group	Relative Value	Acres	Product (Relative Value X Acres)
69A	2	87	49.4	4297.8
91A	4	74	128.7	9523.8
91B2	4	69	8.5	586.5
102A	3	83	98.8	8200.4
125A	2	87	6.2	539.4
141A	4	70	185.4	12978
146A	3	83	825.4	68508.2
146B2	3	80	97.7	7816
147B2	7	63	21	1323
147C2	7	58	72.9	4228.2
150B	4	70	85.7	5999
151A	4	77	111.4	8577.8
153A	2	90	9.7	873
206A	4	74	6.9	510.6
223B2	4	77	18.5	1424.5
223C2	5	74	9.1	673.4
232A	2	87	2028	176436
235A	4	77	672.2	51759.4
238A	7	64	0.2	12.8
293A	2	93	3419.2	317985.6
294B2	3	83	606.3	50322.9
295A	3	80	6.6	528
330A	4	77	22.5	1732.5
448B2	4	70	5.7	399
536	8	0	29.9	0
594A	2	90	6365.9	572931
614A	3	83	379.4	31490.2
614B	3	83	3.7	307.1
3107A	5	77	8.4	646.8
3776A	7	58	60.2	3491.6

		Total	15343.5	1344102.5
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Land Evaluation = Total Product/Total Acres

Land Evaluation = 87.60077557

Land Evaluation Subtotal 88

Comments:

Specific Limitations:

201-300 High Impact to Agriculture
185-201 Medium Impact to Agriculture
0-185 Low Impact to Agriculture

Glossary

AGRICULTURAL PROTECTION AREAS (AG AREAS): Allowed by P.S. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, as contiguous and compact as possible. Petitioned by landowners, AG AREAS protect for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land cannot receive special tax assessments on public improvements that do not benefit the land, e.g. water and sewer lines.

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruits and vegetables, and animals including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year-round hired farm workers.

B.G.: Below Grade. Under the surface of the Earth.

BEDROCK: Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING: Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH LEVEL MANAGEMENT: The application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reactions and near optimum levels of available nitrogen, phosphorous, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses – within limits imposed by weather.

HIGH WATER TABLE: A seasonal high water table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

Water Table, Apparent – A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.

Water Table, Artesian – A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.

Water Table, Perched – A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

DELINEATION: For wetlands – A series of orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

DETERMINATION: A polygon drawn on a map using map information that gives an outline of a wetland.

HYDRIC SOIL: This type of soil is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service 1987)

INTENSIVE SOIL MAPPING: Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, e.g. mapping for septic suitability.

LAND EVALUATION AND SITE ASSESSMENT (L.E.S.A.): LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY: A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different uses and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

PALUSTRINE: Name given to inland fresh water wetlands.

PERMEABILITY: Values listed estimate the range (in rate and time) it takes for downward movement of water in the major soil layers when saturated, but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ: Parcel in question.

POTENTIAL FROST ACTION: Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well-managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources, and farming the land results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent. (Source: USDA Natural Resources Conservation Service)

PRODUCTIVITY INDEXES: Productivity indexes for grain crops express the estimated yields of the major grain crops grown in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state.

SEASONAL: When used in reference to wetlands, indicates that the area is flooded only during a portion of the year.

SHRINK-SWELL POTENTIAL: Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT: A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES: A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

SUBSIDENCE: Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TERRAIN: The area or surface over which a particular rock or group of rocks is prevalent.

TOPSOIL: That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

WATERSHED: An area of land that drains to an associated water resource such as a wetland, river or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams and ditches, and ponding areas such as detention structures, natural ponds and wetlands.

WETLAND: An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

References

A Citizens' Guide to Protecting Wetlands. By the National Wildlife Federation. Washington, D.C., March 1989

Hydric Soils of the United States. USDA Natural Resources Conservation Service, 1987.

FIRM – Flood Insurance Rate Maps for Livingston County. Prepared by FEMA – Federal Emergency Management Agency.

Geology for Planning in Boone and Winnebago Counties. State Geological Survey Division, Circular 531. 1984.

Soil Survey of Livingston County. United States Department of Agriculture, Natural Resources Conservation Service.

Hydrologic Unit Map for Livingston County. United States Department of Agriculture, Natural Resources Conservation Service.

Land Evaluation and Site Assessment System. The Livingston County Soil and Water Conservation District and the Livingston County Zoning Board of Appeals. In cooperation with: USDA, Natural Resources Conservation District.

Livingston County Comprehensive Plan.

Soil Erosion by Water. United States Department of Agriculture, Natural Resources Conservation Service. Agriculture Information Bulletin 513.

The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities. Prepared by the Nature Conservancy Great Lakes Program 79W. Monroe Street, Suite 1309, Chicago, IL 60603, January 1984.

Natural Resources Conservation Service Wetland Inventory Map. United States Department of Agriculture.

Geologic Road Map of Illinois. Department of Natural Resources, Illinois State Geological Survey, Natural Resources Building, 615 East Peabody, Champaign, IL 61820-6964.

Appendix A: Wind Farm AIMA

AGRICULTURAL IMPACT MITIGATION AGREEMENT
between
and the
ILLINOIS DEPARTMENT OF AGRICULTURE
Pertaining to the Construction of a Commercial Wind Energy Facility
in
County, Illinois

The following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any agricultural land that is impacted by the Construction and Deconstruction of a wind energy facility in accordance with the Renewable Energy Facilities Agricultural Impact Mitigation Act (Act), Public Act 100-0598. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and wind energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA). This AIMA is made and entered into between the Commercial Wind Energy Facility Owner and the IDOA.

, LLC, an limited liability company authorized to transact business in Illinois, hereafter referred to as "Commercial Wind Energy Facility Owner or Facility Owner", plans to develop an approximately MW Commercial Wind Energy Facility or "Facility" in County, which will consist of approximately turbines, access roads, an underground collection line, a switchyard, a substation, and an operation and maintenance building site.

If construction does not commence within four years after this AIMA has been fully executed, this AIMA will be revised, with the Facility Owner's input, to reflect the IDOA's most current Wind Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, will be filed with the County Board by the Facility Owner.

This AIMA is applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The actions set forth in this AIMA shall be implemented in accordance with the conditions listed below:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities.
- B. Except for Section 21(B-F), all actions set forth in this AIMA are subject to modification through negotiation by Landowners and a representative of the Facility Owner, provided such changes are negotiated in advance of any respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the mitigative actions that Landowners wish to perform themselves. In such instances, the Facility Owner will offer Landowners the area commercial rate for their machinery and labor costs.
- D. All mitigative actions will extend to associated future Construction, maintenance, repairs, and Deconstruction of the Commercial Wind Energy Facility.

- E. The Facility Owner will exercise Best Efforts to determine all Landowners and Tenants affected by the Construction and Deconstruction of a Facility. The Facility Owner shall keep the Landowners and Tenants informed of the project's status, meetings, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner agrees to include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement that may be prepared in connection with the Project.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. A copy of this AIMA shall be mailed to each Landowner. Within 30 days of execution of this AIMA, the Facility Owner shall provide postage and mailing labels to the IDOA for mailing to all Landowners. If the Facility Owner becomes aware that a Landowner was not included on the list of Landowners to which a copy of this AIMA was mailed, the Facility Owner shall notify the Department and provide postage and a mailing label as soon as possible.

In the case of a new Underlying Agreement with a Landowner, the Facility Owner shall incorporate this AIMA into such Underlying Agreement.
- H. The Facility Owner will implement all mitigative actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Project.
- I. If any mitigative action(s) is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the mitigative actions shall be interpreted as if they did not contain the unenforceable provision.
- J. No later than 45 days prior to the Construction and/or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will provide the Landowner(s) with a toll-free number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- K. If the Facility is sold or transferred, the Facility Owner assuming ownership of the facility shall provide notice of such sale or transfer within ninety (90) days to the County and to Landowners, and the existing Financial Assurance requirements, plus the other terms of this AIMA, shall apply to the new Facility Owner.
- L. After construction, the Facility Owner will provide the IDOA with "as built" drawings (strip maps) showing the location of all tile lines damaged in the construction of the Wind Farm. The drawings and GPS tile lines repair coordinates will be provided on a county-by-county basis for distribution by the IDOA to the respective local Soil and Water Conservation District (SWCD) for the purpose of assisting Landowners with future drainage needs.
- M. In addition, after all construction is complete, all affected Landowners will receive a copy of the tile repairs location map with GPS coordinates identified as the electric cable crosses their property.
- N. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.

Definitions

Abandonment -	Occurs when Deconstruction has not been completed within 18 months after the wind energy facility reaches the end of its Useful Life.
Aboveground Cable -	Electrical power lines installed above grade to be utilized for conveyance of power from the Wind Turbine(s) to the Wind Facility substation.
Agricultural Impact Mitigation Agreement (AIMA) -	The Agreement between the Commercial Wind Energy Facility Owner and the Illinois Department of Agriculture described herein.
Agricultural Land -	Land used for Cropland, hayland, pasture land, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs used for purposes as set forth above.
Best Efforts -	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date -	The calendar date on which the Commercial Wind Energy Facility produces power for commercial sale, not including test power. Within ten (10) calendar days of the Commercial Operation Date, the Commercial Wind Energy Facility Owner shall notify the County and the Department of the Commercial Operation Date in writing.
Commercial Wind Energy Facility (Facility) -	A wind energy conversion facility of equal or greater than 500 kilowatts in total nameplate generating capacity. "Commercial Wind Energy Facility" includes a wind energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before the effective date of this Act. "Commercial Wind Energy Facility" does not include a wind energy conversion facility: (1) that has submitted a complete permit application to a county or municipality and for which the hearing on the completed application has commenced on the date provided in the public hearing notice, which must be before the effective date of this Act; (2) for which a permit to construct has been issued before the effective date of this Act; or (3) that was constructed before the effective date of this Act.
Commercial Wind Energy Facility Owner (Facility Owner) -	A commercial enterprise that owns or operates a Wind Energy Facility of equal to or greater than 500 kilowatts in total nameplate capacity.
County -	The County where the Commercial Wind Energy Facility is located.

Construction -	The installation, preparation for installation and/or repair of a Commercial Wind Energy Facility.
Cropland -	Land used for growing row crops, small grains, or hay; includes land which was formerly used as cropland, but is currently in a government set-aside program and pastureland comprised of Prime Farmland.
Deconstruction -	The removal of a Commercial Wind Energy Facility from the property of a Landowner and the restoration of that property as provided in the Agricultural Impact Mitigation Agreement. The terms "Deconstruction" and "Decommissioning" have the same meaning and, therefore, may be interchanged with each other.
Deconstruction Plan -	<p>A plan prepared by a Professional Engineer, at the Commercial Wind Energy Facility Owner expense, that includes:</p> <ol style="list-style-type: none"> (1) the estimated Deconstruction cost per turbine, in current dollars at the time of filing, for the Commercial Wind Energy Facility, taking into account, among other things: <ol style="list-style-type: none"> i the number of Wind Turbines and related Commercial Wind Energy Facilities involved, ii the original Construction costs of the Commercial Wind Energy Facilities, iii the size and capacity of the Wind Turbines, iv the salvage value of the Commercial Wind Energy Facilities, v the Construction method and techniques for the Wind Turbines and other Commercial Wind Energy Facilities, and (2) a comprehensive detailed description of how the Commercial Wind Energy Facility Owner plans to pay for the Deconstruction of the Commercial Wind Energy Facility.
Department -	The Illinois Department of Agriculture (IDOA).
Financial Assurance -	A reclamation bond or other commercially available financial assurance that is acceptable to the County, with the County as primary beneficiary and the Landowners as secondary beneficiaries.
Landowner -	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland -	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as being "prime" soils (generally considered the most productive soils with the least input of nutrients and management).

Professional Engineer -	An engineer licensed to practice engineering in the State of Illinois, and who is determined to be qualified to perform the work described herein by mutual agreement of the County and the Commercial Wind Energy Facility Owner.
Soil and Water Conservation District - (SWCD)	A local unit of government that provides technical and financial assistance to eligible landowners for the conservation of soil and water resources.
Tenant -	Any person lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil -	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement -	The written agreement with a Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Commercial Wind Energy Facility on the property of the Landowner.
Underground Cable -	Electrical power lines installed below grade to be utilized for conveyance of power from the Wind Turbine(s) to the Wind Facility substation.
USDA Natural Resources Conservation Service (NRCS) -	NRCS provides America's farmers with financial and technical assistance to voluntarily put conservation on the ground, not only helping the environment but agricultural operations too.
Useful Life -	A Commercial Wind Energy Facility will be presumed to have no remaining Useful Life if: (1) no electricity is generated for a continuous period of twelve (12) months and (2) the Commercial Wind Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with the Underlying Agreement.
Wind Turbine -	A wind energy conversion unit equal to or greater than 500 kilowatts in total nameplate generating capacity.

Construction and Deconstruction Requirements

1. Support Structures

- A. On Agricultural Land, only single pole support structures will be used for overland transmission not located adjacent to the Commercial Wind Energy Facility substation.
- B. Where the electric line is adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures will be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. The highest priority will be given to locating the electric line parallel and adjacent to highway and/or railroad right-of-way. When this is not possible, Best Efforts will be expended to place all support poles in such a manner so as to minimize their placement on Cropland (i.e., longer than normal spans will be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for Facilities shall be selected in a manner so as to be as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains the facilities. The Facility Owner's compliance with applicable local, county, state, and federal statutes, rules, regulations, and ordinances, and its securing any variations or waivers to such statutes, rules, regulations, and ordinances in accordance with applicable law, in selecting such locations shall constitute compliance with this provision.

3. Guy Wires and Anchors

- A. Best Efforts will be made to place guy wires and their anchors out of cropland, pastureland and hayland, placing them instead along existing utilization lines and on land not used for row crops, pasture or hay. Where this is not feasible, Best Efforts will be made to minimize guy wire impact on Cropland.
- B. All guy wires will be shielded with highly visible guards.

4. Underground Cabling Depth

- A. Underground electrical cables will be buried with:
 - 1. a minimum of 5 feet of top cover where it crosses Cropland.
 - 2. a minimum of 5 feet of top cover where it crosses pasture land or other Agricultural Land comprised of soils that are classified by the USDA as being prime soils.
 - 3. a minimum of 3 feet of top cover where it crosses pasture land and other Agricultural Land not comprised of prime soils.
 - 4. a minimum of 3 feet of top cover where it crosses wooded/brushy land.

- B. Notwithstanding the foregoing, in those areas where (i) rock in its natural formation and/or (ii) a continuous strata of gravel exceeding 200 feet in length are encountered, the minimum top cover will be 30 inches.

5. Topsoil Removal and Replacement

- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts will be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
- B. Best Efforts will be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
- C. When backfilling an excavation site, the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
- D. Refer to Item No. 7.A. through 7.D for procedures pertaining to rock removal from the subsoil and topsoil.
- E. Refer to Items No. 8.A. through 8.D. for procedures pertaining to the alleviation of compaction of the topsoil.
- F. Best Efforts will be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour (with an allowance for settling) will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance will the topsoil materials be used for any other purpose unless agreed to otherwise by the Landowner.
- G. Excess subsoil material resulting from wind turbine foundation excavation shall be removed from Landowner's property, unless otherwise agreed to by Landowner.
- H. Topsoil stripping or separation is not required for the excavation of narrow trenches, those 24 inches wide or less.

6. Repair of Damaged Tile Lines

If underground drainage tile is damaged by Construction or Deconstruction, it will be repaired in a manner that assures the tile line's proper operation at the point of repair. The following shall apply to the tile line repair:

- A. The Facility Owner will work with the Landowner to identify the tile lines traversing the property included within the Underlying Agreement which will be crossed or disturbed by the construction of the Facility. All tile lines identified in this manner will be shown on the Construction and Deconstruction Plans and staked or flagged in the locations where expected crossing or disturbance is anticipated prior to Construction or Deconstruction to alert Construction and Deconstruction crews to the possible need for tile line repairs.
- B. Tile lines that are damaged, cut, or removed shall be staked or flagged with stakes or flags placed in such a manner they will remain visible until the permanent repairs are completed. In addition, the location of damaged drain tile lines will be recorded using Global Positioning Systems (GPS) technology.

- C. If water is flowing through any damaged tile line, the Facility Owner shall utilize Best Efforts to immediately and temporarily repair the tile line until such time that the Facility Owner can make permanent repairs. If the tile lines are dry and water is not flowing, temporary repairs are not required if the permanent repairs can be made by the Facility Owner within 14 days (weather and soil conditions permitting) of the time damage occurred; however, the exposed tile lines will be screened or otherwise protected to prevent the entry of foreign materials or animals into the tile lines.
- D. Where tile lines are severed by an excavation trench, repairs shall be made using the IDOA Drain Tile Repairs, Figures 1 and 2.

If there is any dispute between the Landowner and the Facility Owner on the method of permanent tile line repair, the appropriate Soil and Water Conservation District's opinion shall be considered by the Facility Owner and the Landowner.
- E. To the extent practicable, there will be a minimum of one foot of separation between the tile line and the Underground Cable whether the Underground Cable passes over or under the tile line. If the tile line was damaged as part of the excavation for installation of the Underground Cable, the Underground Cable will be installed with a minimum one foot clearance below or over the tile line to be repaired or otherwise to the extent practicable.
- F. The original tile line alignment and gradient shall be maintained. A laser transit shall be used to ensure the proper gradient is maintained. A laser operated tiling machine shall be used to install or replace tiling segments of 100 linear feet or more.
- G. During Construction stage, all permanent tile line repairs must be made within fourteen (14) days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner.
- H. Following Construction and/or Deconstruction activities, the Facility Owner will utilize best practices to restore the drainage in the area to the condition it was before the commencement of the Construction/Deconstruction activities. If the Facility Owner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may – but is not required to – implement the recommendations of the appropriate County SWCD and such implementation would resolve the dispute.
- I. Following completion of the work, the Facility Owner will be responsible for correcting or paying for the correction of all tile line repairs that fail due to Construction and/or Deconstruction, provided any such failure was identified by Landowner within twenty-four (24) months after Construction or Deconstruction. The Facility Owner will not be responsible for tile line repairs that the Facility Owner pays the Landowner to perform. Facility Owner shall use Best Efforts to utilize a local drain tile repair company.

7. Rock Removal

The following rock removal procedures only pertain to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged on Landowner property as a result of Construction and/or Deconstruction.

- A. Before replacing any Topsoil, Best Efforts will be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which were brought to the site as a result of Construction and/or Deconstruction.

- B. As topsoil is replaced, all rocks greater than 3 inches in any dimension will be removed from the topsoil which emerged at the site as a result of Construction and/or Deconstruction activities.
- C. If trenching, blasting, or boring operations are required through rocky terrain, precautions will be taken to minimize the potential for oversized rocks to become interspersed with adjacent soil material.
- D. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, will be hauled off the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Compaction and Rutting

- A. Unless the Landowner opts to do the restoration work, after the topsoil has been replaced, all areas that were traversed by vehicles and Construction and/or Deconstruction equipment will be ripped at least 18 inches deep, and all pasture and woodland will be ripped at least 12 inches deep to the extent practicable. The existence of tile lines or underground utilities may necessitate less depth. The disturbed area will then be disked. Decompaction shall be conducted according to the guidelines provided in Appendices A and B.
- B. To the extent practicable, all ripping and disking will be done at a time when the soil is dry enough for normal tillage operations to occur on land adjacent to the right-of-way.
- C. The Facility Owner will restore all rutted land to a condition as close as possible to its original condition.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on farmland where normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. Wet weather conditions are to be determined on a field by field basis and not for the project as a whole.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.
- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which results in a mixing of subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated Tenant.

10. Land Leveling

- A. Following the completion of Construction and/or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will utilize Best Efforts to restore the disturbed area to its original pre-construction elevation and contour should uneven settling occur or surface drainage problems develop as a result of said activity.
- B. If, within twenty-four (24) months after Construction or Deconstruction, uneven settling occurs or surface drainage problems develop as a result of the Construction or Deconstruction of a Facility, the Facility Owner will provide such land leveling services within 45 days of a Landowner's written notice, weather and soil conditions permitting.
- C. If there is any dispute between the Landowner and the Facility Owner as to what areas need additional land leveling beyond that which is done at the time of Construction, the Facility Owner may – but is not required to – implement the recommendations of the appropriate SWCD and such implementation will resolve the dispute.

11. Prevention of Soil Erosion

- A. The Facility Owner will work with Landowners to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Commercial Wind Energy Facility. Consultation with the local SWCD by the Facility Owner will take place to determine the appropriate methods to be implemented to control erosion. This is not a requirement, however, if the land is bare Cropland that the Landowner intends to leave bare until the next crop is planted.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's right-of-way, the Facility Owner may – but is not required to – implement the recommendations of the appropriate SWCD and such implementation will resolve the dispute.

12. Repair of Damaged Soil Conservation Practices

Consultation with the local SWCD by the Facility Owner will be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of a Commercial Wind Energy Facility. Those conservation practices will be restored to their preconstruction condition as close as reasonably practicable in accordance with USDA Natural Resources Conservation Service technical standards. All repair costs shall be borne by the Facility Owner.

13. Damages to Private Property

The Facility Owner will reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Cropland will be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

14. Clearing of Trees and Brush

- A. If trees are to be removed for the Construction or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.

- B. If there are trees of commercial or other value to the Landowner, the Facility Owner will allow the Landowner the right to retain ownership of the trees to be removed with the disposition of the removed trees to be negotiated prior to the commencement of land clearing.
- C. Unless otherwise restricted by federal, state or local regulations, the Facility Owner will follow the Landowner's desires regarding the removal and disposal of trees, brush, and stumps of no value to the Landowner by burning, burial, etc., or complete removal from any affected property.

15. Interference with Irrigation Systems

- A. If the Construction or Deconstruction of a Commercial Wind Energy Facility interrupts an operational (or soon to be operational) spray irrigation system, the Facility Owner will establish with the Landowner an acceptable amount of time the irrigation system may be out of service.
- B. If, as a result of Construction or Deconstruction of a Facility, an irrigation system interruption results in crop damages, the Landowner will be compensated for all such crop damages per the applicable Underlying Agreement.
- C. If it is feasible and mutually acceptable to the Facility Owner and the Landowner, temporary measures will be implemented to allow an irrigation system to continue to operate across land on which a Facility is also being Constructed or Deconstructed.

16. Access Roads

- A. To the extent practicable, access roads will be designed to not impede surface drainage and will be built to minimize soil erosion on or near the access roads.
- B. Access roads may be left intact through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations after the Useful Life.
- C. If the access roads are removed, Best Efforts will be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping will be done consistent with Items 8.A. through 8.D.

17. Weed Control

- A. The Facility Owner will provide for weed control in a manner that prevents the spread of weeds onto agricultural land affected by Construction or Deconstruction. Spraying will be done by a pesticide applicator that is appropriately licensed for doing such work in the State of Illinois.
- B. The Facility Owner will be responsible for reimbursing all reasonable costs incurred by owners of agricultural land affected by Construction or Deconstruction where it has been determined that weeds have spread from land impacted by the Facility. Reimbursement is contingent upon written notice to the Facility Owner and failure to respond within forty-five (45) days after notice is received.

18. Pumping of Water from Open Excavations

- A. In the event it becomes necessary to pump water from open excavations, the Facility Owner will pump the water in a manner that will avoid damaging agricultural land affected by Construction or Deconstruction. Such damages include, but are not limited to: inundation of crops for more than 24 hours, deposition of sediment in ditches and other water courses, and the deposition of subsoil sediment and gravel in fields and pastures.
- B. If it is impossible to avoid water-related damages as described in Item 18.A. above, the Facility Owner will compensate the Landowner for damages to crops as prescribed in the applicable Underlying Agreement.
- C. All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities and any other applicable laws, specifically including the Clean Water Act.

19. Advance Notice of Access to Private Property

- A. The Facility Owner will provide the Landowner or Tenant with a minimum of 48 hours prior notice before accessing his/her property for the purpose of Construction or Deconstruction of a Commercial Wind Energy Facility.
- B. Prior notice shall consist of either: (i) a personal contact, telephone contact or email contact, whereby the Landowner or tenant is informed of the Facility Owner's intent to access the land; or (ii) the Facility Owner mails or hand delivers to the Landowner or tenant's home a dated, written notice of the Facility Owner's intent. Such written or hand delivered notice shall include a toll-free number at which agents of the Facility Owner can be reached. The Landowner or tenant need not acknowledge receipt of the written notice before the Facility Owner can enter the Landowner's property.

20. Indemnification

The Commercial Wind Energy Facility Owner will indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of Construction and/or Deconstruction, including damage to such Commercial Wind Energy Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns. In such circumstances, the Landowners, and the Landowners' heirs, successors, legal representatives, and assigns will indemnify the Facility Owner, its heirs, successors, legal representatives, and assigns from and against said claims, injuries, suits, damages, costs, losses, and reasonable expenses including but not limited to attorneys' fees and costs.

21. Deconstruction of Commercial Wind Energy Facilities and Financial Assurance

- A. Deconstruction of a Facility shall include the removal/disposition of the following equipment/facilities utilized for operation of the Facility and located on Landowner property:
 - 1. Wind Turbine towers and blades;

2. Wind Turbine generators;
 3. Wind Turbine foundations (to depth of 5 feet);
 4. Transformers;
 5. Collection/interconnection substation (components, cable, and steel foundations), provided, however, that electrical collection cables at a depth of 5 feet or greater may be left in place;
 6. Overhead collection system;
 7. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
 8. Access Road(s) (unless Landowner requests in writing that the access road is to remain);
 9. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
 10. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Commercial Wind Energy Facility within eighteen (18) months after the end of the Useful Life of the Facility.
- C. During the County permit process, the Facility Owner shall file with the County, a Deconstruction Plan. A second Deconstruction Plan shall be filed with the County on or before the end of the tenth year of the Commercial Operation Date.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Commercial Wind Energy Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the county permit process.
 2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the county permit process.
 3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the tenth year of the Commercial Operation Date.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction in the Deconstruction Plan if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

- E. The County may – but is not required to – reevaluate the estimated costs of Deconstruction of any Commercial Wind Energy Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date which reevaluation must be performed by an independent third party Professional Engineer licensed in the State of Illinois. The County shall provide the Facility Owner with a copy of any reevaluation report. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased coverages described in Section 21 D. required from the Facility Owner. The Facility Owner shall be responsible for the cost of any reevaluation by a third party Professional Engineer.

- F. Upon Abandonment, the County may take all appropriate actions for Deconstruction, including drawing upon the Financial Assurance. In the event the County declines to take any action for Deconstruction, the Landowners may draw upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and _____, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the construction of the wind farm project in _____ County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**

**_____, LLC
a state name limited liability company**

By Jerry Costello II, Director

By _____, title

By John Teefey, General Counsel

address

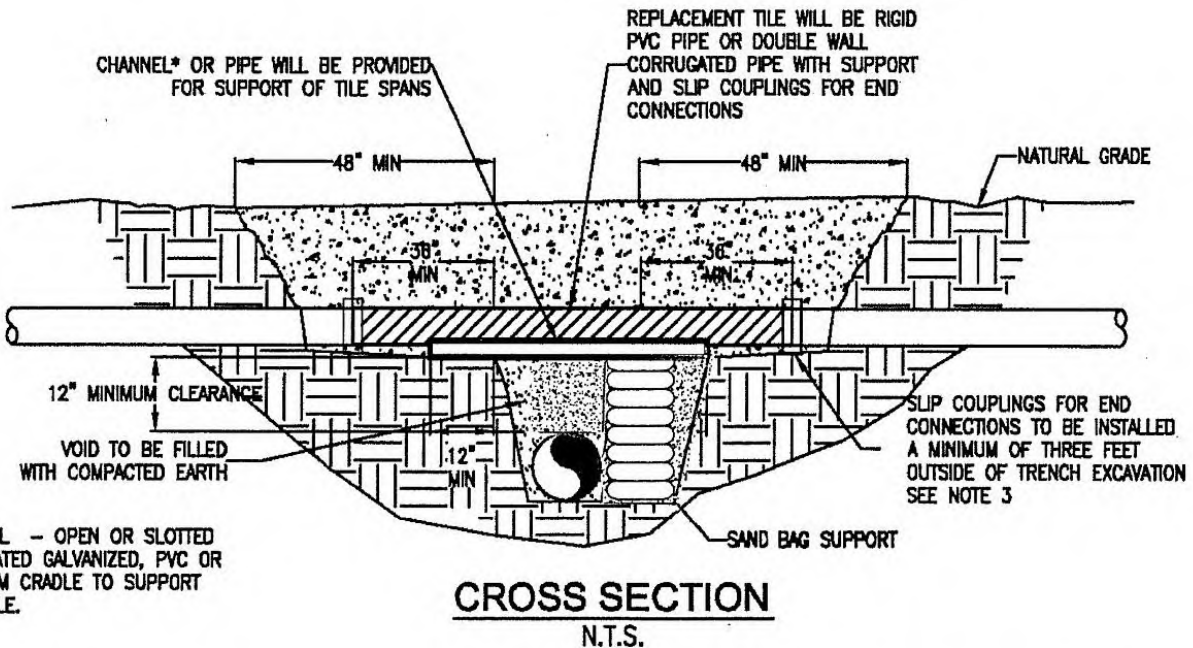
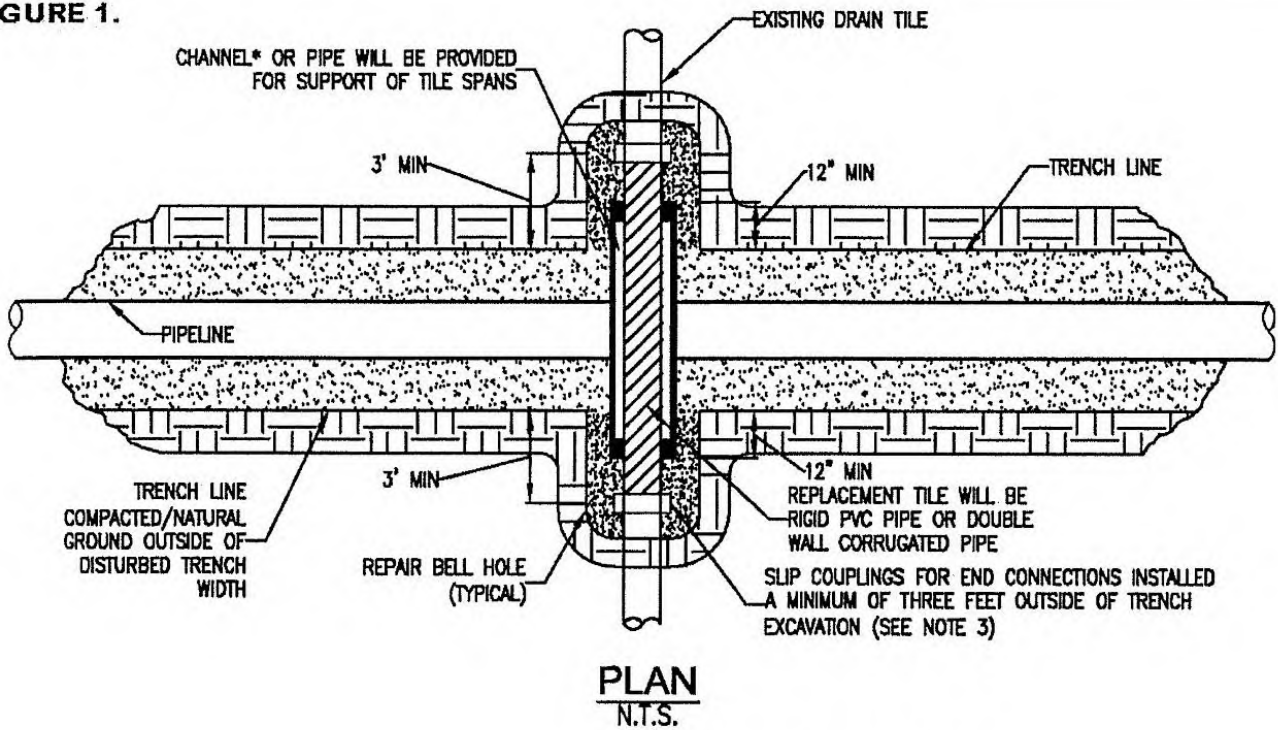
801 E. Sangamon Avenue, 62702
State Fairgrounds, POB 19281
Springfield IL 62794-9281

_____, 2022

_____, 2022

Appendix B: Construction Standards

FIGURE 1.

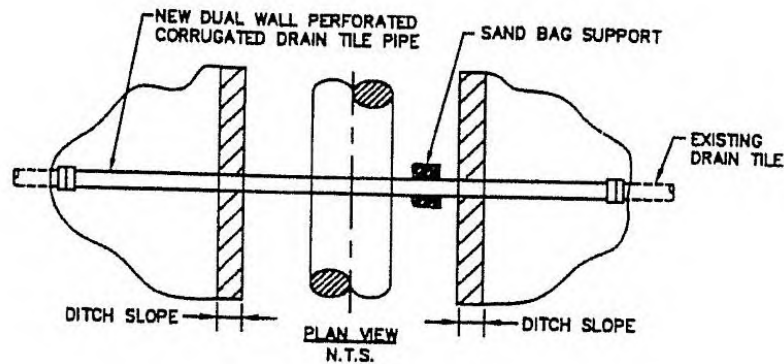


*CHANNEL - OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

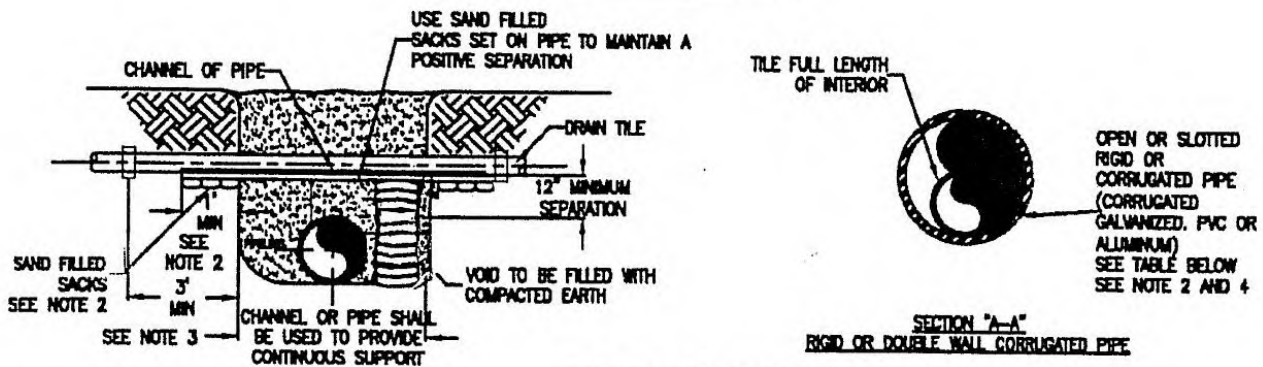
- NOTE:**
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
 2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
 3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 #11	4"	STD. WT.
4"-5"	5" @ 8.7 #11	8"	STD. WT.
8"-9"	7" @ 9.8 #11	9"-10"	STD. WT.
10"	10" @ 15.3 #11	12"	STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR



Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

ACCESS ROAD

CODE 560

(ft)

DEFINITION

An access road is an established route for equipment and vehicles.

PURPOSE

This practice is used to accomplish one or more of the following purposes:

- To provide a fixed route for vehicular travel for resource activities involving the management of conservation forestry operations, livestock, agriculture, wildlife habitat, and other conservation enterprises

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where access is needed from a private or public road or highway to a land use enterprise or conservation measure, or where access is needed in a planned land use area.

Access roads range from single-purpose, seasonal-use roads, designed for low speed and rough driving conditions, to all-purpose, all-weather roads. Single-purpose roads provide access to areas such as forest fire lines, forest management activities, remote recreation areas, or for maintenance of facilities.

This practice does not apply to temporary or infrequently used trails used for logging. Use NRCS Conservation Practice Standard (CPS) Forest Trails and Landings (Code 655) to meet this need. Trails and walkways used for animals, pedestrians, or off-road vehicles are addressed in NRCS CPS Trails and Walkways (Code 575).

CRITERIA

General Criteria Applicable to All Purposes

Design the access road to serve the enterprise or planned use with the expected vehicular or equipment traffic. Factors in the design include the type of vehicle or equipment and the speed, loads, soils, climate, turning radius, and other conditions under which vehicles and equipment are expected to operate.

Location

Locate the access road to serve the purpose intended, to facilitate the control and disposal of surface and subsurface water, to control or reduce erosion, and to make the best use of topographic features. Design the layout of the road to follow natural contours and slopes to minimize disturbance of drainage patterns. Locate the access road where it can be maintained and where water management problems are not created. To reduce potential pollution, position the road as far as possible from water bodies and watercourses. To the extent possible, do not impede overland flow.

Alignment

Adapt the gradient and horizontal alignment to the intensity of use, the mode of travel, the type of equipment and load weights, and the level of development.

Grades normally should not exceed 10 percent except for short lengths. A maximum grade of 15 percent should only be exceeded if necessary for special uses such as field access roads or fire protection roads.

Width

The minimum width of the roadbed for an all-purpose road is 14 feet for one-way traffic and 20 feet for two-way traffic. The roadbed width includes a tread-width of 10 feet for one-way traffic or 16 feet for two-way traffic and 2 feet of shoulder width on each side. Increase the two-way traffic width by a minimum of 4 feet for trailer traffic. Single-purpose roads will have a minimum width of 10 feet with greater widths at curves and turnouts. Use vegetation or other measures to protect the shoulders from erosion.

Use turnouts on single lane roads where vehicles travel in both directions on a limited basis. Design the turnout to accommodate the anticipated vehicle use.

Provide a turnaround at the end of dead end roads. Size the turnaround for the anticipated vehicle type that will be using the road.

Provide parking space as needed to keep vehicles from parking on the shoulder or other undesirable locations.

Side slopes

Design all cuts and fills to have stable slopes that are a minimum of 2 horizontal to 1 vertical. For short lengths, rock areas, or very steep hillsides, steeper slopes may be permitted if soil conditions warrant and special stabilization measures are installed. Where possible, design slopes to a minimum of 4 horizontal to 1 vertical to improve establishment and maintenance of turf.

Where possible, avoid areas with geological conditions and soils that are subject to slides. When the area cannot be avoided, treat the area to prevent slides.

Drainage

The type of drainage structures used will depend on the intended use and runoff conditions. Provide a culvert, bridge, ford, or surface cross drain for water management at every natural drainageway. The capacity and design of the drainage feature must be consistent with sound engineering principles and must be adequate for the class of vehicle, road type, land use in the watershed, and intensity of use.

When a culvert or bridge is installed in a drainageway, it must have a minimum capacity that is sufficient to convey the design storm runoff without causing erosion or road overtopping. Table 1 lists minimum design storm frequencies for various road types.

Table 1: Minimum design storm frequencies

Road Intensity and Usage	Storm Frequency
Intermittent; single-purpose or farm use	2 year - 24 Hour
Frequent; farm headquarters, livestock access, isolated recreation areas	10 year - 24 Hour
High intensity; residential or public access	25 year - 24 Hour

For public access roads, design storm frequencies must also meet local standards.

Use NRCS CPSs Stream Crossing (Code 578), or Aquatic Organism Passage (Code 396) when aquatic species are present, to design stream crossings.

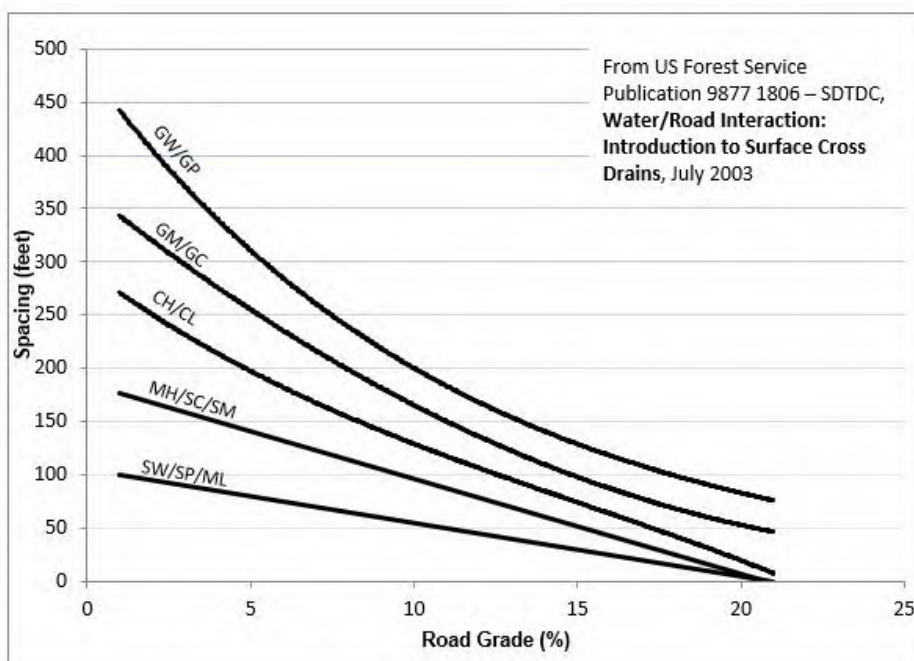
An erosion-resistant low point or overflow area may be constructed across the access road to supplement the culvert capacity on nonpublic-use roads.

Surface cross drains, such as broad-based or rolling dips, may be used to control and direct water flow off the road surface on low-intensity-use forest, ranch, or similar roads. Protect the outlets of drainage measures to limit erosion. On steep grades where water could run down the road, use a broad-based dip or other similar feature to divert runoff. The surface cross drain must be constructed of materials that are compatible with the use and maintenance of the road surface. The discharge area for a surface cross drain must be well-vegetated or have other erosion resistant materials (see fig. 1). Reduce separation distances as needed to account for local hydrologic conditions.

Design a minimum cross slope to direct precipitation off of the roadway. Cross slopes range from 1.5 to 2 percent for paved surfaces and 2 to 6 percent for unpaved surfaces.

Provide ditches, as needed, to move water away from the road. Maintain unobstructed flow into the ditches to prevent flows from causing roadside erosion. The capacity of a roadside ditch must be adequate to carry the drainage from the road surface. Design ditch channels to have stable grades and side slopes. Provide a stable outlet for the ditch. Protection may include riprap or other similar materials. Use NRCS CPSs Structure for Water Control (Code 587), Lined Waterway or Outlet (Code 468), or Grade Stabilization Structure (Code 410), if needed.

Figure 1. Recommended spacing of surface cross drains based on soil types



Surfacing

Install a wearing course or surface treatment on the access road if required by traffic needs, soil, climate, erosion control, particulate matter emission control, or other site condition. If none of these factors apply, no special treatment of the surface is required.

When a treatment is used, the type of treatment will depend on local conditions, available materials, and the existing road base. On roads made of soils with weak bearing capacity, such as silts, organics, and clays, or where it is necessary to separate the surfacing material from the foundation material, place a geotextile material specifically designed for road stabilization applications under the surface treatment. Use the criteria in NRCS CPS Heavy Use Area Protection (Code 561) to design the surface treatment. Do not use toxic and acid-forming materials to build the road.

Safety

Provide passing lanes, turnouts, guardrails, signs, and other facilities as needed for safe traffic flow. Design an intersection to a public highway to meet applicable Federal, State, and local criteria.

Erosion control

Use the criteria in NRCS CPS Critical Area Planting (Code 342) or the NRCS State-approved seeding specification to vegetate road banks and disturbed areas as soon as soil and climatic conditions are favorable. If permanent vegetation cannot be established in a timely manner, use appropriate temporary measures to control erosion. If the use of vegetation is precluded and protection against erosion is needed, use the criteria in NRCS CPS Mulching (Code 484) to provide surface protection.

During and after construction, use erosion and sediment control measures to minimize offsite damages.

CONSIDERATIONS

Consider visual resources and environmental values during planning and design of the road system.

Consider locating roads outside of the active floodplain to reduce bank erosion potential and the effects on stream hydrology.

Limiting the number of vehicles and vehicle speed will reduce the potential for generation of particulate matter and decrease safety and air quality concerns.

Consider using additional conservation practices such as NRCS CPS Windbreak/Shelterbelt Establishment (Code 380), to reduce the potential for generation and transport of particulate matter emissions.

During adverse weather, some roads may become unsafe or may be damaged by use. Consider restricting access to the road at that time.

When revegetation is needed, consider revegetating using species or diverse mixes that are native or adapted to the site and have multiple benefits. In addition, where appropriate, consider a diverse mixture of forbs and wildflowers to support pollinator and other wildlife habitat.

Consideration should be given to—

- Effects on downstream flows, wetlands, or aquifers that would affect other water uses or users.
- Effects on wildlife habitats that would be associated with the practice.
- Utilizing buffers where possible to protect surface water.
- Short-term and construction-related effects of this practice.

PLANS AND SPECIFICATIONS

Provide plans and specifications that describe the requirements for applying the practice to achieve its intended purpose. As a minimum, include—

- A plan view of the proposed road that shows water features, known utilities, and other features that affect the design.
- Road width and length with profile and typical cross section(s) including turnouts, parking, and turnarounds.
- Design road grades or maximum grades when applicable.
- Soils investigation. Include location of soil borings and plot of the soil/geologic boring showing the Unified Soil Classification System, as needed.
- Type and thickness of surface treatment including any subbase preparation.
- Grading plan.

- Cut and fill slopes where applicable.
- Planned drainage features.
- Location, size, type, length, and invert elevations of all required water control structures.
- Vegetative requirements that include vegetation materials to be used, establishment rates, and season of planting.
- Erosion and sediment control measures, as needed.
- Safety features.
- Construction and material specifications.

OPERATION AND MAINTENANCE

Prepare a written operation and maintenance plan for the access road. As a minimum, include the following activities:

- Inspect culverts, roadside ditches, water bars, and outlets after each major runoff event and restore flow capacity as needed. Ensure proper cross section is available and outlets are stable.
- Maintain vegetated areas in adequate cover to meet the intended purpose(s).
- Fill low areas in travel treads and regrade, as needed, to maintain road cross section. Repair or replace surfacing materials as needed.
- Selection of chemical treatment(s) for surface treatment or snow/ice removal, as needed. Select the chemicals used for surface treatment or snow and ice removal to minimize adverse effects on stabilizing vegetation.
- Selection of dust control measures, as needed.

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Appendix A.

Guidelines for Conducting Proper and Successful Decompaction

1. Decompaction is required when all three conditions apply.
 - A. the area has been trafficked or traversed by vehicles or construction equipment, and
 - B. the soil penetrometer readings are 300 psi or greater, and
 - C. The soil strength (psi) in the right-of-way area is greater than that of the non-trafficked area.
2. An Environmental and/or Agricultural Inspector (AI), with experience and training in the proper identification of compacted soil and operation methods of deep decompaction tools is required to observe the daily operation of the ripper/subsoiler to ensure the conditions are appropriate for decompaction efforts and that the proper equipment is utilized and that equipment is set-up and operated correctly.
3. To achieve the most effective shatter of the compacted soil the following guidelines have been established:
 - A. Conduct ripping when the soil is dry. Follow the "Soil Plasticity Test Procedures" detailed in Appendix B to determine if soil conditions are adequately dry to conduct decompaction efforts.
 - B. Deep ripping shall be conducted using a ripper or subsoiling tool with a shank length of no less than 18 inches and a shank spacing of approximately the same measurement as the shank length.
 - C. Use a ripper with a knife length of no less than 2 inches more than the desired depth of decompaction.
 - D. To best promote revegetation and restore crop production, a total depth of 30 or more inches of soil (topsoil plus subsoil) is required.
 - E. The minimum depths of decompaction stated above in 3.D. are required where possible. A safe distance from sub-surface structures (tile drains, pipelines, buried utilities, bedrock, etc.) must be maintained at all times. Where such structures exist, a lesser depth of decompaction will be required to prevent damage to equipment and the structures as well as to maintain a safe work environment. The allowable decompaction depth in these instances will be determined on a site by site basis.
 - F. When the knives are in the soil to the desired depth, the tongue of the ripper should be parallel to the surface of the ground.
 - G. Select a tractor that has enough horsepower to pull the ripper at a speed of 1.5 to 2 mph and whose footprint is of equal or lesser width than the ripper. Tracked equipment is preferred and typically required to achieve this criteria.
 - H. The ripper shanks should not create ruts, channels, or mixing of the sub-soil with topsoil. A speed of 1.5 to 2 mph is recommended to minimize the risk of rutting and soil mixing. The ideal operating speed can vary with soil characteristics, tractor and ripping tool used. An excessive travel speed will often increase mixing of soil horizons.
 - I. When the equipment is set up and operated correctly, the ripper should create a wave across the surface of the ground as it lifts and drops the soil.

- J. Make one ripping pass through the compacted area. Using a penetrometer, the AI will measure the PSI between the ripped knife tracks to determine if the single ripping pass was successful. Additional passes should only be used where needed as they may reduce the effectiveness of the ripping by recompacting the soil shattered in the previous pass.
- K. If the first pass does not successfully decompact the soil, additional passes will be needed. Should multiple passes of the ripper be needed to achieve decompaction between the knives tracks of the ripping tool, the subsequent passes should be positioned so the knife tracks from the previous pass are split by the second pass. If three or more passes have been made and sufficient decompaction has not yet been achieved the AI may choose to halt further decompaction efforts in that area until conditions improve or better methods are determined.
- L. Following ripping, all stone and rock three or more inches in size which has been lifted to the surface shall be collected and removed from agricultural areas.
- M. After ripping has been conducted, do not allow unnecessary traffic on the ripped area.
- N. In agricultural lands and croplands that will not be replanted to vegetation by the Company, recommend to landowners to plant a cover crop (cereal rye, clover, alfalfa, tillage radish, turnips, etc.) following decompaction. Reduced compaction created by the ripper pass will not remain over time without subsequent root penetration. Root penetration into the shattered soil is necessary to establish permanent stabilized channels to conduct air and water into the soil profile. Two good sources for landowner cover crop education are <http://www.mccc.msu.edu/CCinfo/cropbycrop.html> and <http://mcccdev.anr.msu.edu/>. For local expertise, consult with your county's Soil and Water Conservation District /USDA Natural Resource Conservation Service (NRCS) office for cover crop selection and compliance with NRCS planting deadlines.

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Appendix B.

Soil Plasticity Test Procedures

The Agricultural Inspector will test the consistency of the surface soil to a depth of approximately 4 to 8 inches using the Field Plasticity Test procedure developed from the *Annual Book of ASTM Standards, Plastic Limit of Soils* (ASTM D-4318).

1. Pull a soil plug from the area to be tilled, moved, or trafficked to a depth of 4-8 inches.
2. Roll a portion of the sample between the palms of the hands to form a wire with a diameter of one-eighth inch.
3. The soil consistency is:
 - A. Tillable (able to be worked) if the soil wire breaks into segments not exceeding 3/8 of an inch in length.
 - B. Plastic (not tillable) if the segments are longer than 3/8 of an inch before breaking.
4. This Procedure is to be used to aid in determining when soil conditions are dry enough for construction activities to proceed.
5. Once the soil consistency has been determined to be of adequate dryness, the plasticity test is not required again until the next precipitation event.

ELECTRIC TRANSMISSION LINE CONSTRUCTION STANDARDS AND POLICIES

**Recommended by the
Illinois Department of Agriculture**

The following electric line construction standards and policies are recommended by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any agricultural land that is impacted by electric line construction. They were developed with the cooperation of agricultural agencies, organizations, landowners, tenants, drainage contractors and electric utility companies.

The below prescribed construction standards and policies are applicable to construction activities occurring partially or wholly on privately owned agricultural land. With the exception of Item No. 3, they are not intended to apply to construction activities occurring entirely on public right-of-way, railroad right-of-way, or privately owned land that is not agricultural land.

Conditions

The mitigative actions specified in the construction standards and policies set forth below will be implemented in accordance with the conditions listed below:

- A. All mitigative actions are subject to modification through negotiation by landowners and a representative of the Company, provided such changes are negotiated in advance of any construction, maintenance, or repairs.
- B. The Company may negotiate with landowners to carry out the mitigative actions that landowners wish to perform themselves.
- C. All mitigative actions employed by the Company, unless otherwise specified in these construction standards and policies or in an easement negotiated with an individual landowner, will be implemented within 45 days of completion of the electric transmission line facilities on any affected property, weather and landowner permitting. Temporary repairs will be made by the Company during the construction process as needed to minimize the risk of additional property damage that may result from an extended construction time period. If weather delays the completion of any mitigative action beyond the 45 day period, the Company will provide the affected landowner(s) with a written estimate of the time needed for completion of the mitigative action.
- D. All mitigative actions will extend to associated future construction, maintenance, and repairs by the Company.
- E. Every effort will be made by the Company to determine all affected tenants along the route of the electric transmission line. The Company will endeavor to keep the tenants informed of the project's status, meetings, and other factors that may have an impact upon their farming operations.
- F. The Company agrees to include a statement of its adherence to the construction standards and policies in any environmental assessment and/or environmental impact statement that may be prepared on the project.

- G. The Company will implement all mitigative actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Company for the project.
- H. If any mitigative action(s) is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the mitigative actions shall be interpreted as if they did not contain the unenforceable provision.

Definitions

- Agricultural land - Land used for cropland, hayland, pasture land, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs.
- Company - Utility company, and any contractor or sub-contractor in the employ of the Company, for the purpose of completing the electric transmission line or any mitigative actions contained herein.
- Cropland - Land used for growing row crops, small grains, or hay; includes land which was formerly used as cropland, but is currently in a government set-aside program and pastureland comprised of prime farmland.
- Electric Line - Includes the electric transmission line and its related appurtenances.
- Landowner - Person(s) holding legal title to property on the electric transmission line route from whom the Company is seeking, or has obtained, a temporary or permanent easement, or any person(s) legally authorized by a landowner to make decisions regarding the mitigation or restoration of agricultural impacts to such landowner's property.
- Prime farmland - Agricultural land comprised of soils that are defined by the USDA Natural Resources Conservation Service as being "prime" soils (generally considered the most productive soils with the least input of nutrients and management).
- Right-of-way - Includes the permanent and temporary easements that the Company acquires for the purpose of constructing and operating the electric transmission line.
- Topsoil - The uppermost layer of the soil that has the darkest color or the highest content of organic matter, more specifically defined as the "A" horizon.

Electric Transmission Line Construction Standards and Policies

1. Support Structures

- A. Only single pole support structures will be used.
- B. Where the electric line is adjacent and parallel to highway and/or railroad right-of-way but on privately owned property, the support structures will be placed on the highway and/or railroad right-of-way or a maximum of one foot from the edge of the highway and/or railroad right-of-way. The only exception may be at jogs or weaves on the highway alignment.
- C. The highest priority will be given to locating the electric line parallel and adjacent to highway and/or railroad right-of-way. When this is not possible, all support poles will be spaced in such a manner so as to minimize their placement on cropland (i.e., longer than normal spans will be utilized when traversing cropland).

2. Land to be Purchased via Fee Simple Acquisition

No land will be purchased via fee simple acquisition.

3. Aboveground Facilities

There will be no aboveground facilities located on cropland other than the support structures, conductors, guy wires, and anchors.

4. Guy Wires and Anchors

- A. Concerted effort will be made to place guy wires and their anchors out of crop and hayland, placing them instead along existing utilization lines and on land not used for row crops or hay.
- B. All guy wires will be shielded with highly visible guards.

5. Drainage Tile

- A. If tiling is practiced in the area where an electric line is to be constructed, the Company will send a letter to all landowners to request information as to whether support structure locations will interfere with any drainage tile.
- B. If the Company is advised of possible drainage tile interference with a support structure location, the Company will relocate the support structure to avoid interference with the tile.
- C. In the event that the landowner does not advise the Company of a tile location problem and one is found to exist when drilling the hole for the support structure, the Company will relocate in the support structure and repair the tile line if it is damaged in

accordance with the repair specifications of the county Soil and Water Conservation District.

6. Damages to Private Property

- A. The Company will make every reasonable effort to repair, replace, or pay to repair or replace damaged private property within 45 days, weather and landowner permitting, after the electric line had been constructed across the effected property.
- B. If the landowner is paid for any work that is needed to correct damage to his/her property, the Company will pay the ongoing commercial rate for such work.
- C. The Company will remain liable to correct damages to private property beyond the construction of the electric line, to associated future construction, maintenance, and repairs as well.

7. Restoration of Soil for Compaction and Rutting

- A. The Company will chisel to a depth of 18 inches all cropland, which has been traversed by construction equipment to alleviate compaction impacts, unless the landowner specifies other arrangements that are acceptable to the Company.
- B. The Company will chisel to a depth of 12 inches all pasture and hayland that has been traversed by construction equipment to alleviate compaction impacts, unless the landowner specifies other arrangements that are acceptable to the Company.
- C. The Company will chisel or pay to have chiseled all compacted and rutted soil within 45 days, weather and landowner permitting, after the electric line has been constructed across any affected property.

8. Fertilization of Disturbed Soils

- A. If desired by the landowner, the Company will agree to apply fertilizer and lime to land disturbed by construction at a rate specified by the local University of Illinois Extension office to help restore the fertility of disturbed soils and enhance the establishment of a vegetative cover to control soil erosion.
- B. Unless other arrangements are made with the landowner, the Company will apply fertilizer and lime to the disturbed right-of-way within 45 days, weather and landowner permitting, after the electric line has been constructed across an affected property.

9. Repair of Damaged Soil Conservation Practices

- A. The Company will repair or pay the landowner to repair any soil conservation practices (such as terraces, grassed waterways, etc.), which are damaged by the electric line's construction.
- B. If the Company will responsible for repairing any damaged soil conservation practices, the repairs will be made in accordance with the specifications of the county Soil and

Water Conservation Districts (unless the landowner and the Company agree to the other repair specifications).

- C. The Company will repair or pay to have repaired damaged soil conservation practices within 45 days, weather and landowner permitting, of the electric line's construction across any affected property.

10. Removal of Construction Debris

- A. The Company will remove from the landowner's property all material that was not there before construction commenced and which is not an integral part of the electric line. (Note: Such material to be removed would also include litter generated by the construction crews.)
- B. The Company will make all reasonable efforts to insure that all construction debris will be removed within 45 days, weather and landowner permitting, after the electric line has been constructed.

11. Preventing Erosion

- A. The Company will work with landowners to prevent or correct excessive erosion on all lands disturbed by construction by implementing reasonable methods to control erosion as suggested by the landowner.
- B. If the landowner A) does not suggest a reasonable erosion control method, or B) does not suggest any method of erosion control, the Company will follow the recommendations of the county Soil and Water Conservation District.
- C. The Company will use all reasonable efforts to insure that erosion control measures are implemented, or pay the landowner to do so, within 45 days, weather and landowner permitting, following the construction of the electric line across any affected property subject to erosion.

12. Soil Removed from Support Structures Holes/Foundations

- A. It is expected that most soil material will be back-filled in and around the hole augered for the structures. If the landowner expresses concern regarding remaining soil, the Company will agree to remove the spoil material or pay the comparable area hauling charge to the landowner for removal of the spoil material.
- B. If spoil material is to be removed, the Company will remove or pay to have removed the spoil material within 45 days, weather and landowner permitting, following the construction of the electric line across any affected property.

13. Clearing of Trees and Brush from the Easement

- A. If trees are to be removed from privately owned land, the Company will consult with the landowner to see if there are trees of commercial or other value to the landowner.

- B. If there are trees of commercial or other value to the landowner, the Company will allow the landowner the right to retain ownership of the trees with the disposition of the trees to be negotiated prior to the commencement of land clearing.
- C. The Company will follow the landowner's desires, if reasonable, regarding the disposition of trees and brush of no value to the landowner by burning, burial, or complete removal from any affected property.

14. Interference with Neighboring Communications Circuits

If interference should develop between the Company's new facilities and a landowner's communication circuits, the Company will seek to eliminate such interference at its own expense within 45 days of receiving a verbal or written notice from the affected landowner.

15. Advance Notice of Access to Private Property

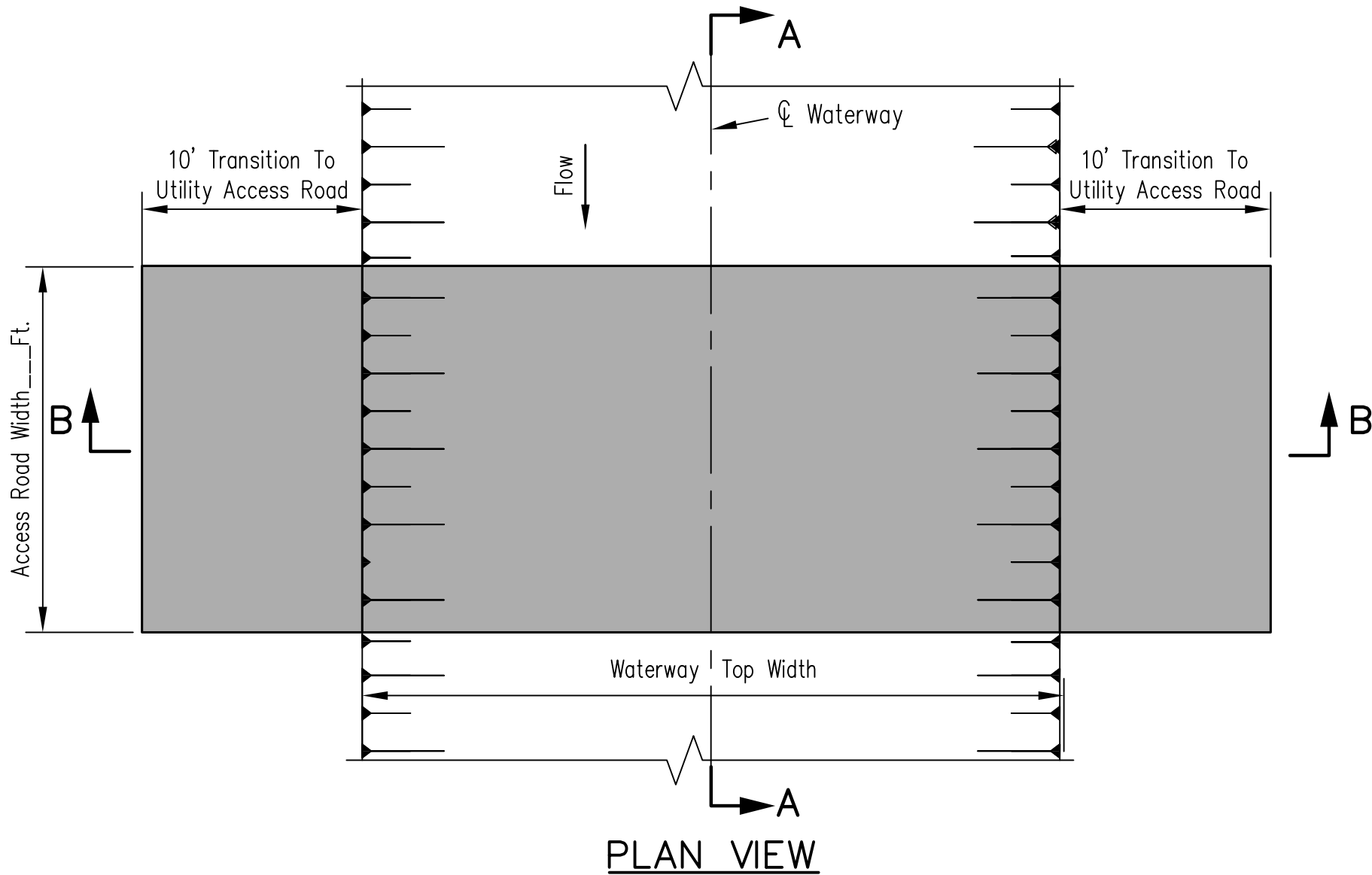
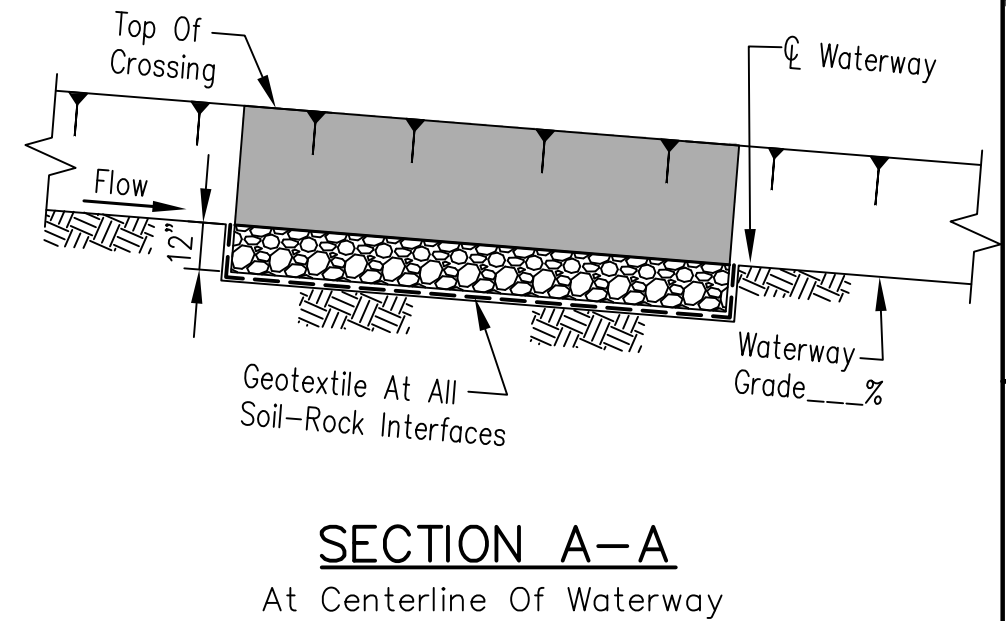
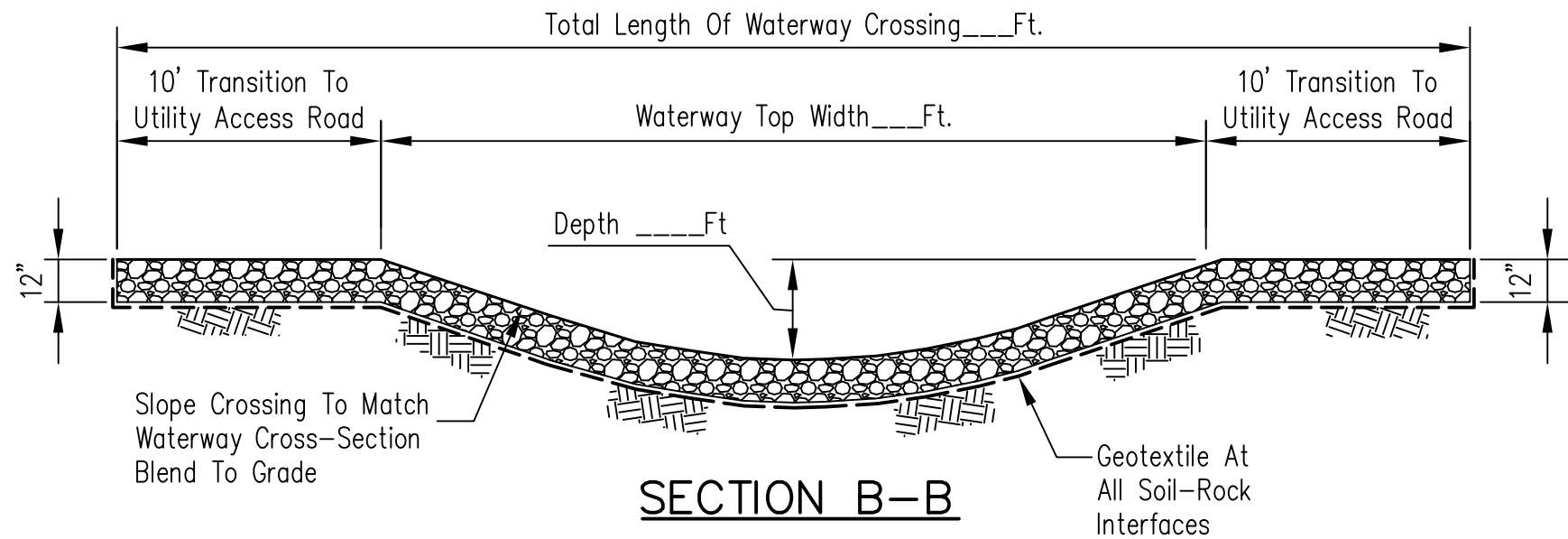
- A. The Company will provide the landowner with a minimum of 24 hours prior notice before accessing private property for the purpose of constructing the electric line.
- B. Prior notice shall first consist of a personal contact or a telephone contact, whereby the landowner is actually informed of the Company's intent to access the landowner's land. If the landowner cannot be reached in person or by telephone, the Company will mail or hand deliver to the landowner's home a dated, written notice of the Company's intent. The landowner need not acknowledge receipt of the second notice before the Company enters the landowner's property.

16. Reporting of Inferior Agricultural Impact Mitigation Work

Prior to the construction of the electric line, the Company will provide the landowner with a number to call to alert the Company should the landowner observe inferior work relating to the agricultural impact mitigation work that performed on the owner's property.

17. Indemnification

The Company will indemnify all owners of agricultural land upon which such electric line is installed, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the construction, maintenance, removal, repair, use or existence of such electric line, whether heretofore or hereafter installed, including damage to such electric line or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such owners, their heirs, successors, legal representatives, and assigns.



Notes:

- Geotextile (non-woven, needle punched) min. criteria:
 - Grab Tensile strength (lb) ASTM D 4632 _____ 202
 - Elongation at failure (%) ASTM D 4632 _____ ≥50
 - Trapezoidal tear strength (lb) ASTM D 4533 _____ 79
 - Puncture strength (lb) ASTM D 6241 _____ 433
 - Ultraviolet light (% retained strength) ASTM D 4355 _____ min 50
 - Apparent opening size (AOS) ASTM D 4751 _____ max 0.22 mm (US sieve size 70)
 - Permittivity sec⁻¹/ ASTM D 4491 _____ min 0.70
- Any geotextile splices shall overlap a minimum of 18 inches, with upstream or upslope geotextile overlapping the abutting downslope geotextile.
- The rock surface shall be compacted with the track or tire of the equipment used for construction over the entire surface and shall not leave any large depressions or irregularities that would not drain.

IDOT = Illinois Department Of Transportation

BILL OF MATERIAL		
Surface Material IDOT GRAD. CA 2 Quality Designation A	Tons	
Geotextile	Sq.Yd.	

Date
10/1/13
Designed
M. QUINONES
Drawn
Checked
Approved

ROCK CROSSING FOR WATERWAY



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Agriculture

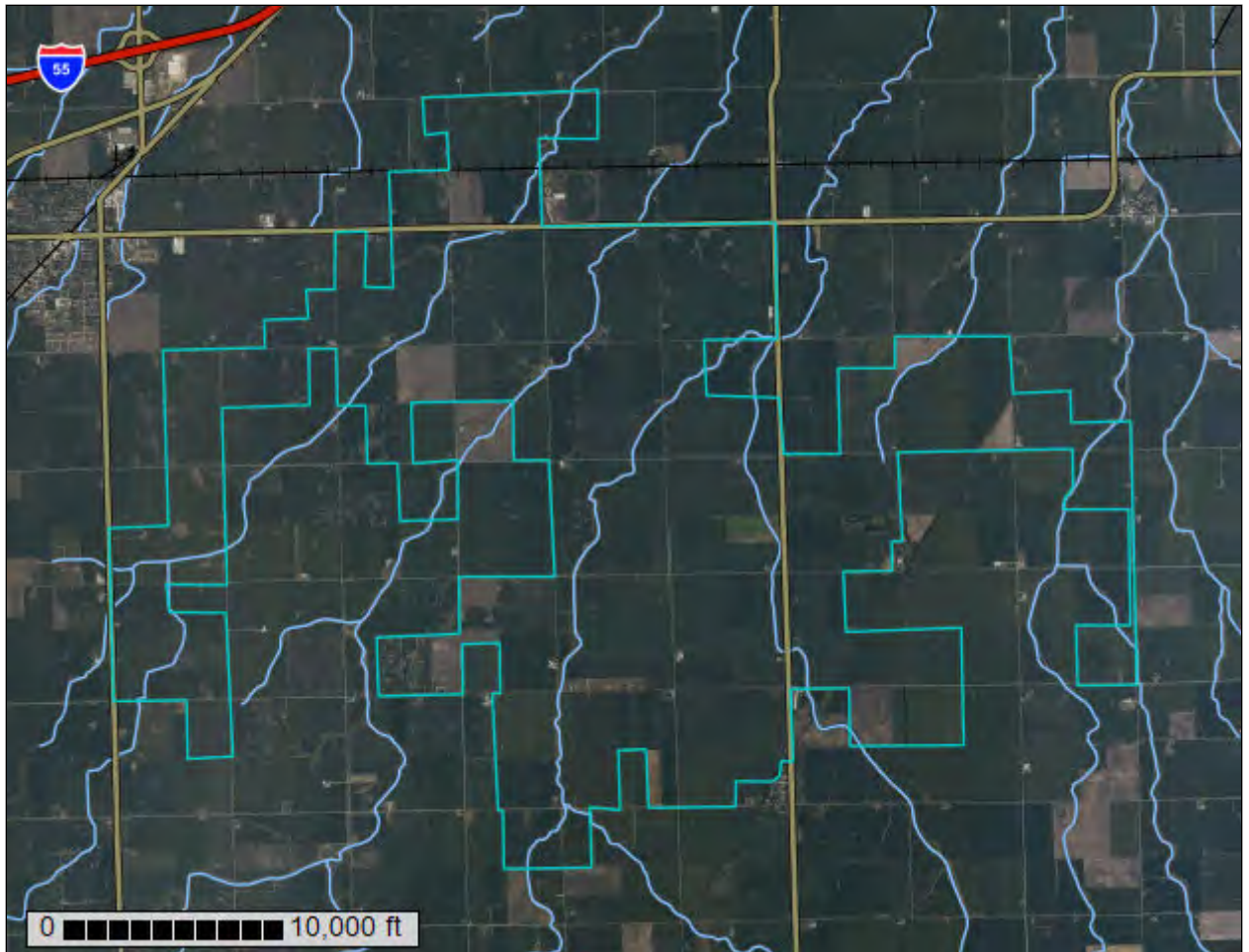
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Grundy County, Illinois, Kankakee County, Illinois, and Livingston County, Illinois

Heritage Prairie Wind



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

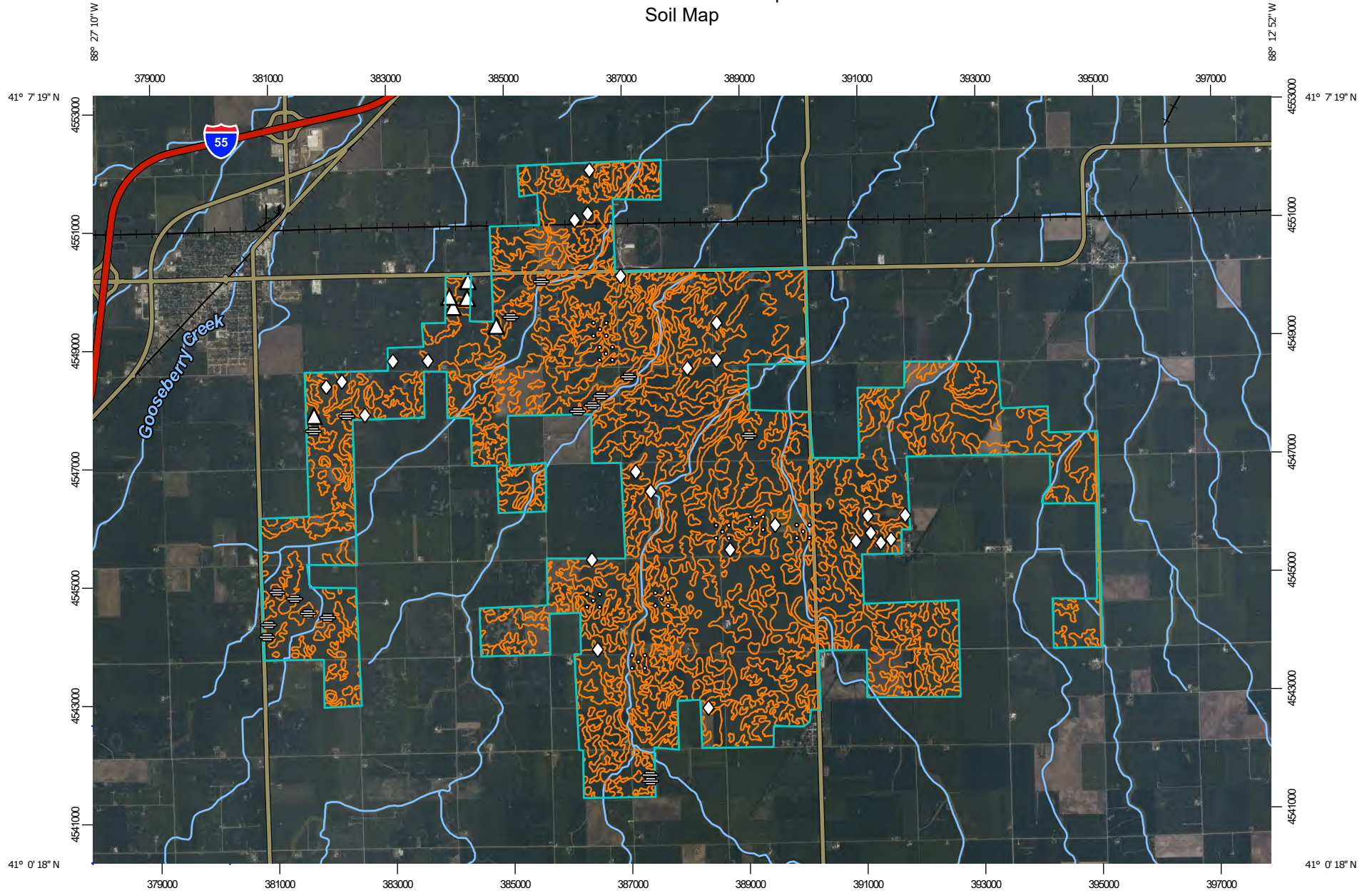
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

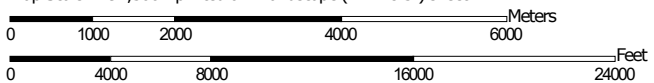
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:91,500 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Grundy County, Illinois
 Survey Area Data: Version 18, Aug 28, 2023

Soil Survey Area: Kankakee County, Illinois
 Survey Area Data: Version 20, Aug 28, 2023

Soil Survey Area: Livingston County, Illinois
 Survey Area Data: Version 18, Aug 28, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 3, 2019—Aug 24, 2019

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
69A	Milford silty clay loam, 0 to 2 percent slopes	0.9	0.0%
594A	Reddick clay loam, 0 to 2 percent slopes	1.6	0.0%
Subtotals for Soil Survey Area		2.5	0.0%
Totals for Area of Interest		15,353.1	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
293A	Andres silt loam, 0 to 2 percent slopes	11.5	0.1%
594A	Reddick clay loam, 0 to 2 percent slopes	15.6	0.1%
Subtotals for Soil Survey Area		27.1	0.2%
Totals for Area of Interest		15,353.1	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
69A	Milford silty clay loam, 0 to 2 percent slopes	48.5	0.3%
91A	Swygert silty clay loam, 0 to 2 percent slopes	128.7	0.8%
91B2	Swygert silty clay loam, 2 to 4 percent slopes, eroded	8.5	0.1%
102A	La Hogue loam, 0 to 2 percent slopes	98.8	0.6%
125A	Selma loam, 0 to 2 percent slopes	6.2	0.0%
141A	Wesley fine sandy loam, 0 to 2 percent slopes	185.4	1.2%
146A	Elliott silt loam, 0 to 2 percent slopes	825.4	5.4%
146B2	Elliott silty clay loam, 2 to 4 percent slopes, eroded	97.7	0.6%
147B2	Clarence silty clay loam, 2 to 4 percent slopes, eroded	21.0	0.1%
147C2	Clarence silty clay loam, 4 to 6 percent slopes, eroded	72.9	0.5%
150B	Onarga fine sandy loam, 2 to 5 percent slopes	85.7	0.6%
151A	Ridgeville fine sandy loam, 0 to 2 percent slopes	111.4	0.7%
153A	Pella silty clay loam, 0 to 2 percent slopes	9.7	0.1%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
206A	Thorp silt loam, 0 to 2 percent slopes	6.9	0.0%
223B2	Varna silt loam, 2 to 4 percent slopes, eroded	18.5	0.1%
223C2	Varna silt loam, 4 to 6 percent slopes, eroded	9.1	0.1%
232A	Ashkum silty clay loam, 0 to 2 percent slopes	2,028.0	13.2%
235A	Bryce silty clay, 0 to 2 percent slopes	672.2	4.4%
238A	Rantoul silty clay, 0 to 2 percent slopes	0.2	0.0%
293A	Andres silt loam, 0 to 2 percent slopes	3,407.7	22.2%
294B2	Symerton loam, 2 to 5 percent slopes, eroded	606.3	3.9%
295A	Mokena silt loam, 0 to 2 percent slopes	6.6	0.0%
330A	Peotone silty clay loam, 0 to 2 percent slopes	22.5	0.1%
448B2	Mona silt loam, 2 to 5 percent slopes, eroded	5.7	0.0%
536	Dumps, mine	29.9	0.2%
594A	Reddick clay loam, 0 to 2 percent slopes	6,348.7	41.4%
614A	Chenoa silty clay loam, 0 to 2 percent slopes	379.4	2.5%
614B	Chenoa silty clay loam, 2 to 5 percent slopes	3.7	0.0%
3107A	Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded	8.4	0.1%
3776A	Comfrey loam, 0 to 2 percent slopes, frequently flooded	60.2	0.4%
W	Water	9.2	0.1%
Subtotals for Soil Survey Area		15,323.3	99.8%
Totals for Area of Interest		15,353.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic

class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

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An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Grundy County, Illinois

69A—Milford silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2smzk
Elevation: 510 to 930 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Milford, drained, and similar soils: 93 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Milford, Drained

Setting

Landform: Depressions on lake plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Clayey lacustrine deposits

Typical profile

Ap - 0 to 9 inches: silty clay loam
A - 9 to 22 inches: silty clay
Bg - 22 to 50 inches: silty clay loam
Cg - 50 to 60 inches: stratified sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

Minor Components

Peotone, drained

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Orthents, clayey

Percent of map unit: 1 percent

Landform: Lake plains, ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

594A—Reddick clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zw

Elevation: 560 to 740 feet

Mean annual precipitation: 34 to 40 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 155 to 190 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Reddick, drained, and similar soils: 99 percent

Minor components: 1 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reddick, Drained

Setting

Landform: Till-floored lake plains, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

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Across-slope shape: Concave

Parent material: Loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 13 inches: clay loam

Btg1 - 13 to 32 inches: clay loam

2Btg2 - 32 to 47 inches: silty clay loam

2Cg - 47 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Urban land

Percent of map unit: 1 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Kankakee County, Illinois

293A—Andres silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zx
Elevation: 540 to 860 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Andres and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Andres

Setting

Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle of loess over loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 36 inches: clay loam
2Bt2 - 36 to 50 inches: silty clay loam
2C - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Elliott

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Interfluvium
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Ashkum, drained

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Pondered Depressional Sedge Meadow
Hydric soil rating: Yes

Reddick, drained

Percent of map unit: 3 percent
Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Pondered Depressional Sedge Meadow
Hydric soil rating: Yes

594A—Reddick clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zw
Elevation: 560 to 740 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Reddick, drained, and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reddick, Drained

Setting

Landform: Till-floored lake plains, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 13 inches: clay loam

Btg1 - 13 to 32 inches: clay loam

2Btg2 - 32 to 47 inches: silty clay loam

2Cg - 47 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Urban land

Percent of map unit: 1 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Livingston County, Illinois

69A—Milford silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2smzk
Elevation: 510 to 930 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Milford, drained, and similar soils: 93 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Milford, Drained

Setting

Landform: Depressions on lake plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Clayey lacustrine deposits

Typical profile

Ap - 0 to 9 inches: silty clay loam
A - 9 to 22 inches: silty clay
Bg - 22 to 50 inches: silty clay loam
Cg - 50 to 60 inches: stratified sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

Minor Components

Peotone, drained

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Orthents, clayey

Percent of map unit: 1 percent

Landform: Lake plains, ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

91A—Swygert silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zn

Elevation: 540 to 840 feet

Mean annual precipitation: 34 to 40 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 155 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Swygert and similar soils: 98 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swygert

Setting

Landform: Till plains, ground moraines, end moraines

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear

Parent material: Thin mantle of loess over clayey lacustrine deposits over clayey till

Typical profile

Ap - 0 to 12 inches: silty clay loam

Bt1 - 12 to 26 inches: silty clay

2Bt2 - 26 to 51 inches: silty clay

2Cd - 51 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 35 to 55 inches to densic material

Drainage class: Somewhat poorly drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Ecological site: R110XY0071L - Moist Glacial Drift Upland Prairie

Hydric soil rating: No

Minor Components

Bryce, drained

Percent of map unit: 2 percent

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY0081L - Wet Glacial Drift Upland Prairie

Hydric soil rating: Yes

91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2st2l

Elevation: 540 to 840 feet

Mean annual precipitation: 34 to 40 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 155 to 190 days

Custom Soil Resource Report

Farmland classification: All areas are prime farmland

Map Unit Composition

Swygart, eroded, and similar soils: 98 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swygart, Eroded

Setting

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Clayey lacustrine deposits over clayey till

Typical profile

Ap - 0 to 7 inches: silty clay loam

Bt1 - 7 to 30 inches: silty clay

2Bt2 - 30 to 48 inches: silty clay

2Cd - 48 to 60 inches: silty clay

Properties and qualities

Slope: 2 to 4 percent

Depth to restrictive feature: 35 to 51 inches to densic material

Drainage class: Somewhat poorly drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie

Hydric soil rating: No

Minor Components

Bryce, drained

Percent of map unit: 2 percent

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie

Hydric soil rating: Yes

102A—La Hogue loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ww9f
Elevation: 510 to 790 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 155 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

La hogue and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of La Hogue

Setting

Landform: Stream terraces, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Stratified sandy and loamy outwash

Typical profile

Ap - 0 to 16 inches: loam
Bt - 16 to 32 inches: clay loam
BCt - 32 to 48 inches: sandy loam
C - 48 to 60 inches: stratified loamy sand to silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B/D
Ecological site: R111XD020IN - Wet Outwash Mollisol, R110XY007IL - Moist
Glacial Drift Upland Prairie

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Selma, drained

Percent of map unit: 5 percent

Landform: Stream terraces, lake plains, outwash plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

125A—Selma loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zr

Elevation: 450 to 960 feet

Mean annual precipitation: 34 to 40 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 155 to 190 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Selma, drained, and similar soils: 96 percent

Minor components: 4 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Selma, Drained

Setting

Landform: Stream terraces, lake plains, outwash plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy outwash

Typical profile

Ap - 0 to 21 inches: loam

Bg - 21 to 46 inches: loam

Cg - 46 to 60 inches: stratified silt loam to loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Depth to water table: About 0 to 12 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Houghton, drained

Percent of map unit: 1 percent
Landform: Depressions on lake plains, depressions on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Harpster, drained

Percent of map unit: 1 percent
Landform: Depressions on lake plains, depressions on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY025IL - Poned Calcareous Sedge Meadow
Hydric soil rating: Yes

Orthents, loamy

Percent of map unit: 1 percent
Landform: Lake plains, outwash plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

141A—Wesley fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y31
Elevation: 510 to 980 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wesley and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wesley

Setting

Landform: Glacial lakes (relict), ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse textured outwash over lacustrine deposits and/or till

Typical profile

H1 - 0 to 13 inches: fine sandy loam
H2 - 13 to 38 inches: fine sandy loam
H3 - 38 to 43 inches: silty clay loam
H4 - 43 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 30 to 59 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R110XY014IL - Moist Sand Prairie
Hydric soil rating: No

Minor Components

Orthents, loamy

Percent of map unit: 3 percent
Landform: Lake plains, ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

Milford

Percent of map unit: 3 percent
Landform: Lake plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

Urban land

Percent of map unit: 3 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

146A—Elliott silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2sss0
Elevation: 570 to 930 feet
Mean annual precipitation: 33 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elliott and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elliott

Setting

Landform: Till plains, ground moraines
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear

Parent material: Thin mantle of loess or other silty material over silty clay loam till

Typical profile

Ap - 0 to 6 inches: silt loam

A - 6 to 11 inches: silty clay loam

Bt1 - 11 to 16 inches: silty clay

2Bt2 - 16 to 41 inches: silty clay loam

2Cd - 41 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 29 to 45 inches to densic material

Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 35 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C/D

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie

Forage suitability group: Mod AWC, high water table (G095BY004WI), High AWC, high water table (G095BY007WI)

Other vegetative classification: Mod AWC, high water table (G095BY004WI), High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 4 percent

Landform: Till plains, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

Orthents, clayey

Percent of map unit: 1 percent

Landform: Till plains, ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluvium

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sss2
Elevation: 570 to 930 feet
Mean annual precipitation: 33 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elliott, eroded, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elliott, Eroded

Setting

Landform: Till plains, ground moraines
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Thin mantle of loess or other silty material over silty clay loam till

Typical profile

Ap - 0 to 8 inches: silty clay loam
2Bt1 - 8 to 14 inches: silty clay loam
2Bt2 - 14 to 31 inches: silty clay loam
2Cd - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: 24 to 38 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None

Custom Soil Resource Report

Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R111XD012IN -
Till Ridge Prairie
Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 5 percent
Landform: Till plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2yrrf
Elevation: 590 to 820 feet
Mean annual precipitation: 35 to 40 inches
Mean annual air temperature: 50 to 52 degrees F
Frost-free period: 150 to 185 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Clarence, eroded, and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Clarence, Eroded

Setting

Landform: Ground moraines
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty clay or clay till

Typical profile

Ap - 0 to 9 inches: silty clay loam

Custom Soil Resource Report

Btg - 9 to 28 inches: clay
Cdg - 28 to 60 inches: silty clay

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: 25 to 40 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Bryce, drained

Percent of map unit: 3 percent
Landform: Till-floored lake plains, glacial lakes (relict), ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, talf
Down-slope shape: Linear, concave
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Other vegetative classification: Grass/Prairie (Herbaceous Vegetation)
Hydric soil rating: Yes

Rowe

Percent of map unit: 3 percent
Landform: Lake plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R108XA007IL - Wet Loess Upland Prairie
Hydric soil rating: Yes

147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2yrrg

Custom Soil Resource Report

Elevation: 590 to 820 feet
Mean annual precipitation: 35 to 40 inches
Mean annual air temperature: 50 to 52 degrees F
Frost-free period: 150 to 185 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Clarence, eroded, and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Clarence, Eroded

Setting

Landform: Ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty clay or clay till

Typical profile

Ap - 0 to 9 inches: silty clay loam
Btg - 9 to 28 inches: clay
Cdg - 28 to 60 inches: silty clay

Properties and qualities

Slope: 4 to 6 percent
Depth to restrictive feature: 25 to 40 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Rowe

Percent of map unit: 3 percent
Landform: Lake plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie

Hydric soil rating: Yes

150B—Onarga fine sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 5y3f
Elevation: 510 to 930 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Onarga, deep water table, and similar soils: 92 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Onarga, Deep Water Table

Setting

Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian deposits and/or outwash

Typical profile

H1 - 0 to 17 inches: fine sandy loam
H2 - 17 to 31 inches: fine sandy loam
H3 - 31 to 60 inches: stratified sand to fine sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 6.00 in/hr)
Depth to water table: About 42 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: R110XY013IL - Dry Sand Prairie
Hydric soil rating: No

151A—Ridgeville fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y3h
Elevation: 510 to 930 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 140 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Ridgeville and similar soils: 90 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ridgeville

Setting

Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits and/or outwash

Typical profile

H1 - 0 to 16 inches: fine sandy loam
H2 - 16 to 40 inches: fine sandy loam
H3 - 40 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A/D
Ecological site: R108XA016IL - Sand Prairie, R110XY014IL - Moist Sand Prairie, R098XB033IN - Kankakee Moist Drift Flats
Hydric soil rating: No

Minor Components

Gilford

Percent of map unit: 3 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY015IL - Wet Sand Prairie
Hydric soil rating: Yes

153A—Pella silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2smzn
Elevation: 490 to 830 feet
Mean annual precipitation: 34 to 41 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 150 to 195 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Pella, drained, and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pella, Drained

Setting

Landform: Till plains, lake plains, outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess or silty material over calcareous loamy outwash

Typical profile

Ap - 0 to 12 inches: silty clay loam
Bg - 12 to 28 inches: silty clay loam
2Bkg - 28 to 36 inches: silt loam
2Cg - 36 to 60 inches: stratified sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Custom Soil Resource Report

Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Harpster, drained

Percent of map unit: 3 percent
Landform: Depressions on till plains, depressions on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY025IL - Ponded Calcareous Sedge Meadow
Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

206A—Thorp silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ytdt
Elevation: 520 to 980 feet
Mean annual precipitation: 30 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 150 to 180 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Thorp, drained, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Thorp, Drained

Setting

Landform: Outwash plains, ground moraines

Custom Soil Resource Report

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loess over stratified loamy outwash

Typical profile

Ap - 0 to 14 inches: silt loam
Eg - 14 to 19 inches: silt loam
Btg - 19 to 43 inches: silty clay loam
2Btg - 43 to 50 inches: sandy clay loam
2Cg - 50 to 79 inches: stratified loamy sand to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R108XA013IL - Wet Outwash Prairie, R108XA007IL - Wet Loess Upland Prairie, R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Elburn

Percent of map unit: 5 percent
Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Toeslope, summit, footslope
Landform position (three-dimensional): Interfluvium, tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R108XA012IL - Outwash Prairie
Hydric soil rating: No

223B2—Varna silt loam, 2 to 4 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2yrqv

Custom Soil Resource Report

Elevation: 520 to 870 feet
Mean annual precipitation: 35 to 42 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 150 to 185 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Varna, eroded, and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Varna, Eroded

Setting

Landform: Ground moraines, end moraines
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loess over silty clay loam or clay loam till

Typical profile

Ap - 0 to 10 inches: silt loam
2Bt1 - 10 to 30 inches: silty clay loam
2Bt2 - 30 to 48 inches: silty clay loam
2Cd - 48 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: 24 to 55 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R108XA006IL - Loess Upland Prairie
Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 6 percent
Landform: Ground moraines, end moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

223C2—Varna silt loam, 4 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2yrqw

Elevation: 520 to 950 feet

Mean annual precipitation: 34 to 42 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 140 to 185 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Varna, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Varna, Eroded

Setting

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loess over silty clay loam or clay loam till

Typical profile

Ap - 0 to 9 inches: silt loam

2Bt1 - 9 to 30 inches: silty clay loam

2Bt2 - 30 to 48 inches: silty clay loam

2Cd - 48 to 60 inches: silty clay loam

Properties and qualities

Slope: 4 to 6 percent

Depth to restrictive feature: 24 to 55 inches to densic material

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

*Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R108XA006IL -
Loess Upland Prairie*

Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 6 percent

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

Urban land

Percent of map unit: 2 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Orthents, clayey

Percent of map unit: 2 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

232A—Ashkum silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ssrw

Elevation: 520 to 930 feet

Mean annual precipitation: 33 to 41 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 160 to 190 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Ashkum, drained, and similar soils: 92 percent

Minor components: 8 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ashkum, Drained

Setting

Landform: Ground moraines, end moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Clayey colluvium over till

Typical profile

Ap - 0 to 12 inches: silty clay loam
Bg1 - 12 to 29 inches: silty clay
2Bg2 - 29 to 54 inches: silty clay loam
2Cg - 54 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Peotone, drained

Percent of map unit: 5 percent
Landform: Depressions on ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

Orthents, clayey

Percent of map unit: 2 percent
Landform: Lake plains, ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

235A—Bryce silty clay, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zp
Elevation: 540 to 770 feet
Mean annual precipitation: 33 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Bryce, drained, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bryce, Drained

Setting

Landform: Till-floored lake plains, glacial lakes (relict), ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, talf
Down-slope shape: Linear, concave
Across-slope shape: Concave
Parent material: Clayey glaciolacustrine deposits over clayey till

Typical profile

Ap - 0 to 13 inches: silty clay
Btg - 13 to 45 inches: silty clay
2BCg - 45 to 58 inches: silty clay
2Cg - 58 to 66 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)

Custom Soil Resource Report

Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.2 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Other vegetative classification: Grass/Prairie (Herbaceous Vegetation)
Hydric soil rating: Yes

Minor Components

Orthents, clayey

Percent of map unit: 2 percent
Landform: Lake plains, ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

Rantoul, drained

Percent of map unit: 2 percent
Landform: Depressions on till-floored lake plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear, concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Other vegetative classification: Grass/Prairie (Herbaceous Vegetation)
Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

238A—Rantoul silty clay, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y40

Elevation: 510 to 930 feet

Mean annual precipitation: 28 to 40 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 140 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Rantoul and similar soils: 94 percent

Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rantoul

Setting

Landform: Depressions on lake plains, depressions on ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Colluvium

Typical profile

H1 - 0 to 17 inches: silty clay

H2 - 17 to 40 inches: silty clay

H3 - 40 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 25 percent

Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: D

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Houghton

Percent of map unit: 6 percent
Landform: Depressions on outwash plains, depressions on ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

293A—Andres silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zx
Elevation: 540 to 860 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Andres and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Andres

Setting

Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Interfluvium
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle of loess over loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 36 inches: clay loam
2Bt2 - 36 to 50 inches: silty clay loam
2C - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 1

Hydrologic Soil Group: C/D

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie

Hydric soil rating: No

Minor Components

Elliott

Percent of map unit: 3 percent

Landform: Ground moraines

Landform position (two-dimensional): Footslope, summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie

Hydric soil rating: No

Ashkum, drained

Percent of map unit: 3 percent

Landform: Ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

Reddick, drained

Percent of map unit: 3 percent

Landform: Till-floored lake plains, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

294B2—Symerton loam, 2 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: 5y49
Elevation: 510 to 930 feet
Mean annual precipitation: 28 to 42 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 140 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Symerton and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Symerton

Setting

Landform: Lake plains, ground moraines
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy outwash over silty clay loam till

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 35 inches: clay loam
H3 - 35 to 43 inches: silty clay loam
H4 - 43 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Reddick

Percent of map unit: 3 percent
Landform: Swales
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

Ashkum

Percent of map unit: 3 percent
Landform: Ground moraines, end moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

295A—Mokena silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y4c
Elevation: 510 to 980 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mokena and similar soils: 92 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mokena

Setting

Landform: Lake plains, ground moraines
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle of loess or other silty material and in the underlying outwash and till or lacustrine deposits

Typical profile

H1 - 0 to 5 inches: silt loam

Custom Soil Resource Report

H2 - 5 to 15 inches: loam
H3 - 15 to 38 inches: clay loam
H4 - 38 to 42 inches: silty clay
H5 - 42 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 30 to 60 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: C/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Bryce

Percent of map unit: 6 percent
Landform: Glacial lakes (relict), ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

Urban land

Percent of map unit: 2 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

330A—Peotone silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2sn05
Elevation: 500 to 1,020 feet
Mean annual precipitation: 33 to 43 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 140 to 195 days

Custom Soil Resource Report

Farmland classification: Prime farmland if drained

Map Unit Composition

Peotone, drained, and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peotone, Drained

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Silty and clayey colluvium

Typical profile

Ap - 0 to 7 inches: silty clay loam

Bg1 - 7 to 27 inches: silty clay loam

Bg2 - 27 to 50 inches: silty clay

Cg - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Peotone, long duration ponding

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland

Hydric soil rating: Yes

448B2—Mona silt loam, 2 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: 5y50
Elevation: 540 to 930 feet
Mean annual precipitation: 28 to 42 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mona and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mona

Setting

Landform: Ground moraines
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loess and loamy outwash over silty clay till

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 31 inches: clay loam
H3 - 31 to 36 inches: silty clay
H4 - 36 to 60 inches: silty clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 32 to 54 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.02 to 0.06 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Bryce

Percent of map unit: 5 percent
Landform: Glacial lakes (relict), ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

536—Dumps, mine

Map Unit Setting

National map unit symbol: 5y54
Elevation: 400 to 1,020 feet
Mean annual precipitation: 29 to 48 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Dumps, mine: 97 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dumps, Mine

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Minor Components

Orthents, silty

Percent of map unit:
Landform: Ground moraines
Landform position (two-dimensional): Summit, backslope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F105XY013WI - Loamy-Silty Upland
Hydric soil rating: No

Orthents, loamy

Percent of map unit:
Landform: Ground moraines
Landform position (two-dimensional): Summit
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F105XY013WI - Loamy-Silty Upland

Hydric soil rating: No

594A—Reddick clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zw
Elevation: 560 to 740 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Reddick, drained, and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reddick, Drained

Setting

Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 13 inches: clay loam
Btg1 - 13 to 32 inches: clay loam
2Btg2 - 32 to 47 inches: silty clay loam
2Cg - 47 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D

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Ecological site: R110XY024IL - Poned Depressional Sedge Meadow
Hydric soil rating: Yes

Minor Components

Urban land

Percent of map unit: 1 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

614A—Chenoa silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t706
Elevation: 590 to 800 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 48 to 53 degrees F
Frost-free period: 155 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Chenoa and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chenoa

Setting

Landform: Ground moraines, end moraines
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over till

Typical profile

Ap - 0 to 12 inches: silty clay loam
Btg - 12 to 32 inches: silty clay loam
2Bt - 32 to 36 inches: silty clay loam
2C - 36 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low

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Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R108XA006IL - Loess Upland Prairie

Hydric soil rating: No

Minor Components

Elpaso, drained

Percent of map unit: 3 percent

Landform: Swales, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R108XA007IL - Wet Loess Upland Prairie, R108XA008IL - Pondered Loess Sedge Meadow, R110XY024IL - Pondered Depressional Sedge Meadow

Hydric soil rating: Yes

Ashkum, drained

Percent of map unit: 3 percent

Landform: Swales, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Pondered Depressional Sedge Meadow

Hydric soil rating: Yes

614B—Chenoa silty clay loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ww9k

Elevation: 590 to 910 feet

Mean annual precipitation: 34 to 40 inches

Mean annual air temperature: 48 to 53 degrees F

Frost-free period: 155 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Chenoa and similar soils: 94 percent

Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chenoa

Setting

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Summit, footslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loess over calcareous till

Typical profile

Ap - 0 to 12 inches: silty clay loam

Btg - 12 to 31 inches: silty clay loam

2Bt - 31 to 40 inches: silty clay loam

2C - 40 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie, R108XA006IL - Loess Upland Prairie

Hydric soil rating: No

Minor Components

Elpaso, drained

Percent of map unit: 3 percent

Landform: Swales, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R108XA007IL - Wet Loess Upland Prairie, R108XA008IL - Ponded Loess Sedge Meadow, R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Ashkum, drained

Percent of map unit: 3 percent

Landform: Ground moraines, swales

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R110XY024IL - Poned Depressional Sedge Meadow

Hydric soil rating: Yes

3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 2ww9j

Elevation: 450 to 930 feet

Mean annual precipitation: 34 to 39 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 158 to 175 days

Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Sawmill, heavy till plain, frequently flooded, and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sawmill, Heavy Till Plain, Frequently Flooded

Setting

Landform: Flood plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silty clay loam

A - 8 to 30 inches: silty clay loam

Bg - 30 to 51 inches: silty clay loam

Cg - 51 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Depth to water table: About 0 to 12 inches

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Frequency of flooding: Frequent
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: R110XY027IL - Ponded Floodplain Marsh, R108XA018IL -
Ponded Floodplain Marsh
Hydric soil rating: Yes

Minor Components

Millington, heavy till plain, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY027IL - Ponded Floodplain Marsh, R108XA018IL - Ponded
Floodplain Marsh
Hydric soil rating: Yes

3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 5y4q
Elevation: 510 to 800 feet
Mean annual precipitation: 31 to 45 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 145 to 185 days
Farmland classification: Prime farmland if drained and either protected from flooding
or not frequently flooded during the growing season

Map Unit Composition

Comfrey and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Comfrey

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: loam

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H2 - 8 to 34 inches: clay loam

H3 - 34 to 43 inches: clay loam

H4 - 43 to 60 inches: loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Negligible

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)*

Depth to water table: About 0 to 12 inches

Frequency of flooding: Frequent

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 20 percent

Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B/D

Ecological site: R110XY029IL - Wet Floodplain Sedge Meadow

Hydric soil rating: Yes

W—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Rivers, perennial streams, oxbows, lakes, drainageways, channels

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the

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upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or

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B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.
 Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.
 Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
 Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
 Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
 Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components—IL063-Grundy County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
69A: Milford silty clay loam, 0 to 2 percent slopes	Milford-Drained	88-100	Depressions on lake plains	Yes	2
	Peotone-Drained	0-9	Depressions	Yes	2
	Urban land	0-2	—	No	—
	Orthents, clayey	0-3	Lake plains,ground moraines	No	—
594A: Reddick clay loam, 0 to 2 percent slopes	Reddick-Drained	98-100	Till-floored lake plains,ground moraines	Yes	2
	Urban land	0-2	Ground moraines	No	—

Hydric Soil List - All Components—IL091-Kankakee County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
293A: Andres silt loam, 0 to 2 percent slopes	Andres	88-100	Till-floored lake plains,ground moraines	No	—
	Elliott	0-5	Ground moraines	No	—
	Ashkum-Drained	0-5	Ground moraines	Yes	2
	Reddick-Drained	0-5	Till-floored lake plains,ground moraines	Yes	2
594A: Reddick clay loam, 0 to 2 percent slopes	Reddick-Drained	98-100	Till-floored lake plains,ground moraines	Yes	2
	Urban land	0-2	Ground moraines	No	—

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Hydric Soil List - All Components—IL105-Livingston County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
69A: Milford silty clay loam, 0 to 2 percent slopes	Milford-Drained	88-100	Depressions on lake plains	Yes	2
	Peotone-Drained	0-9	Depressions	Yes	2
	Urban land	0-2	—	No	—
91A: Swygert silty clay loam, 0 to 2 percent slopes	Orthents, clayey	0-3	Lake plains,ground moraines	No	—
	Swygert	95-100	Till plains,ground moraines,end moraines	No	—
	Bryce-Drained	0-5	Ground moraines,end moraines	Yes	2
91B2: Swygert silty clay loam, 2 to 4 percent slopes, eroded	Swygert-Eroded	95-100	Ground moraines,end moraines	No	—
	Bryce-Drained	0-5	Ground moraines,end moraines	Yes	2
102A: La Hogue loam, 0 to 2 percent slopes	La Hogue	91-100	Stream terraces,outwash plains	No	—
	Selma-Drained	0-9	Stream terraces,lake plains,outwash plains	Yes	2
125A: Selma loam, 0 to 2 percent slopes	Selma-Drained	88-100	Stream terraces,lake plains,outwash plains	Yes	2
	Houghton-Drained	0-3	Depressions on lake plains,depressions on outwash plains	Yes	1
	Urban land	0-3	Ground moraines	No	—
	Harpster-Drained	0-3	Depressions on lake plains,depressions on outwash plains	Yes	2
141A: Wesley fine sandy loam, 0 to 2 percent slopes	Orthents, loamy	0-3	Lake plains,outwash plains	No	—
	Wesley	85-100	Glacial lakes (relict),ground moraines	No	—
	Orthents, loamy	0-9	Lake plains,ground moraines	No	—
	Milford	0-9	Lake plains	Yes	2
	Urban land	0-9	—	No	—
146A: Elliott silt loam, 0 to 2 percent slopes	Elliott	85-100	Till plains,ground moraines	No	—
	Ashkum-Drained	0-9	Till plains,ground moraines	Yes	2
	Orthents, clayey	0-3	Till plains,ground moraines	No	—
Urban land	0-3	Ground moraines	No	—	

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Hydric Soil List - All Components—IL105-Livingston County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
146B2: Elliott silty clay loam, 2 to 4 percent slopes, eroded	Elliott-Eroded	91-100	Till plains,ground moraines	No	—
	Ashkum-Drained	0-9	Till plains,ground moraines	Yes	2
147B2: Clarence silty clay loam, 2 to 4 percent slopes, eroded	Clarence-Eroded	90-100	Ground moraines	No	—
	Bryce-Drained	0-5	Till-floored lake plains,glacial lakes (relict),ground moraines	Yes	2
	Rowe	0-5	Lake plains,ground moraines	Yes	2
147C2: Clarence silty clay loam, 4 to 6 percent slopes, eroded	Clarence-Eroded	95-100	Ground moraines	No	—
	Rowe	0-5	Lake plains,ground moraines	Yes	2
150B: Onarga fine sandy loam, 2 to 5 percent slopes	Onarga-Deep water table	88-100	Stream terraces,outwash plains	No	—
151A: Ridgeville fine sandy loam, 0 to 2 percent slopes	Ridgeville	88-100	Stream terraces,outwash plains	No	—
	Gilford	0-5	Outwash plains	Yes	2
153A: Pella silty clay loam, 0 to 2 percent slopes	Pella-Drained	90-100	Till plains,lake plains,outwash plains	Yes	2
	Harpster-Drained	0-9	Depressions on till plains,depressions on outwash plains	Yes	2
	Urban land	0-2	—	No	—
206A: Thorp silt loam, 0 to 2 percent slopes	Thorp-Drained	94-100	Outwash plains,ground moraines	Yes	2
	Elburn	0-6	Stream terraces,outwash plains	No	—
223B2: Varna silt loam, 2 to 4 percent slopes, eroded	Varna-Eroded	91-100	Ground moraines,end moraines	No	—
	Ashkum-Drained	0-9	Ground moraines,end moraines	Yes	2
223C2: Varna silt loam, 4 to 6 percent slopes, eroded	Varna-Eroded	85-100	Ground moraines,end moraines	No	—
	Ashkum-Drained	0-9	Ground moraines,end moraines	Yes	2
	Urban land	0-7	Ground moraines	No	—
	Orthents, clayey	0-7	Ground moraines	No	—

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Hydric Soil List - All Components—IL105-Livingston County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
232A: Ashkum silty clay loam, 0 to 2 percent slopes	Ashkum-Drained	85-100	Ground moraines,end moraines	Yes	2
	Peotone-Drained	0-9	Depressions on ground moraines	Yes	2
	Orthents, clayey	0-3	Lake plains,ground moraines	No	—
235A: Bryce silty clay, 0 to 2 percent slopes	Urban land	0-3	Ground moraines	No	—
	Bryce-Drained	88-100	Till-floored lake plains,glacial lakes (relict),ground moraines	Yes	2
	Orthents, clayey	0-3	Lake plains,ground moraines	No	—
	Rantoul-Drained	0-9	Depressions on till-floored lake plains	Yes	2,3
238A: Rantoul silty clay, 0 to 2 percent slopes	Urban land	0-3	Ground moraines	No	—
	Rantoul	88-100	Depressions on lake plains,depressions on ground moraines	Yes	2,3
	Houghton	0-9	Depressions on outwash plains,depressions on ground moraines	Yes	1
293A: Andres silt loam, 0 to 2 percent slopes	Andres	88-100	Till-floored lake plains,ground moraines	No	—
	Elliott	0-5	Ground moraines	No	—
	Ashkum-Drained	0-5	Ground moraines	Yes	2
	Reddick-Drained	0-5	Till-floored lake plains,ground moraines	Yes	2
294B2: Symerton loam, 2 to 5 percent slopes, eroded	Symerton	88-100	Lake plains,ground moraines	No	—
	Reddick	0-9	Swales	Yes	2
	Ashkum	0-9	Ground moraines,end moraines	Yes	2
295A: Mokena silt loam, 0 to 2 percent slopes	Mokena	88-100	Lake plains,ground moraines	No	—
	Bryce	0-9	Glacial lakes (relict),ground moraines	Yes	2
	Urban land	0-5	—	No	—
330A: Peotone silty clay loam, 0 to 2 percent slopes	Peotone-Drained	91-100	Depressions	Yes	2
	Peotone-Long duration ponding	0-9	Depressions	Yes	2,3

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Hydric Soil List - All Components—IL105-Livingston County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
448B2: Mona silt loam, 2 to 5 percent slopes, eroded	Mona	90-100	Ground moraines	No	—
	Bryce	0-9	Glacial lakes (relict),ground moraines	Yes	2
536: Dumps, mine	Dumps-Mine	97	—	—	—
	Orthents-Silty		Ground moraines	No	—
	Orthents-Loamy		Ground moraines	No	—
594A: Reddick clay loam, 0 to 2 percent slopes	Reddick-Drained	98-100	Till-floored lake plains,ground moraines	Yes	2
	Urban land	0-2	Ground moraines	No	—
614A: Chenoa silty clay loam, 0 to 2 percent slopes	Chenoa	90-100	Ground moraines,end moraines	No	—
	Elpaso-Drained	0-6	Swales,ground moraines	Yes	2
	Ashkum-Drained	0-6	Swales,ground moraines	Yes	2
614B: Chenoa silty clay loam, 2 to 5 percent slopes	Chenoa	90-100	Ground moraines,end moraines	No	—
	Elpaso-Drained	0-5	Swales,ground moraines	Yes	2
	Ashkum-Drained	0-5	Ground moraines,swales	Yes	2
3107A: Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded	Sawmill-Heavy till plain, frequently flooded	91-100	Flood plains	Yes	2
	Millington-Heavy till plain, frequently flooded	0-9	Flood plains	Yes	2
3776A: Comfrey loam, 0 to 2 percent slopes, frequently flooded	Comfrey	85-100	Flood plains	Yes	2
W: Water	Water	100	Rivers,perennial streams,oxbows,lakes,drainageways,channels	—	—

NCCPI Overall

National Commodity Crop Productivity Index is a method of arraying the soils of the United States for non-irrigated commodity crop production based on their inherent soil properties. The rating a soil is assigned is the highest one of four basic crop group indices, which are based on the climate where the crop is typically grown. Cooler climates are represented by winter wheat, moderate climates are represented by corn and, new for this version, a separate soybeans model, and warmer climates are represented by cotton.

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The interpretation is applicable to both heavily populated and sparsely populated areas. Ratings are for soils in their present condition. The present land use is not considered in the ratings.

Ratings are based on properties and qualities to the depth normally observed during soil mapping (approximately 6 feet). Soil, site, and climate properties that influence the growth of crops are major considerations. Soil productivity is influenced by many soil properties. An ideal soil will store adequate amounts of water to nurture the crop between rains. This soil will have a near-neutral pH, will store nutrients, and lack toxic materials. The soil will have no barriers, either physical or chemical, to root growth. Water and gas transmission through the soil will be sufficient to maintain both water and oxygen at sufficient levels in the root zone. The soil will not be saturated with water during the growing season to the point that root growth is inhibited. The soil will not be subject to excessive flooding or ponding during the growing season. Slope is an important consideration because it affects erosion by water, runoff, and the operation of equipment. The climate must provide adequate water and heat to allow the desired crop to mature. A soil that differs from the ideal in any of these features will have lower inherent productivity for a particular crop. The further a soil differs from ideality in any one or all of the factors that determine inherent productivity, the lower its inherent productivity will be.

The ratings are both verbal and numerical. Rating class terms indicate the estimated productivity which is determined by all of the soil, site, and climatic features that affect crop productivity. "High inherent productivity" indicates that the soil, site, and climate have features that are very favorable for crop production. High yields and low risk of crop failure can be expected if a high level of management is employed. "Moderately high inherent productivity" indicates that the soil has features that are generally quite favorable crop production. Good yields and moderately low risk of crop failure can be expected. "Moderate inherent productivity" indicates that the soil has features that are generally favorable crop production. Good yields and moderate risk of crop failure can be expected. "Moderately low inherent productivity" indicates that the soil has features that are generally not favorable crop production. Low yields and moderately high risk of crop failure can be expected. "Low inherent productivity" indicates that the soil has one or more features that are unfavorable for crop production. Low yields and high risk of crop failure can be expected.

Numerical ratings indicate the overall productivity of the soil. The ratings are shown in decimal fractions ranging from 1.00 to 0.01. They indicate gradations between the point at which the combination of soil, site, and climate features has the greatest positive impact on inherent productivity (1.00) and the point at which the soil features are very unfavorable (0.01).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

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Report—NCCPI Overall

“National Commodity Crop Productivity Index” is a method of arraying the soils of the United States for non-irrigated commodity crop production based on their inherent soil properties. The interpretation is applicable to both heavily populated and sparsely populated areas. Ratings are for soils in their present condition. The present land use is not considered in the ratings.

NCCPI Overall—Grundy County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
69A—Milford silty clay loam, 0 to 2 percent slopes			
Milford, drained	93	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.65
		Small grains	0.66
		Corn	0.67
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.61
		Corn	0.67
		Soybeans	0.67

NCCPI Overall—Kankakee County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
293A—Andres silt loam, 0 to 2 percent slopes			
Andres	91	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.67
		Soybeans	0.70
		Corn	0.72

Custom Soil Resource Report

NCCPI Overall—Kankakee County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.61
		Corn	0.67
		Soybeans	0.67

NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
69A—Milford silty clay loam, 0 to 2 percent slopes			
Milford, drained	93	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.65
		Small grains	0.66
		Corn	0.67
91A—Swygert silty clay loam, 0 to 2 percent slopes			
Swygert	98	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.58
		Small grains	0.59
		Corn	0.63
91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded			
Swygert, eroded	98	Moderate inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.45
		Small grains	0.53
		Corn	0.57

Custom Soil Resource Report

NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
102A—La Hogue loam, 0 to 2 percent slopes			
La hogue	95	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.64
		Soybeans	0.69
		Corn	0.71
125A—Selma loam, 0 to 2 percent slopes			
Selma, drained	96	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.69
		Corn	0.75
		Soybeans	0.77
141A—Wesley fine sandy loam, 0 to 2 percent slopes			
Wesley	91	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.53
		Corn	0.61
		Small grains	0.63
146A—Elliott silt loam, 0 to 2 percent slopes			
Elliott	94	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.62
		Corn	0.63
		Small grains	0.65
146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded			
Elliott, eroded	95	Moderate inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.42
		Small grains	0.51
		Corn	0.55

Custom Soil Resource Report

NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded			
Clarence, eroded	94	Moderately low inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.26
		Corn	0.37
		Small grains	0.38
147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded			
Clarence, eroded	97	Moderately low inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.26
		Corn	0.36
		Small grains	0.38
150B—Onarga fine sandy loam, 2 to 5 percent slopes			
Onarga, deep water table	92	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.53
		Small grains	0.59
		Corn	0.72
151A—Ridgeville fine sandy loam, 0 to 2 percent slopes			
Ridgeville	90	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.62
		Small grains	0.64
		Corn	0.76
153A—Pella silty clay loam, 0 to 2 percent slopes			
Pella, drained	96	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.63
		Corn	0.68
		Soybeans	0.79

Custom Soil Resource Report

NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
206A—Thorp silt loam, 0 to 2 percent slopes			
Thorp, drained	95	High inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.70
		Soybeans	0.76
		Corn	0.89
223B2—Varna silt loam, 2 to 4 percent slopes, eroded			
Varna, eroded	94	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.58
		Small grains	0.62
		Corn	0.68
223C2—Varna silt loam, 4 to 6 percent slopes, eroded			
Varna, eroded	90	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.57
		Small grains	0.60
		Corn	0.68
232A—Ashkum silty clay loam, 0 to 2 percent slopes			
Ashkum, drained	92	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.61
		Small grains	0.62
		Corn	0.66
235A—Bryce silty clay, 0 to 2 percent slopes			
Bryce, drained	95	Moderate inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.34
		Corn	0.45
		Small grains	0.56

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NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
238A—Rantoul silty clay, 0 to 2 percent slopes			
Rantoul	94	Moderate inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Corn	0.17
		Soybeans	0.18
		Small grains	0.43
293A—Andres silt loam, 0 to 2 percent slopes			
Andres	91	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.67
		Soybeans	0.70
		Corn	0.72
294B2—Symerton loam, 2 to 5 percent slopes, eroded			
Symerton	94	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.56
		Soybeans	0.59
		Corn	0.62
295A—Mokena silt loam, 0 to 2 percent slopes			
Mokena	92	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.62
		Small grains	0.63
		Corn	0.65
330A—Peotone silty clay loam, 0 to 2 percent slopes			
Peotone, drained	95	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.43
		Corn	0.48
		Small grains	0.63

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NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
448B2—Mona silt loam, 2 to 5 percent slopes, eroded			
Mona	95	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.45
		Small grains	0.53
		Corn	0.66
536—Dumps, mine			
Dumps, mine	97	Not rated	
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.61
		Corn	0.67
		Soybeans	0.67
614A—Chenoa silty clay loam, 0 to 2 percent slopes			
Chenoa	94	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.65
		Corn	0.65
		Soybeans	0.70
614B—Chenoa silty clay loam, 2 to 5 percent slopes			
Chenoa	94	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Small grains	0.63
		Corn	0.66
		Soybeans	0.69

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NCCPI Overall—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	NCCPI	
		Rating class and limiting features	Value
3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded			
Sawmill, heavy till plain, frequently flooded	95	Moderately high inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Soybeans	0.45
		Corn	0.61
		Small grains	0.63
3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded			
Comfrey	90	Moderate inherent productivity	
		No limitation	0.00
		Cotton	0.01
		Corn	0.49
		Soybeans	0.51
		Small grains	0.57
W—Water			
Water	100	Not rated	

Prime and other Important Farmlands

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable

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supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands

Prime and other Important Farmlands—Grundy County, Illinois		
Map Symbol	Map Unit Name	Farmland Classification
69A	Milford silty clay loam, 0 to 2 percent slopes	Prime farmland if drained
594A	Reddick clay loam, 0 to 2 percent slopes	Prime farmland if drained

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Prime and other Important Farmlands–Kankakee County, Illinois		
Map Symbol	Map Unit Name	Farmland Classification
293A	Andres silt loam, 0 to 2 percent slopes	All areas are prime farmland
594A	Reddick clay loam, 0 to 2 percent slopes	Prime farmland if drained

Prime and other Important Farmlands–Livingston County, Illinois		
Map Symbol	Map Unit Name	Farmland Classification
69A	Milford silty clay loam, 0 to 2 percent slopes	Prime farmland if drained
91A	Swygert silty clay loam, 0 to 2 percent slopes	All areas are prime farmland
91B2	Swygert silty clay loam, 2 to 4 percent slopes, eroded	All areas are prime farmland
102A	La Hogue loam, 0 to 2 percent slopes	All areas are prime farmland
125A	Selma loam, 0 to 2 percent slopes	Prime farmland if drained
141A	Wesley fine sandy loam, 0 to 2 percent slopes	All areas are prime farmland
146A	Elliott silt loam, 0 to 2 percent slopes	All areas are prime farmland
146B2	Elliott silty clay loam, 2 to 4 percent slopes, eroded	All areas are prime farmland
147B2	Clarence silty clay loam, 2 to 4 percent slopes, eroded	Farmland of statewide importance
147C2	Clarence silty clay loam, 4 to 6 percent slopes, eroded	Farmland of statewide importance
150B	Onarga fine sandy loam, 2 to 5 percent slopes	All areas are prime farmland
151A	Ridgeville fine sandy loam, 0 to 2 percent slopes	All areas are prime farmland
153A	Pella silty clay loam, 0 to 2 percent slopes	Prime farmland if drained
206A	Thorp silt loam, 0 to 2 percent slopes	Prime farmland if drained
223B2	Varna silt loam, 2 to 4 percent slopes, eroded	All areas are prime farmland
223C2	Varna silt loam, 4 to 6 percent slopes, eroded	All areas are prime farmland
232A	Ashkum silty clay loam, 0 to 2 percent slopes	Prime farmland if drained
235A	Bryce silty clay, 0 to 2 percent slopes	Prime farmland if drained
238A	Rantoul silty clay, 0 to 2 percent slopes	Farmland of statewide importance
293A	Andres silt loam, 0 to 2 percent slopes	All areas are prime farmland
294B2	Symerton loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
295A	Mokena silt loam, 0 to 2 percent slopes	All areas are prime farmland
330A	Peotone silty clay loam, 0 to 2 percent slopes	Prime farmland if drained
448B2	Mona silt loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
536	Dumps, mine	Not prime farmland
594A	Reddick clay loam, 0 to 2 percent slopes	Prime farmland if drained
614A	Chenoa silty clay loam, 0 to 2 percent slopes	All areas are prime farmland
614B	Chenoa silty clay loam, 2 to 5 percent slopes	All areas are prime farmland
3107A	Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
3776A	Comfrey loam, 0 to 2 percent slopes, frequently flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
W	Water	Not prime farmland

Soil Erosion

This folder contains a collection of tabular reports that present soil erosion factors and groupings. The reports (tables) include all selected map units and components for each map unit. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

Conservation Planning

This report provides those soil attributes for the conservation plan for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. It provides the soil description along with the slope, runoff, T Factor, WEI, WEG, Erosion class, Drainage class, Land Capability Classification, and the engineering Hydrologic Group and the erosion factors Kf, the representative percentage of fragments, sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. Further information on these factors can be found in the National Soil Survey Handbook section 618 found at the url http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054223#00 .

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Soil properties and interpretations for conservation planning. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

Conservation Planning—Grundy County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
69A—Milford silty clay loam, 0 to 2 percent slopes																	
Milford, drained	93	0.5	150	Negligible	5	86	4	None - deposition	Poorly drained	2w	C/D	0 - 9	.24	1	13	50	37
594A—Reddick clay loam, 0 to 2 percent slopes																	
Reddick, drained	99	0.5	150	Negligible	5	48	6	None - deposition	Poorly drained	2w	C/D	0 - 12	.17	1	32	37	31

Conservation Planning—Kankakee County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
293A—Andres silt loam, 0 to 2 percent slopes																	
Andres	91	0.9	150	Low	5	48	6	Class 1	Somewhat poorly drained	—	C/D	0 - 11	.28	1	20	56	24
594A—Reddick clay loam, 0 to 2 percent slopes																	
Reddick, drained	99	0.5	150	Negligible	5	48	6	None - deposition	Poorly drained	2w	C/D	0 - 12	.17	1	32	37	31

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
69A—Milford silty clay loam, 0 to 2 percent slopes																	
Milford, drained	93	0.5	150	Negligible	5	86	4	None - deposition	Poorly drained	2w	C/D	0 - 9	.24	1	13	50	37
91A—Swygert silty clay loam, 0 to 2 percent slopes																	
Swygert	98	0.9	150	Medium	4	48	6	Class 1	Somewhat poorly drained	2w	C/D	0 - 11	.24	1	8	60	32
91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded																	
Swygert, eroded	98	3.0	200	High	4	48	6	Class 2	Somewhat poorly drained	2e	C/D	0 - 7	.28	1	8	58	34
102A—La Hogue loam, 0 to 2 percent slopes																	
La Hogue	95	0.9	150	Low	5	48	6	Class 1	Somewhat poorly drained	—	B/D	0 - 16	.24	2	35	44	21
125A—Selma loam, 0 to 2 percent slopes																	
Selma, drained	96	0.5	150	Negligible	5	48	6	None - deposition	Poorly drained	2w	B/D	0 - 20	.24	2	38	41	21
141A—Wesley fine sandy loam, 0 to 2 percent slopes																	
Wesley	91	0.9	200	Medium	4	86	3	Class 1	Somewhat poorly drained	2w	C/D	0 - 12	.17	2	62	26	11

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
146A—Elliott silt loam, 0 to 2 percent slopes																	
Elliott	94	0.9	150	Low	4	48	6	Class 1	Somewhat poorly drained	2s	C/D	0 - 5	.32	1	10	65	25
146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded																	
Elliott, eroded	95	3.0	150	High	3	48	6	Class 2	Somewhat poorly drained	2e	C/D	0 - 7	.28	1	8	63	29
147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded																	
Clarence, eroded	94	3.0	200	Medium	3	48	6	Class 2	Somewhat poorly drained	3e	D	0 - 9	.37	2	8	58	34
147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded																	
Clarence, eroded	97	6.0	200	High	3	48	6	Class 2	Somewhat poorly drained	3e	D	0 - 9	.37	2	8	58	34
150B—Onarga fine sandy loam, 2 to 5 percent slopes																	
Onarga, deep water table	92	3.5	150	Low	3	86	3	Class 1	Well drained	2e	A	0 - 16	.24	—	62	26	11

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
151A—Ridgeville fine sandy loam, 0 to 2 percent slopes																	
Ridgeville	90	0.9	150	Low	4	86	3	Class 1	Somewhat poorly drained	2s	A/D	0 - 16	.24	—	65	22	12
153A—Pella silty clay loam, 0 to 2 percent slopes																	
Pella, drained	96	0.5	150	Negligible	5	48	6	None - deposition	Poorly drained	2w	B/D	0 - 11	.24	0	9	60	31
206A—Thorp silt loam, 0 to 2 percent slopes																	
Thorp, drained	95	0.5	298	Negligible	5	48	6	None - deposition	Poorly drained	2w	C/D	0 - 14	.37	2	5	72	23
223B2—Varna silt loam, 2 to 4 percent slopes, eroded																	
Varna, eroded	94	3.0	150	Medium	4	48	6	Class 2	Moderately well drained	2e	C	0 - 9	.32	1	12	64	24
223C2—Varna silt loam, 4 to 6 percent slopes, eroded																	
Varna, eroded	90	5.0	150	High	4	48	6	Class 2	Moderately well drained	3e	C	0 - 9	.37	1	12	64	24
232A—Ashkum silty clay loam, 0 to 2 percent slopes																	
Ashkum, drained	92	0.5	150	Negligible	5	86	4	None - deposition	Poorly drained	2w	C/D	0 - 11	.20	0	8	55	37

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
235A—Bryce silty clay, 0 to 2 percent slopes																	
Bryce, drained	95	0.5	150	Negligible	5	86	4	None - deposition	Poorly drained	3w	C/D	0 - 12	.17	0	5	50	45
238A—Rantoul silty clay, 0 to 2 percent slopes																	
Rantoul	94	0.5	200	Negligible	5	86	4	None - deposition	Very poorly drained	3w	D	0 - 16	.24	1	5	50	45
293A—Andres silt loam, 0 to 2 percent slopes																	
Andres	91	0.9	150	Low	5	48	6	Class 1	Somewhat poorly drained	—	C/D	0 - 11	.28	1	20	56	24
294B2—Symerton loam, 2 to 5 percent slopes, eroded																	
Symerton	94	3.0	200	Low	5	48	6	Class 2	Moderately well drained	2e	C	0 - 9	.24	3	40	36	24
295A—Mokena silt loam, 0 to 2 percent slopes																	
Mokena	92	0.9	150	Low	4	48	6	Class 1	Somewhat poorly drained	2s	C/D	0 - 5	.32	3	20	55	24
330A—Peotone silty clay loam, 0 to 2 percent slopes																	
Peotone, drained	95	0.5	150	Negligible	5	48	6	None - deposition	Very poorly drained	3w	C/D	0 - 7	.24	1	5	60	35

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
448B2—Mona silt loam, 2 to 5 percent slopes, eroded																	
Mona	95	4.0	200	Medium	3	48	6	Class 2	Moderately well drained	2e	C	0 - 9	.28	2	20	55	24
594A—Reddick clay loam, 0 to 2 percent slopes																	
Reddick, drained	99	0.5	150	Negligible	5	48	6	None - deposition	Poorly drained	2w	C/D	0 - 12	.17	1	32	37	31
614A—Chenoa silty clay loam, 0 to 2 percent slopes																	
Chenoa	94	0.9	249	Low	5	48	6	Class 1	Somewhat poorly drained	2w	C/D	0 - 11	.28	0	5	65	30
614B—Chenoa silty clay loam, 2 to 5 percent slopes																	
Chenoa	94	2.0	249	Low	5	48	6	Class 1	Somewhat poorly drained	2e	C/D	0 - 11	.28	0	5	65	30
3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded																	
Sawmill, heavy till plain, frequently flooded	95	1.0	200	Negligible	5	48	6	None - deposition	Poorly drained	3w	B/D	0 - 7	.28	—	7	62	31

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Conservation Planning—Livingston County, Illinois																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded																	
Comfrey	90	0.5	298	Negligible	5	48	6	None - deposition	Poorly drained	3w	B/D	0 - 7	.28	—	30	47	22

Vegetative Productivity

This folder contains a collection of tabular reports that present vegetative productivity data. The reports (tables) include all selected map units and components for each map unit. Vegetative productivity includes estimates of potential vegetative production for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture and rangeland. In the underlying database, some states maintain crop yield data by individual map unit component. Other states maintain the data at the map unit level. Attributes are included for both, although only one or the other is likely to contain data for any given geographic area. For other land uses, productivity data is shown only at the map unit component level. Examples include potential crop yields under irrigated and nonirrigated conditions, forest productivity, forest site index, and total rangeland production under of normal, favorable and unfavorable conditions.

Illinois NRCS Adjusted Yield Indices by Map Unit (IL)

Map Unit Productivity and Yield Indices that have been Adjusted for Slope, Erosion, and Flooding

Summary

In Illinois, USDA Natural Resources Conservation Service (NRCS) uses the base productivity index (PI) and base yield indices for corn, soybeans, winter wheat, oats, grain sorghum, and grass-legume hay from University of Illinois (UI) Bulletin 811 "Optimum Crop Productivity Ratings for Illinois Soils" (Olson and Lang, 2000) with revised data from "Table S2, Revised—Productivity of Illinois Soils Under Optimum Management, Slightly Eroded, 0 to 2 Percent Slopes" (Olson and Lang, 2012). NRCS uses base indices for grass-legume pasture from UI Bulletin 810 "Average Crop, Pasture, and Forestry Productivity Ratings for Illinois Soils" (Olson, et al. 2000) with revised data from "Table 2 revised—Productivity of Illinois Soils Under Average Management, Slightly Eroded, 0 to 2 Percent Slopes" (Olson et al., 2012). The base indices are used for conservation planning and policy after adjusting for major-component percentage of the soil mapping units and for phase, including slope, erosion, and flooding.

NRCS developed calculations for the Web Soil Survey based on the indices from the University of Illinois. Previously, yields and indices were populated manually in the National Soil Information System (NASIS). They were then delivered through the Web Soil Survey, the digital soil survey geographic database (SSURGO), and published soil survey reports for individual counties. Manually editing the NASIS database to account for updates to the productivity and base index from UI generated a significant workload. Edits were needed for the 7 indexed crops in more than 10,000 soil map units in Illinois.

Soil Database Composition

A soil series represents the central, characteristic concepts of a soil. Soil map units are identified as phases of soil series based on variations in slope, erosion, flooding, surface texture, substratum (layers below the developed soil profile), drainage, or other specifically identified properties. Consociations are map units containing one major-component soil series that makes up at least 85 percent of that map unit. Complexes and undifferentiated groups are map units that contain

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more than one major-component soil series. Additional map units are composed of miscellaneous soil areas or materials that are not represented by standard soil series concepts. Examples of miscellaneous areas include urban land, dams, beaches, dumps, oil-waste land, pits, riverwash, rock outcrop, water, and miscellaneous water. Certain types of soil materials that are identified on a soil map do not typically have interpretations because of high variability (Soil Survey Division Staff, 1993). Examples include Orthents of several kinds, Alfic Udarents, and Aquents.

Indices for consociations are calculated by representing the major component as 100 percent of the whole map unit. Complexes and undifferentiated groups are developed by ignoring minor component percentages and re-calculating the major components to equal 100 percent of the map unit. These methods allow the major components in complexes and undifferentiated groups to proportionately dominate productivity and yield indices. If a miscellaneous area is included in a map unit as a component, it carries a value of zero in subsequent calculations, significantly impacting the map unit index.

Yield indices and productivity indices for row crops are not calculated for agricultural purposes where land capability classification (LCC) of the map unit is 6s, 6e, 7e, 8, or 8s or where the map unit component is identified as "Taxon above family" or "Miscellaneous area." Grass-legume hay indices are not calculated where LCC is 7s, 7e, or 8. Grass-legume pasture indices are not calculated where LCC is 8 or 8s.

These indices are not used for real estate land assessment or for valuation of real estate tax base in Illinois.

Yield indices in Illinois have been adjusted by NRCS for several years on the basis of slope, erosion, and flooding. Additional factors may be needed to address differences among specific sites or series phases. Yields and productivity indices given in the table are generally accurate, but local variability and slight differences in soil characteristics still exist across the landscape. Some soils are more variable than others, and some soils respond differently to management. Variations in landform and in landform position also affect soil moisture and nutrient availability and consequently affect yield.

Yield indices are determined for nonirrigated land under normal management, including drainage for agricultural purposes where appropriate. Soils that are typically drained under normal management but have not been drained will have lower yield indices than given in the table. Soils under irrigation management will have higher yield indices than given in the table.

The calculated yield indices are relative to one another and the base yields of UI bulletins 810 and 811. The indices are intended for ranking, comparing, and estimating yields and productivity of crops typically grown on the named soil series.

University of Illinois Bulletin 811 (Olsen and Lang, 2012) provides index factors for determining RV optimum productivity index and optimum yield indices for row crops and hay. The calculated indices reflect soil productivity for crops and hay under dominantly optimum management.

University of Illinois Bulletin 810 (Olsen et al., 2012) provides base yield index factors for calculating representative values (RV) for soil map units. The resulting values for average productivity index and average pasture yield index reflect the overall productivity and productivity for pasture under average management for each soil map unit.

Hay and pasture yields are delivered as grass-legume mixed hay and grass-legume mixed pasture. Well drained soils typically use alfalfa yields. Vegetation is more

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mixed on wetter soils where alfalfa is not grown. Dominantly, both hayland and pasture support mixed grasses and legumes.

Factors used for slope and erosion are applied as defined by bulletin 810 and 811. In Illinois, NRCS uses relative value (Rv) slope, assigned erosion class, and a simple table to determine which value (from table S3 in bulletin 811) to use for row crops and hay. Table 7 in bulletin 810 is used with the Rv slope and assigned erosion to determine the number of animal unit days, which is then divided by 30 to get animal unit months.

Productivity indices derived with this method have been incorporated with the statewide Land Evaluation and Site Assessment (LESA) system for the protection of farmland relative to The Illinois Farmland Preservation Act, 1982 (505 ILCS 75/1 et seq.), in which the Illinois Department of Agriculture (IDA) was legislatively directed to review all State agency projects and activities that may have a direct or indirect effect upon the potential conversion of farmland in Illinois (IDA, 2001; CCRPC, 2011).

Productivity indices derived with this method have been incorporated with the Federal Farmland Protection Policy Act (FPPA), 1981, which directs all Federal agencies to evaluate their programs and projects and to modify their actions so as to produce the least impact on farmland. The FPPA also seeks to ensure that Federal programs are administered in a manner that, to the extent practicable, will be compatible with State and local government programs, private programs, and policies to protect farmland. Additional information on the FPPA is online at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>.

Further documentation regarding the indices, including information on how they were derived, is available from the University of Illinois soil productivity website at <http://soilproductivity.nres.uiuc.edu/> (Olson and Lang, 2000, 2012; Olson, et al. 2000, 2012). Other information regarding the Illinois productivity and yield indices can be found on the Illinois Field Office Technical Guide (FOTG). Select Illinois from the map at <http://efotg.sc.egov.usda.gov/>; select a county of interest from the next map; select "Section II" from the drop-down menu on the left; select "Soil and Site Information;" select "Productivity and Yield Indices;" and select a document of interest.

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Report—Illinois NRCS Adjusted Yield Indices by Map Unit (IL)

[This table arrays soils in Illinois for nonirrigated commodity crop production based on their inherent soil properties. Ratings are for soils in their present condition. Absence of an entry indicates that a crop productivity index is not assigned. These estimates are factored for slope, erosion, and flooding.]

Illinois NRCS Adjusted Yield Indices by Map Unit (IL) –Grundy County, Illinois							
Map symbol and name	Corn	Soybeans	Wheat	Oats	Sorghum	Hay	Pasture
	Bu	Bu	Bu	Bu	Bu	Tons	AUM
594A—Reddick clay loam, 0 to 2 percent slopes	177	56	66	89	—	5.1	6.8
69A—Milford silty clay loam, 0 to 2 percent slopes	171	57	68	88	—	5.5	7.3

Illinois NRCS Adjusted Yield Indices by Map Unit (IL) –Kankakee County, Illinois							
Map symbol and name	Corn	Soybeans	Wheat	Oats	Sorghum	Hay	Pasture
	Bu	Bu	Bu	Bu	Bu	Tons	AUM
594A—Reddick clay loam, 0 to 2 percent slopes	177	56	66	89	—	5.1	6.8
293A—Andres silt loam, 0 to 2 percent slopes	0	0	0	0	—	0.0	0.0

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Illinois NRCS Adjusted Yield Indices by Map Unit (IL) –Livingston County, Illinois							
Map symbol and name	Corn	Soybeans	Wheat	Oats	Sorghum	Hay	Pasture
	Bu	Bu	Bu	Bu	Bu	Tons	AUM
146A—Elliott silt loam, 0 to 2 percent slopes	168	55	68	87	—	5.0	6.7
146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded	160	52	65	83	—	4.8	6.4
125A—Selma loam, 0 to 2 percent slopes	176	57	70	90	1	7.5	7.0
102A—La Hogue loam, 0 to 2 percent slopes	162	52	71	80	—	5.3	7.0
150B—Onarga fine sandy loam, 2 to 5 percent slopes	147	48	60	76	—	4.1	5.4
147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded	130	46	55	60	—	4.1	5.3
141A—Wesley fine sandy loam, 0 to 2 percent slopes	152	49	59	78	—	4.8	6.3
147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded	127	45	54	59	—	4.0	5.2
223B2—Varna silt loam, 2 to 4 percent slopes, eroded	150	48	61	75	—	4.7	6.2
223C2—Varna silt loam, 4 to 6 percent slopes, eroded	149	47	60	74	—	4.6	6.1
151A—Ridgeville fine sandy loam, 0 to 2 percent slopes	151	51	63	78	—	5.0	6.7
206A—Thorp silt loam, 0 to 2 percent slopes	170	55	66	88	—	5.1	6.8
232A—Ashkum silty clay loam, 0 to 2 percent slopes	170	56	65	85	—	5.1	6.8
294B2—Symerton loam, 2 to 5 percent slopes, eroded	170	53	66	87	—	6.0	7.9
153A—Pella silty clay loam, 0 to 2 percent slopes	183	60	70	92	—	5.3	7.0
235A—Bryce silty clay, 0 to 2 percent slopes	162	54	64	82	—	4.8	6.3
293A—Andres silt loam, 0 to 2 percent slopes	0	0	0	0	—	0.0	0.0
295A—Mokena silt loam, 0 to 2 percent slopes	172	54	66	88	—	4.9	6.5
238A—Rantoul silty clay, 0 to 2 percent slopes	144	49	56	64	—	4.1	5.5
3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded	166	55	62	80	—	5.0	6.6
3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded	170	54	64	88	1	5.2	6.9
91A—Swygert silty clay loam, 0 to 2 percent slopes	158	52	63	79	—	4.5	6.0
536—Dumps, mine	0	0	0	0	0	—	—
448B2—Mona silt loam, 2 to 5 percent slopes, eroded	152	48	59	78	—	4.0	5.4
330A—Peotone silty clay loam, 0 to 2 percent slopes	164	55	61	78	—	5.0	6.7
91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded	147	48	59	73	—	4.2	5.5

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Illinois NRCS Adjusted Yield Indices by Map Unit (IL) –Livingston County, Illinois							
Map symbol and name	Corn	Soybeans	Wheat	Oats	Sorghum	Hay	Pasture
	Bu	Bu	Bu	Bu	Bu	Tons	AUM
614B—Chenoa silty clay loam, 2 to 5 percent slopes	172	56	67	91	—	5.0	6.8
614A—Chenoa silty clay loam, 0 to 2 percent slopes	174	57	68	92	—	5.1	6.8
594A—Reddick clay loam, 0 to 2 percent slopes	177	56	66	89	—	5.1	6.8
W—Water	—	—	—	—	—	—	—
69A—Milford silty clay loam, 0 to 2 percent slopes	171	57	68	88	—	5.5	7.3

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

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If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—Grundy County, Illinois			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
69A—Milford silty clay loam, 0 to 2 percent slopes			
Milford, drained	93	Negligible	C/D
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Negligible	C/D

Hydrologic Soil Group and Surface Runoff—Kankakee County, Illinois			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
293A—Andres silt loam, 0 to 2 percent slopes			
Andres	91	Low	C/D
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Negligible	C/D

Hydrologic Soil Group and Surface Runoff—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
69A—Milford silty clay loam, 0 to 2 percent slopes			
Milford, drained	93	Negligible	C/D
91A—Swygert silty clay loam, 0 to 2 percent slopes			
Swygert	98	Medium	C/D
91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded			
Swygert, eroded	98	High	C/D
102A—La Hogue loam, 0 to 2 percent slopes			
La hogue	95	Low	B/D
125A—Selma loam, 0 to 2 percent slopes			
Selma, drained	96	Negligible	B/D
141A—Wesley fine sandy loam, 0 to 2 percent slopes			
Wesley	91	Medium	C/D

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Hydrologic Soil Group and Surface Runoff—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
146A—Elliott silt loam, 0 to 2 percent slopes			
Elliott	94	Low	C/D
146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded			
Elliott, eroded	95	High	C/D
147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded			
Clarence, eroded	94	Medium	D
147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded			
Clarence, eroded	97	High	D
150B—Onarga fine sandy loam, 2 to 5 percent slopes			
Onarga, deep water table	92	Low	A
151A—Ridgeville fine sandy loam, 0 to 2 percent slopes			
Ridgeville	90	Low	A/D
153A—Pella silty clay loam, 0 to 2 percent slopes			
Pella, drained	96	Negligible	B/D
206A—Thorp silt loam, 0 to 2 percent slopes			
Thorp, drained	95	Negligible	C/D
223B2—Varna silt loam, 2 to 4 percent slopes, eroded			
Varna, eroded	94	Medium	C
223C2—Varna silt loam, 4 to 6 percent slopes, eroded			
Varna, eroded	90	High	C
232A—Ashkum silty clay loam, 0 to 2 percent slopes			
Ashkum, drained	92	Negligible	C/D
235A—Bryce silty clay, 0 to 2 percent slopes			
Bryce, drained	95	Negligible	C/D
238A—Rantoul silty clay, 0 to 2 percent slopes			
Rantoul	94	Negligible	D
293A—Andres silt loam, 0 to 2 percent slopes			
Andres	91	Low	C/D
294B2—Symerton loam, 2 to 5 percent slopes, eroded			
Symerton	94	Low	C
295A—Mokena silt loam, 0 to 2 percent slopes			
Mokena	92	Low	C/D
330A—Peotone silty clay loam, 0 to 2 percent slopes			
Peotone, drained	95	Negligible	C/D
448B2—Mona silt loam, 2 to 5 percent slopes, eroded			
Mona	95	Medium	C

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Hydrologic Soil Group and Surface Runoff—Livingston County, Illinois			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
536—Dumps, mine			
Dumps, mine	97	— —	
594A—Reddick clay loam, 0 to 2 percent slopes			
Reddick, drained	99	Negligible	C/D
614A—Chenoa silty clay loam, 0 to 2 percent slopes			
Chenoa	94	Low	C/D
614B—Chenoa silty clay loam, 2 to 5 percent slopes			
Chenoa	94	Low	C/D
3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded			
Sawmill, heavy till plain, frequently flooded	95	Negligible	B/D
3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded			
Comfrey	90	Negligible	B/D
W—Water			
Water	100	— —	

Water Features

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

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If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

Water table refers to a saturated zone in the soil. The water features table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table. The kind of water table, apparent or perched, is given if a seasonal high water table exists in the soil. A water table is perched if free water is restricted from moving downward in the soil by a restrictive feature, in most cases a hardpan; there is a dry layer of soil underneath a wet layer. A water table is apparent if free water is present in all horizons from its upper boundary to below 2 meters or to the depth of observation. The water table kind listed is for the first major component in the map unit.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under

Custom Soil Resource Report

normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Custom Soil Resource Report

Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
69A—Milford silty clay loam, 0 to 2 percent slopes											
Milford, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
594A—Reddick clay loam, 0 to 2 percent slopes											
Reddick, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
293A—Andres silt loam, 0 to 2 percent slopes											
Andres	C/D	Low	Jan-May	1.0-2.0	3.0-5.5	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
594A—Reddick clay loam, 0 to 2 percent slopes											
Reddick, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None

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Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
69A—Milford silty clay loam, 0 to 2 percent slopes											
Milford, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
91A—Swygert silty clay loam, 0 to 2 percent slopes											
Swygert	C/D	Medium	Jan-May	1.0-2.0	2.9-4.8	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
91B2—Swygert silty clay loam, 2 to 4 percent slopes, eroded											
Swygert, eroded	C/D	High	Jan-May	1.0-2.0	2.9-4.8	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
102A—La Hogue loam, 0 to 2 percent slopes											
La hogue	B/D	Low	Jan-May	1.0-2.0	6.0	Apparent	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
125A—Selma loam, 0 to 2 percent slopes											
Selma, drained	B/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
141A—Wesley fine sandy loam, 0 to 2 percent slopes											
Wesley	C/D	Medium	Jan-May	1.0-2.0	2.0-4.9	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
146A—Elliott silt loam, 0 to 2 percent slopes											
Elliott	C/D	Low	Jan-May	1.0-2.0	2.4-4.3	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
146B2—Elliott silty clay loam, 2 to 4 percent slopes, eroded											
Elliott, eroded	C/D	High	Jan-May	1.0-2.0	2.0-3.7	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None

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Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
147B2—Clarence silty clay loam, 2 to 4 percent slopes, eroded											
Clarence, eroded	D	Medium	Jan-May	1.0-2.0	2.1-3.8	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
147C2—Clarence silty clay loam, 4 to 6 percent slopes, eroded											
Clarence, eroded	D	High	Jan-May	1.0-2.0	2.1-3.8	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
150B—Onarga fine sandy loam, 2 to 5 percent slopes											
Onarga, deep water table	A	Low	Jan	—	—	—	—	—	None	—	None
			Feb-Apr	3.5-6.0	6.0	Apparent	—	—	None	—	None
			May-Dec	—	—	—	—	—	None	—	None
151A—Ridgeville fine sandy loam, 0 to 2 percent slopes											
Ridgeville	A/D	Low	Jan-May	1.0-2.0	6.0	Apparent	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
153A—Pella silty clay loam, 0 to 2 percent slopes											
Pella, drained	B/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
206A—Thorp silt loam, 0 to 2 percent slopes											
Thorp, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
223B2—Varna silt loam, 2 to 4 percent slopes, eroded											
Varna, eroded	C	Medium	Jan	—	—	—	—	—	None	—	None
			Feb-Apr	2.0-3.5	2.2-5.5	Perched	—	—	None	—	None
			May-Dec	—	—	—	—	—	None	—	None

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Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
223C2—Varna silt loam, 4 to 6 percent slopes, eroded											
Varna, eroded	C	High	Jan	—	—	—	—	—	None	—	None
			Feb-Apr	2.0-3.5	2.2-5.5	Perched	—	—	None	—	None
			May-Dec	—	—	—	—	—	None	—	None
232A—Ashkum silty clay loam, 0 to 2 percent slopes											
Ashkum, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
235A—Bryce silty clay, 0 to 2 percent slopes											
Bryce, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
238A—Rantoul silty clay, 0 to 2 percent slopes											
Rantoul	D	Negligible	Jan-Jun	0.0-1.0	6.0	Apparent	0.0-0.5	Long (7 to 30 days)	Frequent	—	None
			Jul-Dec	—	—	—	—	—	—	—	None
293A—Andres silt loam, 0 to 2 percent slopes											
Andres	C/D	Low	Jan-May	1.0-2.0	3.0-5.5	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
294B2—Symerton loam, 2 to 5 percent slopes, eroded											
Symerton	C	Low	Jan	—	—	—	—	—	None	—	None
			Feb-Apr	2.0-3.5	2.5-4.7	Perched	—	—	None	—	None
			May-Dec	—	—	—	—	—	None	—	None
295A—Mokena silt loam, 0 to 2 percent slopes											
Mokena	C/D	Low	Jan-May	1.0-2.0	2.5-5.5	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None

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Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
330A—Peotone silty clay loam, 0 to 2 percent slopes											
Peotone, drained	C/D	Negligible	Jan-Jun	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jul-Dec	—	—	—	—	—	—	—	None
448B2—Mona silt loam, 2 to 5 percent slopes, eroded											
Mona	C	Medium	Jan	—	—	—	—	—	None	—	None
			Feb-Apr	2.0-3.5	2.5-5.0	Perched	—	—	None	—	None
			May-Dec	—	—	—	—	—	None	—	None
536—Dumps, mine											
Dumps, mine				—	—	—	—	—	—	—	
594A—Reddick clay loam, 0 to 2 percent slopes											
Reddick, drained	C/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	—	None
			Jun-Dec	—	—	—	—	—	—	—	None
614A—Chenoa silty clay loam, 0 to 2 percent slopes											
Chenoa	C/D	Low	Jan-May	1.0-2.0	2.1-4.3	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None
614B—Chenoa silty clay loam, 2 to 5 percent slopes											
Chenoa	C/D	Low	Jan-May	1.0-2.0	2.1-4.3	Perched	—	—	None	—	None
			Jun-Dec	—	—	—	—	—	None	—	None

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Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
3107A—Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded											
Sawmill, heavy till plain, frequently flooded	B/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	Brief (2 to 7 days)	Frequent
			Jun	—	—	—	—	—	—	Brief (2 to 7 days)	Frequent
			Jul-Oct	—	—	—	—	—	—	—	
			Nov-Dec	—	—	—	—	—	—	Brief (2 to 7 days)	Frequent
3776A—Comfrey loam, 0 to 2 percent slopes, frequently flooded											
Comfrey	B/D	Negligible	Jan-May	0.0-1.0	6.0	Apparent	0.0-0.5	Brief (2 to 7 days)	Frequent	Brief (2 to 7 days)	Frequent
			Jun	—	—	—	—	—	—	Brief (2 to 7 days)	Frequent
			Jul-Oct	—	—	—	—	—	—	—	
			Nov-Dec	—	—	—	—	—	—	Brief (2 to 7 days)	Frequent
W—Water											
Water				—	—	—	—	—	—	—	

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APPENDIX T – CULTURAL RESOURCES

From: [Kullen, Douglas](#)
To: [Chapin, Allison M.](#)
Cc: [Kullen, Douglas](#)
Subject: FW: Heritage Prairie Wind, Livingston County archaeology report
Date: Tuesday, February 6, 2024 11:30:20 AM

Allison,

FYI.

Doug

From: Kruchten, Jeff <Jeff.Kruchten@Illinois.gov>
Sent: Tuesday, February 6, 2024 11:27 AM
To: Kullen, Douglas <dkullen@burnsmcd.com>
Subject: Heritage Prairie Wind, Livingston County archaeology report

Hi Doug,

Apologies for the delayed response. I have reviewed the report of archaeological survey for the Livingston County portion of this project and concur with all of the determinations and recommendations.

Take care,

Jeff Kruchten
Principal Archaeologist
Illinois State Historic Preservation Office
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62702
Office: (217) 785-1279
Mobile: (217) 761-0094

Three important messages!

- 1. Please note that your submission may not show up in our Correspondence Tracking System for up to 3 weeks after we receive it. We appreciate your patience in waiting for your project to be logged and accessible. If you do not see it by day 25, please follow up at SHPO.Review@illinois.gov. We are afforded a 30-day review period, and review projects in the order they were received.**



November 8, 2023

Mr. Jeff Kruchten
Chief Archaeologist
Illinois State Historic Preservation Office
One Natural Resources Way
Springfield, IL 62702

Re: Archaeological Survey Report for Heritage Prairie Wind Project, Livingston County
SHPO Log Number 020040523

Dear Jeff:

This cover letter accompanies submittal of the archaeological survey report for Illinois Generation's Heritage Prairie Wind Project (Livingston County portion). The project is not Federally-permitted, but is subject to IEPA NPDES permitting. The contact person for this project is: Allison Chapin, Burns & McDonnell, 200 West Adams Street, Suite 2700, Chicago, IL 60606 (amchapin@burnsmcd.com, 773-251-7285).

The project is a wind generation facility located east of Dwight. The Livingston County portion of the project covers approximately 2,347 acres. The project generally covers agricultural land, but also crosses ditches, channelized streams, and intersects with existing roadways. The project will include all standard wind farm components including up to 87 turbines in Livingston County. Maximum turbine height is 499 feet, but the APE concerning archaeological sites is defined by standard buffers around areas of ground disturbance. An historical architecture report by Burns & McDonnell is being submitted separately. Please call me at 630-408-2385 with any archaeological questions.

Sincerely,

Burns & McDonnell Engineering Company, Inc.

A handwritten signature in black ink, appearing to read "Douglas Kullen".

Douglas Kullen, MA, RPA
Senior Cultural Resource Specialist

DJK/djk

cc: Allison Chapin, Burns & McDonnell
Allen Wynn, Pattern Energy
Aleyda Galan, ConnectGen, LLC

From: [Baker, Rita E](#)
To: [Porterfield, Elizabeth I](#)
Cc: [Young, LaDonna](#)
Subject: SHPO #020040523 Heritage Prairie Wind Farm Section 6
Date: Thursday, November 9, 2023 3:41:47 PM

Good afternoon, Elizabeth.

I just completed my review of Section 6 for resources #L-1 through #L-116 and the Cardiff Windshield Survey and I concur with your determination that all of these properties are **not eligible** for NRHP listing.

I also concur with the Campus Windshield Survey that the Sacred Heart Church (including the former rectory and convent school), the Winifred Walsh/John Mamer House and the Charles Walsh house **are all individually eligible** for NRHP listing. I also agree with your **proposed historic district** that includes both sides of E 2700N Road from N 3300E Road (Locust Street/County Hwy 3) to Elm Street and the first two parcels on both sides of Elm Street to the north.

Best,
Rita

Rita Baker

Historian

Cultural Resources Manager/Structures

Illinois Department of Natural Resources (IDNR)

Illinois State Historic Preservation Office (SHPO)

1 Natural Resources Way, Springfield, IL 62702

(217) 761-0082 Monday & Friday/**remote**

(217) 785-4998 Tuesday, Wednesday & Thursday/**office**



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From: [Porterfield, Elizabeth I](#)
To: [Baker, Rita E](#)
Cc: [Harris, Brandy M](#); [Chapin, Allison M.](#); [Allen Wynn](#); [Aleyda Galan - ConnectGen LLC \(agalan@connectgenllc.com\)](#)
Subject: Livingston Co., Heritage Prairie Wind, Historic Resources Evaluation - Section 6 submitted for SHPO review
Date: Friday, November 3, 2023 2:50:00 PM

Hi Rita,

The **Section 6** submittal of the Historic Resources Evaluation for the **Heritage Prairie Wind Project** in Kankakee and Livingston Counties has been uploaded to the SHPO's portal link today for SHPO review. Although one additional section of the Project APE in Kankakee County (Section 5) has not yet been submitted to your office for review, at the request of the client to prioritize Livingston County, the current memorandum submittal represents Section 6 of the overall Project APE and documents resources exclusively in Livingston County.

Three additional memorandum submittals regarding subsequent sections of the APE (including the final section [Section 5] of Kankakee County), will follow under separate cover.

Based on an email from C.J. Wallace on 10/03/2023, it's our understanding that your office is no longer requiring hard (paper) copies of reports, but please just let us know if that has changed or if we still need to mail a hard copy.

Thank you so much and have a great weekend!

Elizabeth Porterfield

Elizabeth Porterfield \Burns & McDonnell

Senior Cultural Resources Specialist

O (737) 236-0113 \ M (401) 965-6996

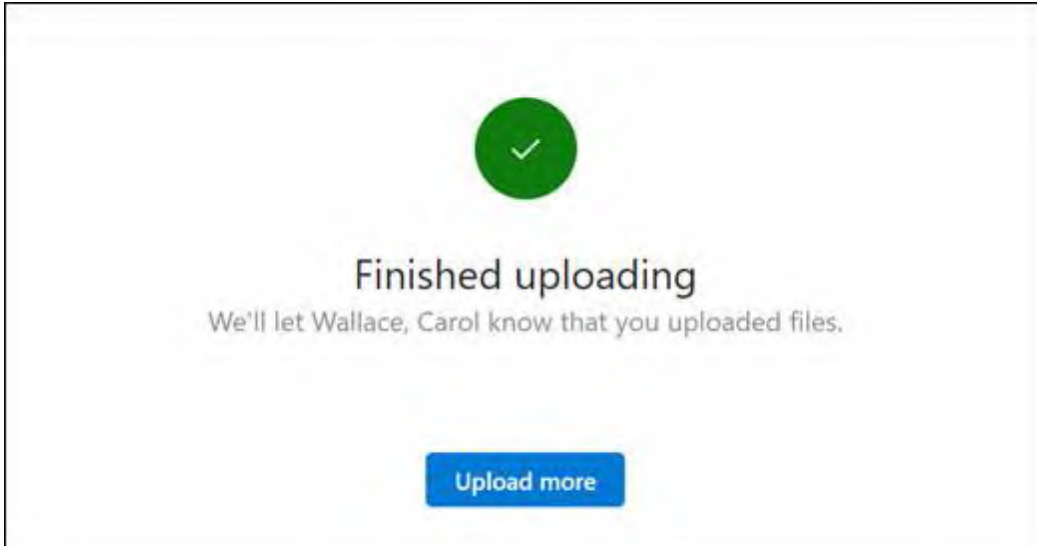
eporterfield@burnsmcd.com \ burnsmcd.com

6200 Bridge Point Pkwy, Suite 400

Austin, TX 78730

From: [Porterfield, Elizabeth I](#)
To: [Porterfield, Elizabeth I](#)
Subject: SHPO submittal confirmation - HP6
Date: Friday, November 3, 2023 2:07:39 PM

Heritage Prairie – Section 6 submittal to SHPO – 11-03-2023



Elizabeth Porterfield \ Burns & McDonnell

Senior Cultural Resources Specialist

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eporterfield@burnsmcd.com \ burnsmcd.com

6200 Bridge Point Pkwy, Suite 400

Austin, TX 78730

From: [Harris, Brandy M](#)
To: SHPO.Review@Illinois.gov
Cc: [Baker, Rita E](#); [Chapin, Allison M.](#)
Subject: Heritage Prairie Wind Farm Section 7 Memo
Date: Monday, February 5, 2024 10:35:00 AM
Attachments: [HPW7_AllAttachments-compressed.pdf](#)
[DRAFT Heritage Prairie Architecture Memo-Section 7_02052024.pdf](#)

Hello,

The **Section 7** submittal of the Historic Resources Evaluation for the **Heritage Prairie Wind Project** in Kankakee and Livingston Counties is attached for SHPO review. Although one additional section of the Project APE in Kankakee County (Section 5) has not yet been submitted to your office for review, at the request of the client to prioritize Livingston County, the current memorandum submittal represents Section 7 of the overall Project APE and documents resources exclusively in Livingston County.

Two additional memorandum submittals regarding subsequent sections of the APE (including the final section [Section 5] of Kankakee County), will follow under separate cover. Please reach out to me directly with any questions or concerns.

Thanks!
Brandy

Brandy Harris \ Burns & McDonnell
Cultural Resources Section Manager \ National Cultural Resources TSA Lead
O 737-263-2784 \ M 512-558-2884
bmharris@burnsmcd.com \ burnsmcd.com
6200 Bridge Point Parkway \ Suite 400 \ Austin, TX 78730

From: DNR.SHPO.Review
To: Harris, Brandy M
Subject: Automatic reply: Heritage Prairie Wind Farm Section 7 Memo
Date: Monday, February 5, 2024 10:37:18 AM

Thank you for your submittal to the Illinois State Historic Preservation Office (SHPO).

We are no longer requiring or receiving paper reviews or surveys. All projects must be submitted digitally.

The SHPO response for your project will be found at the SHPO Correspondence Tracking System (CTS) at <https://dnr2.illinois.gov/cts/> to read, download, and/or print our comments (allow 30 days for a SHPO response). SHPO comments for all items linked to your password from 2018 to present are located here.

If you do not already have a password to access comments at the link (or if you have forgotten), email SHPO.Review@Illinois.gov and type “**PASSWORD REQUEST**” in the subject line.

To access comments prior to 2018, please email SHPO.Review@Illinois.gov.

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APPENDIX U – DECOMMISSIONING PLAN



WIND FARM DECOMMISSIONING PLAN

ILLINOIS GENERATION, LLC

HERITAGE PRAIRIE WIND - LIVINGSTON COUNTY
132138

REVISION 3

February 15, 2024



Disclaimer

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LIST OF ABBREVIATIONS

Abbreviation

1898 & Co.

AIMA

BMP

IDOA

Illinois Generation

kV

MW

O&M

Project

Project Site

Turbine Type A

Turbine Type B

Term/Phrase/Name

1898 & Co., a division of Burns & McDonnell Engineering Company, Inc.

Agricultural Impact Mitigation Agreement

best management practices

Illinois Department of Agriculture

Illinois Generation, LLC

kilovolts

Megawatt

operation and maintenance

Livingston County portion of the Heritage Prairie Wind Project

Livingston County, Illinois

Vestas V163-4.5

GE 3.8-154

Executive Summary

1.1 Introduction

1898 & Co., a division of Burns & McDonnell Engineering Company, Inc. (hereinafter called “1898 & Co.”), was retained by Illinois Generation, LLC (“Illinois Generation”) to conduct a decommissioning cost evaluation for the Livingston County Portion of the Heritage Prairie Wind Project (“Project”). The objective of the Study was to review the Project and to make a recommendation regarding the decommissioning plan for retiring the facility at the end of its useful life.

1.2 Project Overview

The proposed Project will be located in Livingston, Illinois, approximately 5 miles East of Dwight (the “Project Site”). At the time of this Study, there are two possible layouts for the Project. One layout uses Vestas V163-4.5 (“Turbine Type A”) and the other uses GE 3.8-154 (“Turbine Type B”). For the purpose of this report, the estimate assumed the Turbine Type A layout for a total nameplate capacity of approximately 319.5 megawatts “MW”. If Turbine Type B is ultimately chosen, this decommissioning plan will be revised prior to submittal of the building permits. The two possible Project layouts are shown in Appendix B.

1.3 Methodology

When it is determined that the Project should be retired, the above-grade steel structures and turbine nacelles are assumed to have significant scrap value to a salvage contractor, offsetting a portion of the cost to remove these items. The Project will also incur costs for removal and disposal of the blades, foundations, and other Project facilities as well as for the restoration of the site following the removal of salvageable equipment.

The decommissioning cost estimates provided herein include the costs to return the site to a condition compatible with the surrounding land, similar to the conditions that existed before the development of the Project. Included are the costs to retire the power generating equipment that is part of the Project as well as the costs to retire the Project’s balance-of-plant facilities. All equipment, structures, and supporting facilities will be removed to a depth of 5 feet below grade in accordance with the Illinois Department of Agriculture (“IDOA”) Wind Farm Agricultural Impact Mitigation Agreement (“AIMA”)

1.4 Results

The total cost to decommission the Project at the end of its useful life, using Turbine Type A layout and based on the assumptions noted herein, is presented in the table below. If Turbine Type B is ultimately chosen, this decommissioning plan will be revised prior to submittal of the building permits. It is expressly noted that while costs are presented both in total and per turbine, a change in the quantity of turbines may not cause the total decommissioning cost to increase or decrease

linearly by the per turbine cost due to non-scalable differences in balance-of-plant costs and other similar factors.

Table 2-1: Summary of Total Estimate Cost for Project Decommissioning

Turbine Layout	Gross Cost	Scrap Cost	Net Cost	Net Cost per Turbine
71 x V163-4.5	\$16,918,750	(\$12,614,000)	\$4,304,750	\$60,600

1.5 Site Visit

1898 & Co did not visit the Project Site as part of this Study. The contents of this evaluation are based exclusively upon desktop analysis by 1898 & Co.

2.0 Project Overview

2.1 Project Summary

1898 & Co. was retained by Illinois Generation to conduct a decommissioning cost evaluation for the Project. The objective of the study was to review the Project and to make a recommendation regarding the decommissioning cost and plan for retiring the facility at the end of its useful life.

The Project is located in Livingston County, approximately 5 miles East of the city of Dwight. It should be noted that at the time of the Study, there are two possible layouts for the Project. For the purpose of this report, it was assumed Project will have a total nameplate capacity of approximately 319.5 megawatts “MW” and include 71 Vestas V163-4.5 wind turbines. If Turbine Type B is ultimately chosen, this decommissioning plan will be revised prior to submittal of the building permits.

2.2 Project Facilities

The following sections provide an overview of the Project facilities.

2.2.1 Wind Turbines

The Project will consist of 71 wind turbines, the details of which have not been finalized at the time of this Study. There are two possible layouts for the Project, utilizing different turbine types. Turbine Type A is the Vestas V163-4.5. Each V163-4.5 wind turbine includes a 113-meter conical tubular steel tower which supports the turbine nacelle mounted on top. The nacelle of each turbine includes three blades mounted to the nacelle rotor with a total rotor diameter of approximately 163 meters. For the purpose of the report, the decommissioning cost estimate assumes Turbine Type A resulting in a total nominal capacity of approximately 319.5 MW. If Turbine Type B is ultimately chosen, this decommissioning plan will be revised prior to submittal of the building permits.

The alternate layout for the Project would use Turbine Type B, the GE 3.8-154. Each GE 3.8-154 wind turbine includes an 98-meter conical tubular steel tower which supports the turbine nacelle mounted on top. The nacelle of each turbine includes three blades mounted to the nacelle rotor with a total rotor diameter of approximately 154 meters. The layout for Turbine Type B includes 71 turbines resulting in a total nominal capacity of approximately 269 MW.

2.2.2 Wind Turbine Foundations

Each wind turbine tower will be supported by a concrete foundation. Preliminary foundation design drawings were provided by Illinois Generation. The circular concrete pedestal is assumed to be 20 feet in diameter with a depth below grade of 2.25 feet. The pedestal is assumed to be supported by an cylindrical base which is assumed to have an upper diameter of 36 feet and a lower diameter of 87 feet.

All underground facilities for the Project are to be removed to a depth of at least 5 feet below grade in accordance with the IDOA Wind Farm AIMA. Thus, the concrete pedestal is to be removed entirely plus the top approximately 2 feet and 9 inches of the foundation base, collectively down to 5 feet below-grade. The area will then be backfilled as part of the decommissioning, and the remaining foundation will be abandoned in place.

2.2.3 Access Roads

Each wind turbine has an access road to support construction and allow for vehicle access to facilitate inspections and maintenance of the turbines and associated equipment during operation. Access roads are

assumed to be surfaced with approximately 6 inches of crushed rock with a final width of approximately 16 feet. According to access road KMZ layouts provided by Illinois Generation, 20 miles of access roads were assumed to be removed, decompacted, and seeded as part of this Study.

2.2.4 Collection System

Each wind turbine will generate three-phase electrical power that is transformed to 34.5 kilovolts (“kV”) via a transformer located in the nacelle of each wind turbine. Power from each transformer is delivered through one of the Project’s underground power collection circuits to the on-site collector substation.

It is assumed that all cables will be buried at a minimum depth of 5 feet below-grade. At this depth, all cables (including both power and communication cabling) were assumed to remain in place after the Project is decommissioned as they exceed the depth requirement set forth in the IDOA Wind Farm AIMA. Thus, the only cost incurred in this Study from the collection system will be to remove and dispose of the above-grade junction boxes; for the avoidance of doubt, medium-voltage transformers are included in the turbine removal cost.

2.2.5 Project Substation

Power from each wind turbine will be delivered via underground power collection circuits to an on-site collector substation, where it is transformed via two main power transformers. The substation will also consist of multiple disconnect switches, lightning masts, control building, circuit breakers, and other ancillary equipment. All above-grade equipment within the perimeter fence of the substation was assumed to be removed, and all below-grade equipment to a depth of 5 feet per the IDOA Wind Farm AIMA, was assumed to be removed.

2.2.6 Transmission Line

The Project output is transformed at the on-site collector substation. The Project is interconnected to the Kankakee Wind Substation. A KMZ of the Wind Gentie line was provided by Illinois Generation. Included in the study is the removal of approximately 7.6 miles of overhead transmission line. The transmission line is assumed to have steel towers at span lengths of approximately 700 feet, resulting in an assumed removal of 58 steel transmission towers.

2.2.7 Maintenance/Warehouse Facility

The Project will have an on-site operation and maintenance (“O&M”) facility on the Project Site. The O&M building is assumed to be 60 feet long by 100 feet wide by 12 feet high and was assumed to consist of a pre-engineered metal building with a concrete slab foundation.

2.2.8 Meteorological Equipment

Wind data is measured using two (2) meteorological towers. Project-specific design drawings for this tower included permanent, free-standing, lattice-type towers. Each tower was assumed to be fully removed as part of this Study.

3.0 Decommissioning

3.1 Decommissioning Plan

When it is determined that the Project should be retired, the Project equipment will be removed as noted herein. It was assumed that the Project will incur costs for removal and disposal of the wind turbines, wind turbine foundations, and other Project facilities, as well as for the restoration of the site following the removal of equipment. However, the above-grade steel, aluminum, and copper equipment is expected to have significant scrap value to a salvage contractor that will offset some decommissioning costs. All recyclable materials will be recycled to the extent possible, while all other non-recyclable waste materials will be disposed of in accordance with state and federal law.

The wind turbine blades will be removed from the nacelle using a crane, cut into manageably-sized sections, loaded onto a trailer, and hauled to a local landfill for disposal. The wind turbine blades are constructed from a composite material that is was assumed to have no salvage value at the time of decommissioning. The turbine nacelles will be removed from the towers with a crane and loaded onto a trailer. The towers will be disassembled and loaded onto a trailer as well. The nacelle and towers typically will then be hauled off to a scrap yard for recycling. The cost estimate presented in this report that includes scrap includes the cost to haul the turbines and nacelles to the scrap yard.

All concrete wind turbine foundations will be removed to a depth of 5 feet below grade in accordance with the IDOA Wind Farm AIMA; the portions of the foundation that are greater than 5 feet below grade will be abandoned in place. The recovered concrete will be demolished, loaded into a dump truck, and hauled to a local landfill for disposal. Voids left from the removal of the concrete footings will be backfilled and restored to pre-development conditions.

The Project substation will be removed from the site, including all above-grade equipment (e.g., transformers, breakers, busbars), buildings, crushed rock surfacing, and fencing. The cost estimate presented in this report that includes scrap includes the cost to haul the salvageable equipment to the scrap yard, whereas the cost estimate that excludes scrap assumes all salvageable equipment will be hauled to a landfill for disposal. All below-grade equipment (e.g., foundations) will be removed to a depth of 5 feet below grade in accordance with IDOA Wind Farm AIMA.

All crushed rock surfacing will be removed from the Project's access roads. Areas where crushed rock surfacing has been removed will be fine graded to provide suitable drainage. In right-of-way and non-agricultural areas, the ground will be seeded to prevent erosion. The removed crushed rock will be loaded into dump trucks and hauled offsite. Crushed rock can be recycled and reused and typically has a salvage value as a commodity equal to or greater than the cost to haul to an end user. However, for the purpose of this Study, the cost to remove the crushed rock, load it into dump trucks, and haul it offsite will be at the expense of the Project.

Prior to commencing activities associated with foundation removal, crushed rock surfacing removal, or any other earthwork, an approved erosion control plan will need to be developed by the demolition contractor. Best management practices ("BMPs") applicable at the time that decommissioning activities occur will need to be implemented by the contractor for control of storm water runoff. Since decommissioning activities are not anticipated to occur for 20 years or more, BMPs may differ from current standards. However, if decommissioning takes place in the near future, Burns & McDonnell would anticipate BMPs such as silt

fencing and proper compaction, seeding, and mulching practices to be implemented. BMPs will need to be reviewed by the contractor prior to commencing decommissioning activities to determine appropriate BMPs at that time. To the extent necessary, permits relating to decommissioning activities will need to be obtained, including permits from the Environmental Protection Agency. The costs included in this Study are expected to be sufficient for a demolition contractor to develop suitable plans for the control of surface water drainage and water accumulation and, where appropriate, for backfilling, soil stabilization, compacting, and grading prior to commencing demolition activities.

All disturbed areas at the site will be returned to as close to predevelopment conditions as possible. This will allow all land disturbed by the construction of the Project to be returned to its predevelopment use at the end of the useful life of the Project. The cost estimates provided in the following section include activities and costs to return the land to a condition suitable for agricultural use subsequent to decommissioning of the Project.

The activities associated with the decommissioning plan described above are anticipated to be completed within a 6-month timeframe, according to the following estimated schedule:

- Decommissioning Planning & Permitting: 2 months
- Demolition: 3 months
- Site Restoration: 1 month

Additional time may be required for post-decommissioning activities, including monitoring of new vegetation. However, this timetable and the cost estimates below should provide sufficient time and budget to comply with any applicable health and safety regulations.

3.2 Decommissioning Costs

The total cost to decommission the Project at the end of its useful life, based on the assumptions noted herein including the original construction methods of the Project, is presented below; a detailed breakdown of these costs is included in Appendix A. It is expressly noted that while costs are presented both in total and per turbine, a change in the quantity of turbines may not cause the total decommissioning cost to increase or decrease linearly by the per turbine cost, due to non-scalable differences in balance-of-plant costs and other similar factors. The decommissioning cost estimate assumes the Project will utilize Turbine Type A, the Vestas V163-4.5. If Turbine Type B is ultimately chosen, this decommissioning plan will be revised prior to submittal of the building permits.

Table 3-1: Summary of Total Estimated Cost for Project Decommissioning

Turbine Layout	Gross Cost	Scrap Cost	Net Cost	Net Cost per Turbine
71 x V163-4.5	\$16,918,750	(\$12,614,000)	\$4,304,750	\$60,600

3.3 Decommissioning Assumptions

In addition to other assumptions noted herein, the following general assumptions were utilized for the study’s decommissioning cost estimates.

1. All costs are presented in current (2023) dollars using the site cost index of 92.1% for Kankakee, Illinois.

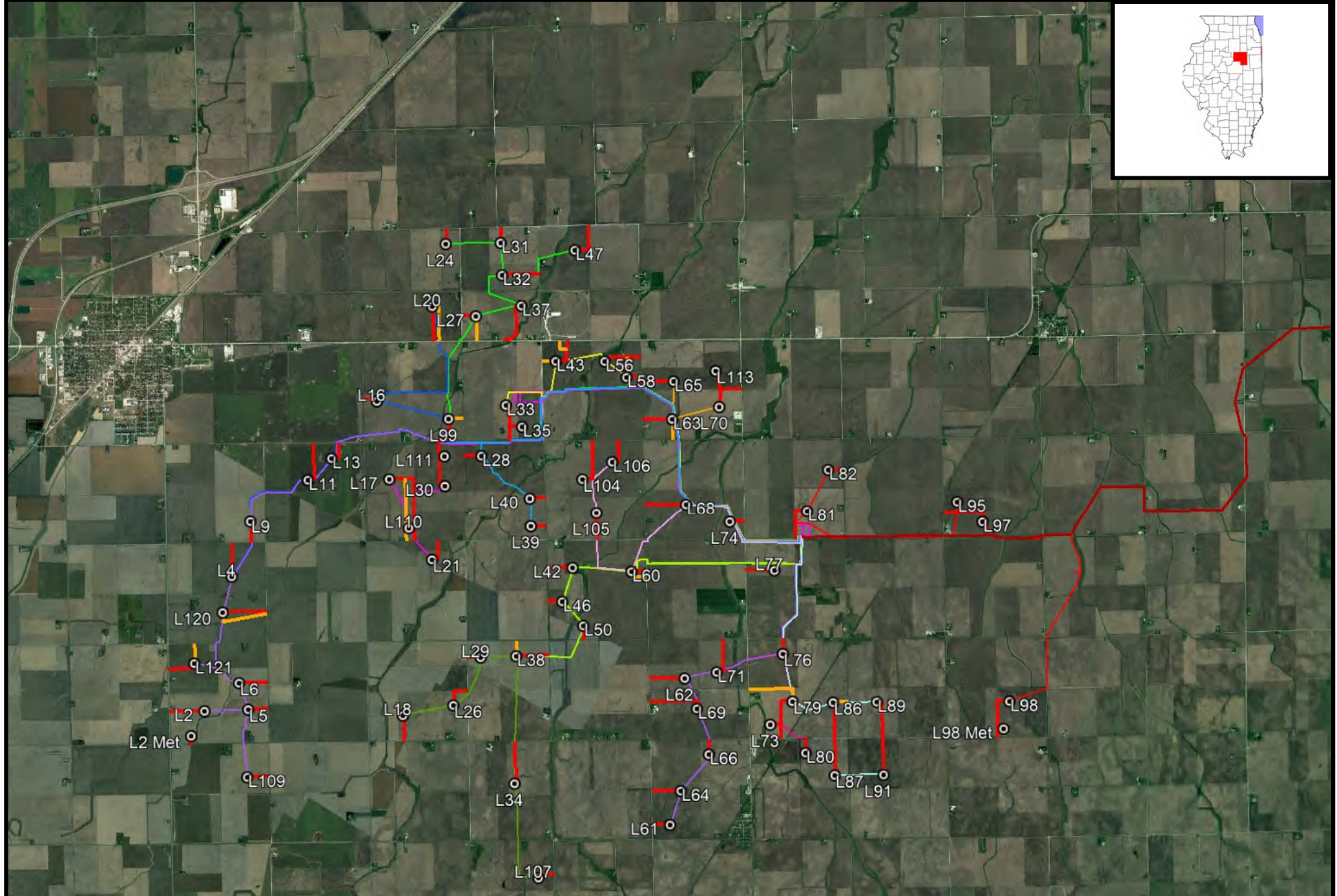
2. The decommissioning estimate is based on details and equipment defined through conversations with and documentation provided by Illinois Generation.
3. An offsite landfill (Prairie View Landfill) is used for disposal of demolition waste. The hauling distance to this landfill is approximately 23 miles from the Project site, and the cost for disposal of debris and concrete is \$78.45. per ton.
4. Where applicable, scrap values are based upon an average of monthly American Metal Market prices for February 2023 through January 2024 (i.e., one calendar year). These values include the cost to haul the scrap via truck and/or rail to the major market which provides the best price. Based on hauling and rail prices, the best market at the time of this Study is Chicago, IL. Prices used include:
 - a. Steel scrap value is \$284.74 per net ton.
 - b. Copper scrap value is \$2.97 per pound.
 - c. Aluminum scrap value is \$0.38 per pound.
5. Fluids located within the turbine nacelle, including oils, fuels, solvents, and process chemicals, were assumed to be drained and disposed of offsite as part of the decommissioning.
6. It was assumed that all containers and chemical storage tanks owned by the Project will be drained and the material disposed of prior to demolition; these costs are excluded from the estimate.
7. All underground equipment will be removed to a depth of 5 feet below grade in accordance with the IDOA Wind Farm AIMA. All non-hazardous structures or foundations greater than 5 feet below grade will remain and are excluded from the decommissioning estimate.
8. Access roads, parking areas, storage yards, crane pads, and all other areas constructed from asphalt, concrete, gravel, or compactable fill will be removed, recycled, and reclaimed.
9. Crushed rock from roads, balance-of-plant areas, and turbine foundation areas was assumed to have value as a commodity for reuse. The cost to remove the crushed rock, load it into dump trucks, and haul it offsite is assumed to be at the expense of the Project.
10. It was assumed that all disturbed areas will be restored to original grade, reclaimed with native soils, seeded, and replanted with native vegetation consistent with the surrounding land use.
11. Transformers will be removed and processed on-site. The cost to drain and dispose of transformer oil off-site is included in the decommissioning cost estimate.
12. The Project laydown yard utilized during construction of the Project was assumed to have been previously reclaimed and restored; no further grading, seeding, or other restoration of the laydown yard is included in this estimate.
13. Cost estimates include 5 percent indirect and 20 percent contingency.
14. Market conditions may result in cost variations at the time of contract execution.

APPENDIX A - COST ESTIMATE SUMMARIES

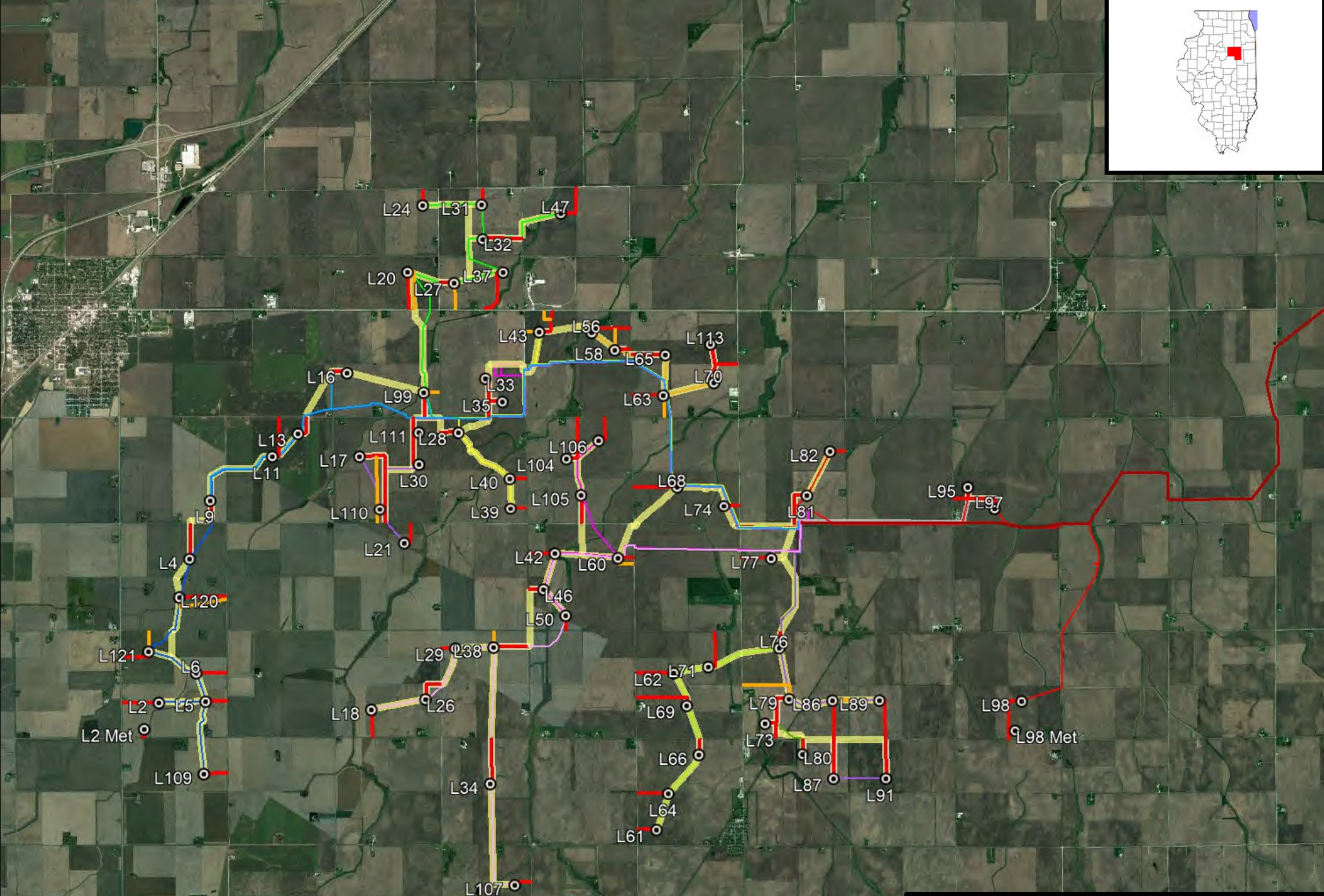
Table A-1: Estimated Cost for Wind Turbine Decommissioning (2023\$)
Heritage Prairie Wind - Livingston County Wind Project
Decommissioning Cost Evaluation

Wind Turbine Removal Cost		
Removal	\$	4,861,000
Hauling & Disposal	\$	1,073,000
Total	\$	5,934,000
Scrap Value	\$	(11,938,000)
Wind Turbine Foundation Removal Cost		
Removal	\$	1,988,000
Hauling & Disposal	\$	2,687,000
Total	\$	4,675,000
Substation Removal Cost		
Removal	\$	291,000
Hauling & Disposal	\$	39,000
Total	\$	330,000
Scrap Value	\$	(280,000)
Transmission Line Removal Cost		
Equipment Removal	\$	512,000
Hauling & Disposal	\$	42,000
Total	\$	554,000
Scrap Value	\$	(372,000)
Civil Works Removal Cost		
Removal	\$	382,000
Hauling & Disposal	\$	1,271,000
Grading & Seeding Costs	\$	193,000
Total	\$	1,846,000
O&M Facility Removal		
Removal	\$	48,000
Hauling & Disposal	\$	74,000
Total	\$	122,000
Scrap Value	\$	(22,000)
Met Tower Removal		
Removal	\$	23,000
Total	\$	23,000
Scrap Value	\$	(2,000)
Other Costs		
Oils & Chemicals Removal & Disposal	\$	51,000
Total	\$	51,000
<hr/>		
Total Estimated Cost	\$	13,535,000
Owner Indirects (5%)	\$	676,750
Contingency (20%)	\$	2,707,000
Total Gross Cost	\$	16,918,750
Total Scrap Value	\$	(12,614,000)
Total Net Cost	\$	4,304,750

APPENDIX B - PLANT AERIAL



Heritage Prairie Wind -
Livingston County
Turbine Type A Layout
Livingston County, IL
IL Generation



Heritage Prairie Wind -
Livingston County
Turbine Type B Layout
Livingston County, IL
IL Generation



1898andco.com



**APPENDIX V – PROPERTY VALUE IMPACT REPORT AND SITE SPECIFIC
ANALYSIS ADDENDUM**

REAL ESTATE ADJACENT PROPERTY VALUE IMPACT CONSULTING REPORT:

**Academic and Peer Authored Property Value Impact Studies,
Research and Analysis of Existing Wind Facilities, and
Market Participant and Assessor Interviews**

Prepared For:

Allen Wynn
Director, Environmental & Planning
Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, TX 77002

Submitted By:

CohnReznick LLP
Valuation Advisory Services
1 S Wacker Drive, Suite 3550
Chicago, Illinois 60606
(301) 508-5900

Andrew R. Lines, MAI, CRE
Erin C. Bowen, MAI

February 12, 2024

LETTER OF TRANSMITTAL

February 12, 2024

Allen Wynn
Director, Environmental & Planning
Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, TX 77002

SUBJECT: Property Value Impact Consulting Report
An Analysis of Existing Wind Farms

To Whom it May Concern:

CohnReznick is pleased to submit the accompanying property value impact consulting report for the proposed wind energy use known as Heritage Prairie Wind Project (the "Project"). CohnReznick researched property transactions adjacent to existing wind farms, researched and analyzed articles and other published studies, and interviewed real estate professionals and Township/County Assessors active in the market where wind farms are located, to gain an understanding of actual market transactions in the presence of wind energy uses.

The purpose of this consulting assignment is to determine whether proximity to a renewable energy use (wind farm) has an impact on adjacent property values. The intended use of our findings and conclusions is to address certain criteria related to impacts on adjacent property values, in an application for a Special Use permit for the proposed wind energy generation use, known as the Heritage Prairie Wind Project, to be located in Livingston and Kankakee Counties, Illinois. We have not been asked to value any specific property, and we have not done so.

The client and intended user for the assignment is Illinois Generation LLC. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

This consulting assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, as well as applicable state appraisal regulations.

Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings are:

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FINDINGS

- I. **Published Studies (pages 17-20):** CohnReznick reviewed and analyzed published academic studies that specifically analyzed the impact of wind facilities on nearby property values. These studies include multiple regression analyses of hundreds and thousands of sales transactions for both residential homes and farmland properties in rural communities. The vast majority of studies with large-scale data sets concluded existing wind facilities have had no negative impact on adjacent property values.
- II. **CohnReznick Studies (pages 21-101):** Further, CohnReznick has evaluated 11 existing wind farms and sales of adjacent residential properties, in which we have determined that the existing wind facilities have not caused any consistent and measurable negative impact on property values. These existing wind farms are most similar to the Project in terms of general location and size, summarized as follows:

CohnReznick - Existing Wind Farms Studied

Wind Farm #	Wind Farm	Date Placed in Service	County, State	Approximate Project Area (Acres)	MW AC	Turbine Rated Capacity	Turbines
1	Pilot Hill Wind Farm	Aug-15	Kankakee and Iroquois Counties, IL	15,000	175.0	1.7 MW	103
2	Kelly Creek Wind Project	Dec-16	Kankakee and Ford Counties, IL	20,000	184.0	2.0 MW	92
3	Camp Grove Wind Farm	Dec-07	Marshall and Stark Counties, IL	14,000	150.0	1.5 MW	100
4	Lee-DeKalb Wind Energy Center	Dec-09	DeKalb and Lee Counties, IL	22,000	217.5	1.5 MW	145
5	Adair Wind Farm	Dec-08	Adair and Cass Counties, IA	16,000	174.8	2.3 MW	76
6	Eclipse Wind Farm	Sep-12	Audubon and Guthrie Counties, IA	18,000	200.1	2.3 MW	87
7	White Oak Wind Energy Center	Jun-11	McLean County, IL	11,000	150.0	1.5 MW	100
8	Top Crop Wind Farm	Aug-10	Livingston, Grundy & LaSalle Counties, IL	28,000	300.0	1.5 MW	200
9	Rail Splitter Wind Farm	Aug-09	Tazewell & Logan Counties, IL	11,000	100.5	1.5 MW	67
10	Bright Stalk Wind Farm	Dec-19	McClellan County, IL	18,000	205.2	3.6 MW	57

It is noted that proximity to the wind farms has not deterred sales of residential single-family homes, nor has it deterred the development of new single-family homes on adjacent land.

- III. **Market Participant Interviews (pages 102-104):** Our conclusions also consider interviews with County and Township Assessors, who have at least one wind farm in their jurisdiction, and in which they have determined that wind farms have not negatively affected adjacent property values.

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With regards to the Project, we specifically interviewed Assessors with wind farms in their jurisdictions:

- When discussing recent wind farm development in the county, Shelly Renken, Supervisor of Assessments in **Livingston County, Illinois** reported that there is no documentation that shows an impact to property values and that values have not materially increased or decreased as a result of being near a wind farm.
- We spoke with the **Stark County, Illinois** Tax Assessor, Renee Johnson, regarding the Camp Grove Wind Farm and she reported that she could not see a difference in the home prices between current values and before the wind farm was built in 2007.
- Bridget Nodurft, Chief Deputy of the Supervisor of Assessments Office in **Dekalb County, Illinois**, reported that being near the turbines did not cause harm to property values.
- **Lee County, Illinois** Chief County Assessment Officer, Wendy Ryerson has not noticed any difference in the values of homes that are near wind turbines.
- Tracey Vinavich, Chief County Assessor of **Henry County, Illinois** told us that there have been no changes in values because of the wind farms that have been developed.
- Christine Anderson, GIS Coordinator in the Tax Assessor's office in **Bureau County, Illinois**, reported that they never received any complaints about potential changes in home values, before or after any of the wind farms were built.

To give us additional insight as to how the market evaluates farmland and single-family homes with views of wind farms, we interviewed numerous real estate brokers and other market participants who were party to actual sales of property adjacent to wind farms; these professionals also confirmed that wind farms did not diminish property values or marketability in the areas they conducted their business.

- IV. Wind Farm Factors on Harmony of Use (*page 105*): In the course of our research and studies, we have recorded information regarding the compatibility of these existing wind facilities and their adjoining uses, including the continuing development of land adjoining these facilities.

CONCLUSION

Considering all of the preceding, the data indicates that wind energy facilities do not have a negative impact on adjacent property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

CohnReznick LLP



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SCOPE OF WORK

CLIENT AND INTENDED USERS

The Client and Intended Users of this report are Illinois Generation LLC.

INTENDED USE

The intended use of our findings and conclusions is to address certain criteria related to impacts on adjacent property values, in an application for a Special Use Permit for the proposed wind energy generation use, known as the Heritage Prairie Wind Project to be located in Livingston and Kankakee Counties, Illinois. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP (“CohnReznick”).

PURPOSE

The purpose of this consulting assignment is to determine whether proximity to the proposed wind facility will result in an impact on adjacent property values.

DEFINITION OF VALUE

This report utilizes Market Value as the appropriate premise of value. Market value is defined as:

“The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.”¹

EFFECTIVE DATE & DATE OF REPORT

February 12, 2024 (Paired sale analyses contained within each study are periodically updated.)

¹ Code of Federal Regulations, Title 12, Chapter I, Part 34.42[h]

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PRIOR SERVICES

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

This report is a compilation of the Existing Wind Farms which we have studied over the past year and is not evaluating a specific subject site. In this instance, there is no “subject property” to disclose.

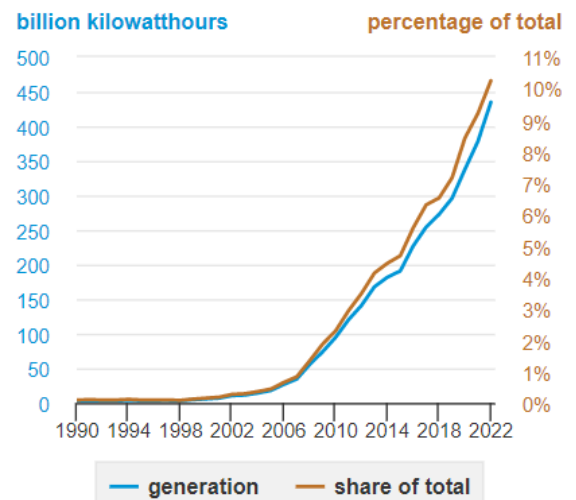
INSPECTION

Andrew R. Lines, MAI, CRE and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

OVERVIEW OF WIND DEVELOPMENT IN THE UNITED STATES

With the passing of the Inflation Reduction Act, the United States continues to be home to one of the largest and fastest-growing wind markets in the world. In August 2022, the Inflation Reduction Act (IRA) was passed by Congress, extending the Production Tax Credit (PTC) and Investment Tax Credit (ITC) for wind projects through 2024. The ITC provision provides up to a 30% tax credit for offshore wind projects that begin construction before January 1, 2026. Additionally, the IRA provides a new tax credit for the domestic production of wind components and related goods of up to 10% of the sales price. The U.S. Department of Energy's (DOE) Wind Energy Technology Office (WETO) confirms that with technological advancements driving projected cost reductions, in combination with continued siting and transmission development, wind energy can provide cost-effective electricity across the United States. Total annual U.S. electricity generation from wind energy increased from about 6 billion kilowatt-hours (kWh) in 2000 to about 380 billion kWh in 2021. In 2021, wind turbines were the source of about 9.2% of total U.S. utility-scale electricity generation. Utility-scale includes facilities with at least one megawatt (1,000 kilowatts) of electricity generation capacity.

Wind electricity generation and share of total U.S. electricity generation, 1990-2022



Data source: U.S. Energy Information Administration, *Electric Power Monthly*, February 2023, preliminary data for 2022
 Note: Includes utility-scale electricity generation.

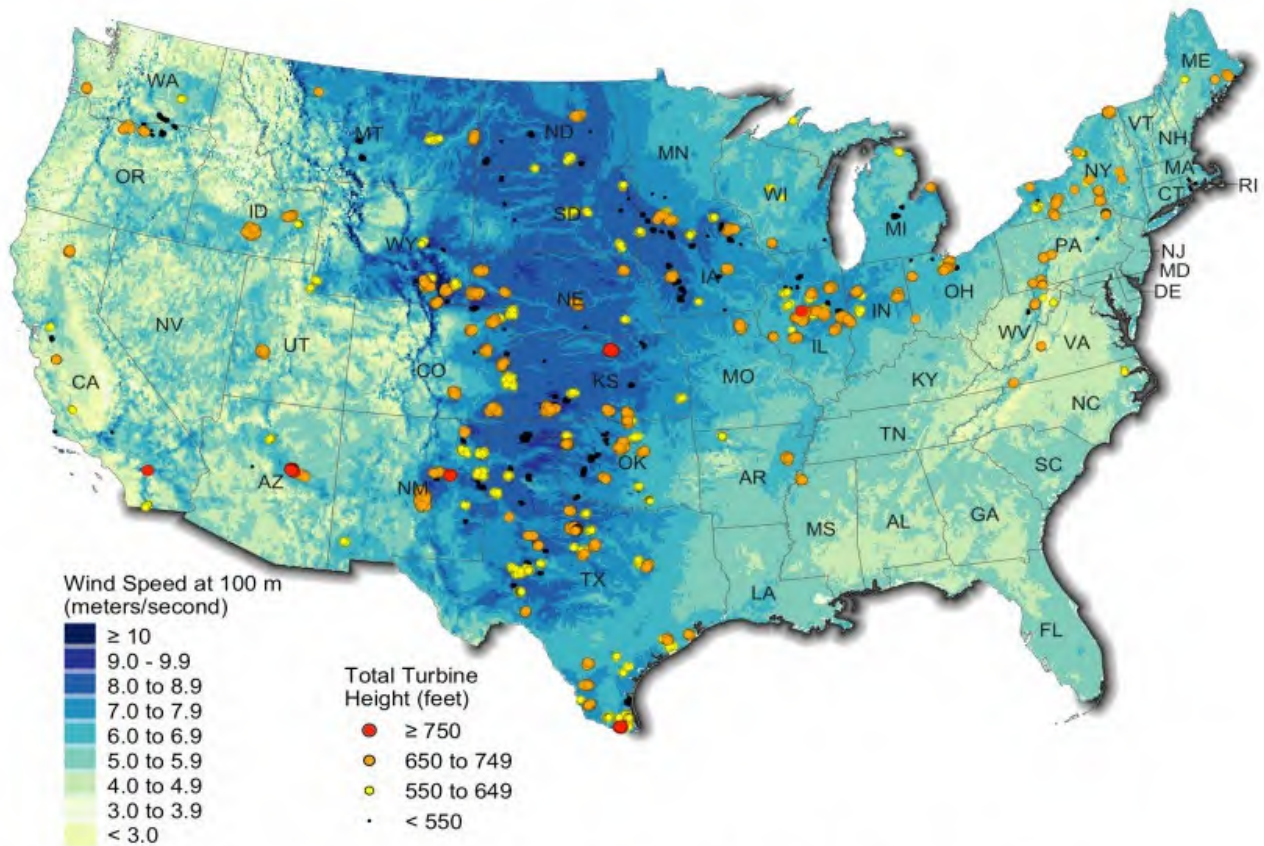
By 2050, wind technology is projected to generate 404.25 GW of power across the continental United States, which is three times the amount of the existing generating capacity. With the increase of wind generating facilities across the country, wind projects have become a common and understood feature of the landscape and will continue to do so with the projected additional capacity to come online in the coming years.

Along with the development of new related technology over the past several years, the relative height of turbines has been increasing. To produce more power, larger rotors and blades cover a wider area and increase the capacity of the turbine. More power is also produced when the blades are higher in the atmosphere, where the wind blows more steadily, increasing how often it runs. According to the US Office of Energy Efficiency & Renewable Energy's report, "Land-Based Wind Market Report: 2022 Edition," long-term improvements in the cost and performance of wind power technologies, along with the Production Tax Credit, have driven wind energy capacity additions. Wind turbines continued to grow in size and power, with the average nameplate capacity of newly installed wind turbines at 3.0 MW—up 9% from 2020 and 319% since 1998–1999. The average rotor diameter of newly installed turbines in 2021 was 418 feet, a 4% increase over 2020 and 164% over 1998–1999.

The average "tip height" (from ground to blade tip extended directly overhead) among projects that came online in 2021 is 517 feet, and FAA data suggest that future projects, including those under construction and in advanced development, will deploy even taller turbines. Among proposed turbines in the FAA permitting process, the average tip height reaches more than 643 feet. Historically, 500 feet was considered a ceiling due to more-involved FAA permitting and approval processes for turbines above that height. The tallest turbines in the

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permitting process—those with a tip height of at least 750 feet—are proposed for southern California, Arizona, New Mexico, south Texas, Kansas and central Illinois, but turbines of at least 650 feet appear likely to be installed in every region of the United States (see the following figure).



Note: Figure includes FAA data on under-construction, advanced development, pending, and proposed turbines

Sources: FAA Obstacle Evaluation / Airport Airspace Analysis files, AWS Truepower, ACP, Berkeley Lab

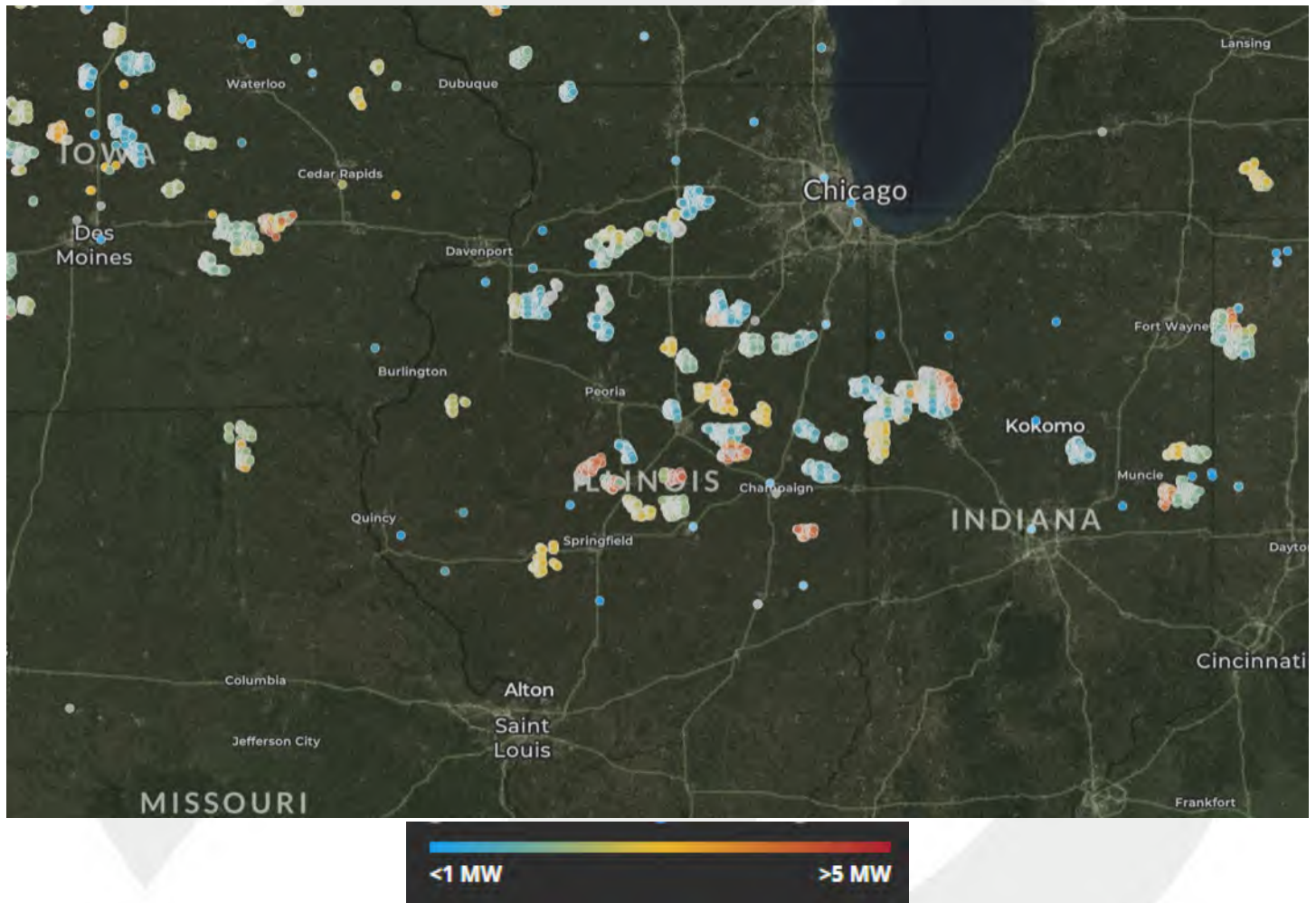
Figure 31. Total turbine heights proposed in FAA applications, by location

Winds farms throughout the US have setback requirements defined by distances from non-participating structures or in relation to the turbine structure height, whichever distance is shorter. For example, Illinois requires the distance from the property line and public rights of ways to a wind turbine at 110% of the height of the wind turbine. Additionally, Illinois requires the distance from non-participating residences, schools, places of worship, daycares, libraries and community centers to a wind turbine at 210% of the height of the wind turbine. Livingston County requires a setback 2.10 times the turbine tower height from occupied community buildings, non-participating residences and fish and wildlife areas or protected land. A setback of 1.10 times the turbine tower height to participating residences, non-participating property lines, public road right of ways, and the nearest edge of the property line, easement or right of way containing an overhead communication line is required.

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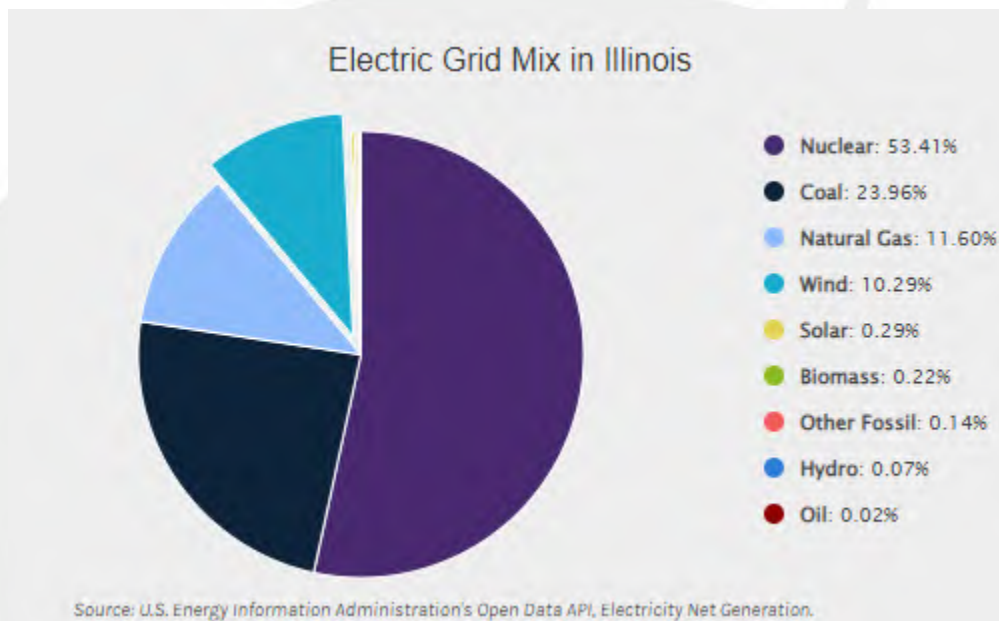
OVERVIEW OF WIND DEVELOPMENT IN ILLINOIS

According to the U.S. Energy Information Administration, there are 60 wind energy projects operating in the state of Illinois and they generate approximately 7,900 megawatts (MW) of power. The following map illustrates the regional concentration of wind farms according to the U.S. Wind Turbine Database.



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As illustrated in the following, the state's net electricity generation by source is 11.6% natural gas, 24.0% coal-fired, 53.4% nuclear (most in the nation) and 10.3% wind.



The nameplate capacity (or rated capacity) of a wind turbine is the amount of energy the turbine would produce if it ran 100 percent of the time at optimal wind speeds, according to the New York State Energy Research & Development Association (NYSERDA).² Of the wind developments in Illinois, the highest nameplate capacity, as measured in megawatts (MW), is the Lincoln Land Wind Farm located in Sangamon County. The Lincoln Land Wind Farm turbines generate 302 megawatts of power and became operational in November 2021.

On average, the wind farms in Illinois produce 130.7 megawatts of power each. Installations of wind farm developments date from 2003 to 2023 in the state. There are currently four wind farms under construction in Illinois: Alta Farms II Wind Project with a capacity of 200.5 MW in DeWitt County, Shady Oaks Wind 2 with a capacity of 108.3 MW in Lee County, Midland Wind with a capacity of 105.5 MW in Henry County and Moraine Sands Wind Power with a capacity of 171 MW in Mason County, all expected to become operational in 2023.

CohnReznick has considered the long history of wind farms within the state, as well as Livingston and Kankakee County's experience with active wind farms.

² Wind Energy Basics – New York State Energy Research & Development Association

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APPRAISAL THEORY – ADJACENT PROPERTY’S IMPACT ON VALUE

According to Randall Bell, Ph.D., MAI, author of the text *Real Estate Damages*, published by the Appraisal Institute in 2016, understanding the market’s perceptions on all factors that may have an influence on a property’s desirability (and therefore its value) is essential in determining if a diminution or enhancement of value has occurred.³ According to Dr. Bell:

“There is often a predisposition to believe that detrimental conditions automatically have a negative impact on property values. However, it is important to keep in mind that if a property’s value is to be affected by a negative condition, whether internal or external to the property, that condition must be given enough weight in the decision-making process of buyers and sellers to have a material effect on pricing relative to all the other positive and negative attributes that influence the value of that particular property.”⁴

Market data and empirical research through the application of the three traditional approaches to value should be utilized to estimate the market value to determine if there is a material effect on pricing due, to the influence of a particular characteristic of or on a property.

A credible impact analysis is one that is logical, innate, testable and repeatable, prepared in conformity with approved valuation techniques. In order to produce credible assignment results, more than one valuation technique should be utilized to support the primary method, or a check of reasonableness, such as the utilization of more than one approach to value, conducting a literature review, or having discussions (testimony) with market participants.⁵ CohnReznick implemented the scientific method⁶ to determine if a detrimental condition of proximity to a wind farm exists, further described in the next section.

³ Bell, Randall, PhD, MAI. *Real Estate Damages*. Third ed. Chicago, IL: Appraisal Institute, 2016. (Pages 1-2)

⁴ *Ibid*, Page 314

⁵ *Ibid*, Pages 7-8

⁶ The scientific method is a process that involves observation, development of a theory, establishment of a hypothesis, and testing. The valuation process applies principles of the scientific method as a model, based upon economic principles (primarily substitution) as the hypothesis. The steps for the scientific method are outlined as follows:

1. Identify the problem.
2. Collect relevant data.
3. Propose a hypothesis.
4. Test the hypothesis.
5. Assess the validity of the hypothesis.

Bell, Randall, PhD, MAI. *Real Estate Damages*. Third ed. Chicago, IL: Appraisal Institute, 2016. (Pages 314-316)

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METHODOLOGY

The purpose of this report is to determine whether proximity to the proposed wind facility will result in any measurable and consistent impact on adjacent property values. To test this hypothesis, CohnReznick identified three relevant techniques to test if a detrimental condition exists.

- (1) A review of published studies;
- (2) Paired sale analysis of properties adjacent to existing wind generating facilities, which may include repeat sale analyses or “Before and After” analyses; and,
- (3) Interviews with real estate professionals and local real estate assessors.

The paired sales analysis is an effective method of determining if there is a detrimental impact on surrounding properties.

*“One of the most useful applications of the sales comparison approach is paired sale analysis. This type of analysis may compare the subject property or similarly impacted properties called **Test Areas** (at Points B, C, D, E, or F) with unimpaired properties called **Control Areas** (Point A). A comparison may also be made between the unimpaired value of the subject property before and after the discovery of a detrimental condition. If a legitimate detrimental condition exists, there will likely be a measurable and consistent difference between the two sets of market data; if not, there will likely be no significant difference between the two sets of data. This process involves the study of a group of sales with a detrimental condition, which are then compared to a group of otherwise similar sales without the detrimental condition.”⁷*

As an approved method, paired sales analysis can be utilized to extract the effect of a single characteristic on value. By definition, paired data analysis is “a quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data on nearly identical properties is analyzed to isolate a single characteristic’s effect on value or rent.”⁸ The text further describes that this method is theoretically sound when an abundance of market data, or sale transactions, is available for analysis.

Where data is available, CohnReznick has also prepared “Before and After” analyses or a Repeat Sale Analysis,⁹ to determine if a detrimental impact has occurred.

⁷ Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016. (Page 33)

⁸ The Appraisal of Real Estate 14th Edition. Chicago, IL: Appraisal Institute, 2013.

⁹ Another type of paired sales analysis involves studying the sale and subsequent resale of the same property. This method is used to determine the influence of time on market values or to determine the impact of a detrimental condition by comparing values before and after the discovery of the condition.

Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016. (Page 35)

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SCOPE OF WORK

The scope of work utilized to test the hypothesis stated on the prior page is as follows:

1. Review published studies, assess credibility, and validity of conclusions;
2. Prepare paired sale analyses for existing wind farms as follows:
 - 2.1. Identify existing wind farms comparable to the proposed project to analyze;
 - 2.2. Define Test Area Sales and Control Areas Sales;
 - 2.3. Collect market data (sale transactions) for both Test Area and Control Area Sales;
 - 2.4. Analyze and confirm sales, including omission of sales that are not reflective of market value;
 - 2.5. Prepare comparative analysis of Test Area and Control Area sales, adjusting for market conditions;
 - 2.6. Interpret calculations; and
3. Conduct interviews with real estate professionals and local real estate assessors who have evaluated real property adjacent to existing wind farms.

It should be noted that our impact report methodology has been previously reviewed by our peers in the field.

The following bullet points summarize important elements to consider in our scope of work:

- Due to the limited number of existing larger utility scale projects in the state of Illinois, we have incorporated other utility scale projects in other states.
- Test Area Sales consists of sales that are adjacent to an existing wind facility, within 1.00 mile of a wind turbine. Ownership and sales history for each adjoining property to an existing wind farm through the effective date of this report is maintained within our workfile. Adjoining properties with no sales data or that sold prior to the announcement of the wind farm were excluded from further analysis.
- Control Area Sales are generally located in the same market area, outside 3.0 miles of any wind turbine, although varies based on the general location of the existing wind farm under analysis. In rural areas, sales are identified first within the township, and the search expands radially outward through the county until a reliable set of data points is obtained.
- Control Area Sales are generally between 12 and 18 months before or after the date of the Test Area Sale(s), and are comparable in physical characteristics such as age, condition, style, and size.
- Sales of properties that sold in a non-arm's length transaction (such as a transaction between related parties, bank-owned transaction, or between adjacent owners) were excluded from analysis as these are not considered to be reflective of market value, as defined earlier in this report. The sales that remained after exclusions were considered for a paired sale analysis.
- The methodology employed in this report for paired sale analysis does not rely on multiple subjective adjustments that are typical in many appraisals and single-paired sales analyses. Rather, the

methodology remains objective and the only adjustment required is for market conditions;¹⁰ the analysis relies upon market conditions trends tracked by credible agencies such as the Federal Housing Finance Agency (“FHFA”), which maintains a House Price Index (“HPI”)¹¹ for macro and micro regions in the United States. A market conditions adjustment is a variable that affects all properties similarly and can be adjusted for in an objective manner.

- To make direct comparisons, the sale price of the Control Area Sales was adjusted for market conditions to a common date. In this analysis, the common date is the date of the Test Area Sale(s). After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact by the wind facility.
- If there is more than one Test Area Sale to evaluate, the sales are grouped if they exhibit similar transactional and physical characteristics; otherwise, they are evaluated separately with their own respective Control Area Sale groups.

A summary of the analyses completed is presented on the following pages in the section entitled Technique 2: Paired Sale Analyses. Detail of these analyses is retained within our workfile.

¹⁰ Adjusting for market conditions is necessary as described in The Appraisal of Real Estate 14th Edition as follows: “Comparable sales that occurred under market conditions different from those applicable to the subject on the effective date of appraisal require adjustment for any differences that affect their values. An adjustment for market conditions is made if general property values have increased or decreased since the transaction dates.”

¹¹ The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. Because of the breadth of the sample, it provides more information than is available in other house price indexes.

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TECHNIQUE 1: REVIEW OF PUBLISHED STUDIES

We have also examined various studies that consider the impact of wind farms on surrounding property values. The studies range from formal and robust statistical analyses by appraisers and economists, to less formal survey-based and qualitative research, and are summarized in a table on the following page.

Of the most cited 18 wind studies in North America, all but four concluded that the proximity of a wind farm to a residential home has no negative impact on property value. Most of these studies included data sets in the hundreds, and several in the thousands, of home sale transactions, and resulted in this conclusion: there is no statistical evidence that wind farms decrease property values.

Ben Hoen, Research Scientist at Lawrence Berkeley National Laboratory (“LBNL”), and a prolific expert on wind farms and property values, wrote of his own literature review in his 2016 study (see Study 1 in Summary table on the following page) that “One of the overall conclusions that can be drawn from this literature is that wind facilities are often predicted to negatively impact residential property values in pre-construction surveys, but **negative impacts have largely failed to materialize post-construction when actual transaction data become available for analysis.**”¹²

It is noted that the 2016 study, which focused on urban areas in Massachusetts, resulted in a conclusion consistent with the LBNL 2013 study which utilized 51,276 home sales from 27 U.S. counties related to 67 wind facilities, and 1,198 home sales were within one mile of a wind turbine.

The Springfield-Sangamon County Regional Planning Commission (SSCRPC), in Illinois, reviewed some of the most often cited literature concerning the effect of wind farms on property values and found that there was no compelling research indicating that proximity to a wind farm results in a measurable decline in property values over time. Research was found indicating that people might *believe* it would lead to such a decline, which may result in a short-term decline prior to property owners gaining experience with a wind farm.¹³ Once a community lives with a wind farm in operation, property owners’ fears are put to rest and any fluctuation in value stabilizes.

The SSCRPC agreed with the National Association of Realtors who report in their *Field Guide to Wind Farms and their Effect on Property Values*, “Although the research remains scant, wind farms appear to have a minimal or at most transitory impact on property values” (National Association of Realtors, 2009).” The following page summarizes the 18 most cited wind studies; we have also addressed each study which concludes to an impact, on subsequent pages.

¹² https://pages.jh.edu/jrer/papers/pdf/past/vol38n04/9867-01.473_504.pdf

¹³ https://www.ilarconline.org/file/67/InfoBrief-WECS-and-PropertyValue-March-2012-Update_doc.pdf

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Summary of Published Studies on the Impact of Wind Farms on Property Values							
	Study Title	Author	Date	Methodology	Location	Impact Found	
	1	Wind turbines, amenities, and disamenities: a study of home value impacts in densely populated Massachusetts	Hoehn, et al.	2016	Hedonic Regression Analysis of 122,000 home sales from 1998 - 2012	Massachusetts	No Impact
	2	Impact of Industrial Wind Turbines on Residential Property Assessment in Ontario	Moore, et al.	2016	Multiple Regression Analysis of 25 market areas	Ontario, Canada	No Impact
	3	Brookings County 2015 Property Value Survey	Prevailing Winds	2015	Simple observation of increase/decrease in value of 233 proximate and non-proximate properties (Ag & Res)	Brookings County, SD	No Impact
	4	A Spatial Hedonic Analysis of the Effects of Wind Energy Facilities on Surrounding Property Values in the United States	Hoehn, et al.	2013	Spatial-process difference-in-difference hedonic models of 50,000 home sales	27 Counties in 9 U.S. States	No Impact
*	5	Case Study: Effects of Wind Turbine Facility	Lansink	2012	Five sales & re-sales of SFR homes	Melancthon, Ontario (Canada)	Negative Impact
	6	The Effect of Wind Farms on Residential Property Values in Lee County, Illinois	Carter	2011	Hedonic Regression Analysis on proximate and regional sales data of 1,298 homes from 1998 - 2010	Lee County, IL	No Impact
*	7	Values in the Wind: A Hedonic Analysis of Wind Power Facilities	Heintzelman & Tuttle	2011	Hedonic Regression Analysis of 11,331 home sales over 9 years	Clinton, Franklin, and Lewis Counties in New York	Negative Impact
	8	Wind energy facilities and residential properties: the effect of proximity and view on sales prices	Hoehn, et al.	2011	Hedonic Regression Analysis of 7,500 home sales	24 existing wind facilities in the United States	No Impact
	9	Wind Energy Study - Effect on Real Estate Values	Canning (MAI)	2010	Multiple Regression Analysis, Paired Sale Analysis of 83 homes	Chatham-Kent, Ontario (Canada)	No Impact
	10	Wind farm proximity and property values: a pooled hedonic regression analysis of property values in central Illinois	Hinman	2010	Hedonic Regression Analysis with Difference-in-Difference Estimators of 3,851 sales from 2001 - 2009	McLean County, IL	No Impact
*	11	Written Testimony	McCann	2010	Compared sale prices of SFR <2 miles (15 home sales) and > 2 miles from turbines (38 home sales).	Near Mendota Hills Wind Farm, Lee County, IL	Negative Impact
	12	The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis	Hoehn, et al.	2009	Hedonic Regression analysis & Repeat Sales Models of 7,500 home sales	24 existing wind facilities in the United States	No Impact
*	13	Wind Turbine Impact Study	Kielisch	2009	Compared values of vacant residential lots using regression analysis	Dodge & Fond Du Lac Counties, WI	Negative Impact
	14	A Real Estate Study of the Proposed White Oak Wind Energy Center, McLean & Woodford Counties, Illinois	Poletti	2007	Statistical analysis of 256 home sales in close proximity and those not proximate	McLean & Woodford Counties, IL	No Impact
	15	Impacts of windmill visibility on property values in Madison County, New York	Hoehn	2006	Hedonic Regression Analysis of 280 home sales from 1996 - 2005	Madison County, NY	No Impact
	16	A Study on the Impact of Windmills on Property Values in Tucker County, West Virginia	Goldman	2006	Qualitative interviews	Tucker County, WV	No Impact
	17	Market Impact Analysis	MaRous (MAI)	2005	Matched Pair Analysis and Interviews	Bureau County, IL	No Impact
	18	The Effect of Wind Development on Local Property Values	Sterzinger	2003	Linear Regression Analysis of 25,000 home sales near 10 wind farms	7 U.S. States	No Impact

**Notes on studies located on the following pages.*

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Study 5, Case Study: Effects of Wind Turbine Facility by Ben Lansink of Lansing Appraisals and Consulting, published in 2012 is often cited as an example of a wind farm having a negative impact on property values. The Lansink report studied five single family homes that were purchased by Canadian Hydro Developments Inc. in 2007. Later in 2009, Canadian Hydro Developments Inc. sold these same five homes at a loss, averaging -29 percent, according to Lansink. Lansink also calculates that average values in the area of the subject homes increased over the same two-year period an average of 16.22 percent. Canada also experienced the Great Recession from approximately 2007 through 2009. Lansink's assertion that the market for these homes should have appreciated rather than fallen may be flawed. Additionally, Lansink does not subject his home sales data to any sort of control group study or statistical analysis. Overall, this study uses a small amount of data and uses broad averages about property appreciation that could be flawed and does not adjust or account for any differences in the homes analyzed.

Study 7, Values in the Wind: A Hedonic Analysis of Wind Power Facilities by Heintzelman and Tuttle (2011) in Clinton, Franklin, and Lewis Counties in New York presents a larger sample of data than had previously been studied (11,391 home sales over nine years). Subsequent research has studied even more data in larger magnitudes (Study 4: Hoen, et al. 2013 studied 50,000 home sales, and Study 1: Hoen et al. 2016 studied 122,000 home sales), coming to the conclusion that there is no negative impact on property values after construction of a wind farm. CohnReznick believes this study contains significant weaknesses including:

- Most of the transactions identified took place BEFORE Wind turbines were installed
- Study includes sales of property occurring after the start of the Great Recession, with no qualifiers or variables to compensate for market conditions adjustment
- Study extracts conclusions that are not consistent with basic real estate principles:
 - "Lot size is, unusually, not a significant factor" (p. 20)
 - "Homes with open water or wetlands are more valuable" (p.20)
 - "Strangely, homes classified as having 'excellent' construction quality appear to sell for less than those with average quality..." (p. 21)
- Study assumes that a sale of properties occurring "very close" to a turbine "expect that future wind development may be possible on their parcels, which would necessitate easement payments."
- Suggests there may be negative property value effects in the post-announcement/pre-construction phase; however, these anticipation effects (sometimes described as "anticipation stigma") are transitory and disappear once the operation of the wind farm commences.

The sum of these exceptions may indicate that the study was poorly put together and contains flaws that make it unreliable.

Study 11, Written Testimony from Michael McCann from 2010, about the supposed negative impacts on property values near the Mendota Hills Wind Farm, in Lee County, Illinois was disproven by the actual facts that have unfolded over time. The Lee County Tax Assessor, Wendy Ryerson, told us in an interview in March 2020, that the County has not noticed any difference in values of homes since the wind farm was completed in 2003. "We don't even see people coming forward to say, 'Reduce the assessment for my taxes'." Ryerson said. Ryerson is considered an expert in the assessment community regarding wind farms and developed the formula for assessing wind farms in 2003 that was accepted as a standard by the State of Illinois in 2007.

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In addition, McCann was rebutted by the testimony of Mark A. Thayer, Ph.D., Department of Economics at San Diego State University, in 2017 where he testified that “[McCann’s] alternative literature has formed the basis for testimony by Michael McCann, who has offered basically the same testimony in a multitude of settings – specifically, residential properties located within three miles (or possibly greater distances) of wind turbines will experience a minimum 25-40 percent reduction in value for homes.

- Note that this is a minimum expected loss as McCann has on several occasions suggested that the loss could be significantly greater. In fact, in a publication/statement entitled “I Predict a Series of Rural Ghettos – Abandoned, Unmaintained Homes (III),” McCann stated in 2010 that the only thing worse than wind turbines for creating the physical and health-driven need to relocate is a nuclear reactor meltdown (e.g., Chernobyl) and indicated that damages to homes could be in the 60 – 80 percent range. Of course, no justification was provided for that damage range.
- The expected reductions in value are based on (1) McCann’s own analysis; (2) an alternative literature; and (3) McCann’s willful misinterpretation / misunderstanding of the existing hedonic literature in which he demonstrates a complete lack of knowledge concerning statistics and hedonic methods and draws erroneous conclusions that are exactly opposite of the conclusions drawn by the authors of specific reports.

CohnReznick concurs with Thayer’s conclusions that McCann’s conclusions are misinformed and should be disregarded, especially in light of the data discussed by Tax Assessor Wendy Ryerson.

Study 13, Wind Turbine Impact Study by Kurt C. Kielisch of Appraisal Group One, compared vacant residential lot sales within the wind turbine farm area to comparable sales of vacant residential lots and supposes that the negative impact observed would translate to improved single-family land. This leap is, frankly, unfounded in the appraisal community. Improved properties do not necessarily react to external influences or experience changes in value in the same way, or with the same magnitude, as vacant land.

Ultimately, the overwhelming scientific data and measurements indicate no negative impact on adjacent residential real estate – conclusions developed by industry experts using regression models, paired sales analysis, and surveys with market participants.

TECHNIQUE 2: PAIRED SALE ANALYSIS

WIND FARM 1: PILOT HILL WIND FARM, KANKAKEE AND IROQUOIS COUNTIES, ILLINOIS

Coordinates: Latitude 40.999169, Longitude -88.05625

PINs: Multiple

Owner of Record: EDF Renewable Asset Holdings, Inc.

Date Project Announced: Unknown

Date Project Completed: August 2015

Project Area: Approximately 15,000 acres

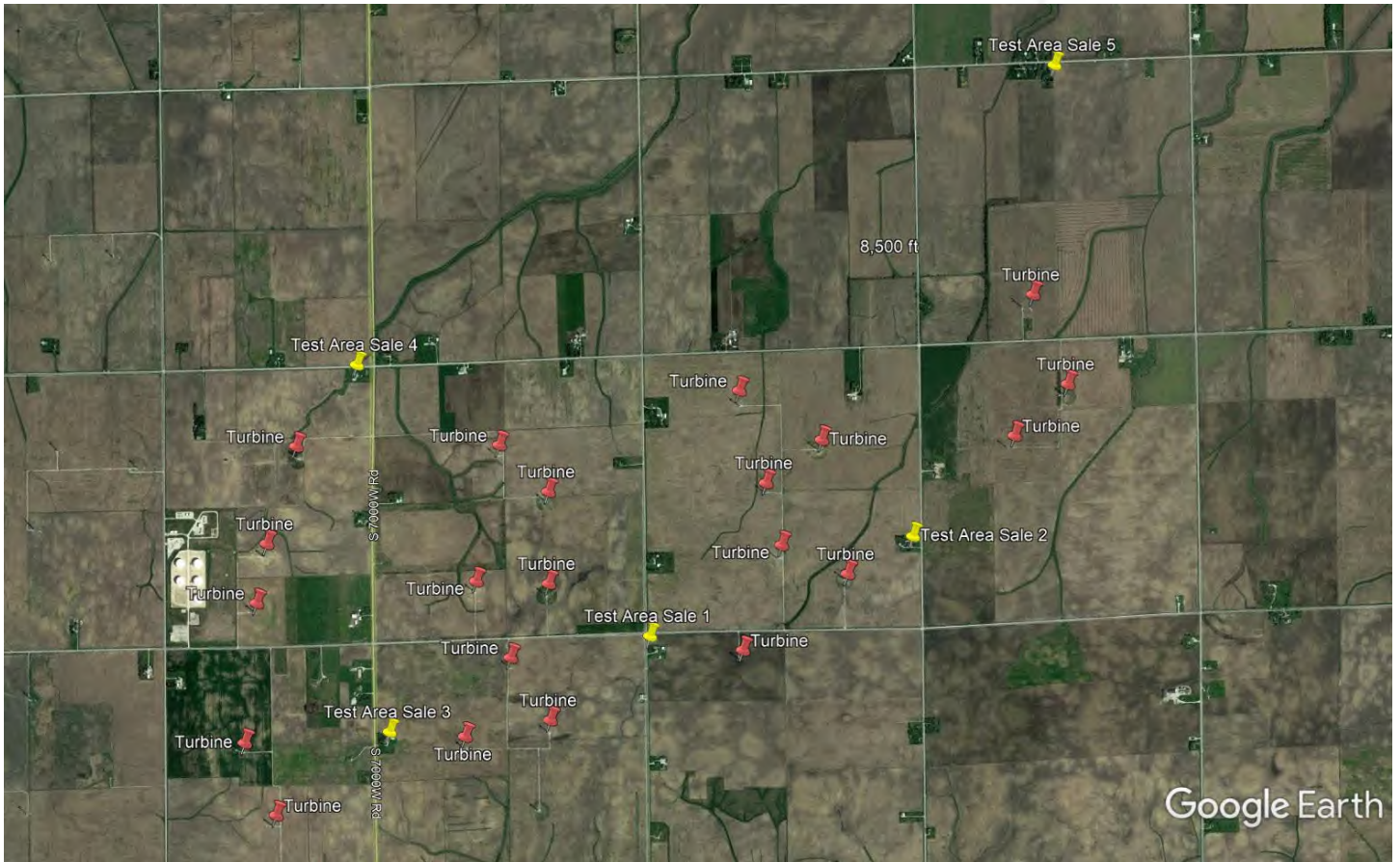
Output: 175 MW AC

Pilot Hill Wind Farm is a 103-turbine wind farm composed of 1.7 MW wind turbines (for a nameplate capacity of 175.0 megawatts), in southwest Kankakee County and northwest Iroquois County, Illinois. The turbines range from 406 to 426 feet tall from base to tip of the apex. The wind farm is located approximately 10 miles south of the city of Kankakee, which is the county seat, and 60 miles southwest of the city of Chicago. The Project area is predominantly rural and adjacent to the Kelly Creek Wind Farm Project area.

The wind farm began initial operations in August 2015. In November 2015, it was announced that the Pilot Hill project benefits from a 20-year Power Purchase Agreement (PPA) with Microsoft Corporation and will power 100% of the energy needs of Microsoft's data center in Illinois. The facility generates enough electricity to power the equivalent of 60,000 homes, according to US Energy Information Administration.

Altogether we analyzed all single-family residential home sales data from properties that sold from August 2015 to April 2022. We searched for homes in close proximity to a wind turbine, less than one mile. We identified six single-family residential homes that qualified for a paired sales analysis that were in close proximity to a wind turbine.

The aerial image on the following page displays the five Test Area properties in relation to the closest turbines. We have grouped the five test sales into three groups based on date of sale and size of property.



Pilot Hill Wind Farm: Test Area Properties

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Group 1 includes 3 Test Area Sales that have similar sizes, number of bedrooms, lot sizes, and sale dates.

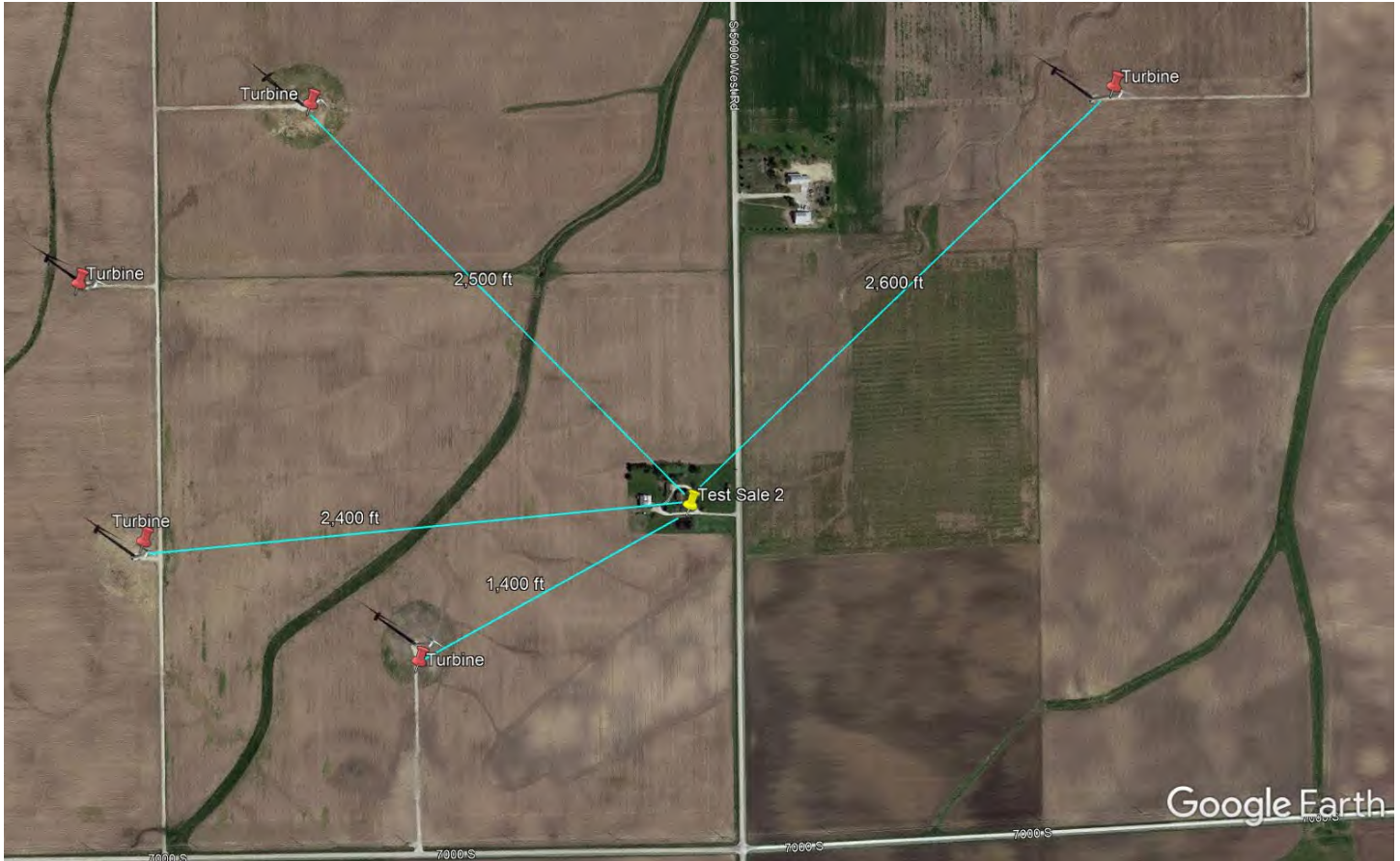
Pilot Hill Wind Farm Group 1										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
1	7077 S 6000 Rd W	Chebalse	3/4/2022	\$185,567	1,776	3	2.0	1974	5.00	\$104.49
2	6716 S 5000 Rd W	Chebalse	5/20/2021	\$223,000	1,675	3	3.5	Before 1978	3.61	\$133.13
3	7365 S 7000 Rd W	Chebalse	10/1/2020	\$260,000	1,900	4	2.0	Before 1978	3.65	\$136.84

In Group 1, Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in March 2022 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 1,800 feet from the nearest turbine, as shown below.



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In Group 1, Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in May 2021 after the completion of the wind farm. The home is adjacent to five wind turbines and is approximately 1,400 feet from the nearest turbine, as shown below.



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single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁴

Test Area Sale 3 sold in October 2017 for \$239,000 and subsequently sold in October 2020 for \$260,000. Comparing the sale in October 2017 to the same property’s sale in October 2020 indicates an increase in value of 8.8%, or 0.24% per month. In comparison, the FHFA HPI for Kankakee County was 0.28% per month for the same time period. Although we were unable to perform a before and after comparison as both sales occurred after the Pilot Hill Wind Farm became operational, the increase in sales price for Test Area Sale 3 was generally similar to the FHFA HPI for Kankakee County, indicating no impact from the wind farm.

The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sales and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Pilot Hill Wind Farm Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sales (3)	Adjoining wind farm	\$133.13
Control Area Sales (7)	No: Not adjoining wind farm	\$132.76
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		0.28%

Pilot Hill Wind Farm - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sales (Range)	1,675 - 1,900	3.6 - 5.0	1900 - 1974	3 - 4 / 2 - 3.5
Control Area Sales (Range)	1,500 - 2,352	2.0 - 5.17	1940 - 1978	3 - 4 / 2 - 4

The study indicates no significant price differential, with the Test Area Sales in Group 1 having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. The Test Area Sale indicates a relatively nominal price differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Pilot Hill Wind Farm.

¹⁴ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Pilot Hill Wind Farm Group 2										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
4	7074 W 6000 Rd S	Herscher	5/24/2021	\$315,000	1,800	3	2.5	1995	2.90	\$175.00

In Group 2, Test Area Sale 4, a single-family home was considered for a paired sales analysis, and sold in May 2021 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 1,900 feet from the nearest turbine, as shown below.



Throughout our analysis we have relied on square footage data from the county assessor’s office for home sizes. Due to the rural nature of the area, all of the Test Area Sales as well as all of the Control Area Sales are 1-2 story single-family homes with accessory buildings (detached garages, sheds). We searched for Control Area sales for Group 2 with the following parameters: building area of 1,300 to 2,300 square feet above ground, 3 bedrooms, located more than 3 miles from a turbine in Kankakee County, lot size of 1-6 acres, year built of 1980 or later, sold between 11/24/2019 and 4/28/2022 (present). Test Area Sale 4 was not included in Group 1

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primarily due to its newer construction date and superior condition. We excluded sales that were bank-owned, those between related parties, or otherwise under duress as non-arm's length transactions.

We analyzed 10 Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Kankakee and Iroquois Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Kankakee County and surrounding areas in Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁵

The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Pilot Hill Wind Farm Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$175.00
Control Area Sales (10)	No: Not adjoining wind farm	\$173.98
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		0.59%

¹⁵ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Pilot Hill Wind Farm - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,800	2.9	1995	3 / 2.5
Control Area Sales (Range)	1,300 - 2,200	2.2 - 5.5	1985 - 2002	3 / 1.5 - 2.5

The study indicates no significant price differential, with the Test Area Sale in Group 2 having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. The Test Area Sale indicates a relatively nominal price differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Pilot Hill Wind Farm.

Pilot Hill Wind Farm Group 3										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
5	4508 W 5000 Rd S	Kankakee	7/14/2021	\$159,900	1,239	3	1.0	1959	1.00	\$129.06

In Group 3, Test Area Sale 5, a single-family home was considered for a paired sales analysis, and sold in July 2021, after the completion of the wind farm. The home is approximately 4,500 feet from the nearest turbine, and 6,000 feet from another wind turbine.



Throughout our analysis we have relied on square footage data from the county assessor’s office for home sizes. Due to the rural nature of the area, all of the Test Area Sales as well as all of the Control Area Sales are 1-2 story single-family homes with accessory buildings (detached garages, sheds). We searched for Control Area sales for Group 3 with the following parameters: building area of 750 to 1,750 square feet above ground, 3 bedrooms, located more than 3 miles from a turbine in Kankakee County, lot size of 1-5 acres, sold between 2/17/2020 and 4/28/2022 (present). Test Area Sale 5 was not included in Groups 1 or 2 primarily due to its

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smaller size. We excluded sales that were bank-owned, those between related parties, or otherwise under duress as non-arm's length transactions.

We analyzed seven Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 1 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Kankakee and Iroquois Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Kankakee County and surrounding areas in Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁶

The result of our analysis for Group 3 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Pilot Hill Wind Farm Group 3		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$129.06
Control Area Sales (7)	No: Not adjoining wind farm	\$120.73
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		6.90%

Pilot Hill Wind Farm - Group 3				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,239	1.0	1959	3 / 1
Control Area Sales (Range)	1,108 - 1,700	1.7 - 3.7	1900 - 1975	3 / 1 - 2

¹⁶ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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The study indicates a favorable price differential, with the Test Area Sale having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. The difference is likely due to the control sales having a lower price point of this group of test and control area data, thus, relatively speaking, small price considerations (e.g. - lot size or number of bathrooms) would have a correlatively larger percentage differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Pilot Hill Wind Farm.

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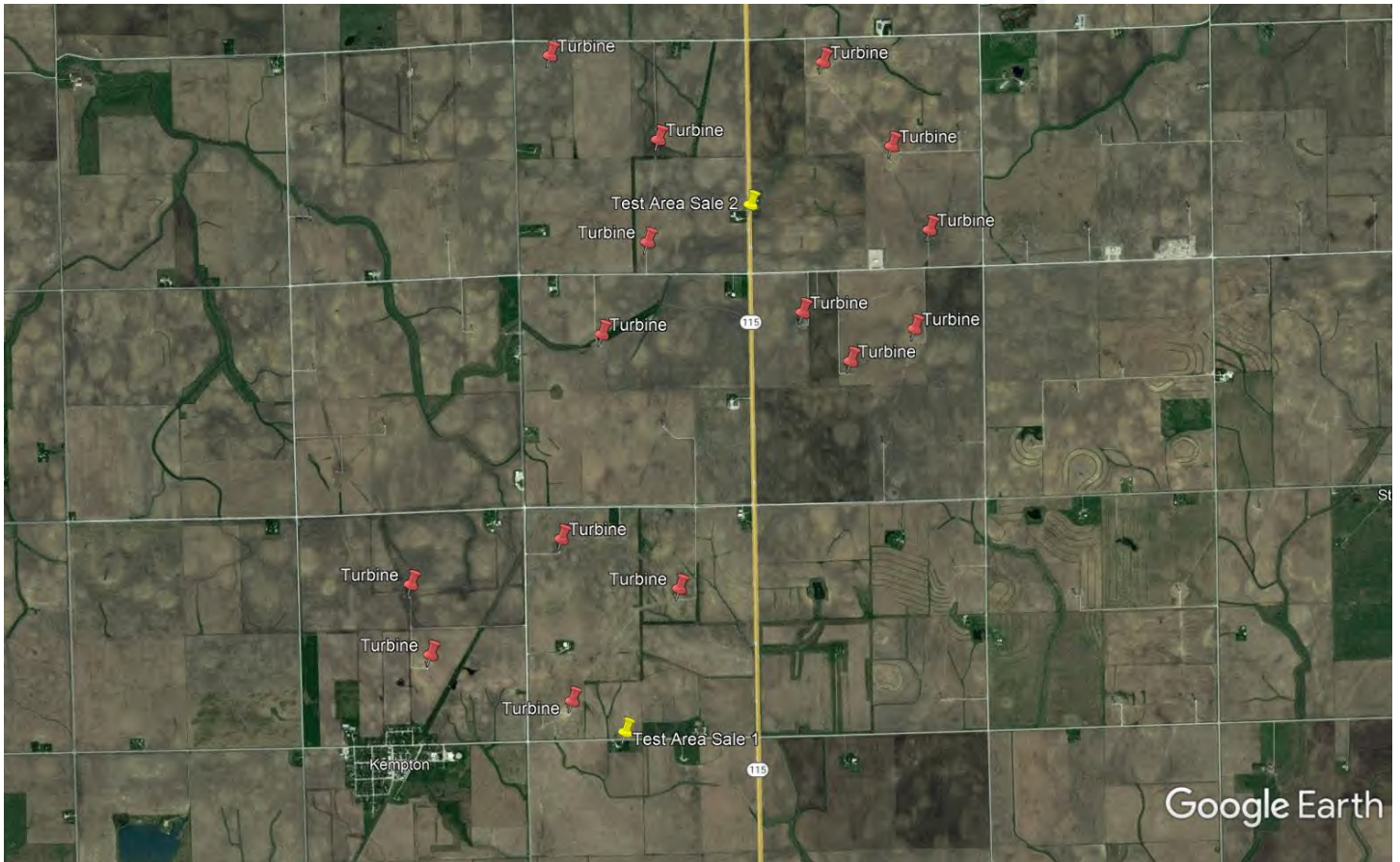
WIND FARM 2: KELLY CREEK WIND PROJECT, FORD AND KANKAKEE COUNTIES, ILLINOIS**Coordinates:** Latitude 40.967500, Longitude -88.197500**PINs:** Multiple**Owner of Record:** EDF Renewable Asset Holdings, Inc.**Date Project Announced:** Unknown**Date Project Completed:** December 2016**Project Area:** Approximately 20,000 acres**Output:** 184 MW AC

Kelly Creek Wind Project is a 92-turbine wind farm composed of 2.0 MW wind turbines (for a nameplate capacity of 184.0 megawatts), in southwest Kankakee County and north Ford County, Illinois. The turbines are 453 feet tall from base to tip of the apex. The wind farm is located approximately 15 miles southwest of the city of Kankakee, which is the county seat, and 65 miles southwest of the city of Chicago. The Project area is predominantly rural and adjacent to the Pilot Hill Wind Farm Project area.

The wind farm began initial operations in December 2016. The facility generates enough electricity to power the equivalent of 58,000 average Illinois homes, according to US Energy Information Administration.

Altogether we analyzed all single-family residential home sales data from properties that sold from December 2016 to April 2022. We searched for homes in close proximity to a wind turbine, less than one mile. We identified two single-family residential homes that qualified for a paired sales analysis that were in close proximity to a wind turbine.

The aerial image on the following page displays the two Test Area properties in relation to the closest turbines. We have grouped the two test sales into two groups based on date of sale and size of property.



Kelly Creek Wind Project: Test Area Properties

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Kelly Creek Wind Project										
Group 1										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
1	1341 E 3700N Rd	Kempton	4/15/2019	\$178,000	2,051	4	2.0	1930	5.00	\$86.79

In Group 1, Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in April 2019, after the completion of the wind farm. The home is approximately 1,400 feet from the nearest turbine, and 3,500 feet from another wind turbine.



Throughout our analysis we have relied on square footage data from the county assessor’s office for home sizes. Due to the rural nature of the area, all of the Test Area Sales as well as all of the Control Area Sales are 1-2 story single-family homes with accessory buildings (detached garages, sheds). We searched for Control Area sales for Group 1 with the following parameters: building area of 1,500 to 2,500 square feet above ground, 3-4 bedrooms, located more than 3 miles from a turbine in Ford County, lot size of 2-10 acres, built before 1980, sold between 10/14/2017 and 10/14/2020. Test Area Sales 1 and 2 are in differing groups primarily due to year

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built/condition. We excluded sales that were bank-owned, those between related parties, or otherwise under duress as non-arm's length transactions.

We analyzed six Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 1 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Kankakee and Ford Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Ford County and surrounding areas in Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁷

The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Kelly Creek Wind Project Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$86.79
Control Area Sales (6)	No: Not adjoining wind farm	\$86.99
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		-0.24%

¹⁷ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Kelly Creek Wind Project - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	2,051	5.0	1930	4 / 2
Control Area Sales (Range)	1,598 - 2,223	2.0 - 10.0	1880 - 1955	3 - 4 / 1.5 - 2

The study indicates no significant negative price differential between the Test Area Sale and the median adjusted unit sale price of the Control Area Sales. Test Area Sale 1 in Group 1 indicates a relatively nominal price differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Kelly Creek Wind Project.

Kelly Creek Wind Project										
Group 2										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
2	3925 N St Rte 115	Cabery	2/28/2019	\$180,000	1,460	4	2.0	1986	2.00	\$123.29

In Group 2, Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in January 2019, after the completion of the wind farm. The home is approximately 2,200 feet from the nearest turbine, and within 3,500 feet of wind turbines on all sides.



Throughout our analysis we have relied on square footage data from the county assessor’s office for home sizes. Due to the rural nature of the area, all of the Test Area Sales as well as all of the Control Area Sales are 1-2 story single-family homes with accessory buildings (detached garages, sheds). We searched for Control Area sales for Group 2 with the following parameters: building area of 1,000 to 2,700 square feet above ground, 3-4 bedrooms, located more than 3 miles from a turbine in Ford County, lot size of 5 acres and below, built after 1970, sold between 7/25/2017 and 7/25/2020. Test Area Sales 1 and 2 are in differing groups primarily due to

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year built/condition. We excluded sales that were bank-owned, those between related parties, or otherwise under duress as non-arm's length transactions.

We analyzed four Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Kankakee and Ford Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Ford County and surrounding areas in Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁸

The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Kelly Creek Wind Project Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$123.29
Control Area Sales (4)	No: Not adjoining wind farm	\$118.15
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		4.35%

¹⁸ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Kelly Creek Wind Project - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,460	2.0	1983	4 / 2.0
Control Area Sales (Range)	1,344 - 2,687	2.0 - 5.0	1978 - 2005	3 -4 / 2 - 3.5

The study indicates a favorable price differential, with the Test Area Sale having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Kelly Creek Wind Project.

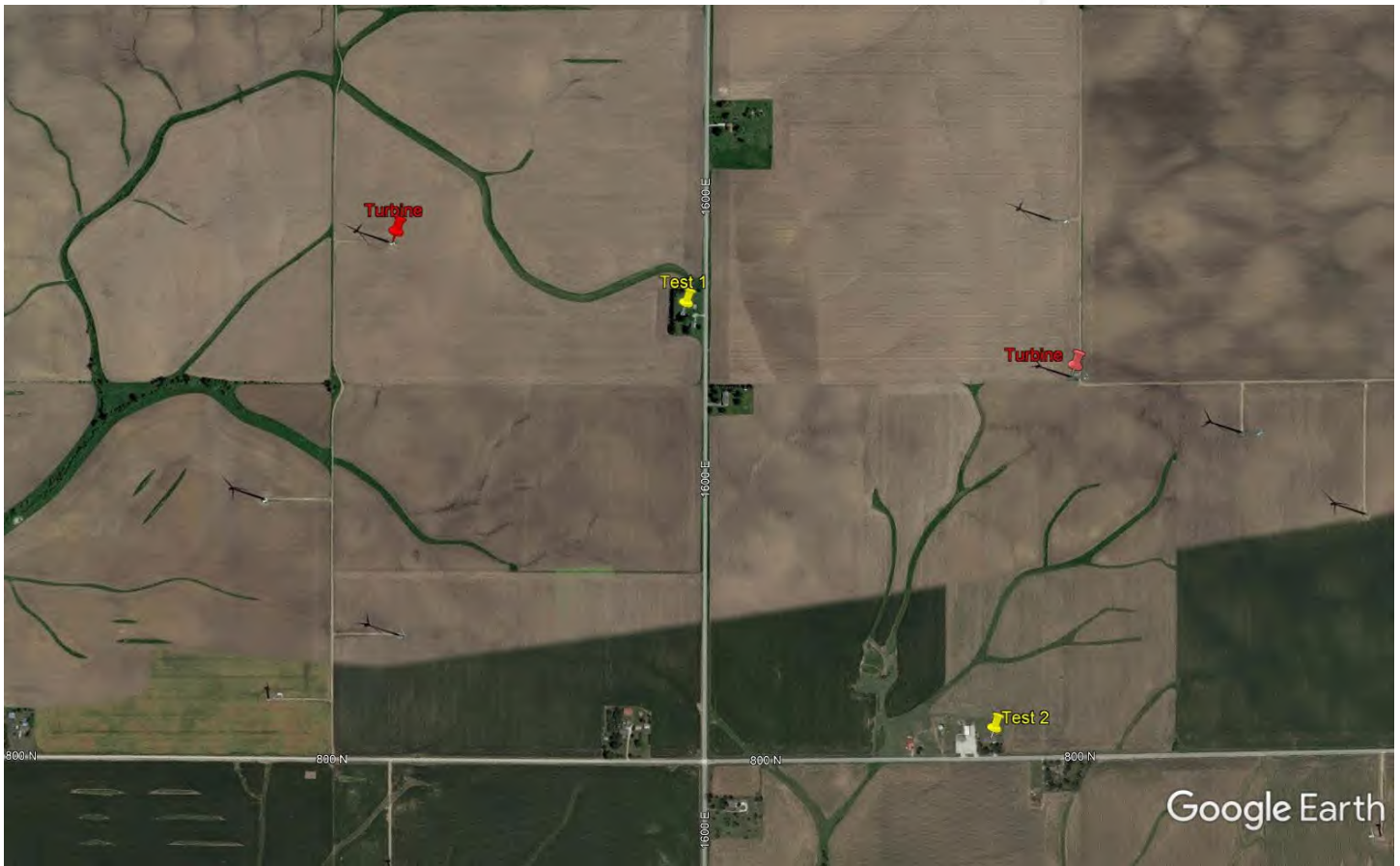
WIND FARM 3: CAMP GROVE WIND FARM, STARK AND MARSHALL COUNTIES, ILLINOIS**Coordinates:** Latitude 41.09058, Longitude -89.63981**PINs:** Multiple**Owner of Record:** Orion Energy Group, LLC**Date Project Announced:** 2005**Date Project Completed:** December 2007**Project Area:** Approximately 14,000 acres**Output:** 150 MW AC

The Camp Grove Wind Farm is a 100-turbine wind farm composed of 1.5MW wind turbines (for a nameplate capacity of 150 megawatts), in Marshall County and Stark County, approximately 25 miles north of the city of Peoria. Sixty of the turbines are located in Marshall County, and 40 in Stark County, adjacent to the west. The nearest village is Camp Grove, Marshall County, for which the wind farm is named.

The wind farm began operations in November 2007. Approximately half of the power generated by Camp Grove is sold pursuant to a 20-year contract to American Electric Power, a multi-state electrical generation holding company.

Altogether we analyzed all sales data from properties that sold from January 2008 to March 2020, after completion of the wind farm, in both Stark and Marshall Counties. We analyzed single-family residential homes in the three townships that contain the wind turbines, Penn Township in Stark County and La Prairie and Saratoga Townships in Marshall County, as well as the eight surrounding townships that do not contain wind turbines. We searched for homes in close proximity to a wind turbine. We identified two single-family residential homes in Stark County that qualified for a paired sales analysis that were in close proximity to a wind turbine. While there are homes in close proximity to wind turbines that sold in Marshall County since the wind farm was completed, there was insufficient comparable data to perform a paired sale analysis.

The aerial image on the following page displays the two Test Area properties in relation to the closest turbines.



Camp Grove Wind Farm: Test Area Properties

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Camp Grove Wind Farm Group 1										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
1	8585 TWP Rd 1600E	Wyoming	01/01/2015	\$60,000	1,208	3	1.0	1957	1.71	\$49.67

Test Area Sale 1, in Group 1, a single-family home, was considered for a paired sales analysis, and sold in 2015, after the completion of the wind farm. The home is approximately 2,100 feet from the nearest turbine.



We analyzed six Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Property and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Stark County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Stark County, Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or re-financings on the

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same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.¹⁹

The result of our analysis is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis - Camp Grove Wind Farm Group 1		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$49.67
Control Area Sales (6)	No: Not adjoining wind farm	\$49.04
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.28%

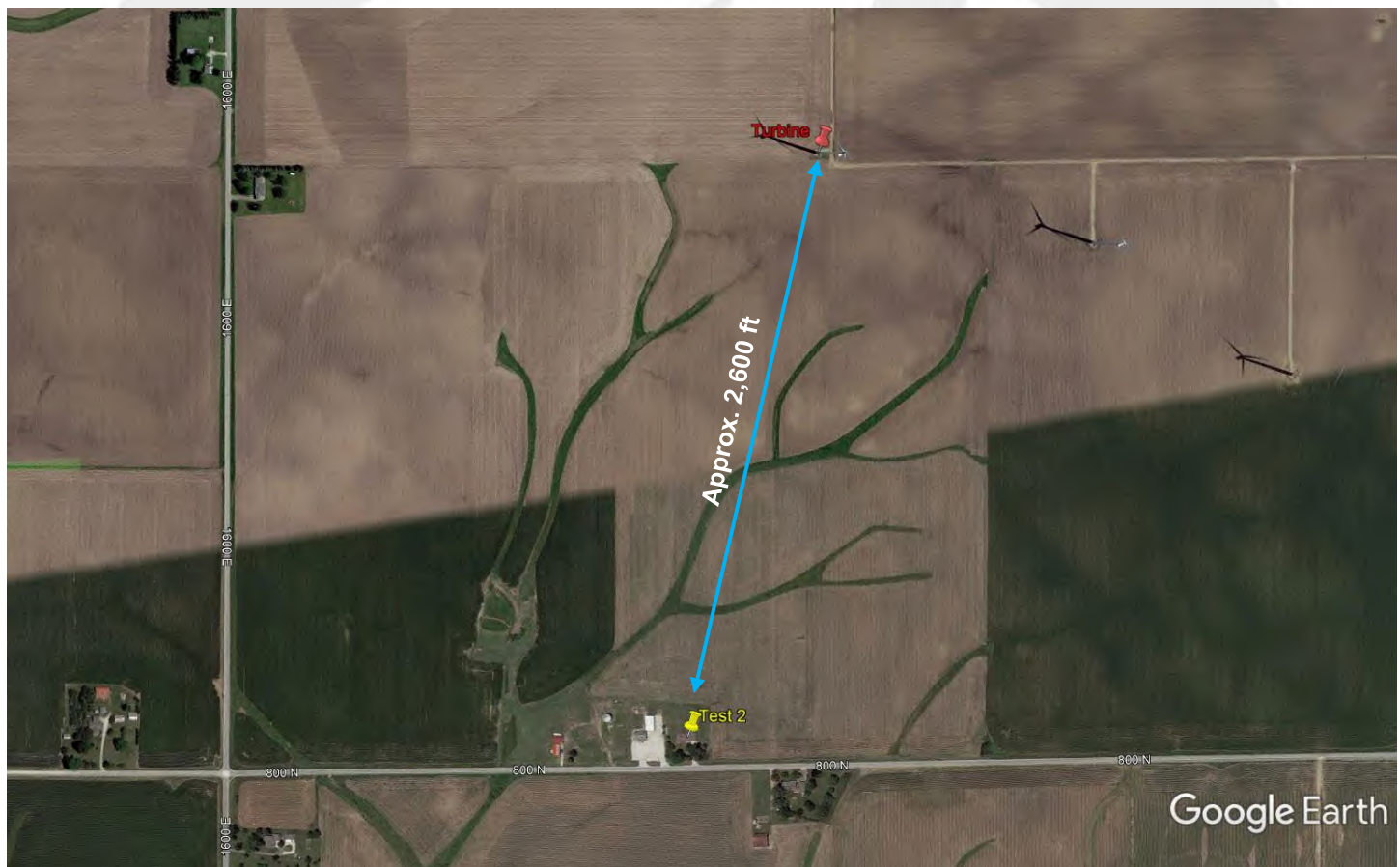
Camp Grove Wind Farm - Group 1				
	Home Size (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,208	1.7	1957	3 / 1
Control Area Sales (Range)	1,104 - 1,300	0.18 - 0.58	1954 - 1962	3 / 1-1.5

¹⁹ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Camp Grove Wind Farm Group 2										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
2	16387 TWP Rd 1600E	Wyoming	11/01/2013	\$139,500	1,672	4	1.5	1964	1.71	\$83.43

Test Area Property 2, in Group 2, a single-family home, was considered for a paired sales analysis, and sold in 2013, after the completion of the wind farm. The home is approximately 2,600 feet from the nearest turbine, as shown below.



We analyzed seven Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Property and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Stark County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis - Camp Grove Wind Farm Group 2		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$83.43
Control Area Sales (7)	No: Not adjoining wind farm	\$79.71
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		4.67%

Camp Grove Wind Farm - Group 2				
	Home Size (SF)	Land Size (AC)	Year Built	Beds/Baths
Test Area Sale	1,624	0.5	1977	3 / 2
Control Area Sales (Range)	1,448 - 1,730	0.35 - 2.85	1960 - 1999	3-4 / 1.5-2.5

Noting only a nominal price differential, with the Test Area Sales having very slightly different unit sale price than the median adjusted unit sale price of the Control Area Sales, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Camp Grove Wind Farm study.

WIND FARM 4: LEE-DEKALB WIND ENERGY CENTER IN DEKALB AND LEE COUNTIES, ILLINOIS**Coordinates:** Latitude 41.7108°, Longitude -89.0414°**PINs:** Multiple**Owner of Record:** FPL Energy Illinois Wind, LLC**Date Project Announced:** 2009**Date Project Completed:** December 2009**Project Area:** Approximately 22,000 acres**Output:** 217.5 MW AC

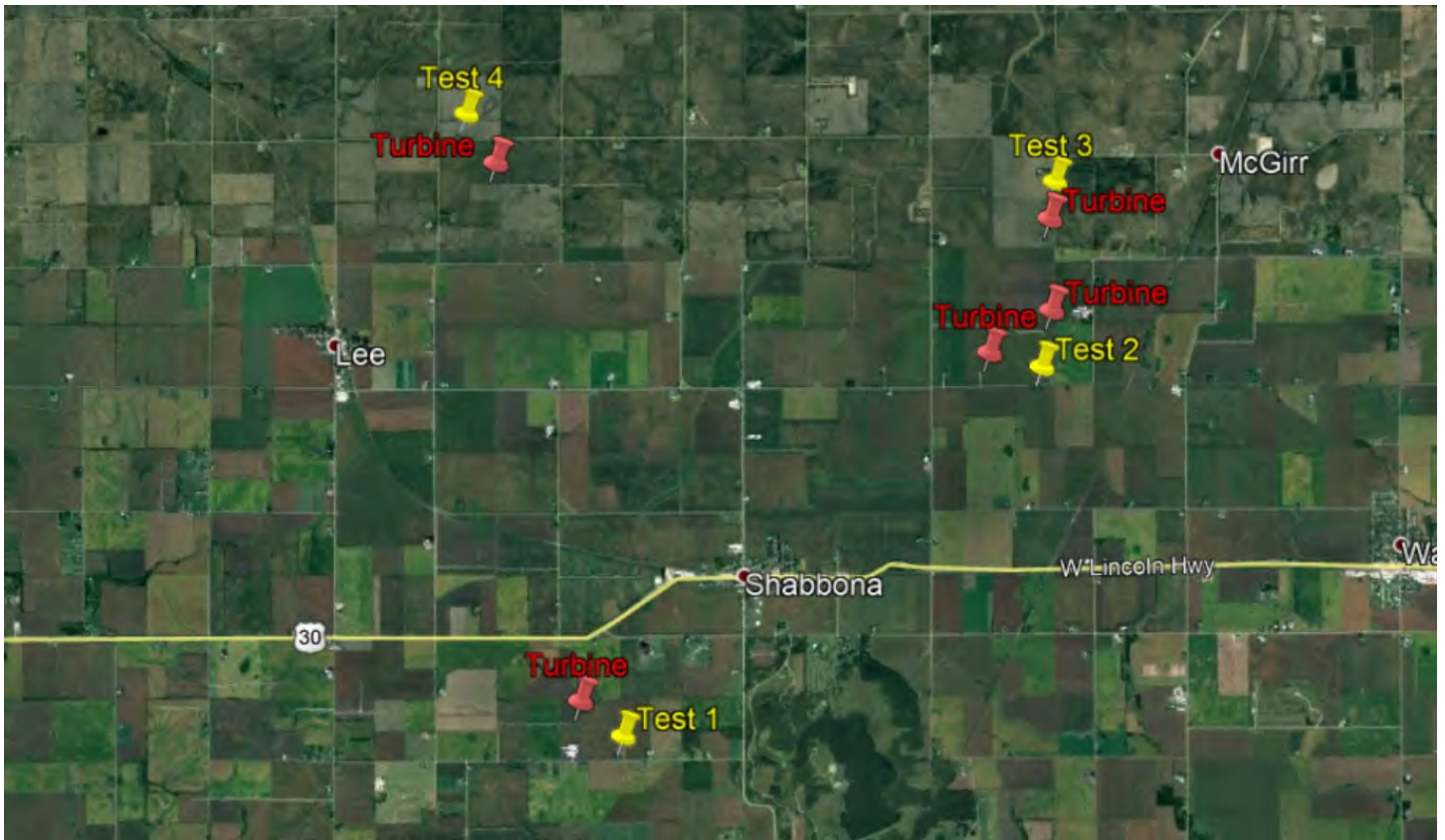
The wind farm known as the Lee-DeKalb Wind Energy Center is a 145-turbine wind farm composed of 1.5MW wind turbines (for a nameplate capacity of 217.5 megawatts), in DeKalb County and Lee County, approximately 15 miles southwest of the city of DeKalb. The majority of the turbines are located in DeKalb County (134), and 11 are in Lee County, adjacent to the west. The nearest villages are Shabbona and Lee, in DeKalb County.

The wind farm began operations in December 2009 and the energy generated can power approximately 54,000 homes each year.

Altogether we analyzed all sales data from properties that sold from January 2010 to March 2020, after completion of the wind farm, in both DeKalb and Lee Counties. We analyzed single-family residential homes in the four townships that contain the wind turbines, Afton, Clinton, Milan and Shabbona Townships in DeKalb County and Willow Creek Township in Lee County, as well as the ten surrounding townships that do not contain wind turbines. We searched for homes in close proximity to a wind turbine. We identified four single-family residential homes in DeKalb County that qualified for a paired sales analysis that were in close proximity to a wind turbine.

While there were additional homes near wind turbines that sold in both DeKalb and Lee Counties (potential test area properties), we could not identify Control Area homes sales that sold that had similar ages, conditions and designs within the same or surrounding townships as the Test Area Sales, in order to complete additional paired sales analyses.

The aerial image on the following page displays the four Test Area properties in relation to the closest turbines.



Lee-DeKalb Wind Energy Center: Test Area Properties

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Lee-Debalk Wind Energy Center Group 1										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
1	2437 Houghtby Rd	Shabbona	11/8/2013	\$168,000	1,650	3	2.0	UNK	2.34	\$101.82
2	5830 Lee Rd	Shabbona	6/27/2014	\$164,900	1,700	3	2.0	UNK	2.00	\$97.00

In Group 1, Test Area Sale 1, a single-family home, was considered for a paired sales analysis, and sold in 2013, after the completion of the wind farm. The home is approximately 2,315 feet from the nearest turbine, as shown below.



In Group 1, Test Area Sale 2, a single-family home, was considered for a paired sales analysis, and sold in 2014, after the completion of the wind farm. The home is adjacent to several wind turbines (four) and is approximately 2,250 feet from the nearest turbine, as shown below. Test Area Sale 2 sold again in October 2019, and we analyzed both sales using two separate Control Area Sale groups (in Group 1 and Group 4).

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We analyzed five Control Area properties that sold within a reasonable time frame from the sale dates of Test Area Sale 1 and 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in DeKalb County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for DeKalb County and surrounding areas in Illinois for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.²⁰

The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sales and range of characteristics of the Control Area Sales.

²⁰ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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CohnReznick Paired Sale Analysis Lee-DeKalb Wind Energy Center Group 1		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sales (2)	Adjoining wind farm	\$99.41
Control Area Sales (5)	No: Not adjoining wind farm	\$97.68
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.77%

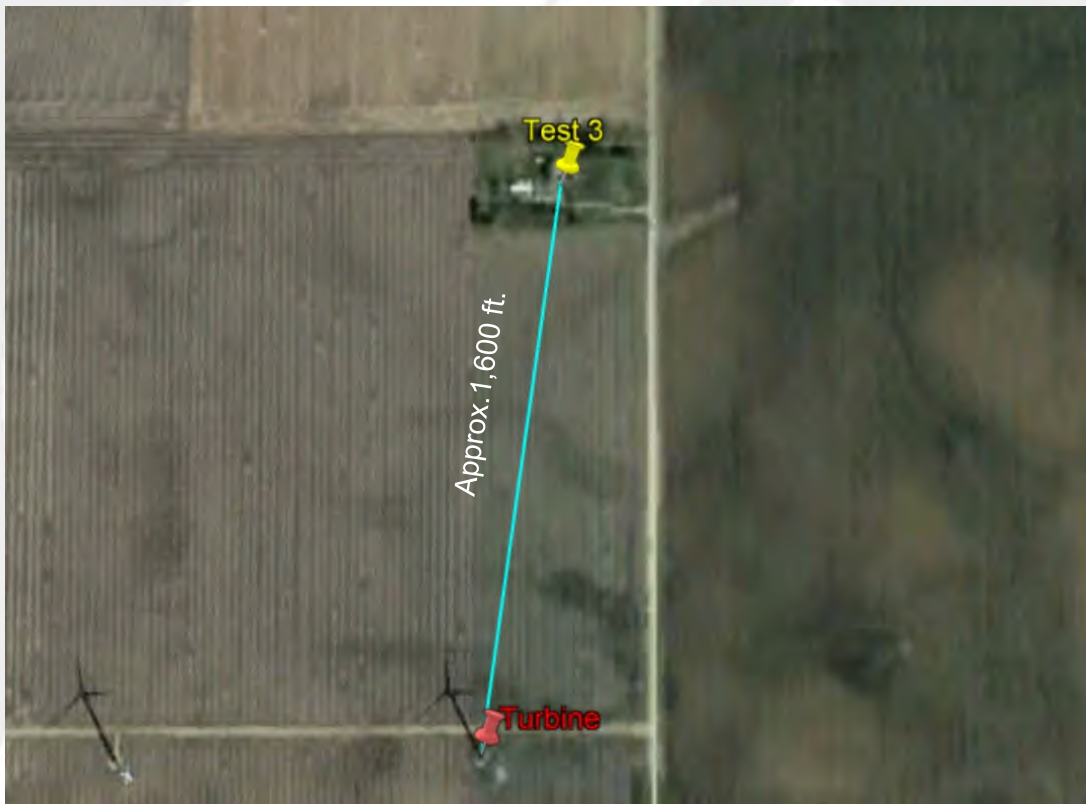
Lee-DeKalb Wind Energy Center - Group 1				
	Home Size (SF)	Land Size (AC)	Use	Beds / Baths
Test Area Sales	1,650 - 1,700	2.0 - 2.34	Farm House: Part one- and part two-stories	3 / 2
Control Area Sales (Range)	1,500 - 2,069	1.25 - 5	Farm House: Part one- and part two-stories	3-4 / 2- 3

Subsequent to the end date of our research data in March 2020, Test Area Sale 1 sold again on March 31, 2020 for \$71,900 more than the sale in 2013 that we studied. The kitchen and baths of the home had been recently renovated, according to brokers, and the average annual appreciation in price over the 17 year period was 6.7 percent, which is in line with, or greater than, the surrounding appreciation rates for DeKalb County per the FHFA HPI data.

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Lee-Debalk Wind Energy Center Group 2										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
3	5440 Miller Rd	Shabbona	5/26/2015	\$205,000	2,100	5	1.5	1907	3.00	\$97.62

In Group 2, Test Area Sale 3, a single-family home, was considered for a paired sales analysis, and sold in 2015, after the completion of the wind farm. The home is approximately 1,600 feet from the nearest turbine, as shown below.



We analyzed five Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Property 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in DeKalb County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Lee-DeKalb Wind Energy Center Group 2		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$97.62
Control Area Sales (5)	No: Not adjoining wind farm	\$95.65
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		2.06%

Lee-DeKalb Wind Energy Center - Group 2				
	Home Size (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	2,100	3.0	1907	5 / 1.5
Control Area Sales (Range)	1,900 - 2,214	3.0 - 5	1905 - 1920	3 / 2 - 6 / 2

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Lee-Debalk Wind Energy Center Group 3										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
4	1117 McGirr Rd	Lee	11/19/2018	\$198,000	2,688	5	2.0	1935	3.12	\$73.66

In Group 3, Test Area Sale 4, a single-family home, was considered for a paired sales analysis, and sold in 2018, after the completion of the wind farm. The home is approximately 2,425 feet from the nearest turbine, as shown below.



We analyzed six Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Property 4 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in DeKalb County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis for Group 3 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Lee-DeKalb Wind Energy Center Group 3		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$73.66
Control Area Sales (6)	No: Not adjoining wind farm	\$72.32
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.85%

Lee-DeKalb Wind Energy Center - Group 3				
	Home Size (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	2,688	3.1	1935	5 / 2
Control Area Sales (Range)	2,200 - 3,000	2.0 - 5	1880 - 1992	4-6 / 1.5-3

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Lee-Debalk Wind Energy Center Group 4										
Test Area Sale #	Address	Township	Sale Date	Sale Price	Above Grade SF	Beds	Baths	Year Built	Median Site Size (Acres)	Price/SF
5	5830 Lee Rd	Shabbona	10/7/2019	\$212,000	1,700	3	2.0	UNK	2.00	\$124.71

In Group 4, Test Area Sale 5, a single-family home, was considered a second time for a paired sales analysis since it sold again in 2019, after the completion of the wind farm. The home is approximately 2,250 feet from the nearest turbine, as shown below.



We analyzed six Control Area properties that sold within a reasonable time frame from the second sale date of the Test Area Property 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in DeKalb and Lee Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis for Group 4 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Lee-DeKalb Wind Energy Center Group 4		
	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$124.71
Control Area Sales (6)	No: Not adjoining wind farm	\$124.29
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		-0.34%

Lee-DeKalb Wind Energy Center - Group 4				
	Home Size (SF)	Land Size (AC)	Year Built	Beds/Baths
Test Area Sale	1,700	2.0	Over 50 Years Old	3 / 2
Control Area Sales (Range)	1,433 - 2,050	2.0 - 5.74	1881 - 1996	3-5 / 1-2.5

The Group 4 re-sale of the home known as Test 2 in October 2019 was for \$47,100 more than the sale in 2014 that we studied. The average annual appreciation in price over the 5 year period was 5.8 percent, which is in line with, or greater than, the surrounding appreciation rates for DeKalb County, per the FHFA HPI data.

Noting a relatively nominal price differential, with the Test Area Sales having a very slightly different unit sale price than the median adjusted unit sale price of the Control Area Sales, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Lee-DeKalb Wind Energy Center.

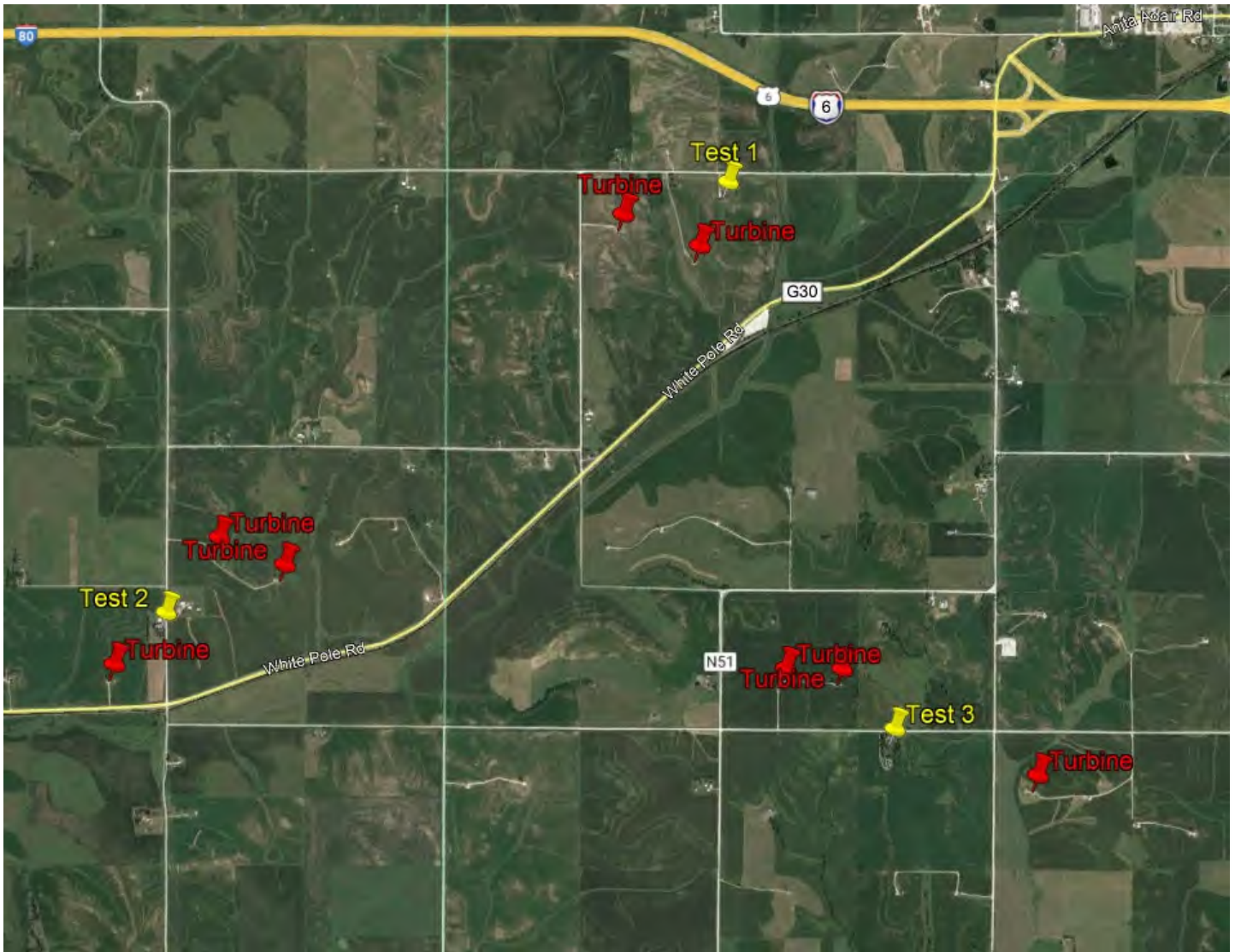
WIND FARM 5: ADAIR WIND FARM, ADAIR AND CASS COUNTIES, IOWA**Coordinates:** Latitude 41.4553°, Longitude -94.6486°**PINs:** Multiple**Owner of Record:** MidAmerican Energy**Date Project Announced:** Unknown**Date Project Completed:** December 2008**Project Area:** Approximately 16,000 acres**Output:** 174.8 MW AC

The wind farm known as Adair Wind Farm is a 76-turbine wind farm composed of 2.3MW wind turbines (for a nameplate capacity of 174.8 megawatts), in Adair County and Cass County, approximately 50 miles west of the city of Des Moines, Iowa. The majority of the turbines are located in Adair County (64 turbines), and 12 are in Cass County, adjacent to the west. The nearest villages are Adair and Anita, in Adair County and Cass County, respectively. Operated by MidAmerican Energy, the wind farm began operations in December 2008.

Altogether we analyzed all sales data from properties that sold from January 2009 to March 2021, after completion of the wind farm, in Adair and Cass Counties as well as Audubon and Guthrie Counties to the north. We analyzed single-family residential homes in these four counties in close proximity to a wind turbine. We identified three single-family residential homes in these counties that qualified for a paired sales analysis that were in close proximity to a wind turbine.

While there were additional homes near wind turbines that sold in both Adair and Cass Counties (potential Test Area Sales), we could not identify Control Area homes sales that sold that had similar ages, conditions and designs within the same or surrounding townships as the Test Area Sales, in order to complete additional paired sales analyses.

The aerial image on the following page displays the three Test Area properties in relation to the closest turbines.



Adair Wind Farm: Test Area Properties

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Adair Wind Farm Group 1										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
1	1102 110th St, Adair	\$145,000	2	1.0	1953	1,068	Single Family	2.18	\$135.77	Aug-19

In Group 1, Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in August 2019, after the completion of the wind farm. The home is approximately 1,300 feet from the nearest turbine, with another turbine 2,035 feet away, as shown below.



We analyzed ten Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 1 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Adair and Cass Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Adair County and surrounding areas in Iowa for the average monthly rate of appreciation in the

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market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.²¹

The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sales Analysis Adair - Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$135.77
Control Area Sales (10)	No: Not adjoining wind farm	\$134.18
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.19%

Adair - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,068	\$2.18	1953	2 / 1
Control Area Sales (Range)	1,008 - 1,680	1.35 - 5.47	1925 - 1988	2 / 1 - 4 / 3

²¹ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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Adair Wind Farm Group 2										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
2	52635 770th St, Anita	\$297,500	2	1.0	1903	1,760	Farm	22.32	\$169.03	Oct-20

In Group 2, Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in October 2020, after the completion of the wind farm. The home is approximately 1,375 feet from the nearest turbine, with two additional turbines to the north, as shown below.



We analyzed seven Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Sale 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Adair and Cass Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the

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appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales. For this Grouping, the Test sale home was developed on a much larger land site of 22.32 Acres; while we have identified the best comparable data available in the Test Sales market – data which brackets the subject with regards to site size, home size and construction age – the relative differential appears large likely due to differences in usable farmland and accessory buildings. We have elected to keep this group within the study, noting its relative differential, and have considered that the Test Sale’s proximity does not appear to have influenced its sale price negatively.

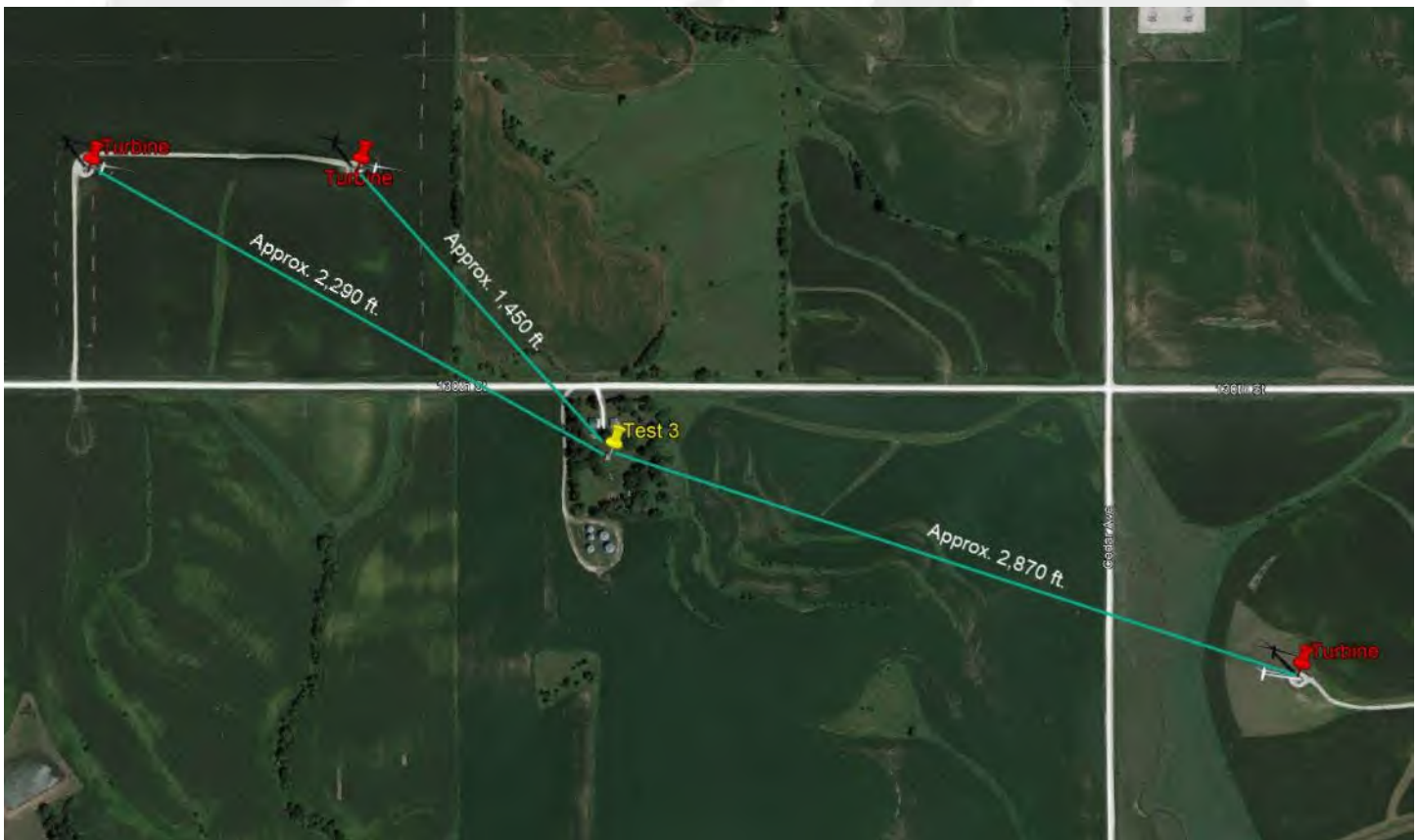
CohnReznick Paired Sales Analysis Adair - Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$169.03
Control Area Sales (7)	No: Not adjoining wind farm	\$145.27
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		16.36%

Adair - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,760	22.32	1903	2 / 1
Control Area Sales (Range)	1,455 - 2,206	13.55 - 25.46	1900 - 1980	3 / 1 - 3 / 2.5

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Adair Wind Farm Group 3										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
3	1162 130th St, Adair	\$140,000	2	1.0	1925	1,471	Single Family	4.49	\$95.17	Aug-20

In Group 3, Test Area Sale 3, a single-family home, was considered for a paired sales analysis, and sold in August 2020, after the completion of the wind farm. The home is approximately 1,450 feet from the nearest turbine, with two additional turbines to the west and east, as shown below.



We analyzed twelve Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 3 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Adair and Cass Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis for Group 3 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sales Analysis Adair - Group 3		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$95.17
Control Area Sales (12)	No: Not adjoining wind farm	\$96.07
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		-0.93%

Adair - Group 3				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,471	4.49	1925	2 / 1
Control Area Sales (Range)	1,260 - 2,345	2.11 - 7.57	1880 - 1925	3 / 1 - 5 / 2

The study indicates no significant negative price differential, with the Test Area Sales in Groups 1 and 2 having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. Test Area Sale 3 in Group 3 indicates a relatively nominal price differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Adair Wind Farm.

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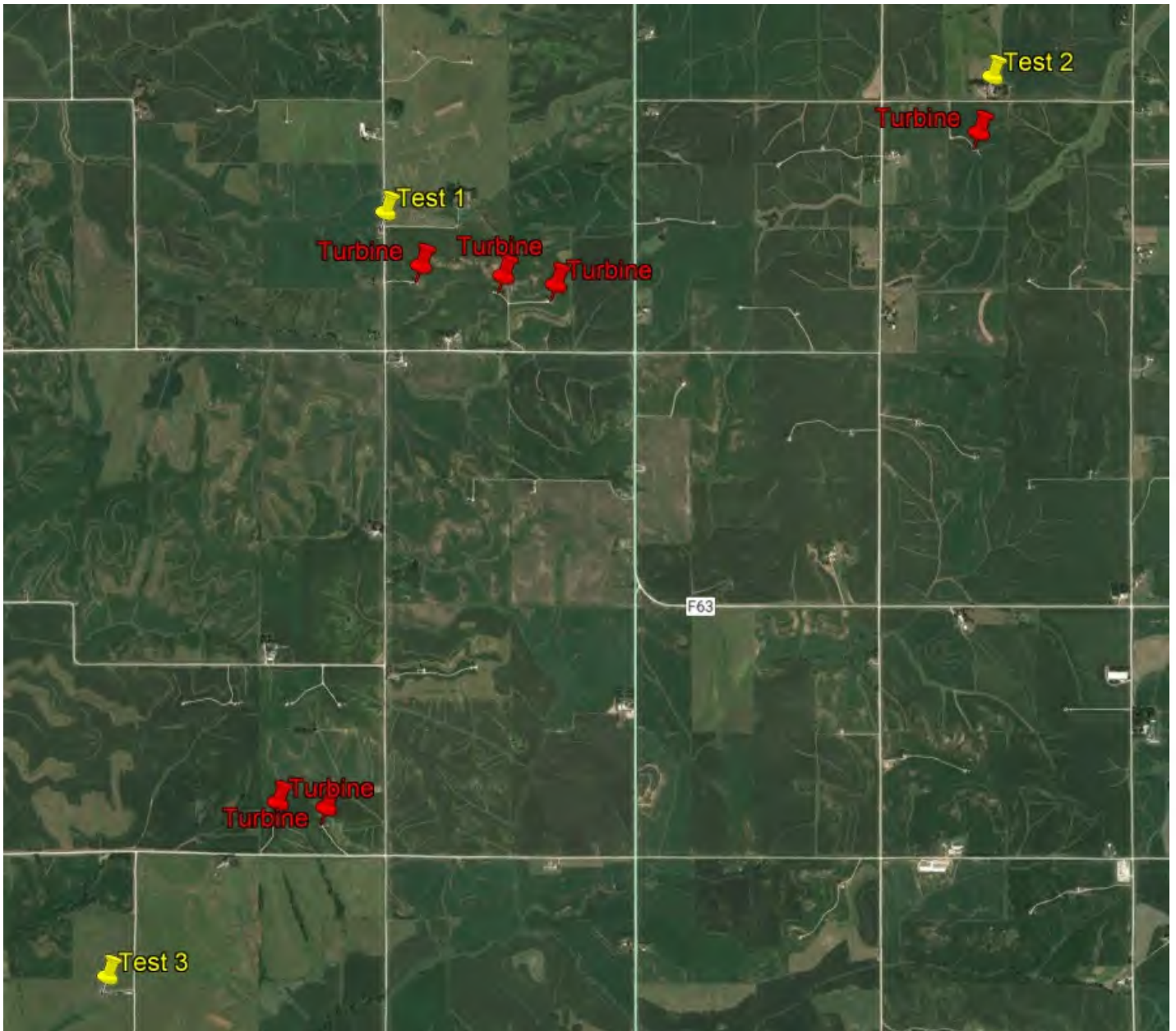
WIND FARM 6: ECLIPSE WIND FARM, AUDUBON AND GUTHRIE COUNTIES, IOWA**Coordinates:** Latitude 41.5523°, Longitude -94.6755°**PINs:** Multiple**Owner of Record:** MidAmerican Energy**Date Project Announced:** Unknown**Date Project Completed:** September 2012**Project Area:** Approximately 18,000 acres**Output:** 200.1 MW AC

The wind farm known as Eclipse Wind Farm is an 87-turbine wind farm composed of 2.3 MW wind turbines (for a nameplate capacity of 200.1 megawatts), in Audubon County and Guthrie County, approximately 50 miles west of the city of Des Moines, Iowa. The majority of the turbines are located in Guthrie County (63), and 24 are in Audubon County, adjacent to the west. The nearest villages are Adair in Adair County to the south, Anita in Cass County to the south, and Exira in Audubon County to the west. The wind farm began operations in 2012.

Altogether we analyzed all sales data from properties that sold from January 2010 to March 2020, after completion of the wind farm, in Audubon and Guthrie Counties as well as Adair and Cass Counties to the south. We analyzed single-family residential homes in these four counties in close proximity to a wind turbine. We identified three single-family residential homes in these counties that qualified for a paired sales analysis that were in close proximity to a wind turbine.

While there were additional homes near wind turbines that sold in both Audubon and Guthrie Counties (potential test area properties), we could not identify homes that sold that had similar ages, conditions and designs within the same or surrounding townships as the Test Area Sales, in order to complete additional paired sales analyses.

The aerial image on the following page displays the three Test Area properties in relation to the closest turbines.



Eclipse Wind Farm: Test Area Properties

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Eclipse Wind Farm Group 1										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
1	2950 Thrush Ave, Exira	\$196,000	4	1.0	1910	1,780	Farm	14.62	\$110.11	Nov-19
2	1345 290th St., Casey	\$265,000	5	2.0	1920	2,432	Farm	14.00	\$108.96	Jul-20

In Group 1, Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in November 2019, after the completion of the wind farm. The home is approximately 1,335 feet from the nearest turbine, with two additional turbines located to the east, as shown below.



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In Group 1, Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in July 2020, after the completion of the wind farm. The home is approximately 1,185 feet from the nearest turbine, as shown below.



315

We analyzed seven Control Area properties that sold within a reasonable time frame from the sale dates of Test Area Sales 1 and 2 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Audubon and Guthrie Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for Guthrie County and surrounding areas in Iowa for the average monthly rate of appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.²²

²² <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sales Analysis Eclipse - Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sales (2)	Yes: Adjoining wind farm	\$109.54
Control Area Sales (7)	No: Not adjoining wind farm	\$98.70
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		10.98%

Eclipse - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sales	1,780 - 2,432	14 - 14.62	1910 - 1920	4 / 1 - 5 / 2
Control Area Sales (Range)	1,568 - 2,293	10.02 - 19.37	1900 - 1930	2 / 1 - 4 / 2.5

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Eclipse Wind Farm Group 2										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
3	3253 Swift Ave., Exira	\$172,500	4	3.0	1978	1,988	Single Family	2.00	\$86.77	Jul-20

In Group 2, Test Area Sale 3, a single-family home was considered for a paired sales analysis, and sold in July 2020, after the completion of the wind farm. The home is adjacent to two wind turbines and is approximately 4,800 feet from the nearest turbine, as shown below.



We analyzed ten Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Sale 3 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in Audubon and Guthrie Counties. For all Control Area Sales, the median price per square foot of

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finished building area was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

Eclipse - Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$86.77
Control Area Sales (10)	No: Not adjoining wind farm	\$88.66
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		-2.13%

Eclipse - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1988	2	1978	4 / 3
Control Area Sales (Range)	1,551 - 2,456	1 - 3.47	1948 - 1980	2 / 1 - 4 / 3

The study indicates no significant negative price differential, with the Test Area Sales in Group 1 having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. Test Area Sale 3 in Group 2 indicates a relatively nominal price differential. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the Eclipse Wind Farm.

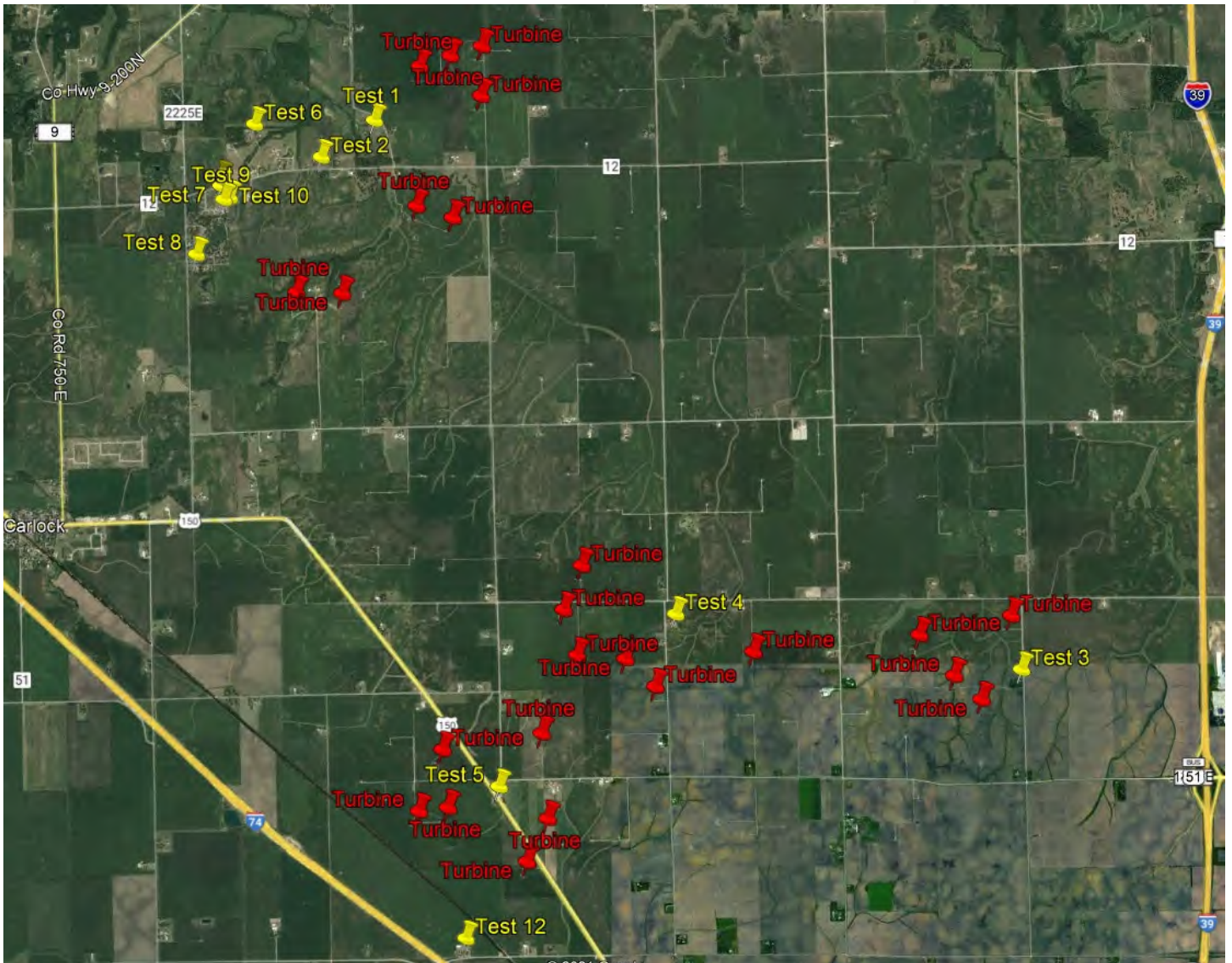
WIND FARM 7: WHITE OAK WIND ENERGY CENTER, MCLEAN COUNTY, ILLINOIS**Coordinates:** Latitude 41.7108°, Longitude -89.0414°**PINs:** Multiple**Owner of Record:** NextEra Energy Resources**Date Project Announced:** 2010**Date Project Completed:** June 2011**Project Area:** Approximately 11,000 acres**Output:** 150.0 MW AC

The wind farm known as the White Oak Wind Energy Center is a 100-turbine wind farm composed of 1.5 MW wind turbines (for a nameplate capacity of 150.0 megawatts), in McLean County, approximately 3 miles northwest of the city of Bloomington, Illinois. The nearest village is Carlock in McLean County directly to the west. The wind farm began operations in 2012 after commencing construction in late 2010.

Altogether we analyzed all sales data from properties that sold from January 2012 to March 2021, after completion of the wind farm, in both McLean County and Woodford County to the north. We analyzed single-family residential homes in these four counties in close proximity to a wind turbine. We identified twelve single-family residential homes in these counties that qualified for a paired sales analysis that were in close proximity to a wind turbine.

While there were additional homes near wind turbines that sold in both McLean and Woodford Counties (potential test area properties), we could not identify homes that sold that had similar ages, conditions and designs within the same or surrounding townships as the Test Area Sales, in order to complete additional paired sales analyses.

The aerial image on the following page displays the twelve Test Area properties in relation to the closest turbines.

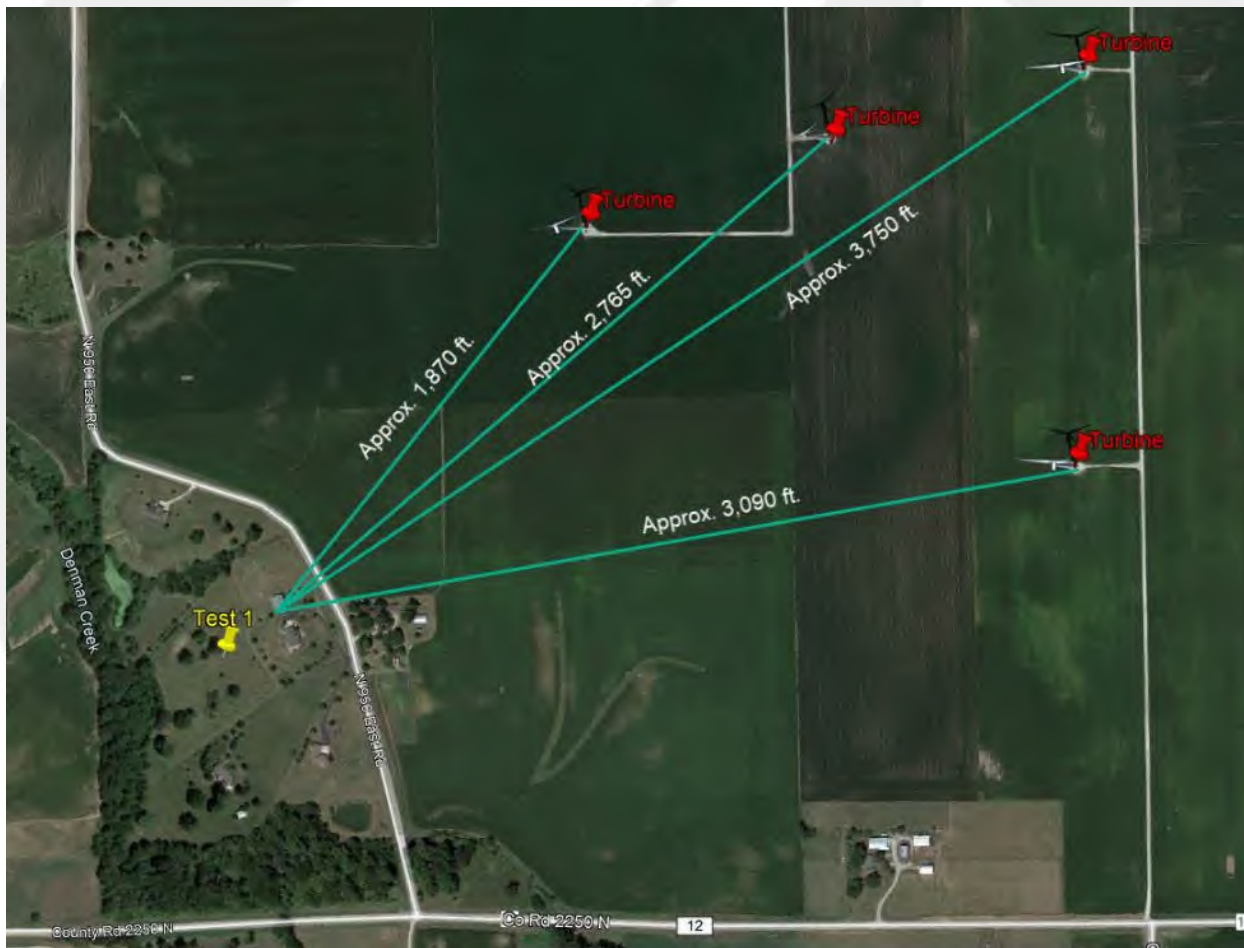


White Oak Wind Energy Center: Test Area Properties

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White Oak Wind Energy Center Group 1										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
1	22668 N 950 East Rd., Carlock	\$425,000	5	3.0	2003	3,492	Single Family	11.46	\$121.71	Jul-20

In Group 1, Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in July 2020, after the completion of the wind farm. The home is adjacent to four wind turbines and is approximately 1,870 feet from the nearest turbine, as shown below.



We analyzed ten Control Area properties that sold within a reasonable time frame from the sale date of Test Area Sale 1 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in McLean and Woodford Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for McLean County and surrounding areas in Illinois for the average monthly rate of

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appreciation in the market conditions adjustment. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.²³

The result of our analysis for Group 1 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sales Analysis White Oak - Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$121.71
Control Area Sales (10)	No: Not adjoining wind farm	\$118.93
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		2.34%

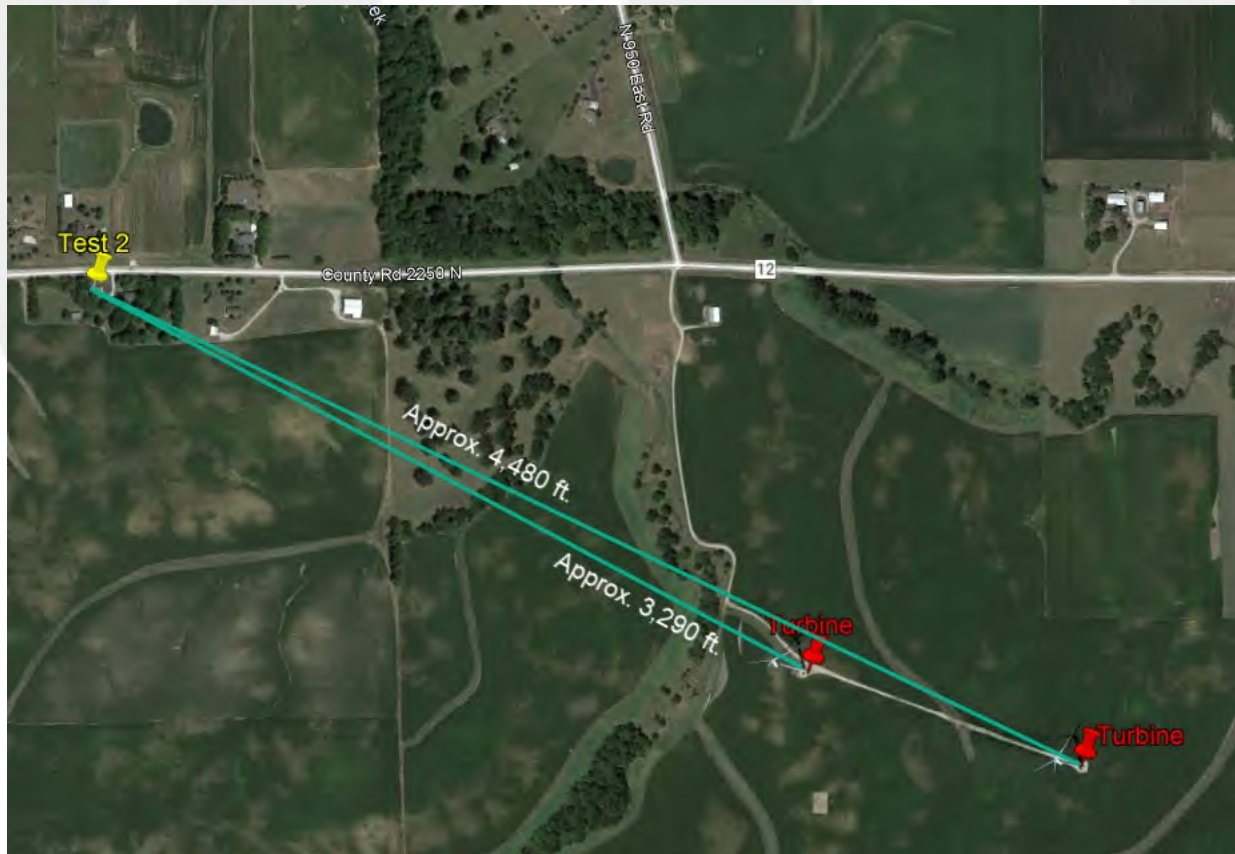
White Oak - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	3,492	11.46	2003	5 / 3
Control Area Sales (Range)	2,560 - 4,748	7.19 - 16	1991 - 2015	3 / 3 - 5 / 5

²³ <https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx>

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White Oak Wind Energy Center Group 2										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
2	9003 E 2250 North Rd., Carlock	\$205,000	3	2.0	1970	2,200	Single Family	1.50	\$93.18	Aug-19
3	19544 N 1300 East Rd., Hudson	\$300,000	3	3.0	1972	3,455	Single Family	2.44	\$86.83	May-20
4	19879 N 1100 East Rd., Carlock	\$190,000	4	3.0	1879	1,936	Single Family	5.20	\$98.14	Nov-19
5	9993 Us Highway 150, Bloomington	\$272,000	4	2.0	1889	2,763	Single Family	1.60	\$98.44	Jun-20
6	2268 E 2250 North Rd., Carlock	\$425,000	4	4.0	2006	4,560	Single Family	4.65	\$93.20	Sep-20

In Group 2, Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in August 2019 after the completion of the wind farm. The home is adjacent to two wind turbines and is approximately 3,290 feet from the nearest turbine, as shown below.



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In Group 2, Test Area Sale 3, a single-family home was considered for a paired sales analysis, and sold in May 2020 after the completion of the wind farm. The home is adjacent to three wind turbines and is approximately 1,565 feet from the nearest turbine, as shown below.



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In Group 2, Test Area Sale 4, a single-family home was considered for a paired sales analysis, and sold in November 2019 after the completion of the wind farm. The home is adjacent to six wind turbines and is approximately 2,100 feet from the nearest turbine, as shown below.



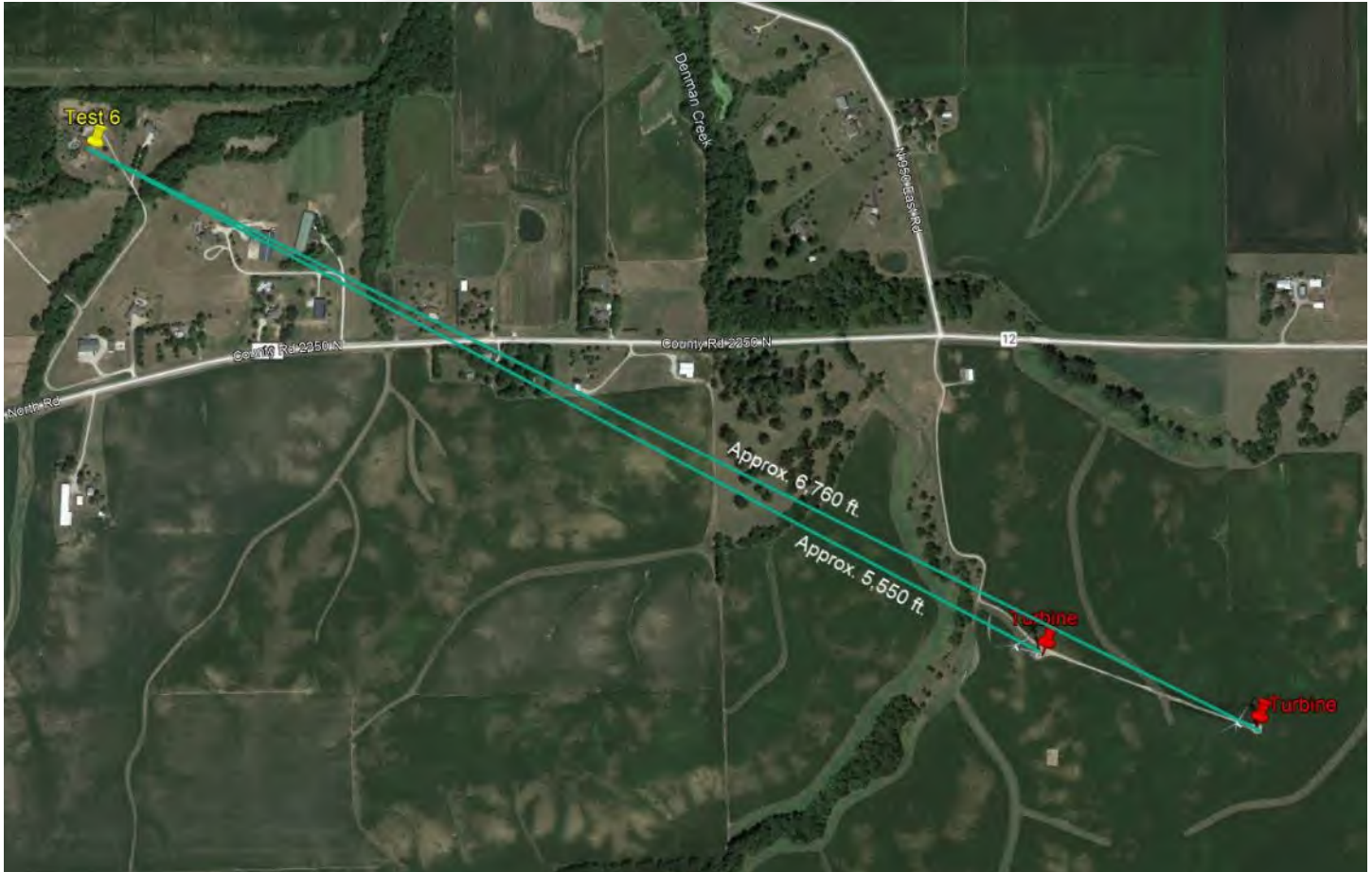
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In Group 2, Test Area Sale 5, a single-family home was considered for a paired sales analysis, and sold in June 2020 after the completion of the wind farm. The home is adjacent to five wind turbines and is approximately 1,715 feet from the nearest turbine, as shown below.



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In Group 2, Test Area Sale 6, a single-family home was considered for a paired sales analysis, and sold in September 2020 after the completion of the wind farm. The home is adjacent to two wind turbines and is approximately 5,550 feet from the nearest turbine, as shown below.



We analyzed 49 Control Area properties that sold within a reasonable time frame from the median sale date of the five Test Area Sales in Group 2 that were similar in several key physical characteristics, but removed geographically from the wind turbines in McLean County and other surrounding areas of Illinois. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

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The result of our analysis for Group 2 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

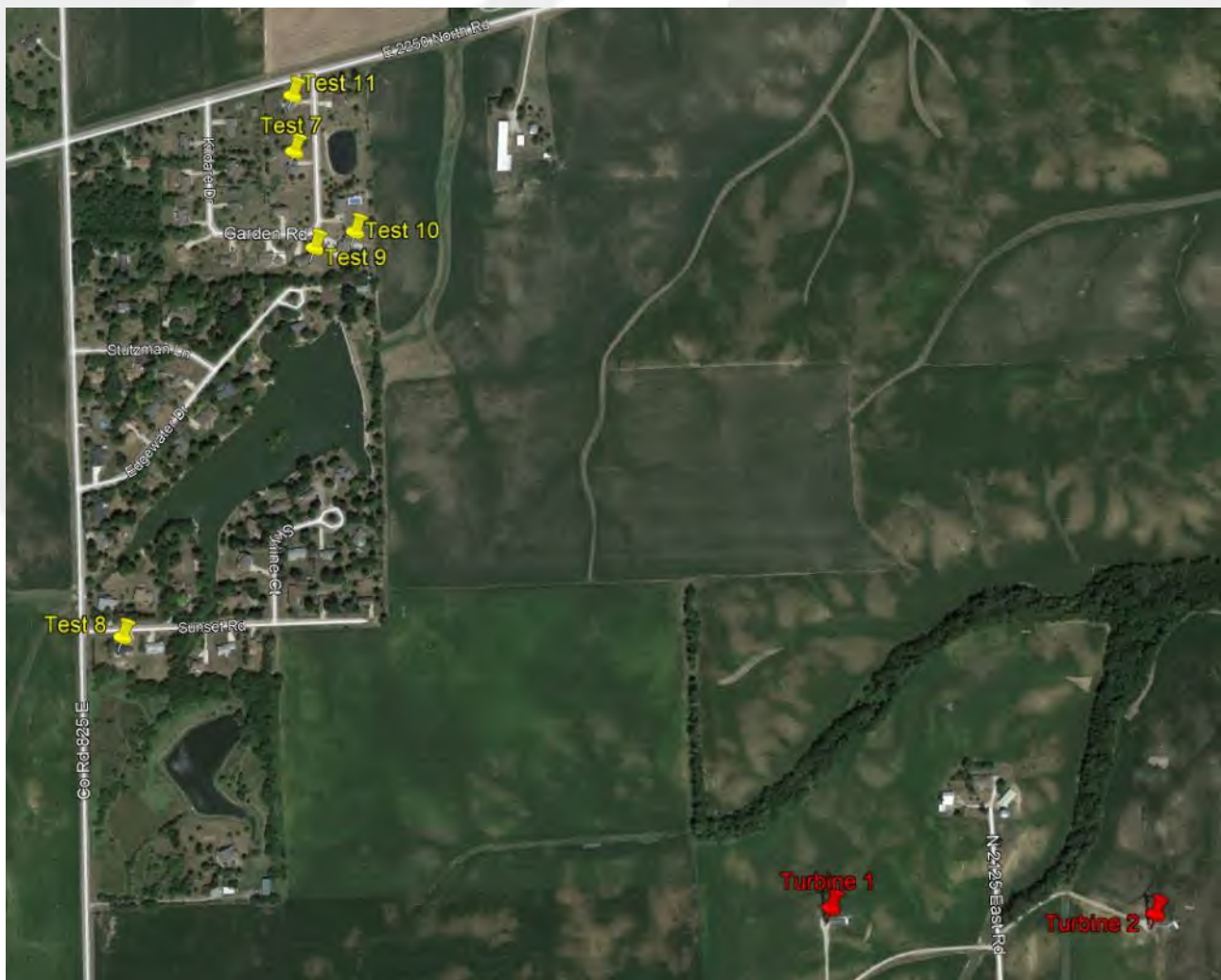
CohnReznick Paired Sales Analysis White Oak - Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sales (5)	Yes: Adjoining wind farm	\$93.20
Control Area Sales (49)	No: Not adjoining wind farm	\$86.10
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		8.25%

White Oak - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sales (Range)	1,936 - 4,560	1.5 - 5.2	1879 - 2006	3 / 2 - 4 / 4
Control Area Sales (Range)	1,216 - 4,000	1 - 7.05	1858 - 2009	2 / 1 - 6 / 4

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White Oak Wind Energy Center Group 3										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
7	22422 Sangamon Dr., Carlock	\$215,000	4	4.0	1999	2,300	Single Family	0.73	\$93.48	Aug-20
8	8275 Sunset Rd., Carlock	\$240,000	4	4.0	1997	2,170	Single Family	0.76	\$110.60	Aug-20
9	8293 Garden Rd., Carlock	\$230,000	3	4.0	2006	2,164	Single Family	0.77	\$106.28	Apr-19
10	22355 Sangamon Dr., Carlock	\$289,900	4	3.0	2002	2,178	Single Family	0.97	\$133.10	Dec-20
11	22464 Sangamon Dr., Carlock	\$201,000	3	3.0	2005	2,160	Single Family	1.21	\$93.06	Mar-19

In Group 3, there were five Test Area Sales of single family homes in the neighborhood around Sunset Lake that were considered for a paired sales analysis that sold after the completion of the wind farm, as shown below.



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There are two turbines located to the southeast of Sunset Lake, with their distances from the Test Area Sales shown on the following chart.

GROUP 3 - TEST SALES			
Test Sale #	Sale Date	Distance from Turbine 1 (feet)	Distance from Turbine 2 (feet)
7	8/6/2020	3,990	4,979
8	8/3/2020	3,270	4,585
9	4/16/2019	3,530	4,560
10	12/17/2020	3,625	4,650
11	3/14/2019	4,225	5,155

We analyzed 18 Control Area properties that sold within a reasonable time frame from the median sale date of the five Test Area Sales in Group 3 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in McLean County. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

The result of our analysis for Group 3 is presented below, including the physical characteristics of the Test Area Sales and range of characteristics of the Control Area Sales.

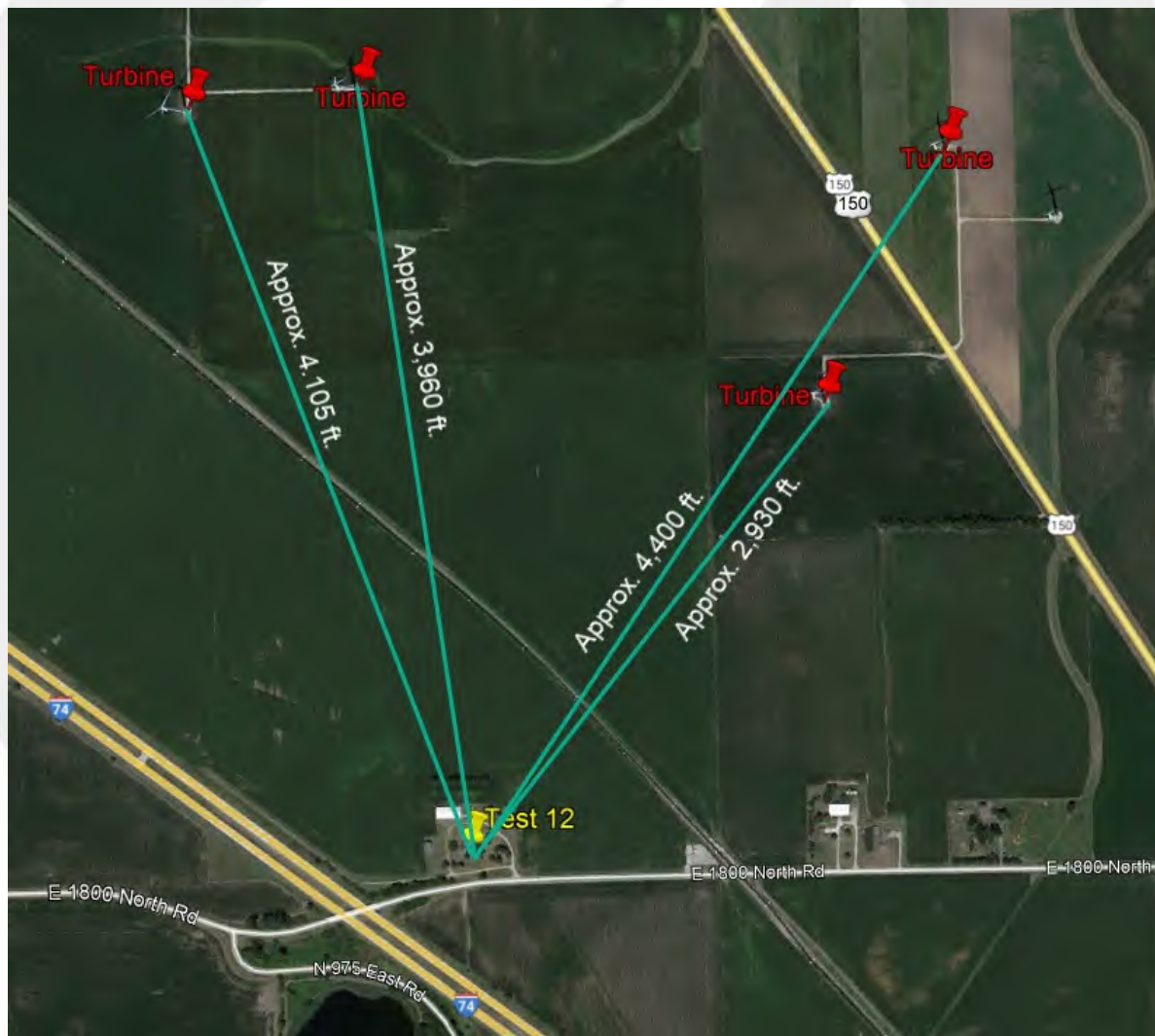
CohnReznick Paired Sales Analysis White Oak - Group 3		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sales (5)	Yes: Adjoining wind farm	\$106.28
Control Area Sales (18)	No: Not adjoining wind farm	\$102.60
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		3.59%

White Oak - Group 3				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sales (Range)	2,160 - 2,300	0.73 - 1.21	1997 - 2006	3 / 3 - 4 / 4
Control Area Sales (Range)	1,733 - 2,775	0.4 - 1	1989 - 2006	3 / 3 - 6 / 5

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White Oak Wind Energy Center Group 4										
Test Area Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
12	9844 E 1800 North Rd., Bloomington	\$240,000	4	2.0	1859	2,036	Farm	7.23	\$117.88	Jul-20

In Group 4, Test Area Sale 12, a single-family home was considered for a paired sales analysis, and sold in July 2020 after the completion of the wind farm. The home is adjacent to four wind turbines and is approximately 2,930 feet from the nearest turbine, as shown below.



We analyzed nine Control Area properties that sold within a reasonable time frame from the sale date of the Test Area Property 12 and that were similar in several key physical characteristics, but removed geographically from the wind turbines in McLean and Woodford Counties. For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for market conditions using regression analysis to identify the

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appropriate monthly market conditions adjustment. Again, we utilized the FHFA HPI for our market conditions adjustment.

The result of our analysis for Group 4 is presented below, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sales Analysis White Oak - Group 4		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining wind farm	\$117.88
Control Area Sales (9)	No: Not adjoining wind farm	\$118.31
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		-0.37%

White Oak - Group 4				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	2,036	7.23	1859	4 / 2
Control Area Sales (Range)	1679 - 4008	3.55 - 10	1869 - 1970	4 / 2 - 6 / 5

The study indicates no significant price differential, with the Test Area Sales in Groups 1, 2, and 3 having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales. Group 4 indicates a relatively nominal price differential, with the Control Area Sales. Ultimately, it does not appear that the proximity to a wind farm had any negative impact on proximate property values in the White Oak Wind Energy Center.

WIND FARM 8: TOP CROP WIND FARM, LIVINGSTON, GRUNDY, & LASALLE COUNTIES, IL**Coordinates:** Latitude 41.150800, Longitude -88.623300**PINs:** Multiple**Project Area:** Approximately 28,000 acres**Date Project Announced:** Unknown**Date Project Completed:** Phase I Completed October 2009, Phase II Completed August 2010**Output:** 300.0 MW AC

The Top Crop Wind Farm is a 200-turbine wind farm comprised of 1.5 MW wind turbines in portions of Livingston County, Grundy County, and LaSalle County, Illinois. The turbines are 328 feet tall from base to tip of the apex. The wind farm is located approximately 35 miles west of the city of Kankakee and 60 miles southwest of the city of Chicago. The Project area is primarily rural, adjacent to the northwest of the town of Dwight and to the east of the town of Ransom.

The wind farm was completed in two phases, with the first phase beginning construction in April 2009 and the second phase beginning in spring 2010. Phase I of the Top Crop Wind Farm was completed in October 2009 while Phase II was completed in August 2010. The facility generates enough electricity to power the equivalent of 103,000 average Illinois homes, according to the US Energy Information Administration. In 2012, it was announced that the Top Crop Wind Project entered an agreement to sell 25 MW of energy to Commonwealth Edison. Additionally, after completion of Phase II of the Top Crop Wind Project, an agreement was made with Constellation Energy Commodities Group to purchase the energy generated by the wind farm.

We have analyzed all single-family residential sales data from properties that sold in the past five years, beginning in July 2017. We searched for homes in close proximity to a wind turbine, within one mile. We identified six single-family residential homes that qualified for a paired sales analysis that were in close proximity to a wind turbine and were open-market, arm's length transactions.

PAIRED SALES ANALYSIS

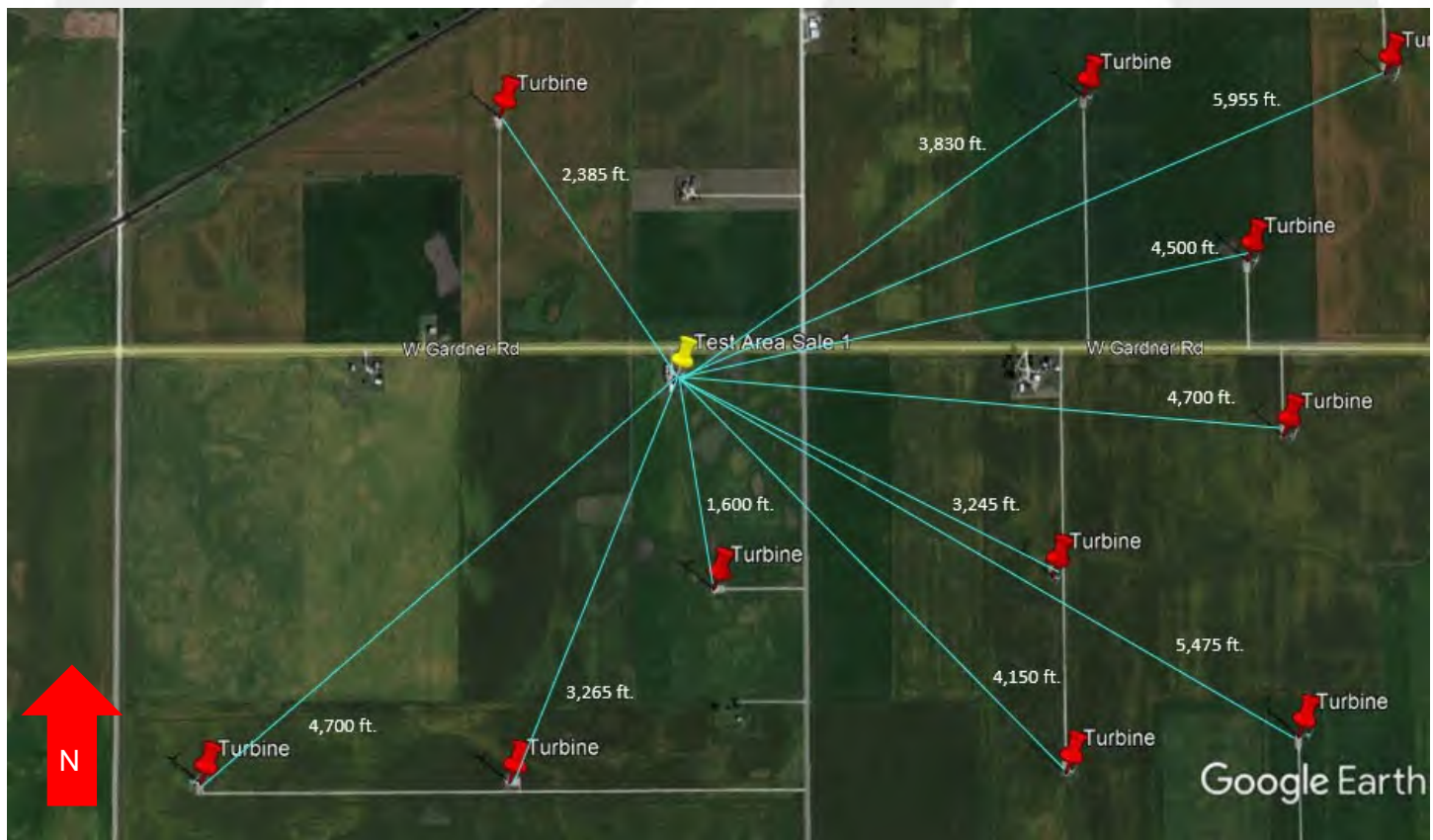
We have considered only one type of paired sales analysis, which was comparing sales of properties not proximate to the wind farm (Control Area Sales) to the sales of adjoining properties after the completion of the wind farm project (Test Area Sales). We identified two groups of Test Area Sales based primarily on location and home type. We have analyzed sales of homes that occurred in the previous five years, beginning in July 2017.

We have excluded three home sales that were initially considered for Test Area Sales due to the lack of comparable transactions in the surrounding area.

Group 1 – Improved Single-Family Residential Properties

Top Crop Wind Farm, Group 1 - Test Sales											
Test Area Sale No.	Address	Township	Sale Price	GLA SF	Type	Bedrooms	Bathrooms	Year Built	Lot Size (AC)	Sale Date	Sale Price/SF
1	8193 W. Gardner Road	Kinsman	\$191,000	1,848	1-Story Single Family Home with Unfinished Basement, Attached Garage, Deck and In-Ground Pool	3	2.0	1975	1.00	6/4/2019	\$103.35
2	7970 S. Kinsman Road	Kinsman	\$125,000	1,532	1-Story Single Family Home with Unfinished Basement, and Attached Garage	3	2.0	1970	1.00	8/24/2022	\$81.59

In Group 1, Test Area Sale 1, a single-family home, was considered for a paired sales analysis, and sold in June 2019 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 1,600 feet from the nearest turbine, as shown below.



In Group 1, Test Area Sale 2, a single-family home, was considered for a paired sales analysis, and sold in August 2022 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 2,060 feet from the nearest turbine, as shown in the following map.

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We analyzed nine Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to a wind farm, more than 3 miles from the nearest turbine within Livingston County, Grundy County or LaSalle County, and that sold within a similar time frame from the sale date of the Test Area Sale. The Control Area Sales are single-family homes with three to four bedrooms and one to three baths, consisting of between 1,350 square feet and 2,100 square feet of gross living area, built between 1951 and 1982, with lot sizes of between 0.68 and 2.47 acres. Additionally, the Control Area Sales are between one and two stories, have garage parking, and do not have full finished basements. All of the Control Sales are located in rural areas, similar to the Test Sale.

For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for marketing condition using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. The result of our analysis for Group 1 is presented on the following page, including the physical characteristics of the Test Area Sales and range of characteristics of the Control Area Sales.

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CohnReznick Paired Sale Analysis Top Crop Wind Farm - Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (2)	Adjoining wind farm	\$92.47
Control Area Sales (9)	No: Not adjoining wind farm	\$90.47
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		2.22%

Top Crop Wind Farm - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,532 - 1,848	1.00	1970 - 1975	3 / 2
Control Area Sales (Range)	1,363 - 2,074	0.68 - 2.47	1951 - 1982	3 - 4 / 1-3

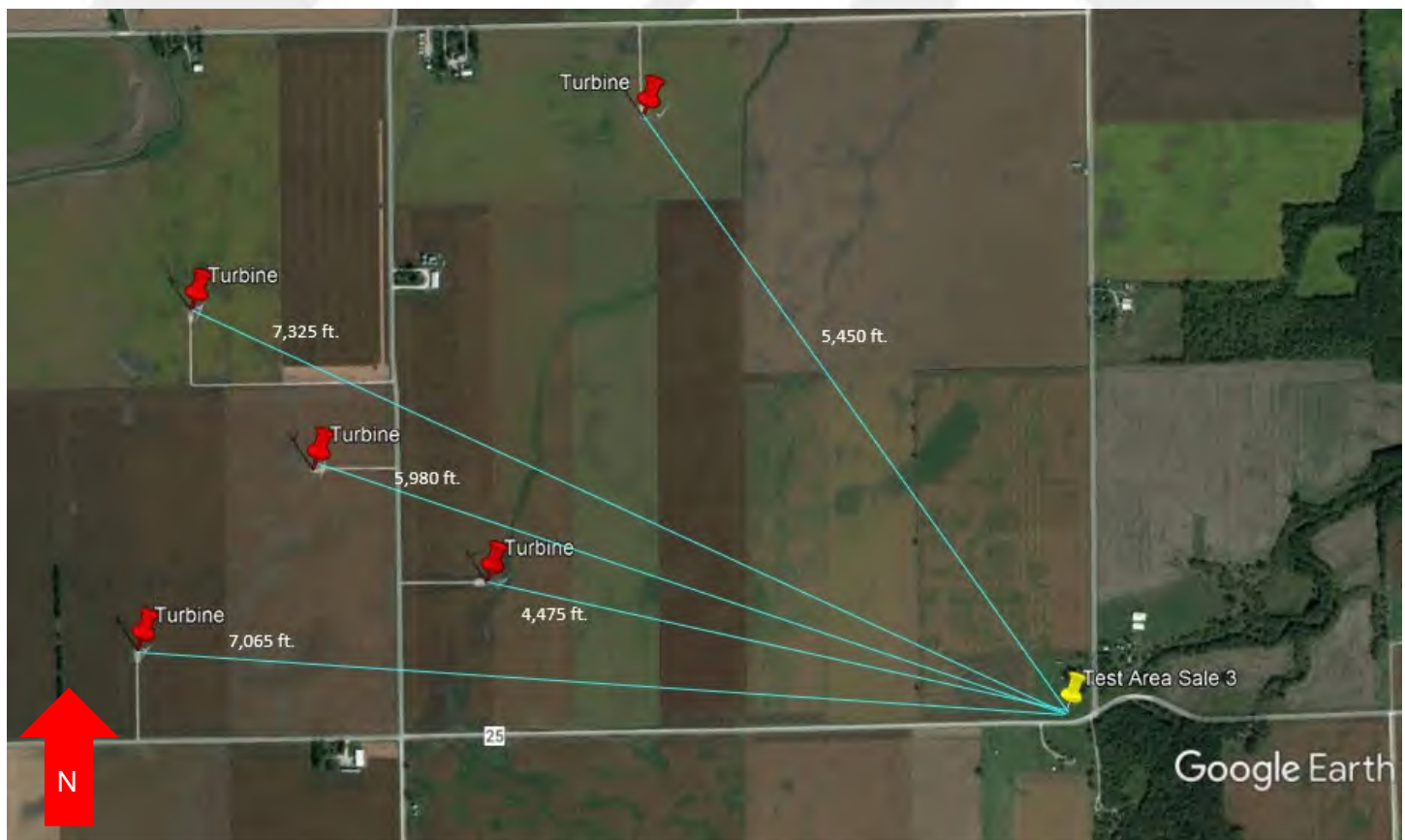
The days on market for the Test Area Sales was 69 days, while the median days on market for the Control Area sales was 62 days (ranging from 22 to 342 days), **and we note no significant marketing time differential.**

Noting no negative price differential, it does not appear that the proximity Top Wind Farm use impacted the sale price of the Test Area Sales in Group 1. The Test Area Sales indicate a slightly higher unit sales price than the Control Area Sales, but the difference is relatively nominal.

Group 2 – Improved Single-Family Residential Properties

Top Crop Wind Farm, Group 2 - Test Sale											
Test Area Sale No.	Address	Township	Sale Price	GLA SF	Type	Bedrooms	Bathrooms	Year Built	Lot Size (AC)	Sale Date	Sale Price/SF
3	8935 S. Ward Road	Dwight	\$145,000	1,092	1.5-Story Single Family Home with Partially Finished Basement, Detached Garage, and Farm Structures	2	1.0	1935	5.00	7/25/2018	\$132.78

Test Area Sale 3, a single-family home was considered for a paired sales analysis, and sold in July 2018 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 4,475 feet from the nearest turbine, as shown below.



We analyzed four Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to a wind farm, more than 3 miles from the nearest turbine within Livingston County, Grundy County or LaSalle County, and that sold within a similar time frame from the sale date of the Test Area Sale. The Control Area Sales are single-family homes with two to three bedrooms and one to one and a half baths, consisting of between 1,075 square feet and 1,450 square feet of gross living area, built between 1930 and 1938, with lot sizes of between 3.26 and 5.00 acres. Additionally, the Control Area Sales are between one

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and two stories, have garage parking, and unfinished basements. All of the Control Sales are located in rural areas, similar to the Test Sale.

For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for marketing condition using the Federal Housing Finance Agency’s House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. The result of our analysis for Group 2 is presented on the following page, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Top Crop Wind Farm - Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$132.78
Control Area Sales (4)	No: Not adjoining wind farm	\$121.09
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		9.66%

Top Crop Wind Farm - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,092	5.00	1935	2 / 1
Control Area Sales (Range)	1,078 - 1,414	3.26 - 5.00	1930 - 1938	2 - 3 / 1 - 1.5

The days on market for the Test Area Sale was 40 days, while the median days on market for the Control Area sales was 107 days (ranging from 50 to 164 days), **and we note no significant marketing time differential.**

Noting no negative price differential, it does not appear that the proximity Top Crop Wind Farm use impacted the sale price of Test Area Sale 3, 8935 S. Ward Road. The Control Area Sales indicate a lower unit sales price than the Test Area sale.

WIND FARM 9: RAIL SPLITTER WIND FARM, TAZEWELL & LOGAN COUNTIES, IL**Coordinates:** Latitude 40.369200, Longitude -89.402200**PINs:** Multiple**Project Area:** Approximately 11,000 acres**Date Project Announced:** 2008**Date Project Completed:** August 2009**Output:** 100.5 MW AC

The Top Crop Wind Farm is a 67-turbine wind farm comprised of 1.5 MW wind turbines in portions of Tazewell County and Logan County, Illinois. The turbines are 328 feet tall from base to tip of the apex. The wind farm is located approximately 20 miles southwest of the city of Bloomington and 40 miles northeast of the city of Springfield. The Project area is primarily rural, adjacent to the northwest of the town of Armington and to the south of the town of Hopedale.

The wind farm began operations in August 2009. The facility generates enough electricity to power the equivalent of 35,000 average Illinois homes, according to the US Energy Information Administration. In 2014, it was announced that the Rail Splitter Wind Project entered an agreement to sell 25 MW of energy to Hoosier Energy Rural Electric Cooperative for a period of 15 years.

We have analyzed all single-family residential sales data from properties that sold in the past five years, beginning in July 2017. We searched for homes in close proximity to a wind turbine, within one mile. We identified eight single-family residential homes that qualified for a paired sales analysis that were in close proximity to a wind turbine and were open-market, arm's length transactions.

PAIRED SALES ANALYSIS

We have considered only one type of paired sales analysis, which was comparing sales of properties not proximate to the wind farm (Control Area Sales) to the sales of adjoining properties after the completion of the wind farm project (Test Area Sales). We identified two groups of Test Area Sales based primarily on location and home type. We have analyzed sales of homes that occurred in the previous five years, beginning in July 2017.

We have excluded six home sales that were initially considered for Test Area Sales due to the lack of comparable transactions in the surrounding area.

Group 1 – Improved Single-Family Residential Properties

Rail Splitter Wind Farm - Group 1, Test Sale											
Test Area Sale No.	Address	Township	Sale Price	GLA SF	Type	Bedrooms	Bathrooms	Year Built	Lot Size (AC)	Sale Date	Sale Price/SF
1	1103 Dale Road	Armington	\$95,000	1,280	Single-Family Home with unfinished basement, attached garage, and large shed	2	1.5	1986	1.01	5/14/2020	\$74.22

In Group 1, Test Area Sale 1, a single-family home, was considered for a paired sales analysis, and sold in May 2020 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 2,500 feet from the nearest turbine, as shown below.



We analyzed four Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to a wind farm, more than 3 miles from the nearest turbine within Tazewell County or Logan County, and that sold within a similar time frame from the sale date of the Test Area Sale. The Control Area Sales are single-family homes with two to three bedrooms and one to two baths, consisting of between 1,000 square feet and 1,600 square feet of gross living area, built between 1965 and 2000, with lot sizes of between 0.5 and 5.0 acres. Additionally, the Control Area Sales are between one and two stories, have garage parking, and unfinished basements. All of the Control Sales are located in rural areas, similar to the Test Sale.

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For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for marketing condition using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. The result of our analysis for Group 1 is presented on the following page, including the physical characteristics of the Test Area Sales and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Rail Splitter Wind Farm - Group 1		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$74.22
Control Area Sales (4)	No: Not adjoining wind farm	\$75.49
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		-1.69%

Rail Splitter Wind Farm - Group 1				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,280	1.01	1986	2 / 2
Control Area Sales (Range)	1,440 - 1,584	0.60 - 4.55	1965 - 1979	3 / 1-2

The days on market for the Test Area Sales was 70 days, while the median days on market for the Control Area sales was 112 days (ranging from 34 to 249 days), **and we note no significant marketing time differential.**

Noting only a nominal price differential, it does not appear that the proximity to the Rail Splitter Farm use impacted the sale price of the Test Area Sale in Group 1. The Test Area Sale indicates a slightly lower unit sale price than the Control Area Sales, but the difference is relatively nominal.

Group 2 – Improved Single-Family Residential Properties

Rail Splitter Wind Farm - Group 2, Test Sale											
Test Area Sale No.	Address	Township	Sale Price	GLA SF	Type	Bedrooms	Bathrooms	Year Built	Lot Size (AC)	Sale Date	Sale Price/SF
2	25330 Boynton Road	Delavan	\$162,375	1,488	Single-Family Home with finished basement and attached garage	3	2.0	1972	2.50	1/13/2021	\$109.12

Test Area Sale 2, a single-family home was considered for a paired sales analysis, and sold in January 2021 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 1,650 feet from the nearest turbine, as shown below.



We analyzed four Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to a wind farm, more than 3 miles from the nearest turbine within Tazewell County, or Logan County, and that sold within a similar time frame from the sale date of the Test Area Sale. The Control Area Sales are single-family homes with three to four bedrooms and one and a half to two baths, consisting of between 1,200 square feet and 2,000 square feet of gross living area, built between 1960 and 1980, with lot sizes of between 1.0 and 6.0 acres. Additionally, the Control Area Sales are between one and two stories, have

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garage parking, and finished basements. All of the Control Sales are located in rural areas, similar to the Test Sale.

For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for marketing condition using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. The result of our analysis for Group 2 is presented on the following page, including the physical characteristics of the Test Area Sale and range of characteristics of the Control Area Sales.

CohnReznick Paired Sale Analysis Rail Splitter Wind Farm - Group 2		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$109.12
Control Area Sales (4)	No: Not adjoining wind farm	\$103.21
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		5.73%

Rail Splitter Wind Farm - Group 2				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	1,488	2.50	1972	3 / 2
Control Area Sales (Range)	1,384 - 1,985	1.50 - 5.96	1969 - 1977	3 - 4 / 1.5 - 2.0

The days on market for the Test Area Sale was 57 days, while the median days on market for the Control Area sales was 249 days (ranging from 48 to 414 days), **and we note no significant marketing time differential.**

Noting no negative price differential, it does not appear that the proximity to the Rail Splitter Wind Farm use impacted the sale price of Test Area Sale 3, 25330 Boynton Road. The Control Area Sales indicate a lower unit sales price than the Test Area sale.

WIND FARM 10: BRIGHT STALK WIND FARM, MCLEAN COUNTY, IL**Coordinates:** Latitude 40.701241, Longitude -88.701050**PINs:** Multiple**Total Land Size:** Approximately 18,000 acres**Date Project Announced:** March 2018**Date Project Completed:** December 2019**Output:** 205.20 MW AC

The Bright Stalk Wind Farm is a 57-turbine wind farm comprised of 3.6 MW wind turbines (for a nameplate capacity of 205.2 megawatts), in northeast McLean County, Illinois. The turbines are 488 feet tall from base to tip of the apex. The wind farm is located approximately 27 miles northeast of the city of Bloomington and 110 miles southwest of the city of Chicago. The Project area is primarily rural, adjacent to the southeast of the town of Chenoa and to the southwest of the town of Weston.

The wind farm began operations in December 2019. The facility generates enough electricity to power the equivalent of 73,000 average Illinois homes, according to the US Energy Information Administration. In September 2018, it was announced that the Bright Stalk project entered a 15-year PPA (power purchase agreement) with Salesforce to purchase 80 MW of the 205 MW output from the wind farm. Additionally, in October 2018, a PPA between Walmart and the Bright Stalk project was announced in which Walmart will purchase 123 MW of output from the wind farm.

We have analyzed all single-family residential sales data from properties that sold from December 2019 to August 2022. We searched for homes in close proximity to a wind turbine, within one mile. We identified one single-family residential home that qualified for a paired sales analysis that was in close proximity to a wind turbine.

The aerial imagery on the following page displays the Test Area Property in relation to the closest turbines.



Bright Stalk Wind Farm: Test Area Property

PAIRED SALES ANALYSIS

We have considered only one type of paired sales analysis, which was comparing sales of properties not proximate to the wind farm (Control Area Sales) to the sales of adjoining properties after the completion of the wind farm project (Test Area Sales). We identified one group of Test Area Sales based primarily on location and home type. We have analyzed sales of homes that occurred after the completion of the wind farm, starting in December 2019. The first and only group comprises the sale at 31882 East 3100 North Road that occurred after the completion of the wind farm, in September 2020.

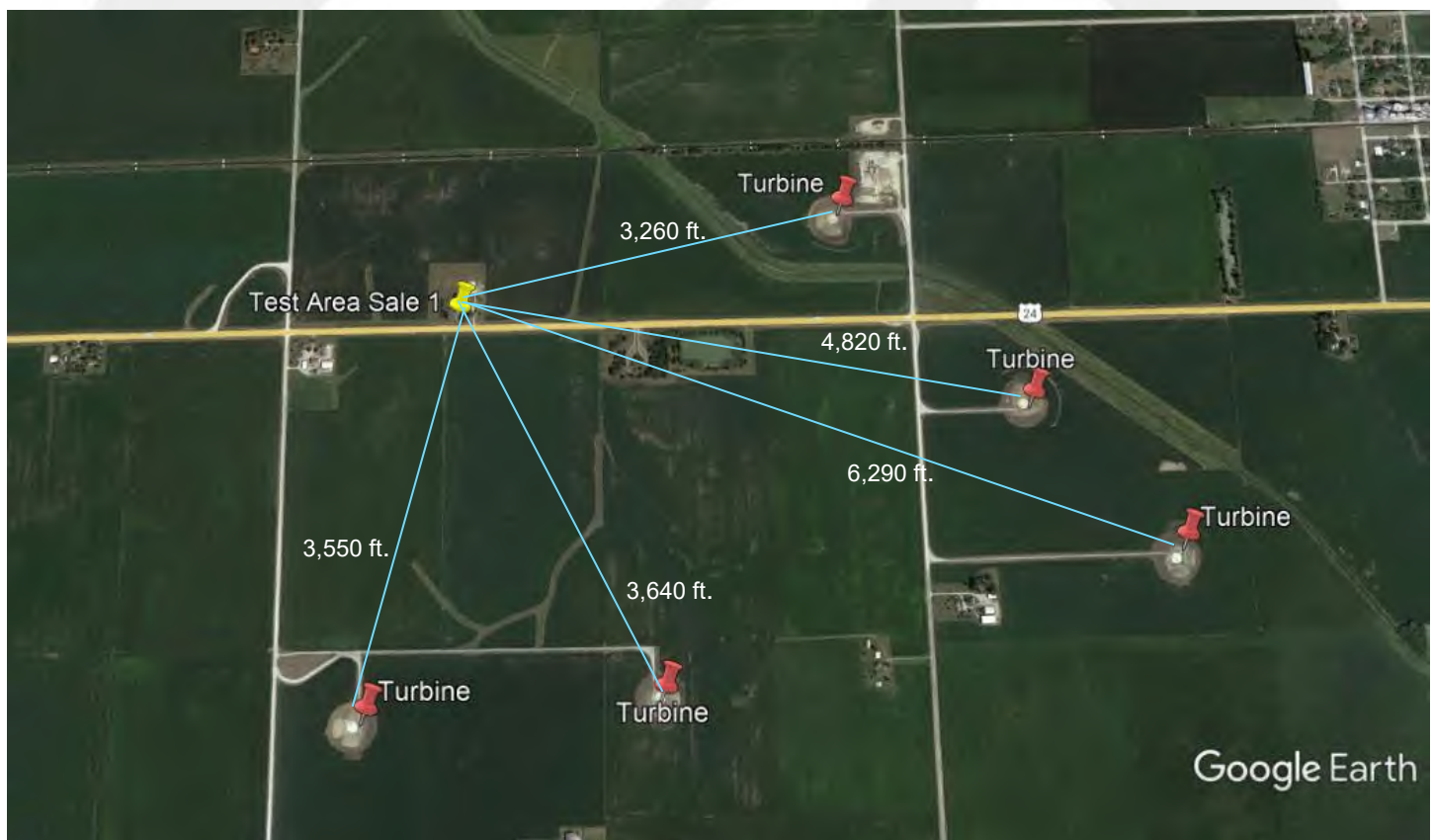
We have excluded seven home sales that were initially considered for Test Area Sales. Of the seven sales we have excluded, six of the sales have been excluded for being either non-arm's length transactions, special warranty deed sales, or not being open market transactions.

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Group 1 – Improved Single-Family Residential Properties

Bright Stalk Wind Farm - Test Sale											
Test Area Sale No.	Address	Township	Sale Price	GLA SF	Type	Bedrooms	Bathrooms	Year Built	Lot Size (AC)	Sale Date	Sale Price/SF
1	31882 East 3100 North Road	Chenoa	\$225,000	2,256	1.5-story SFH with unfinished basement + accessory buildings (detached garage, and 5,400 sq ft shed)	4	2.0	1937	5.62	9/9/2020	\$99.73

Test Area Sale 1, a single-family home was considered for a paired sales analysis, and sold in September 2020 after the completion of the wind farm. The home is adjacent to several wind turbines and is approximately 3,260 feet from the nearest turbine, as shown below.



We analyzed four Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to a wind farm, more than 3 miles from the nearest turbine within McLean County or the adjacent Livingston County, and that sold within a similar time frame from the sale date of the Test Area Sale. The Control Area Sales are single-family homes with three to four bedrooms and two baths, consisting of between 1,750 square feet and 2,750 square feet of gross living area, built between 1920 and 1965, with lot sizes of between 2 and 10 acres, and have accessory buildings. Additionally, the Control Area Sales are between one and two stories, and do not have finished basements. All of the Control Sales are located in rural areas, similar to the Test Sale.

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For all Control Area Sales, the median price per square foot of building area (above grade) was adjusted for marketing condition using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. The result of our analysis for Bright Stalk Wind Farm is presented in the following tables.

CohnReznick Paired Sale Analysis Bright Stalk Wind Farm		
No. of Sales	Potentially Impacted by Wind Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Adjoining wind farm	\$99.73
Control Area Sales (4)	No: Not adjoining wind farm	\$100.36
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		-0.63%

Bright Stalk Wind Farm				
	Gross Finished Living Area (SF)	Land Size (AC)	Year Built	Beds / Baths
Test Area Sale	2,256	5.62	1937	4 / 2
Control Area Sales (Range)	1,800 - 2,352	2.0 - 10.0	1933 - 1963	3 - 4 / 2

The days on market for the Test Area Sale was 35 days, while the median days on market for the Control Area sales was 111 days (ranging from 44 to 197 days), **and we note no significant marketing time differential.**

Noting only a nominal price differential, it does not appear that the proximity to the Bright Stalk Wind Farm use impacted the sale price of the Test Area Sale, 31882 East 3100 North Road. The Control Area Sales indicate a slightly higher unit sales price than the Test Area sale, but the difference is relatively nominal.

TECHNIQUE 3: MARKET COMMENTARY

We have additionally contacted county officials (Tax Assessors, Zoning Administrators) familiar with property values around wind farms in Illinois, Iowa, Missouri, and Colorado as well as local real estate brokers. Our conversations with these market experts are noted below.

We spoke with Billy Shelby with the Adair County, Iowa Assessor who remarked that the county has not noted any impact on sales due to proximity to wind turbines. The county has 533 wind turbines and Mr. Shelby mentioned that homes are selling above what they can assess properties at. Mr. Shelby remarked that no reductions have been given to residences adjacent to wind turbines for assessed property values. **He further indicated that homes near wind turbines have since sold at or above assessed values.**

We spoke with Tanya Zimmerman with the DeKalb County, Missouri Assessor who indicated that re-assessments of a property are only based on condition of the home and land itself and that proximity to a wind turbine is not a consideration for reduction in assessment. According to Zimmerman, **there is no measurable value difference based on proximity to a wind turbine.**

We spoke with Nikki Carrick with the Guthrie County, Iowa Assessor who indicated that no homeowners have asked for a reduction in assessments because there is no measurable difference between the values of homes close to and far from wind turbines. **Properties are not assessed differently based on the proximity to wind turbines because there is no measurable difference in value.**

We spoke with Peggy Michaels, the Logan County, Colorado Tax Assessor, who remarked, **“Using a market approach, we have not seen any documentation of detrimental values as a result of nearby wind turbines.”**

Melissa Ihnen with Meyer and Gross Real Estate Company in Atlantic Iowa remarked that she has not noticed an impact in listing or sale prices for homes located next to wind turbines. Ms. Ihnen indicated that **being next to a wind turbine did not have a negative effect** on exposure time and that homes were selling quickly.

We spoke with the Stark County, Illinois Tax Assessor, Renee Johnson, regarding the Camp Grove Wind Farm and she reported that she **could not see a difference in the home prices between current values and before the wind farm was built in 2007.** Johnson also remarked that they had not had any complaints from the public after the wind farm was completed. In fact, two new houses were built close to the turbines, after completion of the wind farm. Individual families built new homes, on land they already owned, but reportedly, these two families had multiple parcels in multiple townships, in those townships with wind turbines and those without, and **chose to locate their new homes next to wind turbines.** One home was built in approximately 2018, and the other between approximately 2012 and 2013. Karmella Reining, the Stark County Deputy Tax Assessor, added, “I wouldn't mind if there was a turbine sitting in my back yard, it's just not a big deal. It really doesn't block a view up there in the air like that.”

Bridget Nodurft, Chief Deputy of the Supervisor of Assessments Office in **Dekalb County, Illinois**, reported that in the beginning of wind farm developments, they had some groups that talked publicly about the pros and cons of allowing wind farms to locate in the county. The FPL Energy Illinois Wind LLC (also known as the Lee-DeKalb Wind Energy Center, capacity 217.5 MW) began operations in December 2009 and there were some residents that did sell their homes near the wind farm because they didn't want to live near the turbines. "I can recall one of those property owners was very vocal before the wind farm was developed, they had moved to the county to be far away from everyone. After the development of the wind farm they sold their home and moved out of state, to be even further from any other people." Nodurft reported that those initial sales were right at market values, **being near the turbines did not cause harm to values**. "Now after 11 years, no one in the county complains about home values being impacted by the wind farm", said Nodurft.

Alan and Marcy Kinney, real estate brokers who work together in **DeKalb County, Illinois**, reported that Test Area Sale 1 studied for the Lee-DeKalb Wind Energy Center (Wind Farm 2), was sold again as of March 31, 2020 and the seller accepted an offer close to the asking price. The selling price was \$71,900 higher than the sale price of this home in 2013, a 43 percent increase over the seven-year hold period which calculates to an average annual rate of appreciation of 6.7 percent. **The brokers reported that there was not even one comment or question about the proximity of the wind turbine to the home (approximately 2,315 feet)**. The proximity of this home to the wind turbine was not an issue for anyone in the market.

Lee County, Illinois was the home of the first wind farm developed in Illinois, the Mendota Hills wind farm (50.4 MW) in 2003. Originally the development had 63 turbines with a capacity of 0.85 MW per turbine. In 2018, ownership took down the old turbines and re-powered, or rebuilt, the project with 29 turbines in the same general area which produces the same gross capacity of megawatts of energy. The new wind farm is not exactly in the same footprint, it needed less land after re-development, and it came back online in late 2019. The Mendota Hills development was the first wind farm built in Illinois and the first to be re-powered, a fact that Lee County is proud of, according to the Chief County Assessment Officer, Wendy Ryerson. Ryerson has **not noticed any difference in values of homes that are near wind turbines**. "These wind turbines are put in rural areas, in the middle of farm country in our county. A lot of this surrounding land is vacant farmland, and it really sells on the ability of the land to produce a crop. Any single-family residences that are not part of a farm are few and far between, so home sales are scarce around wind farms."

When discussing recent wind farm development in the county, Shelly Renken, Supervisor of Assessments in **Livingston County, Illinois** reported that the potential impact on home values is always a concern of some people. "People ask the same questions, like when the Minonk Wind Farm was developed in 2012, they asked, 'Will this affect my house's value?'. But **there's no documentation that shows that's happening, that values have gone down or up as a result of being near a wind farm**."

Henry County, Illinois, is the home of the Bishop Hill wind farm development that was built in three phases (with 200 and 81 megawatts developed in 2012 and 119 MW developed in 2018). Tracey Vinavich, Chief County Assessor of Henry County, told us that **there have been no changes in values because of the wind farms that have been developed**.

Christine Anderson, GIS Coordinator in the Tax Assessor's office in **Bureau County, Illinois**, reported that they had **never received any complaints about potential changes in home values, before or after any of the**

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wind farms were built. At the time of the interview, Bureau County has five wind farms in operation, including Big Sky Wind Farm with a nameplate capacity of 240 MW, and the Assessor's office keeps folders with surrounding home sale data for each of them.

Susan Fisher is a Broker with Coldwell Banker Realty and reported that she has over 30 years of experience as a real estate agent in the **Ford County, Kankakee County, and Iroquois County, Illinois** area. She also reported that she lives near a wind farm in Stelle, which is in Ford County. Ms. Fisher said, "**I haven't seen any negative impact on real estate values from the turbines** even though it was predicted by many who were anxious about installing them. Of course, we've had significant increases in values as has most of the U.S. in recent years, but even before then I did not experience any negative feedback from buyers looking at homes in the area."

We spoke with Colleen Benson, Broker with Coldwell Banker Realty in the **Ford County and Kankakee County, Illinois** region has worked as a local real estate agent since 2003. Ms. Benson was the List Broker for the sale of a property in Ford County located within one mile of a turbine. She stated that the turbines did not impact the sale and the buyer was unconcerned about them. Ms. Benson stated that as a broker in the area, some buyers have mentioned concerns about the turbines but **she has not seen any changes in property values or interest in regard to the turbines.**

Fred Majors, Assessor for Patton, Button, and Drummer Townships in **Ford County, Illinois**, said that properties might not be selling for less, but they are not selling for more. He stated that assessments have never been lowered or changed regarding the wind turbines and that he cannot say the turbines have had any impact on property values.

WIND FARM FACTORS ON HARMONY OF USE

Concerns about certain physical issues in the areas of proposed wind farms can lead to questions about the compatibility of wind turbine installations in a rural agricultural and residential setting. **Property Compatibility and Harmony of Use are real estate concepts that can impact real estate values, both positively and negatively.** The information compiled below summarizes National and International research on specific physical characteristics that clearly indicates that wind farms are generally a compatible use with agricultural and residential uses. In addition, this data demonstrates that there has been no measurable and consistent impact on adjacent uses or real estate prices associated with proximity to wind farms.

Appearance: Most wind farms are developed with Horizontal-Axis Wind Turbines (HAWT), with three blades and operate “upwind,” with the turbine pivoting at the top of the tower so the blades face into the wind.^[1] Wind turbines vary in height. Generally, the taller the turbine, the longer the blades, and the greater power capacity generated. Taller turbines also command increased spacing between turbines. Wind turbines are generally off-white and have a visibility sensor (red blinking light) as mandated by the Federal Aviation Authority (FAA). The physical characteristics of wind farms are compatible with adjoining agricultural and residential uses.

Sound: According to a document prepared by the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE), wind turbines produce little sound. Some noise is emitted when the turbine blades encounter turbulence in the air, producing a ‘whooshing’ sound, but this sound is generally masked by background noise of the blowing wind. Some sound is emitted by the gears inside the transmission or from the hum of the generator. As technology has improved, sound produced by wind turbines has also decreased over the years and equipment inside the wind turbine is better soundproofed. At distances of 750 to 1,000 linear feet from a turbine, the wind turbine is equivalent to the hum of a kitchen refrigerator. As such, some ordinances have increased the setbacks from wind turbines to 1,500 linear feet to reduce the sound detected.

Odor: Wind turbines do not produce any byproduct or odor.

Traffic: The wind farm requires general and preventive maintenance only two to three times per year from on-site employees and thus does not attract traffic during daily operation aside from the initial construction and installation of the farm.

Hazardous Material: Modern wind turbines are constructed to U.S. government standards, maintained in accordance with recommended practices, and monitored and documented with technical reports.

Health Issues: According to an article published by NOVA Science Trust, “Twenty-five peer-reviewed studies have found that living near wind turbines does not pose a risk on human health.”^[2]

^[1] U.S. Department of Energy. <https://www.energy.gov/eere/wind/how-do-wind-turbines-work>

^[2] NOVA Science Trust. <https://www.pbs.org/wgbh/nova/article/can-wind-turbines-make-you-sick/>

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SUMMARY AND FINAL CONCLUSIONS

The purpose of this property value impact consulting report is to determine whether the presence of a wind farm has caused a measurable and consistent impact on adjacent property values. Under the identified methodology and scope of work, CohnReznick reviewed published methodology for measuring impact on property values as well as published reports that analyzed the impact of wind farms on property values. These studies found little to no measurable and consistent difference between Test Area Sales and Control Area Sales attributed to the wind farms.

A summary of the chosen CohnReznick impact studies prepared is presented below.

CohnReznick Impact Study Analysis Conclusions							
Wind Farm #	Wind Farm	Adjoining Test Sale Properties	Adjoining Property Sale (Test Area) Median Price per SF	Control Area Sales Median Price per SF	% Difference	Avg Linear Feet from Turbine to House	Impact Found
1	Pilot Hill Wind Farm	Group 1 (3)	\$133.13	\$132.76	0.28%	1,533	No Impact
		Group 2 (1)	\$175.00	\$173.98	0.59%	1,900	No Impact
		Group 3 (1)	\$129.06	\$120.73	6.90%	4,500	No Impact
2	Kelly Creek Wind Project	Group 1 (1)	\$86.79	\$86.99	-0.24%	1,400	No Impact
		Group 2 (1)	\$123.29	\$118.15	4.35%	2,200	No Impact
3	Camp Grove Wind Farm	Group 1 (1)	\$49.67	\$49.04	1.28%	2,105	No Impact
		Group 2 (1)	\$83.43	\$79.71	4.67%	2,650	No Impact
4	Lee-DeKalb Wind Energy Center	Group 1 (2)	\$99.41	\$97.68	1.77%	2,283	No Impact
		Group 2 (1)	\$97.62	\$95.65	2.06%	1,600	No Impact
		Group 3 (1)	\$73.66	\$72.32	1.85%	2,425	No Impact
		Group 4 (1)	\$124.71	\$124.29	-0.34%	2,225	No Impact
5	Adair Wind Farm	Group 1 (1)	\$135.77	\$134.18	1.19%	1,300	No Impact
		Group 2 (1)	\$169.03	\$145.27	16.36%	1,375	No Impact
		Group 3 (1)	\$95.17	\$96.07	-0.93%	1,450	No Impact
6	Eclipse Wind Farm	Group 1 (2)	\$109.54	\$98.70	10.98%	1,260	No Impact
		Group 2 (1)	\$86.77	\$88.66	-2.13%	4,800	No Impact
7	White Oak Wind Energy Center	Group 1 (1)	\$121.71	\$118.93	2.34%	1,870	No Impact
		Group 2 (5)	\$93.20	\$86.10	8.25%	3,080	No Impact
		Group 3 (5)	\$106.28	\$102.60	3.59%	3,730	No Impact
		Group 4 (1)	\$117.88	\$118.31	-0.36%	2,930	No Impact
8	Top Crop Wind Farm	Group 1 (2)	\$92.47	\$90.47	2.21%	1,830	No Impact
		Group 2 (1)	\$132.78	\$121.09	9.65%	4,475	No Impact
9	Rail Splitter Wind Farm	Group 1 (1)	\$74.22	\$75.49	-1.68%	2,500	No Impact
		Group 2 (1)	\$109.12	\$103.21	5.73%	1,650	No Impact
10	Bright Stalk Wind Farm	Group 1 (1)	\$99.73	\$100.36	-0.63%	3,260	No Impact
Median Variance in Sales Prices for Test to Control Areas					1.85%		
38 Adjoining Test Area Sales studied and compared to 223 Control Area Sales							

The wind farms analyzed reflected sales of property adjoining an existing wind farm (Test Area Sales) in which the unit sale prices were effectively the same or higher than the comparable Control Area Sales that were not near a wind farm. The conclusions support that there is no negative impact on improved residential homes adjacent to wind farms. This was confirmed with market participant interviews, which provided additional insight as to how the market evaluates farmland and single-family homes with views of the wind farm.

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It can be concluded that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the wind farm, properties surrounding other proposed wind farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

Based upon the examination, research, and analyses of the existing wind farm uses, the surrounding areas, and an extensive market database, we have concluded that **no consistent negative impact has occurred to adjacent property values that could be attributed to proximity to the adjacent wind farm**, with regard to unit sale prices or other influential market indicators. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact on property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI, CRE
Principal
Certified General Real Estate Appraiser
Illinois License No. 553.001841



Erin C. Bowen, MAI
Senior Manager

CERTIFICATION

We certify that, to the best of our knowledge and belief:

1. The statements of fact and data reported are true and correct.
2. The reported analyses, findings, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, findings, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value finding, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
8. Our analyses, findings, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
10. Andrew R. Lines, MAI, CRE, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via public right-of-ways, photographs, or aerial imagery.
11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
12. Lauren Migliore provided significant appraisal consulting assistance to the persons signing this certification, including data verification, research, and administrative work all under the appropriate supervision.
13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Andrew R. Lines, MAI, CRE, and Erin Bowen, MAI have completed the continuing education program of the Appraisal Institute for designated members.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI, CRE
Principal
Certified General Real Estate Appraiser
Illinois License No. 553.001841



Erin C. Bowen, MAI
Senior Manager

ASSUMPTIONS AND LIMITING CONDITIONS

The fact witness services will be subject to the following assumptions and limiting conditions:

1. No responsibility is assumed for the legal description provided or for matter pertaining to legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated. The legal description used in this report is assumed to be correct.
2. The property is evaluated free and clear of any or all liens or encumbrances unless otherwise stated.
3. Responsible ownership and competent management are assumed.
4. Information furnished by others is believed to be true, correct and reliable, but no warranty is given for its accuracy.
5. All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the property.
6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
7. It is assumed that the property is in full compliance with all applicable federal, state, and local and environmental regulations and laws unless the lack of compliance is stated, described, and considered in the evaluation report.
8. It is assumed that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in the evaluation report.
9. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
10. It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
11. The date of value to which the findings are expressed in this report apply is set forth in the letter of transmittal. The appraisers assume no responsibility for economic or physical factors occurring at some later date which may affect the opinions herein stated.
12. Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the appraisers. The appraisers have no knowledge of the existence of such substances on or in the property. The appraisers, however, are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, radon gas, lead or lead-based products, toxic waste contaminants, and other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No

responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

13. The forecasts, projections, or operating estimates included in this report were utilized to assist in the evaluation process and are based on reasonable estimates of market conditions, anticipated supply and demand, and the state of the economy. Therefore, the projections are subject to changes in future conditions that cannot be accurately predicated by the appraisers and which could affect the future income or value projections.
14. Fundamental to the appraisal analysis is the assumption that no change in zoning is either proposed or imminent, unless otherwise stipulated. Should a change in zoning status occur from the property's present classification, the appraisers reserve the right to alter or amend the value accordingly.
15. It is assumed that the property does not contain within its confined any unmarked burial grounds which would prevent or hamper the development process.
16. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine if it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Unless otherwise noted in this report, we have not been provided with a compliance survey of the property. Any information regarding compliance surveys or estimates of costs to conform to the requirements of the ADA are provided for information purposes. No responsibility is assumed for the accuracy or completeness of the compliance survey cited in this report, or for the eventual cost to comply with the requirements of the ADA.
17. Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in this report.
18. Any proposed improvements are assumed to have been completed unless otherwise stipulated; any construction is assumed to conform with the building plans referenced in this report.
19. Unless otherwise noted in the body of this report, this evaluation assumes that the subject does not fall within the areas where mandatory flood insurance is effective.
20. Unless otherwise noted in the body of this report, we have not completed nor are we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property.
21. This report should not be used as a basis to determine the structural adequacy/inadequacy of the property described herein, but for evaluation purposes only.
22. It is assumed that the subject structure meets the applicable building codes for its respective jurisdiction. We assume no responsibility/liability for the inclusion/exclusion of any structural component item which may have an impact on value. It is further assumed that the subject property will meet code requirements as they relate to proper soil compaction, grading, and drainage.

23. The appraisers are not engineers, and any references to physical property characteristics in terms of quality, condition, cost, suitability, soil conditions, flood risk, obsolescence, etc., are strictly related to their economic impact on the property. No liability is assumed for any engineering-related issues.

The evaluation services will be subject to the following limiting conditions:

1. The findings reported herein are only applicable to the properties studied in conjunction with the Purpose of the Evaluation and the Function of the Evaluation as herein set forth; the evaluation is not to be used for any other purposes or functions.
2. Any allocation of the total value estimated in this report between the land and the improvements applies only to the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are not valid if so used.
3. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in the evaluation.
4. This report has been prepared by CohnReznick under the terms and conditions outlined by the enclosed engagement letter. Therefore, the contents of this report and the use of this report are governed by the client confidentiality rules of the Appraisal Institute. Specifically, this report is not for use by a third party and CohnReznick is not responsible or liable, legally or otherwise, to other parties using this report unless agreed to in writing, in advance, by both CohnReznick and/or the client or third party.
5. Disclosure of the contents of this evaluation report is governed by the by-laws and Regulations of the Appraisal Institute has been prepared to conform with the reporting standards of any concerned government agencies.
6. The forecasts, projections, and/or operating estimates contained herein are based on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions. This evaluation is based on the condition of local and national economies, purchasing power of money, and financing rates prevailing at the effective date of value.
7. This evaluation shall be considered only in its entirety, and no part of this evaluation shall be utilized separately or out of context. Any separation of the signature pages from the balance of the evaluation report invalidates the conclusions established herein.
8. **Possession of this report, or a copy thereof, does not carry with it the right of publication, nor may it be used for any purposes by anyone other than the client without the prior written consent of the appraisers, and in any event, only with property qualification.**
9. The appraisers, by reason of this study, are not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.

10. Neither all nor any part of the contents of this report shall be conveyed to any person or entity, other than the appraiser's client, through advertising, solicitation materials, public relations, news, sales or other media, without the written consent and approval of the authors, particularly as to evaluation conclusions, the identity of the appraisers or CohnReznick, LLC, or any reference to the Appraisal Institute, or the MAI designation. Further, the appraisers and CohnReznick, LLC assume no obligation, liability, or accountability to any third party. If this report is placed in the hands of anyone but the client, client shall make such party aware of all the assumptions and limiting conditions of the assignment.
11. This evaluation is not intended to be used, and may not be used, on behalf of or in connection with a real estate syndicate or syndicates. A real estate syndicate means a general or limited partnership, joint venture, unincorporated association or similar organization formed for the purpose of, and engaged in, an investment or gain from an interest in real property, including, but not limited to a sale or exchange, trade or development of such real property, on behalf of others, or which is required to be registered with the United States Securities and Exchange commissions or any state regulatory agency which regulates investments made as a public offering. It is agreed that any user of this evaluation who uses it contrary to the prohibitions in this section indemnifies the appraisers and the appraisers' firm and holds them harmless from all claims, including attorney fees, arising from said use.



**ADDENDUM A:
APPRAISER QUALIFICATIONS**

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Andrew R. Lines, MAI, CRE

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Andrew R. Lines, MAI, CRE is a Principal for CohnReznick Advisory's Valuation Advisory Services practice who has been a CohnReznick employee for over twelve years. Andrew has been involved in the real estate business for more than 20 years and has performed valuations on all real estate classes (industrial, commercial, residential, development land). Special-use valuations include affordable housing (as well as market studies), student housing, senior housing, cannabis facilities (indoor/outdoor, processing and dispensaries), landfills, waste transfer stations, golf courses, marinas, hospitals, universities, telecommunications facilities, data centers, self-storage facilities, racetracks, and corridors. Impact Study Reports have also been generated for zoning hearings related to the development of solar facilities, wind powered facilities, landfills, big box retail, waste transfer stations, private mental health clinics, cannabis dispensaries, concert/stadium venues and day care centers. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for cases in the states of IL, DC, VA, NY and MD, and for zoning hearings in IL, IN, MI, NY, HI, OH, KY, CO, PA, WI and MO. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in AZ, CA, IL, IN, WI, MD, OH, NY, NJ, FL, GA, KY and DC. Temporary licenses have been granted in CT, CO, PA, ID, MS, KS, MT and SC.

Education

- Syracuse University: Bachelor of Fine Arts
- MAI Designation (Member of the Appraisal Institute)

Professional Affiliations

- Counselors of Real Estate (CRE)
- Chicago Chapter of the Appraisal Institute
- International Real Estate Management (IREM)
- National Council of Housing and Market Analysts (NCHMA)

Community Involvement

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- Syracuse University Regional Council
- Chicago Friends School



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Erin C. Bowen, MAI

Senior Manager, Valuation Advisory Services

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Erin Bowen, MAI is a Senior Manager with CohnReznick in Valuation Advisory Services. Ms. Bowen is based in Phoenix, Arizona, with presence covering the west coast. Ms. Bowen's work in Commercial Real Estate valuation spans over 12 years.

Ms. Bowen specializes in lodging, cannabis, seniors housing, large scale retail and multifamily conversion properties. Lodging work includes all hotel property types and brand segments including limited, full service and resort properties; additionally, Ms. Bowen has appraised numerous hotel to multifamily conversion properties including market rate and affordable housing. Cannabis work includes dispensaries, cultivation facilities including specialized indoor facilities and greenhouse properties, processing and manufacturing facilities. Senior's housing assignments include assisted living, skilled nursing facilities and rehabilitation centers. Retail work spans power centers, lifestyle centers, outlet centers and malls. She has appraised numerous additional properties including multifamily, office, medical office, industrial, churches, and vacant land.

Ms. Bowen has expertise in appraising properties at all stages of development, including existing as is, proposed, under construction, renovations and conversion to alternate use. Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, eminent domain, tax appeal, estate gifts, asset management, as well as valuation for financial reporting including purchase price allocations (ASC 805). Impact Study Reports have also been generated for zoning hearings related to the development of solar facilities and wind powered facilities. Ms. Bowen has qualified as an expert witness and provided testimony for zoning and county commission hearings.

Education

- University of California, San Diego: Bachelor of Arts in Psychology and Theater; College Honors

Professional Affiliations

- Designated Member of the Appraisal Institute

Licenses

- State of Arizona (Certification #32052)
- State of California (Certification #AG3004919)
- State of Nevada (Certification #A.0208032-CG)
- State of Oregon (Certification #C001551)

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REAL ESTATE ADJACENT PROPERTY VALUE IMPACT REPORT:

**Site Specific Analysis Addendum Report:
For the Proposed 319.5 MW Heritage Prairie Wind Project
To Be Located in Livingston County, Illinois**

Prepared For:

Allen Wynn
Director, Environmental & Planning
Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, TX 77002

Submitted By:

CohnReznick LLP
Valuation Advisory Services
1 S. Wacker Drive, Suite 3550
Chicago, Illinois 60606
(312) 508-5900

Andrew R. Lines, MAI, CRE
Erin C. Bowen, MAI

February 12, 2024

LETTER OF TRANSMITTAL

February 12, 2024

Allen Wynn
Director, Environmental & Planning
Illinois Generation LLC
1201 Louisiana Street, Suite 3200
Houston, TX 77002

SUBJECT: Addendum - Property Value Impact Report
Proposed 319.5 MW Heritage Prairie Wind Project
Livingston County, Illinois

To Whom it May Concern:

This letter and associated report are considered an Addendum to the previously prepared property value impact report with an effective date of February 12, 2024 (“Primary Report”). All facts and circumstances surrounding the property value impact report that analyzes existing wind farm and any effect on adjacent property values are contained within the cited Primary Report. This Addendum cannot be properly understood without the cited Primary Report and should be reviewed in unison.

Per the client’s request, we have researched the proposed wind farm on land located in Livingston County, Illinois. The proposed wind use, called the Heritage Prairie Wind Project, will have a capacity of up to 319.5 MW AC (megawatts alternating current).

The purpose of this consulting assignment is to determine whether the proximity of the proposed renewable energy use (wind farm) will result in impact on adjacent property values.

The intended use of our opinions and conclusions is to assist the client in addressing local concerns and to provide information that permitting bodies consider in their evaluation of wind project use applications. We have not been asked to value any specific property, and we have not done so.

The client and intended users for the assignment is Illinois Generation LLC. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP (“CohnReznick”).

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The assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, as well as applicable state appraisal regulations.

Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings are as follows.

FINDINGS

- I. **Published Studies:** CohnReznick reviewed and analyzed published academic studies that specifically analyzed the impact of wind facilities on nearby property values. These studies include multiple regression analyses of hundreds and thousands of sales transactions for residential homes. The vast majority of studies with large-scale data sets concluded existing wind facilities have had no negative impact on adjacent property values.
- II. **CohnReznick Studies:** Further, CohnReznick has evaluated 10 existing wind farms and sales of adjacent residential properties, in which we have determined that the existing wind facilities have not caused any consistent and measurable negative impact on property values. These existing wind farms studied are summarized as follows:

CohnReznick - Existing Wind Farms Studied							
Wind Farm #	Wind Farm	Date Placed in Service	County, State	Approximate Project Area (Acres)	MW AC	Turbine Rated Capacity	Turbines
1	Pilot Hill Wind Farm	Aug-15	Kankakee and Iroquois Counties, IL	15,000	175.0	1.7 MW	103
2	Kelly Creek Wind Project	Dec-16	Kankakee and Ford Counties, IL	20,000	184.0	2.0 MW	92
3	Camp Grove Wind Farm	Dec-07	Marshall and Stark Counties, IL	14,000	150.0	1.5 MW	100
4	Lee-DeKalb Wind Energy Center	Dec-09	DeKalb and Lee Counties, IL	22,000	217.5	1.5 MW	145
5	Adair Wind Farm	Dec-08	Adair and Cass Counties, IA	16,000	174.8	2.3 MW	76
6	Eclipse Wind Farm	Sep-12	Audubon and Guthrie Counties, IA	18,000	200.1	2.3 MW	87
7	White Oak Wind Energy Center	Jun-11	McLean County, IL	11,000	150.0	1.5 MW	100
8	Top Crop Wind Farm	Aug-10	Livingston, Grundy & LaSalle Counties, IL	28,000	300.0	1.5 MW	200
9	Rail Splitter Wind Farm	Aug-09	Tazewell & Logan Counties, IL	11,000	100.5	1.5 MW	67
10	Bright Stalk Wind Farm	Dec-19	McClellan County, IL	5,000	205.2	3.6 MW	57

- III. **Market Participant Interviews:** Our conclusions also consider interviews with County and Township Assessors, who have at least one wind farm in their jurisdiction, and in which they have determined that wind farms have not negatively affected adjacent property values.

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With regards to the Project, we specifically interviewed the following persons in Illinois:

- When discussing recent wind farm development in the county, Shelly Renken, Supervisor of Assessments in **Livingston County, Illinois** reported that there is no documentation that shows an impact to property values and that values have not materially increased or decreased as a result of being near a wind farm.
- We spoke with the **Stark County, Illinois** Tax Assessor, Renee Johnson, regarding the Camp Grove Wind Farm and she reported that she could not see a difference in the home prices between current values and before the wind farm was built in 2007.
- Bridget Nodurft, Chief Deputy of the Supervisor of Assessments Office in **Dekalb County, Illinois**, reported that being near the turbines did not cause harm to property values.
- **Lee County, Illinois** Chief County Assessment Officer, Wendy Ryerson has not noticed any difference in the values of homes that are near wind turbines.
- Tracey Vinavich, Chief County Assessor of **Henry County, Illinois** told us that there have been no changes in values because of the wind farms that have been developed.
- Christine Anderson, GIS Coordinator in the Tax Assessor's office in **Bureau County, Illinois**, reported that they never received any complaints about potential changes in home values, before or after any of the wind farms were built.

To give us additional insight as to how the market evaluates farmland and single-family homes with views of wind farms, we interviewed numerous real estate brokers and other market participants who were party to actual sales of property adjacent to wind farms; these professionals also confirmed that wind farms did not diminish property values or marketability in the areas they conducted their business.

- IV. Wind Farm Factors on Harmony of Use: In the course of our research and studies, we have recorded information regarding the compatibility of these existing wind facilities and their adjoining uses, including the continuing development of land adjoining these facilities.

CONCLUSION

Considering all of the preceding, the data indicates that wind energy facilities do not have a negative impact on adjacent property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

CohnReznick LLP



Andrew R. Lines, MAI, CRE
Principal
Certified General Real Estate Appraiser
Illinois License No. 553.001841
Expires 9/30/2025



Erin C. Bowen, MAI
Senior Manager
Certified General Real Estate Appraiser

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SCOPE OF WORK

CLIENT

The client for this assignment is Illinois Generation LLC.

INTENDED USERS

Illinois Generation LLC; other intended users may include the client's legal and site development professionals.

INTENDED USE

The intended use of our findings and conclusions is to address certain criteria related to impacts on adjacent property values, in an application for a Special Use permit for the proposed wind energy generation use, known as the Heritage Prairie Wind Project to be located in Livingston County, Illinois. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

PURPOSE

The purpose of this consulting assignment is to determine whether proximity to the proposed wind facility will result in an impact on adjacent property values.

DEFINITION OF VALUE

This report utilizes Market Value as the appropriate premise of value. Market value is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."¹

¹ Code of Federal Regulations, Title 12, Chapter I, Part 34.42[h]

EFFECTIVE DATE & DATE OF REPORT

February 12, 2024 (Paired sale analyses contained within each study in the Primary Report are periodically updated.)

PRIOR SERVICES

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

We have not previously evaluated the Project site.

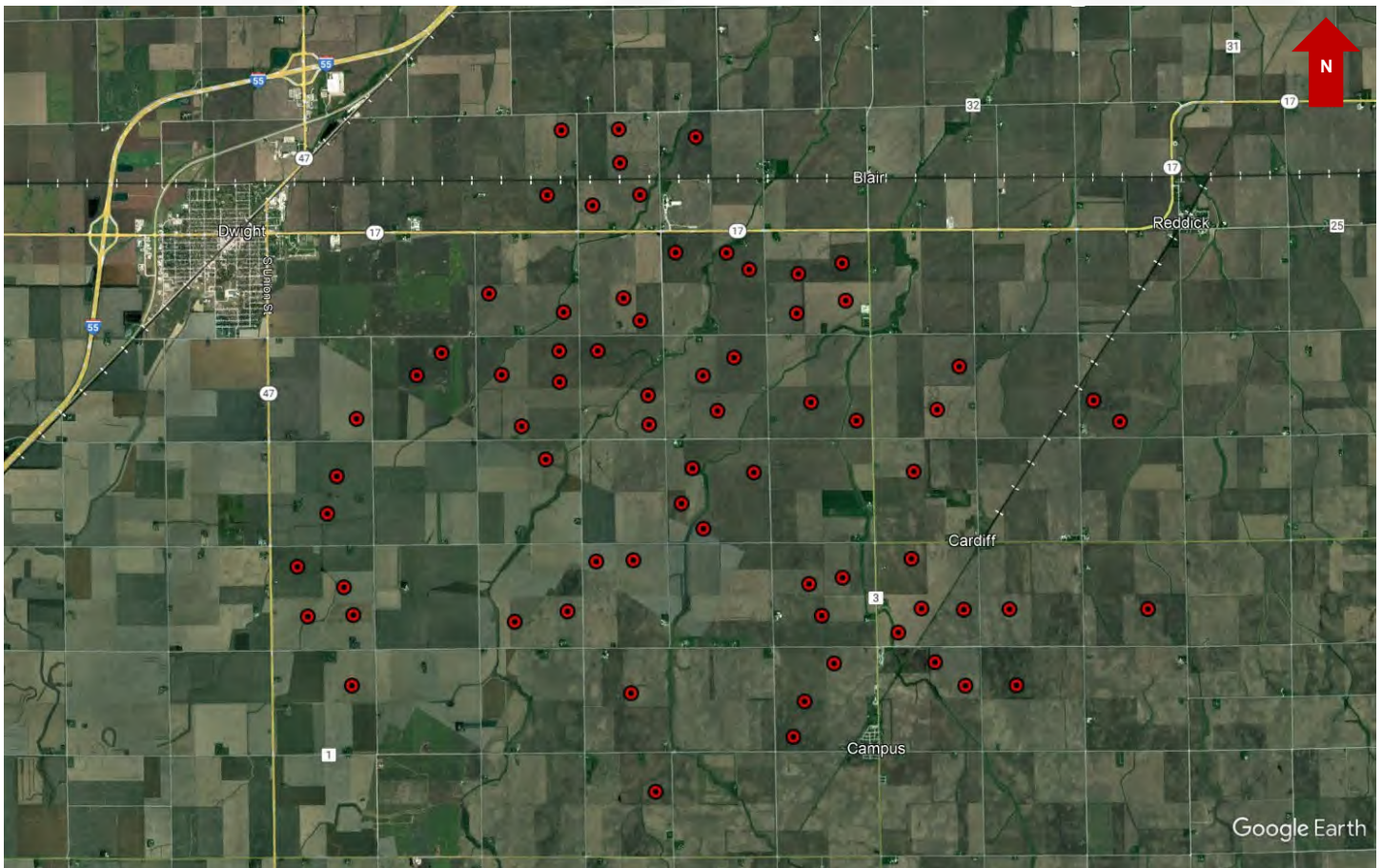
INSPECTION

Andrew R. Lines, MAI, CRE, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

IDENTIFICATION AND DESCRIPTION OF THE PROPOSED PROJECT

The Heritage Prairie Wind Project (“the Project”) is to be located on land bounded by State Route 47 to the west and N 3600 E Road to the east, in between E 3300 Road N to the north and E 2600 N Road to the south, in northeastern Livingston County, Illinois.

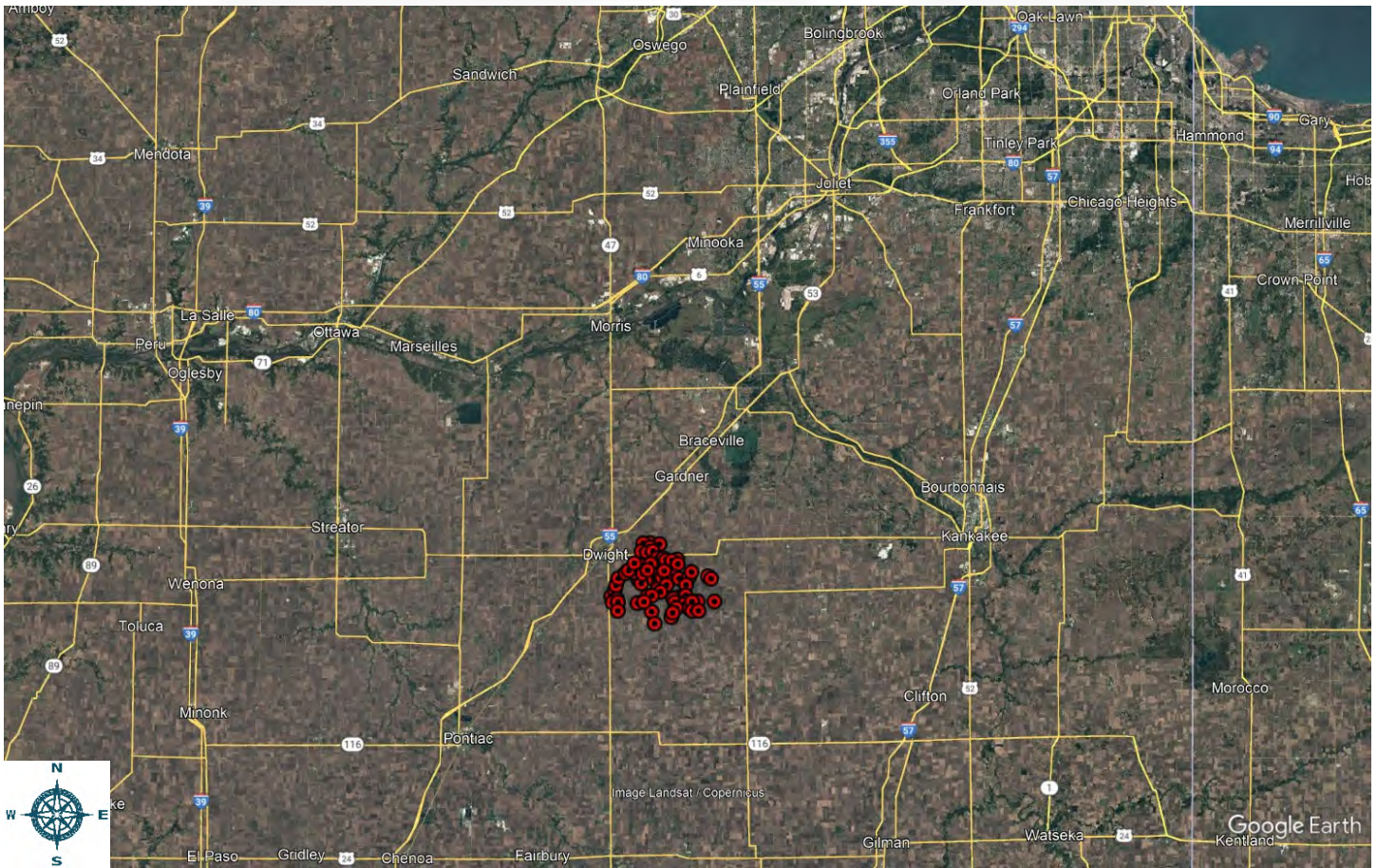
The project is anticipated to consist of a total of 71 turbines with a capacity of 4.5 MW, for a total of 319.5 MW. The proposed area of interest for the Project encompasses approximately 50 square miles in Round Group Township and Dwight Township in Livingston County. The Project’s surrounding land use is primarily agricultural with some adjacent single-family homes and homesteads. The locations of the Project turbines are presented below.



Proposed Heritage Prairie Wind Project proposed turbine locations, as provided by Illinois Generation LLC

LIVINGSTON COUNTY DEMOGRAPHIC AND LAND USE PROFILE

The Project consists of a utility-scale, wind energy use in northeastern Livingston County, Illinois, known as the 319.5 MW Heritage Prairie Wind Project. A surrounding area map indicating the location of the Project (red pins) is presented below.



Aerial imagery of project area provided by Google Earth, dated December 2020

TRAFFIC PATTERNS AND CONNECTIVITY

The Heritage Prairie Wind Project (“the Project”) is to be located on land bounded by State Route 47 to the west and N 3600 E Road to the east, in between E 3300 Road N to the north and E 2600 N Road to the south, in northeastern Livingston County, Illinois.

Interstate 55, is just west of the western boundary of the Project site and provides north-south access throughout the state, connecting Dwight to Chicago to the north and Bloomington to the south of the Project site. Approximately 20 miles east of the project boundary is Interstate 57, which runs north-south across the state, connecting Kankakee to Chicago to the north and Champaign to the south. State Route 17 runs east-west through the project, connecting Dwight to Kankakee. The nearest major cities to the Project are Chicago, approximately 80 miles northeast of the Project; Peoria, approximately 80 miles southwest of the Project; and Bloomington, approximately 57 miles south of the Project.

DEMOGRAPHIC FACTORS

Demographic data is presented below, as compiled by ESRI, which indicates a declining population in the area surrounding the Project, and a slightly declining population in the County and the State. The data also indicates that the area surrounding the Project is predominantly owner-occupied. Median household income is similar at the local area level to the County level, but slightly below the state level.

DEMOGRAPHIC PROFILE			
	Project Area (5-Mile Radius)	Livingston County	Illinois
Population			
2028 Projection	3,789	35,161	12,598,432
2023 Estimate	3,872	35,519	12,719,013
2010 Census	4,311	38,950	12,830,632
Growth 2023 - 2028	-2.14%	-1.01%	-0.95%
Growth 2010 - 2023	-10.18%	-8.81%	-0.87%
Total Land Area	79 sq. mi.	1,046 sq. mi.	57,915 sq. mi.
Population Density	49/sq. mi.	34/sq. mi.	220/sq. mi.
Households			
2028 Projection	1,625	14,343	5,043,736
2023 Estimate	1,641	14,359	5,013,116
2010 Census	1,655	14,613	4,836,972
Growth 2023 - 2028	-0.98%	-0.11%	0.61%
Growth 2010 - 2023	-0.85%	-1.74%	3.64%
2023 Owner Occupied (%)	65.03%	66.60%	62.06%
2023 Renter Occupied (%)	34.97%	33.40%	37.94%
2023 Med. Household Income	\$65,546	\$62,967	\$74,859
2023 Avg. Household Income	\$85,356	\$81,318	\$108,546

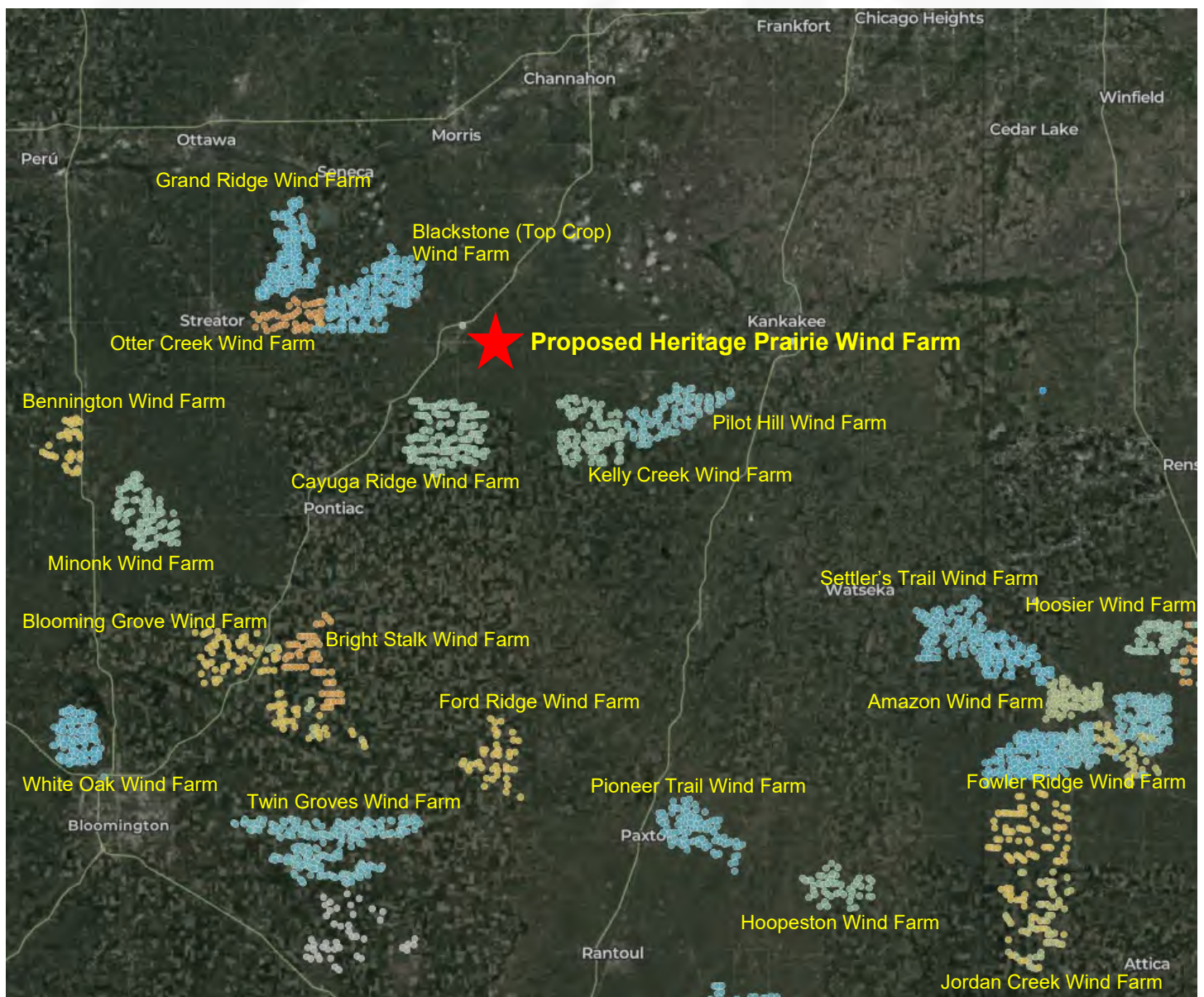
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CONCLUSION

Land uses in the area surrounding the Project can be categorized as predominantly farmland and some residential homesteads. The factors presented previously indicate that the proposed Project would not be incompatible with surrounding uses and would not negatively impact surrounding properties.

A map of utility-scale wind farms in relatively close proximity to the proposed Heritage Prairie Wind Farm site is presented in the following map.

Two of the closest existing wind studies, Pilot Hill Wind Farm and Kelly Creek Wind Farm were studied by CohnReznick and found to have no impact on adjacent property values. The full analysis is included in the accompanying Property Value Impact Report.



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ILLINOIS SOIL PRODUCTIVITY AND VALUE TRENDS

BULLETIN 810 – AVERAGE CROP, PASTURE, AND FORESTRY PRODUCTIVITY RATINGS FOR ILLINOIS SOILS

According to Bulletin 810, prepared by the Office of Research at the College of Agricultural, Consumer, and Environmental Sciences at the University of Illinois, “Crop yield trends are important for economic decision makers, as well as for farm owners and operators, because yield performance may influence decisions about levels of agricultural inputs and adoption of new technologies. Furthermore, information about past, present, and future crop yields may be used as a basis for land valuation, crop insurance, and other related farm business.”² Our conversations with market participants and local farmers have also indicated that crop yields directly influence unit prices of farmland in Illinois since higher soil productivity allows farmers to produce more crops.

Bulletin 810 defines soil productivity as “the capacity of soil to grow crops or plants under specified environmental conditions and is influenced by soil properties, climatic conditions, and management inputs.” Crop yields have been the basis for establishing a soil productivity index, and is used by County Assessors, farmers, and market participants in Illinois. As noted, these yields are influenced by a variety of different factors including environmental traits and management inputs. Tracked climate and soil qualities have been proven by researchers to directly explain fluctuations in crop yields, especially those qualities that relate to moisture-holding capacity.

While crop yields are an integral part in assessing soil qualities, it is not an appropriate metric to rely on because “yields fluctuate from year to year, and absolute yields mean little when comparing different crops. Productivity indices provide a single scale on which soils may be rated according to their suitability for several major crops under specified levels of management such as an average level.”¹ The productivity index, therefore, not crop yields, is best suited for applications in land appraisal and land-use planning.

Information regarding soil productivity that is in use today was taken from the 1970 Circular 1016 *Productivity of Illinois Soils* (Odell and Oschwald, 1970) and has been updated periodically since its initial publication. However, as technology and farming practices have improved over the years, these two factors caused upward trends in crop yield. Past publications have presented soil productivity indices under the assumption of basic level of management; though, this is no longer referenced by Illinois farmers since they have begun to adopt more profitable management styles with improved technology over the years. Examples of new technology include the development and increased use of pesticides, fertilizers, improved crop varieties, reduced row width, and more efficient machinery. To capture the soil productivity for farmland considering improvements, *Bulletin 810* utilized mean 10-year crop yields as of 2000 for Illinois soils under an average level of management, which estimates that half of Illinois farmers obtain a lower crop yield and half obtain a higher crop yield. The Bulletin also states

² Olson, K. R., Lang, J.M., Garcia-Paredes, J.D., Majchrzak, R.N., Hadley, C.I., Woolery, M.E., and Rejesus, R.M. Bulletin 810: Average Crop, Pasture, and Forestry Productivity Ratings for Illinois Soils. Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois, Aug. 2008.

characteristics that would be necessary to be categorized as average management level, such as no irrigation and timely weed and insect control.

While the actual crop yields have improved since the time of publication in August 2000, the disparities between lands with differing soil productivity indices have changed little. Therefore, using soil productivity indices is still an effective method to gauge the value of the land and *Bulletin 810* is still used by County Assessors and farmers today.

Soil PIs do not have units since they represent a relationship between average management PIs and yields of each of the major crops. They are not an accurate representation of the absolute measure of productivity capacity. For example, a soil PI of 120 is not the same as 120 bushels per acre of corn. Rather, soil that has an average PI of 120 “should produce approximately 147 bushels of corn, 47 bushels of soybeans, 56 bushels of wheat, 73 bushels of oats, 104 bushels of grain sorghum, 4.4 tons of grass-legume hay per acre, and 5.3 tons of alfalfa hay per acre under an average level of management.”¹ Under the average level of management, the baseline Muscatune silt loam soil type has an average PI of 130, which sets the top of the range for the soil productivity index for average management. **For soils in Illinois, average soil PI ranges from 43 to 130.** The exhibit below illustrates this concept at varying crop yields at average level of management.

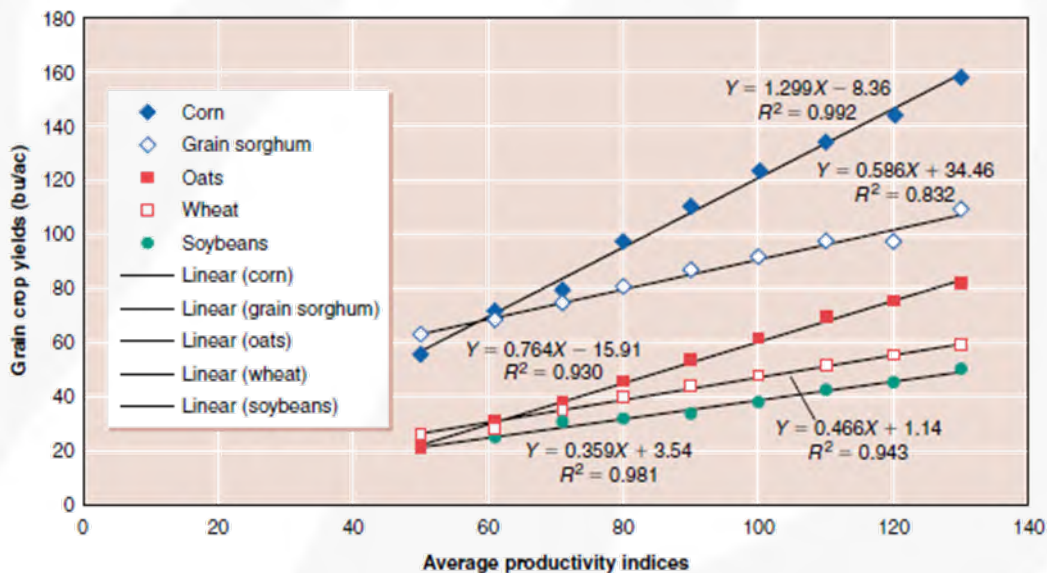


Figure 4A. Relationship between ten-year average crop yields and productivity indices under an average level of management.

BULLETIN 811 - OPTIMUM CROP PRODUCTIVITY RATINGS FOR ILLINOIS SOILS

As a supplement to *Bulletin 810*, the Office of Research at the College of Agricultural, Consumer, and Environmental Sciences at the University of Illinois prepared *Bulletin 811*, which illustrates differences in crop yields at an optimum level of management. Optimum level of management is defined as “the crop yields that were achieved by the top 16% of farmers in Illinois in the 1990s.”³ These yields were achievable with inputs required for maximum profit with 1990’s technology. Under the optimum level of management, the baseline Muscatine silt loam soil type has an optimum PI of 147, which sets the top of the range for the soil productivity index for optimum management. **For soils in Illinois, optimum soil PI ranges from 47 to 147.** Soil productivity ratings under optimum management for Illinois farmland on this scale are as follows.

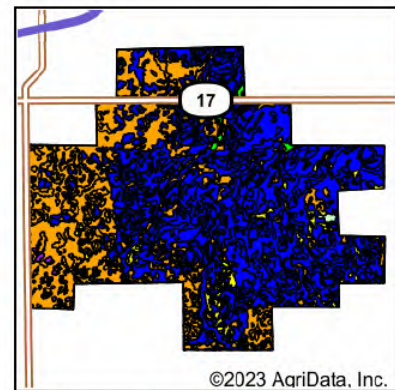
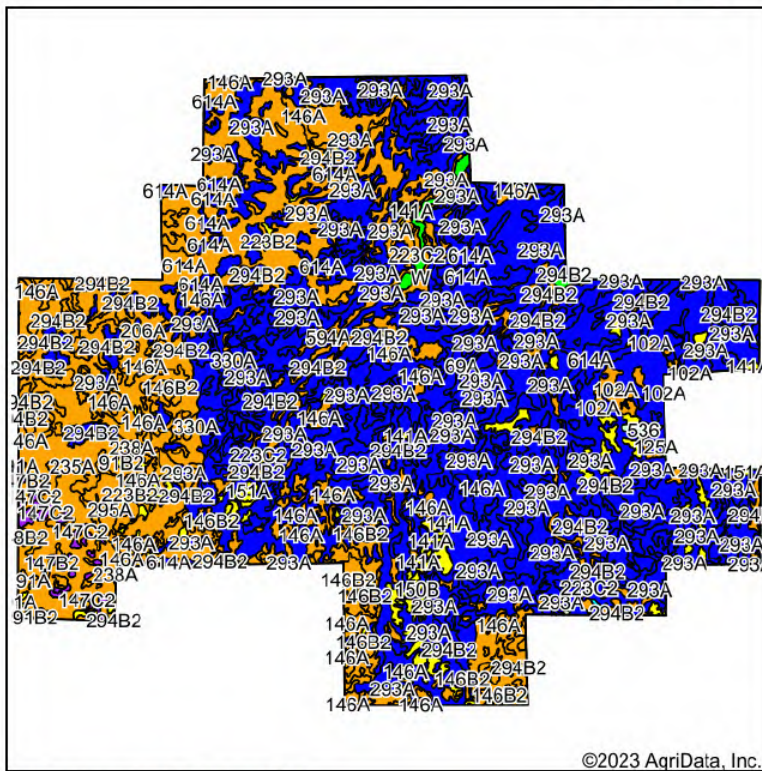
Soil Rating	PI Range	Soil Class
Excellent	133-147	Class A
Good	117-132	Class B
Average	100-116	Class C
Fair	Less than 100	

We have relied on Surety Maps to determine the optimum PI for agricultural land in the state of Illinois. The Surety Map is based on data supplied by the U.S. Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS). This data is the same data analyzed above in *Bulletin 811*, reflecting “optimum level of management”. A similar soil map was prepared for the Project Area, which is presented on the next page, indicating a weighted average rating of 128.4 for the Project Area, which is considered Good quality or Class B soils.

We note that the relative land area required for the turbines is relatively small in comparison to other developments; thus, the total amount of land taken out of crop production will be minimal, compared with the value of the infrastructure, amount of real estate taxes generated, and other intangible contributions to the greater community.

³ Olson, K. R., Lang, J.M. *Bulletin 811: Optimum Crop Productivity Ratings for Illinois Soils*. Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois, Aug. 2008.

Soils Map



State: Illinois
 County: Livingston
 Location: 19-30N-8E
 Township: Round Grove
 Acres: 21994.34
 Date: 9/13/2023



Soils data provided by USDA and NRCS.

Code	Soil Description	Acres	Percent of field	Ill. State Productivity Index Legend	Subsoil rooting a	Corn Bu/A	Soybeans Bu/A	Wheat Bu/A	Oats Bu/A b	Sorghum Bu/A c	Alfalfa d hay, T/A	Grass-le gume e hay, T/A	Crop productivity index for optimum management
594A	Reddick clay loam, 0 to 2 percent slopes	7954.48	36.2%	Blue	FAV	177	56	66	89	0	0.00	5.14	130
293A	Andres silt loam, 0 to 2 percent slopes	4694.00	21.3%	Blue	FAV	184	59	71	97	0	0.00	5.39	135
232A	Ashkum silty clay loam, 0 to 2 percent slopes	3684.01	16.7%	Orange	FAV	170	56	65	85	0	0.00	5.14	127
146A	Elliott silt loam, 0 to 2 percent slopes	1330.77	6.1%	Orange	FAV	168	55	68	87	0	0.00	5.02	125
**294B2	Symerton loam, 2 to 5 percent slopes, eroded	1021.34	4.6%	Orange	FAV	**170	**53	**66	**87	0	**5.96	0.00	**124
235A	Bryce silty clay, 0 to 2 percent slopes	1011.91	4.6%	Orange	FAV	162	54	64	82	0	0.00	4.77	121
614A	Chenoa silty clay loam, 0 to 2 percent slopes	694.27	3.2%	Blue	FAV	174	57	68	92	0	0.00	5.14	129
91A	Swygart silty clay loam, 0 to 2 percent slopes	211.10	1.0%	Orange	UNF	158	52	63	79	0	0.00	4.52	118

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Maps Provided By:



**146B2	Elliott silty clay loam, 2 to 4 percent slopes, eroded	200.17	0.9%		FAV	**160	**52	**65	**83	0	0.00	**4.77	**119
141A	Wesley fine sandy loam, 0 to 2 percent slopes	180.98	0.8%		FAV	152	49	59	78	0	0.00	4.77	113
151A	Ridgeville fine sandy loam, 0 to 2 percent slopes	170.86	0.8%		FAV	151	51	63	78	0	0.00	5.02	114
**150B	Onarga fine sandy loam, 2 to 5 percent slopes	123.39	0.6%		FAV	**147	**48	**60	**76	0	**4.10	0.00	**109
102A	La Hogue loam, 0 to 2 percent slopes	122.26	0.6%		FAV	162	52	71	80	0	0.00	5.27	121
3776A	Comfrey loam, 0 to 2 percent slopes, frequently flooded	85.34	0.4%		FAV	185	61	69	89	0	0.00	5.52	138
**147C2	Clarence silty clay loam, 4 to 6 percent slopes, eroded	82.67	0.4%		UNF	**130	**46	**55	**60	0	0.00	**4.08	**100
69A	Milford silty clay loam, 0 to 2 percent slopes	72.26	0.3%		FAV	171	57	68	88	0	0.00	5.52	128
**223B2	Varna silt loam, 2 to 4 percent slopes, eroded	61.40	0.3%		FAV	**150	**48	**61	**75	0	**4.65	0.00	**110
330A	Peotone silty clay loam, 0 to 2 percent slopes	49.63	0.2%		FAV	164	55	61	78	0	0.00	5.02	123
**91B2	Swygert silty clay loam, 2 to 4 percent slopes, eroded	36.89	0.2%		UNF	**147	**48	**59	**73	0	0.00	**4.20	**110
**223C2	Varna silt loam, 4 to 6 percent slopes, eroded	36.85	0.2%		FAV	**150	**48	**61	**75	0	**4.65	0.00	**110
**147B2	Clarence silty clay loam, 2 to 4 percent slopes, eroded	33.22	0.2%		UNF	**130	**46	**55	**60	0	0.00	**4.08	**100
536	Dumps, mine	29.60	0.1%								.00	.00	
3107A	Sawmill silty clay loam, heavy till plain, 0 to 2 percent slopes, frequently flooded	24.62	0.1%		FAV	189	60	71	98	0	0.00	5.77	139
206A	Thorp silt loam, 0 to 2 percent slopes	10.43	0.0%		FAV	170	55	66	88	0	0.00	5.14	126
295A	Mokena silt loam, 0 to 2 percent slopes	8.76	0.0%		FAV	172	54	66	88	0	0.00	4.89	126
**146C2	Elliott silty clay loam, 4 to 6 percent slopes, eroded	8.57	0.0%		FAV	**160	**52	**65	**83	0	0.00	**4.77	**119

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125A	Selma loam, 0 to 2 percent slopes	8.24	0.0%		FAV	176	57	70	90	0	0.00	6.38	129
594A	Reddick clay loam, 0 to 2 percent slopes	8.06	0.0%		FAV	177	56	66	89	0	0.00	5.14	130
**448B2	Mona silt loam, 2 to 5 percent slopes, eroded	7.06	0.0%		FAV	**154	**48	**60	**79	0	**4.05	0.00	**112
**614B	Chenoa silty clay loam, 2 to 5 percent slopes	6.97	0.0%		FAV	**172	**56	**67	**91	0	0.00	**5.09	**128
W	Water	5.62	0.0%										
153A	Pella silty clay loam, 0 to 2 percent slopes	5.28	0.0%		FAV	183	60	70	92	0	0.00	5.27	136
238A	Rantoul silty clay, 0 to 2 percent slopes	5.03	0.0%		FAV	144	49	56	64	0	0.00	4.14	109
**241D3	Chatsworth silty clay, 6 to 12 percent slopes, severely eroded	3.77	0.0%		UNF	**75	**27	**27	**30	0	0.00	**2.41	**57
232A	Ashkum silty clay loam, 0 to 2 percent slopes	2.28	0.0%		FAV	170	56	65	85	0	0.00	5.14	127
69A	Milford silty clay loam, 0 to 2 percent slopes	1.41	0.0%		FAV	171	57	68	88	0	0.00	5.52	128
146A	Elliott silt loam, 0 to 2 percent slopes	0.51	0.0%		FAV	168	55	68	87	0	0.00	5.02	125
293A	Andres silt loam, 0 to 2 percent slopes	0.33	0.0%		FAV	184	59	71	97	0	0.00	5.39	135
Weighted Average						173.9	56	66.7	88.7	-	0.32	4.85	128.4

Table: Optimum Crop Productivity Ratings for Illinois Soil by K.R. Olson and J.M. Lang, Office of Research, ACES, University of Illinois at Champaign-Urbana. Version: 1/2/2012 Amended Table S2 B811

Crop yields and productivity indices for optimum management (B811) are maintained at the following NRES web site: <http://soilproductivity.nres.illinois.edu/>

** Indexes adjusted for slope and erosion according to Bulletin 811 Table S3

a UNF = unfavorable; FAV = favorable

b Soils in the southern region were not rated for oats and are shown with a zero "0".

c Soils in the northern region or in both regions were not rated for grain sorghum and are shown with a zero "0".

d Soils in the poorly drained group were not rated for alfalfa and are shown with a zero "0".

e Soils in the well drained group were not rated for grass-legume and are shown with a zero "0".

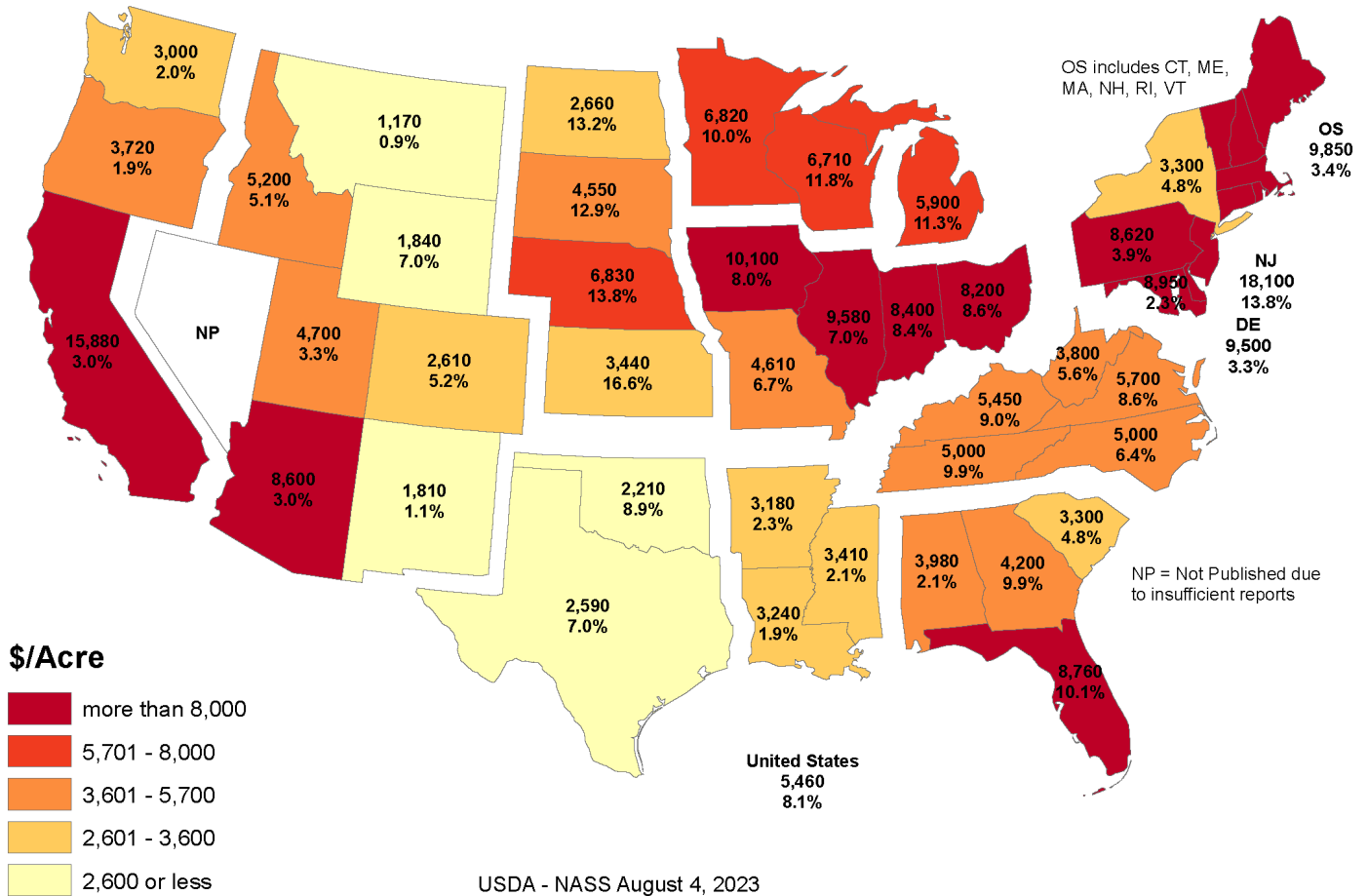
Soils data provided by USDA and NRCS. Soils data provided by University of Illinois at Champaign-Urbana.

AREA VALUE TRENDS - CROPLAND

Agricultural land values are heavily influenced by relative crop production yields. The following exhibit compiled by the USDA National Agricultural Statistics Service (NASS) provides an illustration of how regional conditions such as weather conditions, geographies, and soil conditions can affect crop land real estate values.

2023 Cropland Value by State

Dollars per Acre and Percent Change from 2022



Per the NASS report, the average value of cropland in Illinois for 2023 is \$9,580 per acre, which is an increase of 7.0 percent from 2022. In addition, the report indicated that the average annual growth rate for farmland values in Illinois from 2019 to 2023 was 6.2 percent.⁴

⁴ <https://downloads.usda.library.cornell.edu/usda-esmis/files/pn89d6567/9w033j15z/mp48tw728/land0823.pdf>

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AREA VALUE TRENDS – RESIDENTIAL HOMES

The proposed Project is to be located in northeastern Livingston County. There has been some home sale activity in the area surrounding the proposed Project in the past year.

We researched sales in the surrounding area, from September 2022 through August 2023, and identified 95 market transactions of single-family homes.

The sales are summarized in the table below.

**Home Sales Surrounding Proposed Project Area
(September 2022 through August 2023)**

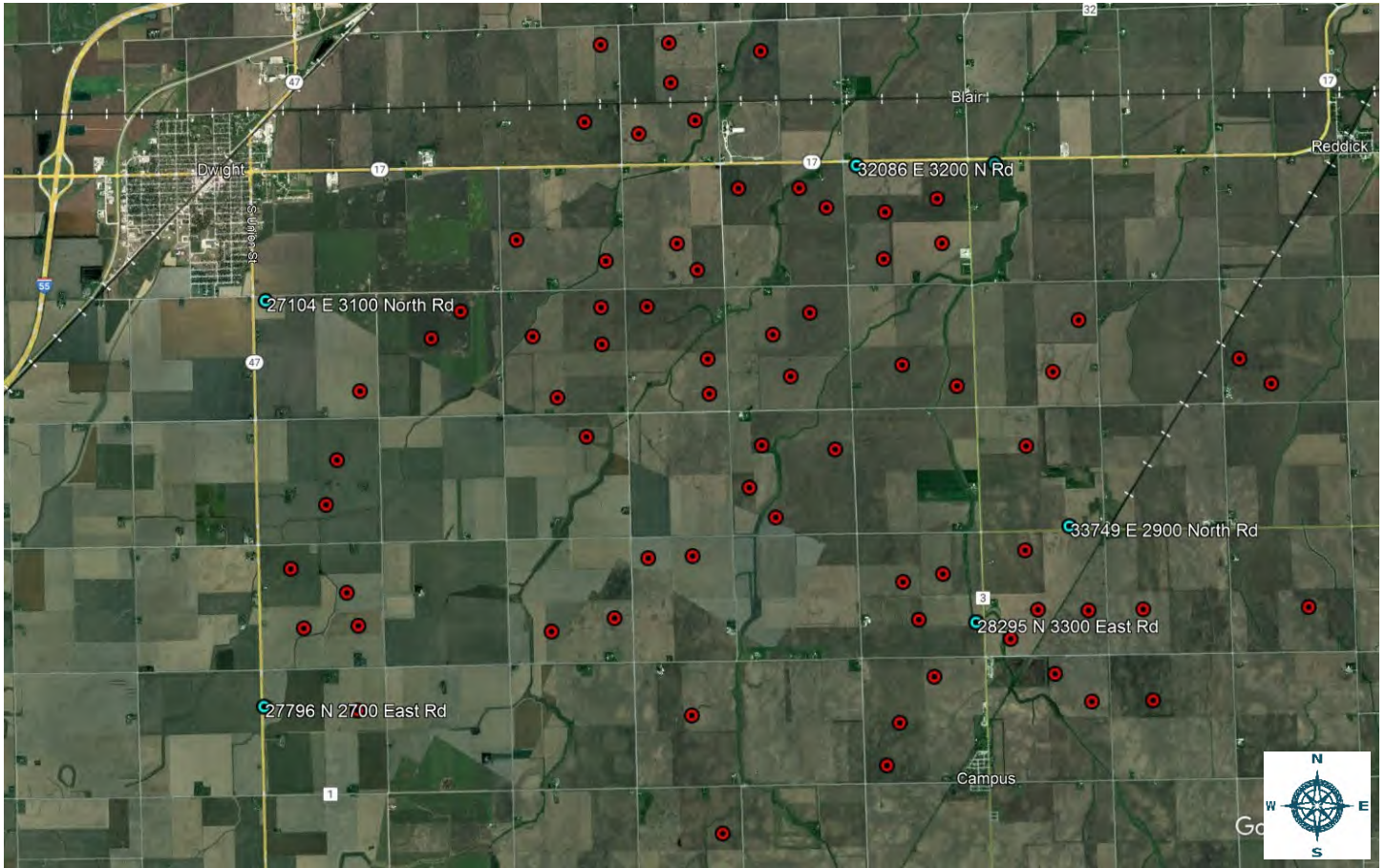
Single Family Homes	Median Lot Size (Acres)	Median Living Area (SF)	Min. Sale Price	Max. Sale Price	Median Sale Price	Median Sale Price PSF
Northeast Livingston County	0.27	1,537	\$27,500	\$415,000	\$145,500	\$89.50

We surveyed the surrounding area of the proposed site to identify any transactions of homes adjacent to the site that occurred within the past year. We identified six sales of a single-family residence that sold near or adjacent to the project’s proposed location, within a 1-mile radius of a proposed turbine location, with a median sale price of \$283,500 or \$152.62 per square foot, above the median sale price per square foot of the area, and does not appear to be impacted by the proposed wind project. Please see the table below:

Home Sales Adjacent to Proposed Project Area (September 2022 through August 2023)

Address	Building Size (SF)	Sale Date	Sale Price	\$ PSF	Lot Size (AC)	Days on Market	Year Built
27796 N 2700 East Rd, Dwight	1,350	7/26/2023	\$402,000	\$297.78	3.13	14	1932
33749 E 2900 North Rd, Dwight	2,184	7/7/2023	\$262,000	\$119.96	3.99	24	1895
33226 E 3200 North Rd, Reddick	2,198	4/4/2023	\$150,000	\$68.24	4.43	N/A	1952
28295 N 3300 East Rd, Dwight	1,644	12/13/2022	\$305,000	\$185.52	5.50	N/A	1977
27104 E 3100 North Rd, Dwight	2,240	10/28/2022	\$415,000	\$185.27	2.20	14	2007
32086 E 3200 North Rd, Dwight	2,150	10/7/2022	\$187,000	\$86.98	4.00	N/A	1904
Median	2,167		\$283,500	\$152.62	4.00	14	1942

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Aerial imagery of project area provided by Google Earth, dated October 2022. Proposed turbine locations are labeled with red pins and residential properties within a one-mile radius of a proposed turbine that recently sold is labeled with blue pins.

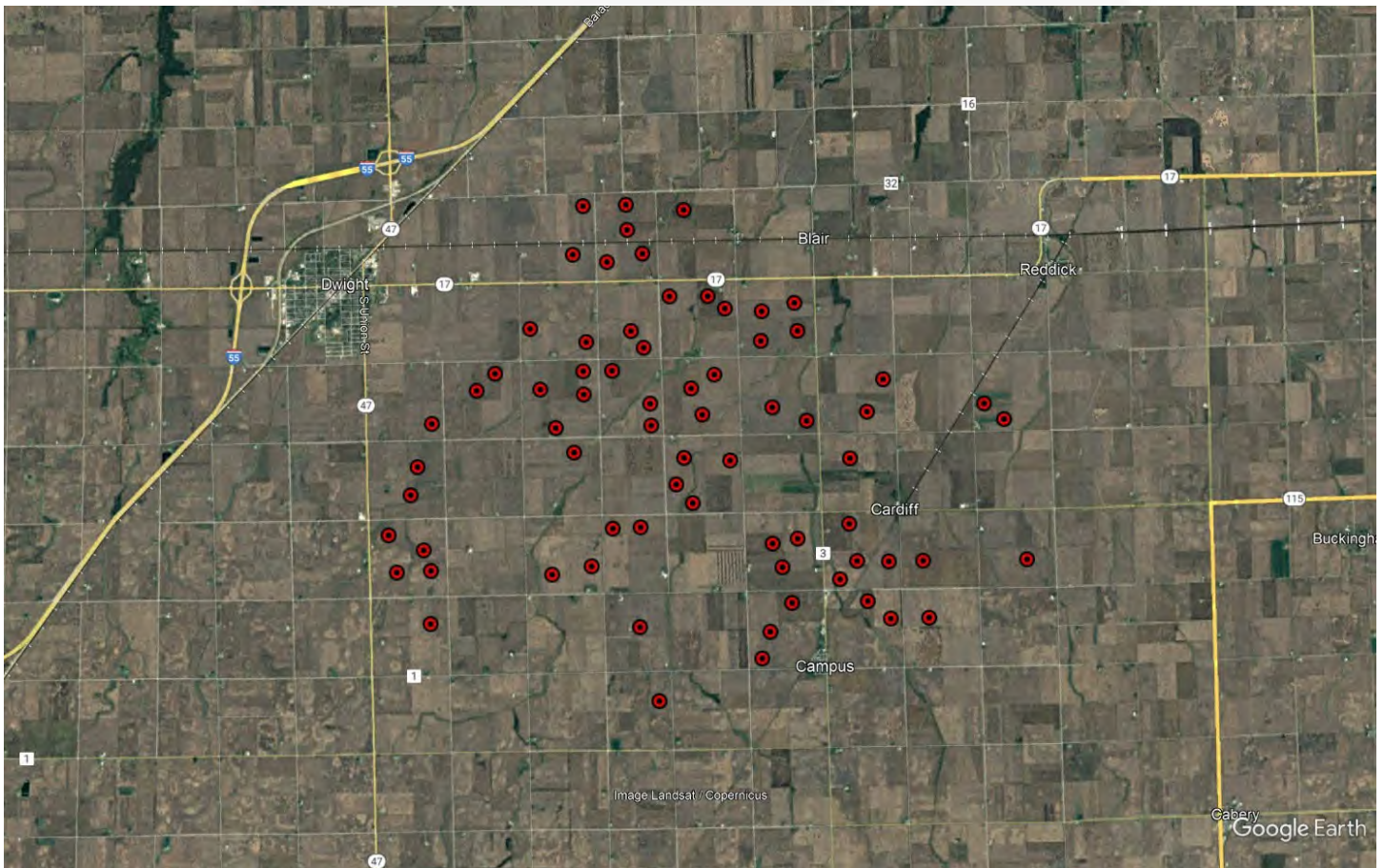
The table below illustrates residential home value trends for the proposed Project’s Livingston County location. The source is the Federal Housing Finance Agency’s (FHFA) House Price Index (HPI), which is a weighted, repeat-sales index measuring changes in single-family house prices.

FHFA House Price Index Livingston County, Illinois		
Year	Annual Change (%)	HPI
2002	-	181.31
2003	2.33%	185.53
2004	6.66%	197.88
2005	2.24%	202.32
2006	5.33%	213.11
2007	2.93%	219.35
2008	0.47%	220.39
2009	-2.71%	214.41
2010	0.50%	215.49
2011	-1.48%	212.30
2012	-1.84%	208.39
2013	-1.21%	205.86
2014	-0.92%	203.97
2015	0.39%	204.76
2016	0.20%	205.16
2017	2.47%	210.22
2018	-0.44%	209.29
2019	4.88%	219.51
2020	0.80%	221.26
2021	7.11%	237.00
2022	13.62%	269.27
Annual Average Compounded % Change	2.00%	

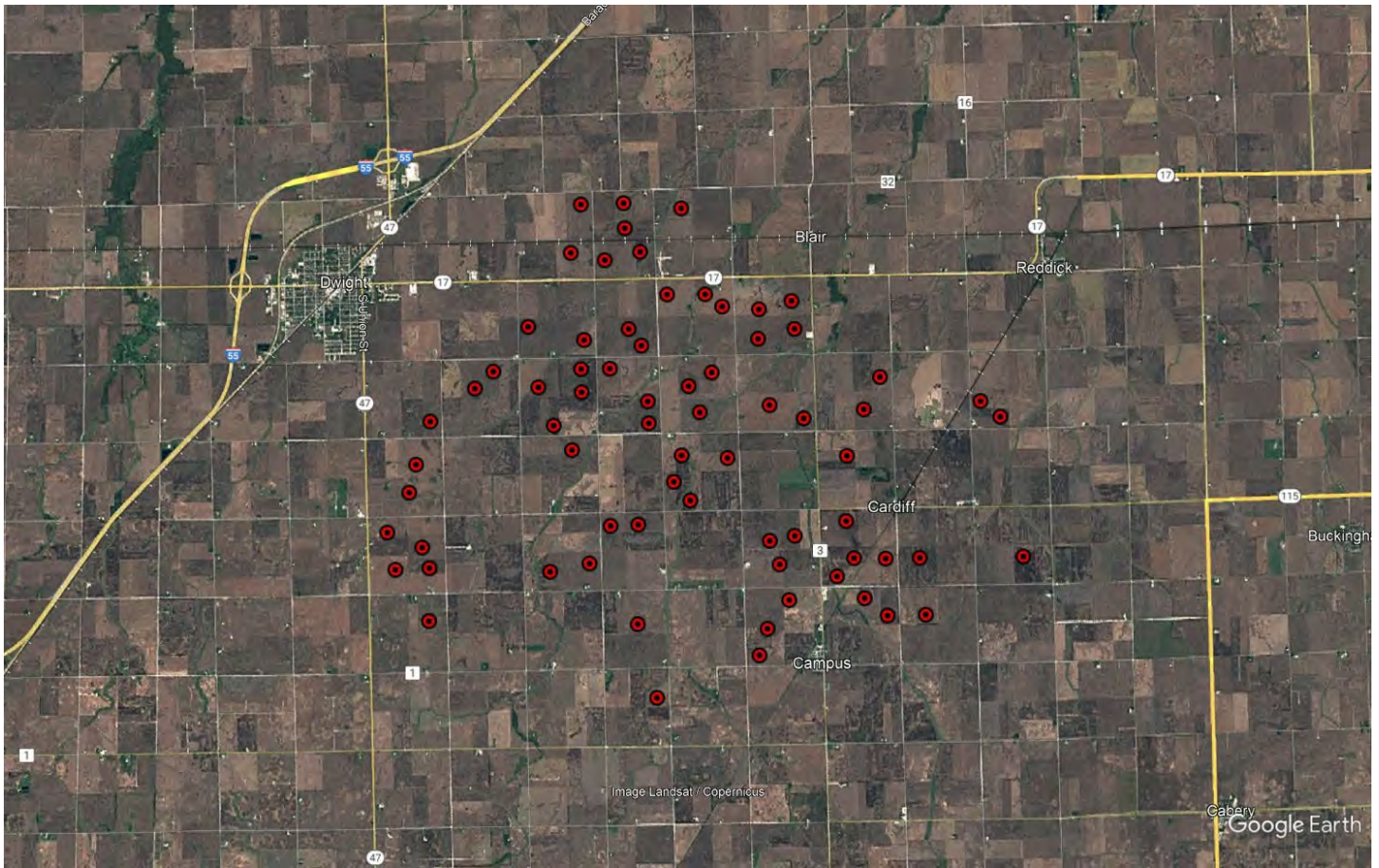
Based on the data shown above, the trend in residential home values in Livingston County have steadily increased at an average annual rate of 2.0 percent, over the past twenty years. The housing values in the counties have grown at a very strong rate over the past four years; recent macroeconomic conditions have changed and most economists believe some kind of market correction is expected to coincide with increases in federal lending rates and general inflation, although the degree of this correction is yet unknown.

LOCAL LAND DEVELOPMENT TRENDS

Land values can be driven by a site's proximity to the path of development. The closer a property is to the path of development, and without natural barriers to development, the more value a property may have in the future. The path of development in the local area has been towards Dwight to the west and Kankakee to the east of the subject. The Project area has been agricultural land for over 20 years.



Aerial Imagery dated December 2000



Aerial Imagery dated October 2020

According to the images above, there has been little new development in the local area over the past 20 years. Generally, any undeveloped agricultural land is considered to be an interim use as the intensity of uses grows in step with macroeconomic factors; however, the Project and the land surrounding are zoned primarily for agricultural and single-family residential uses.

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SUMMARY AND FINAL CONCLUSIONS

The Project is located in a stable area that is predominantly agricultural in nature with some residential homesteads. The population density for the local area is 23 persons per square mile which reflects a rural environment. Local development has not been robust over the past 20 years, and the immediate land parcels have a future land use designation of agricultural. Based on our analysis of real estate taxes in the Primary Report, wind farm uses incur anywhere from 131% to ±1,000% increase in real estate tax revenue for the local area, feeding back into essential services and schools. Local land and residential home prices have remained stable over the past five years and are anticipated to align in the future with macroeconomic changes. Overall, the proposed Project is considered a locally compatible use.

The purpose of the Primary Report and this addendum is to determine whether the presence of a wind farm has caused a measurable and consistent impact on adjacent property values. Under the identified methodology and scope of work, CohnReznick reviewed published methodology for measuring impact on property values as well as published reports that analyzed the impact of wind farms on property values. These studies found little to no measurable and consistent difference between Test Area Sales and Control Area Sales attributed to the wind farms.

The chosen existing wind farms analyzed in the Primary Report reflected sales of property adjoining an existing wind farm (Test Area Sales) in which the unit sale prices were effectively the same or higher than the comparable Control Area Sales that were not near a wind farm. The conclusions support that there is no negative impact for improved residential homes adjacent to wind farms, nor agricultural acreage. This was confirmed with market participants interviews, which provided additional insight as to how the market evaluates farmland and single-family homes with views of the wind farm.

It can be concluded that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the wind farm, that properties surrounding other proposed wind farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

Based upon the examination, research, and analyses of the existing wind farm uses, the surrounding areas, and an extensive market database, we have concluded that **no consistent negative impact has occurred to adjacent property values that could be attributed to proximity to the adjacent wind farm**, with regard to unit sale prices or other influential market indicators. Additionally, in our workfile we have retained analyses of additional existing wind farms, each with their own set of matched control sales, which had consistent results, indicating no consistent and measurable impact on adjacent property values. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact on property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI, CRE
Principal
Certified General Real Estate Appraiser
Illinois License No. 553.001841
Expires 9/30/2025



Erin C. Bowen, MAI
Senior Manager
Certified General Real Estate Appraiser

CERTIFICATION

We certify that, to the best of our knowledge and belief:

1. The statements of fact and data reported are true and correct.
2. The reported analyses, findings, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, findings, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report, or the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value finding, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
8. Our analyses, findings, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
10. Andrew R. Lines, MAI, CRE, and Erin C. Bowen, MAI have viewed the exterior of the Project and of all comparable data referenced in this report in person, via photographs, or aerial imagery.
11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
12. Joe Ficenec provided consulting assistance to the persons signing this certification, including data verification, research, and administrative work all under the appropriate supervision.
13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Andrew R. Lines, MAI, CRE, and Erin Bowen, MAI have completed the continuing education program for Designated Members of the Appraisal Institute.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI, CRE
Principal
Certified General Real Estate Appraiser
Illinois License No. 553.001841
Expires 9/30/2025



Erin C. Bowen, MAI
Senior Manager
Certified General Real Estate Appraiser

ASSUMPTIONS AND LIMITING CONDITIONS

The fact witness services will be subject to the following assumptions and limiting conditions:

1. No responsibility is assumed for the legal description provided or for matter pertaining to legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated. The legal description used in this report is assumed to be correct.
2. The property is evaluated free and clear of any or all liens or encumbrances unless otherwise stated.
3. Responsible ownership and competent management are assumed.
4. Information furnished by others is believed to be true, correct and reliable, but no warranty is given for its accuracy.
5. All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the property.
6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
7. It is assumed that the property is in full compliance with all applicable federal, state, and local and environmental regulations and laws unless the lack of compliance is stated, described, and considered in the evaluation report.
8. It is assumed that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in the evaluation report.
9. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
10. It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
11. The date of value to which the findings are expressed in this report apply is set forth in the letter of transmittal. The appraisers assume no responsibility for economic or physical factors occurring at some later date which may affect the opinions herein stated.
12. Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the appraisers. The appraisers have no knowledge of the existence of such substances on or in the property. The appraisers, however, are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, radon gas, lead or lead-based products, toxic waste contaminants, and other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No

responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

13. The forecasts, projections, or operating estimates included in this report were utilized to assist in the evaluation process and are based on reasonable estimates of market conditions, anticipated supply and demand, and the state of the economy. Therefore, the projections are subject to changes in future conditions that cannot be accurately predicted by the appraisers, and which could affect the future income or value projections.
14. Fundamental to the appraisal analysis is the assumption that no change in zoning is either proposed or imminent, unless otherwise stipulated. Should a change in zoning status occur from the property's present classification, the appraisers reserve the right to alter or amend the value accordingly.
15. It is assumed that the property does not contain within its confined any unmarked burial grounds which would prevent or hamper the development process.
16. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine if it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Unless otherwise noted in this report, we have not been provided with a compliance survey of the property. Any information regarding compliance surveys or estimates of costs to conform to the requirements of the ADA are provided for information purposes. No responsibility is assumed for the accuracy or completeness of the compliance survey cited in this report, or for the eventual cost to comply with the requirements of the ADA.
17. Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in this report.
18. Any proposed improvements are assumed to have been completed unless otherwise stipulated; any construction is assumed to conform with the building plans referenced in this report.
19. Unless otherwise noted in the body of this report, this evaluation assumes that the subject does not fall within the areas where mandatory flood insurance is effective.
20. Unless otherwise noted in the body of this report, we have not completed nor are we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property.
21. This report should not be used as a basis to determine the structural adequacy/inadequacy of the property described herein, but for evaluation purposes only.
22. It is assumed that the subject structure meets the applicable building codes for its respective jurisdiction. We assume no responsibility/liability for the inclusion/exclusion of any structural component item which may have an impact on value. It is further assumed that the subject property will meet code requirements as they relate to proper soil compaction, grading, and drainage.

23. The appraisers are not engineers, and any references to physical property characteristics in terms of quality, condition, cost, suitability, soil conditions, flood risk, obsolescence, etc., are strictly related to their economic impact on the property. No liability is assumed for any engineering-related issues.

The evaluation services will be subject to the following limiting conditions:

1. The findings reported herein are only applicable to the properties studied in conjunction with the Purpose of the Evaluation and the Function of the Evaluation as herein set forth; the evaluation is not to be used for any other purposes or functions.
2. Any allocation of the total value estimated in this report between the land and the improvements applies only to the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are not valid if so used.
3. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in the evaluation.
4. This report has been prepared by CohnReznick under the terms and conditions outlined by the enclosed engagement letter. Therefore, the contents of this report and the use of this report are governed by the client confidentiality rules of the Appraisal Institute. Specifically, this report is not for use by a third party and CohnReznick is not responsible or liable, legally or otherwise, to other parties using this report unless agreed to in writing, in advance, by both CohnReznick and/or the client or third party.
5. Disclosure of the contents of this evaluation report is governed by the by-laws and Regulations of the Appraisal Institute has been prepared to conform with the reporting standards of any concerned government agencies.
6. The forecasts, projections, and/or operating estimates contained herein are based on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions. This evaluation is based on the condition of local and national economies, purchasing power of money, and financing rates prevailing at the effective date of value.
7. This evaluation shall be considered only in its entirety, and no part of this evaluation shall be utilized separately or out of context. Any separation of the signature pages from the balance of the evaluation report invalidates the conclusions established herein.
8. **Possession of this report, or a copy thereof, does not carry with it the right of publication, nor may it be used for any purposes by anyone other than the client without the prior written consent of the appraisers, and in any event, only with property qualification.**
9. The appraisers, by reason of this study, are not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.

10. Neither all nor any part of the contents of this report shall be conveyed to any person or entity, other than the appraiser's client, through advertising, solicitation materials, public relations, news, sales or other media, without the written consent and approval of the authors, particularly as to evaluation conclusions, the identity of the appraisers or CohnReznick, LLC, or any reference to the Appraisal Institute, or the MAI designation. Further, the appraisers and CohnReznick, LLC assume no obligation, liability, or accountability to any third party. If this report is placed in the hands of anyone but the client, client shall make such party aware of all the assumptions and limiting conditions of the assignment.
11. This evaluation is not intended to be used, and may not be used, on behalf of or in connection with a real estate syndicate or syndicates. A real estate syndicate means a general or limited partnership, joint venture, unincorporated association or similar organization formed for the purpose of, and engaged in, an investment or gain from an interest in real property, including, but not limited to a sale or exchange, trade or development of such real property, on behalf of others, or which is required to be registered with the United States Securities and Exchange commissions or any state regulatory agency which regulates investments made as a public offering. It is agreed that any user of this evaluation who uses it contrary to the prohibitions in this section indemnifies the appraisers and the appraisers' firm and holds them harmless from all claims, including attorney fees, arising from said use.

**ADDENDUM A:
APPRAISER QUALIFICATIONS**

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Andrew R. Lines, MAI, CRE

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Andrew R. Lines, MAI, CRE is a Principal for CohnReznick Advisory's Valuation Advisory Services practice who has been a CohnReznick employee for over twelve years. Andrew has been involved in the real estate business for more than 20 years and has performed valuations on all real estate classes (industrial, commercial, residential, development land). Special-use valuations include affordable housing (as well as market studies), student housing, senior housing, cannabis facilities (indoor/outdoor, processing and dispensaries), landfills, waste transfer stations, golf courses, marinas, hospitals, universities, telecommunications facilities, data centers, self-storage facilities, racetracks, and corridors. Impact Study Reports have also been generated for zoning hearings related to the development of solar facilities, wind powered facilities, landfills, big box retail, waste transfer stations, private mental health clinics, cannabis dispensaries, concert/stadium venues and day care centers. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for cases in the states of IL, DC, VA, NY and MD, and for zoning hearings in IL, IN, MI, NY, HI, OH, KY, CO, PA, WI and MO. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in AZ, CA, IL, IN, WI, MD, OH, NY, NJ, FL, GA, KY and DC. Temporary licenses have been granted in CT, CO, PA, ID, MS, KS, MT and SC.

Education

- Syracuse University: Bachelor of Fine Arts
- MAI Designation (Member of the Appraisal Institute)

Professional Affiliations

- Counselors of Real Estate (CRE)
- Chicago Chapter of the Appraisal Institute
- International Real Estate Management (IREM)
- National Council of Housing and Market Analysts (NCHMA)

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Community Involvement

- Syracuse University Regional Council
- Chicago Friends School

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Erin C. Bowen, MAI

Senior Manager, Valuation Advisory Services

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www.cohnreznick.com

Erin Bowen, MAI is a Senior Manager with CohnReznick in Valuation Advisory Services. Ms. Bowen is based in Phoenix, Arizona, with presence covering the west coast. Ms. Bowen's work in Commercial Real Estate valuation spans over 12 years.

Ms. Bowen specializes in lodging, cannabis, seniors housing, large scale retail and multifamily conversion properties. Lodging work includes all hotel property types and brand segments including limited, full service and resort properties; additionally, Ms. Bowen has appraised numerous hotel to multifamily conversion properties including market rate and affordable housing. Cannabis work includes dispensaries, cultivation facilities including specialized indoor facilities and greenhouse properties, processing and manufacturing facilities. Senior's housing assignments include assisted living, skilled nursing facilities and rehabilitation centers. Retail work spans power centers, lifestyle centers, outlet centers and malls. She has appraised numerous additional properties including multifamily, office, medical office, industrial, churches, and vacant land.

Ms. Bowen has expertise in appraising properties at all stages of development, including existing as is, proposed, under construction, renovations and conversion to alternate use. Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, eminent domain, tax appeal, estate gifts, asset management, as well as valuation for financial reporting including purchase price allocations (ASC 805). Ms. Bowen has worked on numerous appraisal assignments for eminent domain use for both condemner and land owner.

Additionally, Ms. Bowen has specialized in Property Value Impact Analysis, measuring the possible detrimental impact of economic and environmental influences on property values for a variety of property types, including cell towers, stadiums, behavioral health centers with an emphasis on renewable energy facilities including solar and wind. She has qualified as an expert witness and testified in front of power siting boards, zoning boards and planning commissions in New Mexico, Ohio, Michigan, Kentucky, Indiana and Illinois.

Education

- University of California, San Diego: Bachelor of Arts in Psychology and Theater; College Honors

Professional Affiliations

- Designated Member of the Appraisal Institute

Licenses

- State of Arizona (Certification #32052)

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- State of California (Certification #AG3004919)
- State of Nevada (Certification #A.0208032-CG)
- State of Oregon (Certification #C001551)

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APPENDIX W - AIMA

AGRICULTURAL IMPACT MITIGATION AGREEMENT
between
ILLINOIS GENERATION LLC
and the
ILLINOIS DEPARTMENT OF AGRICULTURE
Pertaining to the Construction of a Commercial Wind Energy Facility
in
Kankakee and Livingston Counties, Illinois

The following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any agricultural land that is impacted by the Construction and Deconstruction of a wind energy facility in accordance with the Renewable Energy Facilities Agricultural Impact Mitigation Act (Act), Public Act 100-0598. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and wind energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA). This AIMA is made and entered into between the Commercial Wind Energy Facility Owner and the IDOA.

Illinois Generation LLC, a Delaware limited liability company authorized to transact business in Illinois, hereafter referred to as "Commercial Wind Energy Facility Owner or Facility Owner", plans to develop an approximately 800 MW Commercial Wind Energy Facility or "Facility" in Kankakee and Livingston Counties, which will consist of approximately 200 turbines, access roads, an underground collection line, a switchyard, a substation, and an operation and maintenance building site.

If construction does not commence within four years after this AIMA has been fully executed, this AIMA will be revised, with the Facility Owner's input, to reflect the IDOA's most current Wind Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, will be filed with the Kankakee County Board and the Livingston County Board by the Facility Owner.

This AIMA is applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The actions set forth in this AIMA shall be implemented in accordance with the conditions listed below:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities.
- B. Except for Section 21(B-F), all actions set forth in this AIMA are subject to modification through negotiation by Landowners and a representative of the Facility Owner, provided such changes are negotiated in advance of any respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the mitigative actions that Landowners wish to perform themselves. In such instances, the Facility Owner will offer Landowners the area commercial rate for their machinery and labor costs.

- D. All mitigative actions will extend to associated future Construction, maintenance, repairs, and Deconstruction of the Commercial Wind Energy Facility.
- E. The Facility Owner will exercise Best Efforts to determine all Landowners and Tenants affected by the Construction and Deconstruction of a Facility. The Facility Owner shall keep the Landowners and Tenants informed of the project's status, meetings, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner agrees to include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement that may be prepared in connection with the Project.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. A copy of this AIMA shall be mailed to each Landowner. Within 30 days of execution of this AIMA, the Facility Owner shall provide postage and mailing labels to the IDOA for mailing to all Landowners. If the Facility Owner becomes aware that a Landowner was not included on the list of Landowners to which a copy of this AIMA was mailed, the Facility Owner shall notify the Department and provide postage and a mailing label as soon as possible.

In the case of a new Underlying Agreement with a Landowner, the Facility Owner shall incorporate this AIMA into such Underlying Agreement.
- H. The Facility Owner will implement all mitigative actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Project.
- I. If any mitigative action(s) is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the mitigative actions shall be interpreted as if they did not contain the unenforceable provision.
- J. No later than 45 days prior to the Construction and/or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will provide the Landowner(s) with a toll-free number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- K. If the Facility is sold or transferred, the Facility Owner assuming ownership of the facility shall provide notice of such sale or transfer within ninety (90) days to the County and to Landowners, and the existing Financial Assurance requirements, plus the other terms of this AIMA, shall apply to the new Facility Owner.
- L. After construction, the Facility Owner will provide the IDOA with "as built" drawings (strip maps) showing the location of all tile lines damaged in the construction of the Wind Farm. The drawings and GPS tile lines repair coordinates will be provided on a county-by-county basis for distribution by the IDOA to the respective local Soil and Water Conservation District (SWCD) for the purpose of assisting Landowners with future drainage needs.
- M. In addition, after all construction is complete, all affected Landowners will receive a copy of the tile repairs location map with GPS coordinates identified as the electric cable crosses their property.
- N. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.

Definitions

Abandonment -	Occurs when Deconstruction has not been completed within 18 months after the wind energy facility reaches the end of its Useful Life.
Aboveground Cable -	Electrical power lines installed above grade to be utilized for conveyance of power from the Wind Turbine(s) to the Wind Facility substation.
Agricultural Impact Mitigation Agreement (AIMA) -	The Agreement between the Commercial Wind Energy Facility Owner and the Illinois Department of Agriculture described herein.
Agricultural Land -	Land used for Cropland, hayland, pasture land, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs used for purposes as set forth above.
Best Efforts -	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date -	The calendar date on which the Commercial Wind Energy Facility produces power for commercial sale, not including test power. Within ten (10) calendar days of the Commercial Operation Date, the Commercial Wind Energy Facility Owner shall notify the County and the Department of the Commercial Operation Date in writing.
Commercial Wind Energy Facility (Facility) -	A wind energy conversion facility of equal or greater than 500 kilowatts in total nameplate generating capacity. "Commercial Wind Energy Facility" includes a wind energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before the effective date of this Act. "Commercial Wind Energy Facility" does not include a wind energy conversion facility: (1) that has submitted a complete permit application to a county or municipality and for which the hearing on the completed application has commenced on the date provided in the public hearing notice, which must be before the effective date of this Act; (2) for which a permit to construct has been issued before the effective date of this Act; or (3) that was constructed before the effective date of this Act.
Commercial Wind Energy Facility Owner (Facility Owner) -	A commercial enterprise that owns or operates a Wind Energy Facility of equal to or greater than 500 kilowatts in total nameplate capacity.
County -	The County where the Commercial Wind Energy Facility is located.

Construction -	The installation, preparation for installation and/or repair of a Commercial Wind Energy Facility.
Cropland -	Land used for growing row crops, small grains, or hay; includes land which was formerly used as cropland, but is currently in a government set-aside program and pastureland comprised of Prime Farmland.
Deconstruction -	The removal of a Commercial Wind Energy Facility from the property of a Landowner and the restoration of that property as provided in the Agricultural Impact Mitigation Agreement. The terms "Deconstruction" and "Decommissioning" have the same meaning and, therefore, may be interchanged with each other.
Deconstruction Plan -	<p>A plan prepared by a Professional Engineer, at the Commercial Wind Energy Facility Owner expense, that includes:</p> <ol style="list-style-type: none">(1) the estimated Deconstruction cost per turbine, in current dollars at the time of filing, for the Commercial Wind Energy Facility, taking into account, among other things:<ol style="list-style-type: none">i the number of Wind Turbines and related Commercial Wind Energy Facilities involved,ii the original Construction costs of the Commercial Wind Energy Facilities,iii the size and capacity of the Wind Turbines,iv the salvage value of the Commercial Wind Energy Facilities,v the Construction method and techniques for the Wind Turbines and other Commercial Wind Energy Facilities, and(2) a comprehensive detailed description of how the Commercial Wind Energy Facility Owner plans to pay for the Deconstruction of the Commercial Wind Energy Facility.
Department -	The Illinois Department of Agriculture (IDOA).
Financial Assurance -	A reclamation bond or other commercially available financial assurance that is acceptable to the County, with the County as primary beneficiary and the Landowners as secondary beneficiaries.
Landowner -	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland -	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as being "prime" soils (generally considered the most productive soils with the least input of nutrients and management).

Professional Engineer -	An engineer licensed to practice engineering in the State of Illinois, and who is determined to be qualified to perform the work described herein by mutual agreement of the County and the Commercial Wind Energy Facility Owner.
Soil and Water Conservation District - (SWCD)	A local unit of government that provides technical and financial assistance to eligible landowners for the conservation of soil and water resources.
Tenant -	Any person lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil -	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement -	The written agreement with a Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Commercial Wind Energy Facility on the property of the Landowner.
Underground Cable -	Electrical power lines installed below grade to be utilized for conveyance of power from the Wind Turbine(s) to the Wind Facility substation.
USDA Natural Resources Conservation Service (NRCS) -	NRCS provides America's farmers with financial and technical assistance to voluntarily put conservation on the ground, not only helping the environment but agricultural operations too.
Useful Life -	A Commercial Wind Energy Facility will be presumed to have no remaining Useful Life if: (1) no electricity is generated for a continuous period of twelve (12) months and (2) the Commercial Wind Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with the Underlying Agreement.
Wind Turbine -	A wind energy conversion unit equal to or greater than 500 kilowatts in total nameplate generating capacity.

Construction and Deconstruction Requirements

1. Support Structures

- A. On Agricultural Land, only single pole support structures will be used for overland transmission not located adjacent to the Commercial Wind Energy Facility substation.
- B. Where the electric line is adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures will be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. The highest priority will be given to locating the electric line parallel and adjacent to highway and/or railroad right-of-way. When this is not possible, Best Efforts will be expended to place all support poles in such a manner so as to minimize their placement on Cropland (i.e., longer than normal spans will be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for Facilities shall be selected in a manner so as to be as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains the facilities. The Facility Owner's compliance with applicable local, county, state, and federal statutes, rules, regulations, and ordinances, and its securing any variations or waivers to such statutes, rules, regulations, and ordinances in accordance with applicable law, in selecting such locations shall constitute compliance with this provision.

3. Guy Wires and Anchors

- A. Best Efforts will be made to place guy wires and their anchors out of cropland, pastureland and hayland, placing them instead along existing utilization lines and on land not used for row crops, pasture or hay. Where this is not feasible, Best Efforts will be made to minimize guy wire impact on Cropland.
- B. All guy wires will be shielded with highly visible guards.

4. Underground Cabling Depth

- A. Underground electrical cables will be buried with:
 - 1. a minimum of 5 feet of top cover where it crosses Cropland.
 - 2. a minimum of 5 feet of top cover where it crosses pasture land or other Agricultural Land comprised of soils that are classified by the USDA as being prime soils.
 - 3. a minimum of 3 feet of top cover where it crosses pasture land and other Agricultural Land not comprised of prime soils.
 - 4. a minimum of 3 feet of top cover where it crosses wooded/brushy land.

- B. Notwithstanding the foregoing, in those areas where (i) rock in its natural formation and/or (ii) a continuous strata of gravel exceeding 200 feet in length are encountered, the minimum top cover will be 30 inches.

5. Topsoil Removal and Replacement

- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts will be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
- B. Best Efforts will be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
- C. When backfilling an excavation site, the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
- D. Refer to Item No. 7.A. through 7.D for procedures pertaining to rock removal from the subsoil and topsoil.
- E. Refer to Items No. 8.A. through 8.D. for procedures pertaining to the alleviation of compaction of the topsoil.
- F. Best Efforts will be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour (with an allowance for settling) will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance will the topsoil materials be used for any other purpose unless agreed to otherwise by the Landowner.
- G. Excess subsoil material resulting from wind turbine foundation excavation shall be removed from Landowner's property, unless otherwise agreed to by Landowner.
- H. Topsoil stripping or separation is not required for the excavation of narrow trenches, those 24 inches wide or less.

6. Repair of Damaged Tile Lines

If underground drainage tile is damaged by Construction or Deconstruction, it will be repaired in a manner that assures the tile line's proper operation at the point of repair. The following shall apply to the tile line repair:

- A. The Facility Owner will work with the Landowner to identify the tile lines traversing the property included within the Underlying Agreement which will be crossed or disturbed by the construction of the Facility. All tile lines identified in this manner will be shown on the Construction and Deconstruction Plans and staked or flagged in the locations where expected crossing or disturbance is anticipated prior to Construction or Deconstruction to alert Construction and Deconstruction crews to the possible need for tile line repairs.
- B. Tile lines that are damaged, cut, or removed shall be staked or flagged with stakes or flags placed in such a manner they will remain visible until the permanent repairs are completed. In addition, the location of damaged drain tile lines will be recorded using Global Positioning Systems (GPS) technology.

- C. If water is flowing through any damaged tile line, the Facility Owner shall utilize Best Efforts to immediately and temporarily repair the tile line until such time that the Facility Owner can make permanent repairs. If the tile lines are dry and water is not flowing, temporary repairs are not required if the permanent repairs can be made by the Facility Owner within 14 days (weather and soil conditions permitting) of the time damage occurred; however, the exposed tile lines will be screened or otherwise protected to prevent the entry of foreign materials or animals into the tile lines.
- D. Where tile lines are severed by an excavation trench, repairs shall be made using the IDOA Drain Tile Repairs, Figures 1 and 2.

If there is any dispute between the Landowner and the Facility Owner on the method of permanent tile line repair, the appropriate Soil and Water Conservation District's opinion shall be considered by the Facility Owner and the Landowner.
- E. To the extent practicable, there will be a minimum of one foot of separation between the tile line and the Underground Cable whether the Underground Cable passes over or under the tile line. If the tile line was damaged as part of the excavation for installation of the Underground Cable, the Underground Cable will be installed with a minimum one foot clearance below or over the tile line to be repaired or otherwise to the extent practicable.
- F. The original tile line alignment and gradient shall be maintained. A laser transit shall be used to ensure the proper gradient is maintained. A laser operated tiling machine shall be used to install or replace tiling segments of 100 linear feet or more.
- G. During Construction stage, all permanent tile line repairs must be made within fourteen (14) days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner.
- H. Following Construction and/or Deconstruction activities, the Facility Owner will utilize best practices to restore the drainage in the area to the condition it was before the commencement of the Construction/Deconstruction activities. If the Facility Owner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may – but is not required to – implement the recommendations of the appropriate County SWCD and such implementation would resolve the dispute.
- I. Following completion of the work, the Facility Owner will be responsible for correcting or paying for the correction of all tile line repairs that fail due to Construction and/or Deconstruction, provided any such failure was identified by Landowner within twenty-four (24) months after Construction or Deconstruction. The Facility Owner will not be responsible for tile line repairs that the Facility Owner pays the Landowner to perform. Facility Owner shall use Best Efforts to utilize a local drain tile repair company.

7. Rock Removal

The following rock removal procedures only pertain to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged on Landowner property as a result of Construction and/or Deconstruction.

- A. Before replacing any Topsoil, Best Efforts will be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which were brought to the site as a result of Construction and/or Deconstruction.

- B. As topsoil is replaced, all rocks greater than 3 inches in any dimension will be removed from the topsoil which emerged at the site as a result of Construction and/or Deconstruction activities.
- C. If trenching, blasting, or boring operations are required through rocky terrain, precautions will be taken to minimize the potential for oversized rocks to become interspersed with adjacent soil material.
- D. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, will be hauled off the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Compaction and Rutting

- A. Unless the Landowner opts to do the restoration work, after the topsoil has been replaced, all areas that were traversed by vehicles and Construction and/or Deconstruction equipment will be ripped at least 18 inches deep, and all pasture and woodland will be ripped at least 12 inches deep to the extent practicable. The existence of tile lines or underground utilities may necessitate less depth. The disturbed area will then be disked. Decompaction shall be conducted according to the guidelines provided in Appendices A and B.
- B. To the extent practicable, all ripping and disking will be done at a time when the soil is dry enough for normal tillage operations to occur on land adjacent to the right-of-way.
- C. The Facility Owner will restore all rutted land to a condition as close as possible to its original condition.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on farmland where normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. Wet weather conditions are to be determined on a field by field basis and not for the project as a whole.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.
- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which results in a mixing of subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated Tenant.

10. Land Leveling

- A. Following the completion of Construction and/or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will utilize Best Efforts to restore the disturbed area to its original pre-construction elevation and contour should uneven settling occur or surface drainage problems develop as a result of said activity.
- B. If, within twenty-four (24) months after Construction or Deconstruction, uneven settling occurs or surface drainage problems develop as a result of the Construction or Deconstruction of a Facility, the Facility Owner will provide such land leveling services within 45 days of a Landowner's written notice, weather and soil conditions permitting.
- C. If there is any dispute between the Landowner and the Facility Owner as to what areas need additional land leveling beyond that which is done at the time of Construction, the Facility Owner may – but is not required to – implement the recommendations of the appropriate SWCD and such implementation will resolve the dispute.

11. Prevention of Soil Erosion

- A. The Facility Owner will work with Landowners to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Commercial Wind Energy Facility. Consultation with the local SWCD by the Facility Owner will take place to determine the appropriate methods to be implemented to control erosion. This is not a requirement, however, if the land is bare Cropland that the Landowner intends to leave bare until the next crop is planted.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's right-of-way, the Facility Owner may – but is not required to – implement the recommendations of the appropriate SWCD and such implementation will resolve the dispute.

12. Repair of Damaged Soil Conservation Practices

Consultation with the local SWCD by the Facility Owner will be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of a Commercial Wind Energy Facility. Those conservation practices will be restored to their preconstruction condition as close as reasonably practicable in accordance with USDA Natural Resources Conservation Service technical standards. All repair costs shall be borne by the Facility Owner.

13. Damages to Private Property

The Facility Owner will reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Cropland will be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

14. Clearing of Trees and Brush

- A. If trees are to be removed for the Construction or Deconstruction of a Commercial Wind Energy Facility, the Facility Owner will consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Facility Owner will allow the Landowner the right to retain ownership of the trees to be removed with

the disposition of the removed trees to be negotiated prior to the commencement of land clearing.

- C. Unless otherwise restricted by federal, state or local regulations, the Facility Owner will follow the Landowner's desires regarding the removal and disposal of trees, brush, and stumps of no value to the Landowner by burning, burial, etc., or complete removal from any affected property.

15. Interference with Irrigation Systems

- A. If the Construction or Deconstruction of a Commercial Wind Energy Facility interrupts an operational (or soon to be operational) spray irrigation system, the Facility Owner will establish with the Landowner an acceptable amount of time the irrigation system may be out of service.
- B. If, as a result of Construction or Deconstruction of a Facility, an irrigation system interruption results in crop damages, the Landowner will be compensated for all such crop damages per the applicable Underlying Agreement.
- C. If it is feasible and mutually acceptable to the Facility Owner and the Landowner, temporary measures will be implemented to allow an irrigation system to continue to operate across land on which a Facility is also being Constructed or Deconstructed.

16. Access Roads

- A. To the extent practicable, access roads will be designed to not impede surface drainage and will be built to minimize soil erosion on or near the access roads.
- B. Access roads may be left intact through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations after the Useful Life.
- C. If the access roads are removed, Best Efforts will be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping will be done consistent with Items 8.A. through 8.D.

17. Weed Control

- A. The Facility Owner will provide for weed control in a manner that prevents the spread of weeds onto agricultural land affected by Construction or Deconstruction. Spraying will be done by a pesticide applicator that is appropriately licensed for doing such work in the State of Illinois.
- B. The Facility Owner will be responsible for reimbursing all reasonable costs incurred by owners of agricultural land affected by Construction or Deconstruction where it has been determined that weeds have spread from land impacted by the Facility. Reimbursement is contingent upon written notice to the Facility Owner and failure to respond within forty-five (45) days after notice is received.

18. Pumping of Water from Open Excavations

- A. In the event it becomes necessary to pump water from open excavations, the Facility Owner will pump the water in a manner that will avoid damaging agricultural land affected by Construction or Deconstruction. Such damages include, but are not limited to: inundation of crops for more than 24 hours, deposition of sediment in ditches and other water courses, and the deposition of subsoil sediment and gravel in fields and pastures.
- B. If it is impossible to avoid water-related damages as described in Item 18.A. above, the Facility Owner will compensate the Landowner for damages to crops as prescribed in the applicable Underlying Agreement.
- C. All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities and any other applicable laws, specifically including the Clean Water Act.

19. Advance Notice of Access to Private Property

- A. The Facility Owner will provide the Landowner or Tenant with a minimum of 48 hours prior notice before accessing his/her property for the purpose of Construction or Deconstruction of a Commercial Wind Energy Facility.
- B. Prior notice shall consist of either: (i) a personal contact, telephone contact or email contact, whereby the Landowner or tenant is informed of the Facility Owner's intent to access the land; or (ii) the Facility Owner mails or hand delivers to the Landowner or tenant's home a dated, written notice of the Facility Owner's intent. Such written or hand delivered notice shall include a toll-free number at which agents of the Facility Owner can be reached. The Landowner or tenant need not acknowledge receipt of the written notice before the Facility Owner can enter the Landowner's property.

20. Indemnification

The Commercial Wind Energy Facility Owner will indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of Construction and/or Deconstruction, including damage to such Commercial Wind Energy Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns. In such circumstances, the Landowners, and the Landowners' heirs, successors, legal representatives, and assigns will indemnify the Facility Owner, its heirs, successors, legal representatives, and assigns from and against said claims, injuries, suits, damages, costs, losses, and reasonable expenses including but not limited to attorneys' fees and costs.

21. Deconstruction of Commercial Wind Energy Facilities and Financial Assurance

- A. Deconstruction of a Facility shall include the removal/disposition of the following equipment/facilities utilized for operation of the Facility and located on Landowner property:
 - 1. Wind Turbine towers and blades;

2. Wind Turbine generators;
 3. Wind Turbine foundations (to depth of 5 feet);
 4. Transformers;
 5. Collection/interconnection substation (components, cable, and steel foundations), provided, however, that electrical collection cables at a depth of 5 feet or greater may be left in place;
 6. Overhead collection system;
 7. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
 8. Access Road(s) (unless Landowner requests in writing that the access road is to remain);
 9. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
 10. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Commercial Wind Energy Facility within eighteen (18) months after the end of the Useful Life of the Facility.
- C. During the County permit process, the Facility Owner shall file with the County, a Deconstruction Plan. A second Deconstruction Plan shall be filed with the County on or before the end of the tenth year of the Commercial Operation Date.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Commercial Wind Energy Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the county permit process.
 2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the county permit process.
 3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan provided during the tenth year of the Commercial Operation Date.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction in the Deconstruction Plan if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

- E. The County may – but is not required to – reevaluate the estimated costs of Deconstruction of any Commercial Wind Energy Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date which reevaluation must be performed by an independent third party Professional Engineer licensed in the State of Illinois. The County shall provide the Facility Owner with a copy of any reevaluation report. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased coverages described in Section 21 D. required from the Facility Owner. The Facility Owner shall be responsible for the cost of any reevaluation by a third party Professional Engineer.

- F. Upon Abandonment, the County may take all appropriate actions for Deconstruction, including drawing upon the Financial Assurance. In the event the County declines to take any action for Deconstruction, the Landowners may draw upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and Illinois Generation LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the construction of the wind farm project in Kankakee and Livingston Counties within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**

**ILLINOIS GENERATION LLC,
a Delaware limited liability company**

By Jerry Costello II, Director


By Lauren Haller, Authorized Signatory

By Tess Feagans, General Counsel


By Caton Fenz, Authorized Signatory

SL

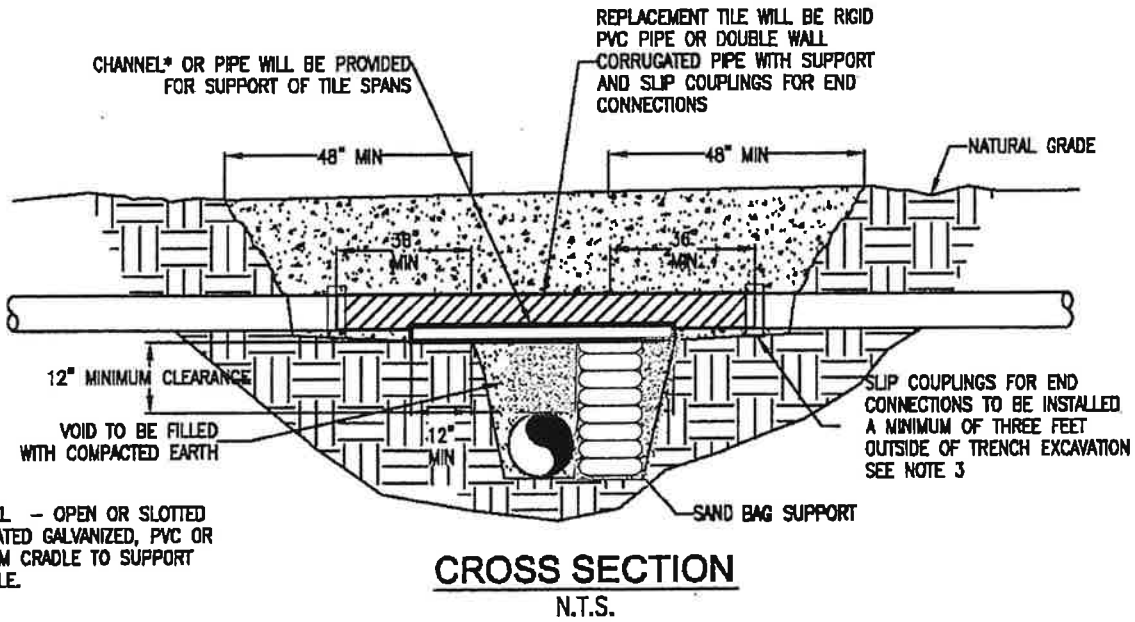
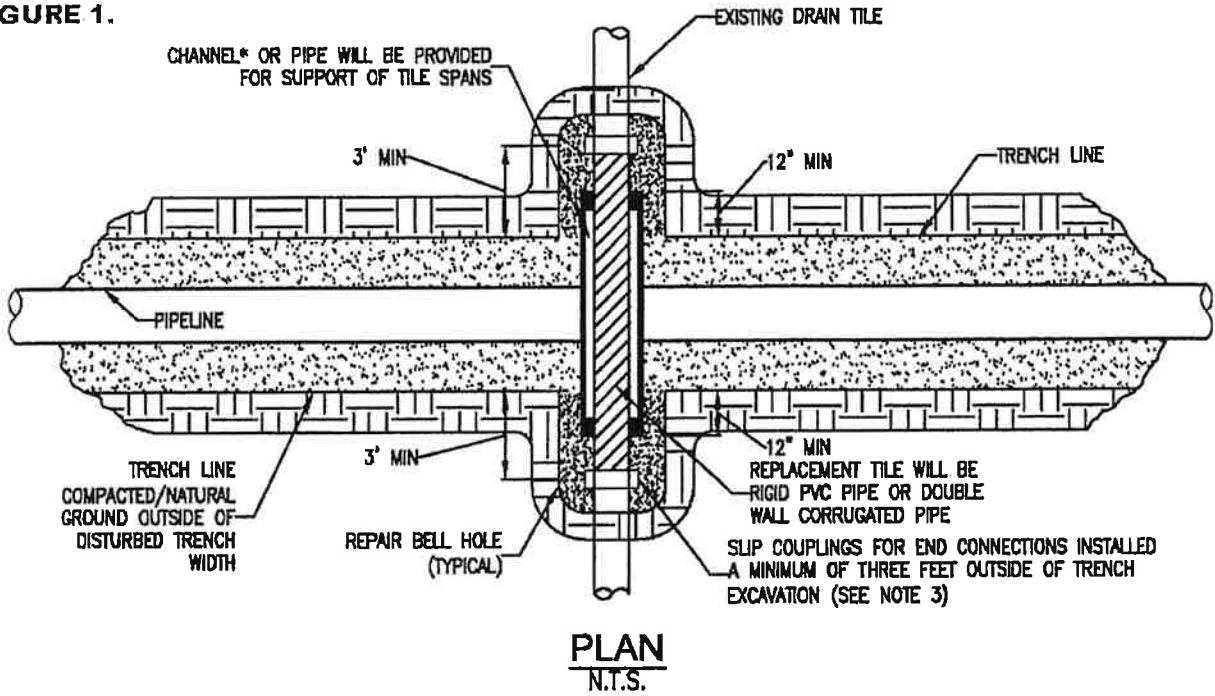
801 E. Sangamon Avenue, 62702
State Fairgrounds, POB 19281
Springfield IL 62794-9281

1088 Sansome Street
San Francisco, CA 94111

_____, 2024

January 31, 2024

FIGURE 1.



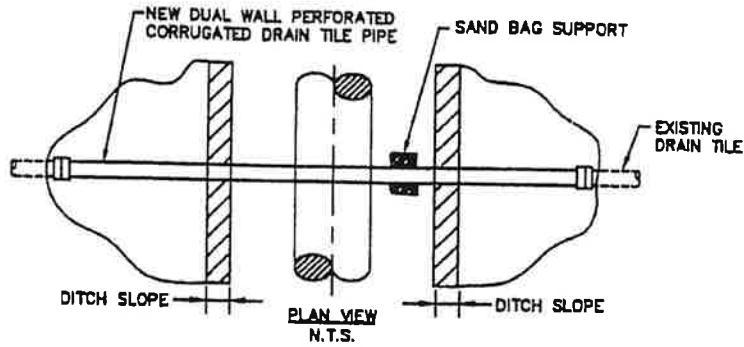
*CHANNEL - OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

NOTE:

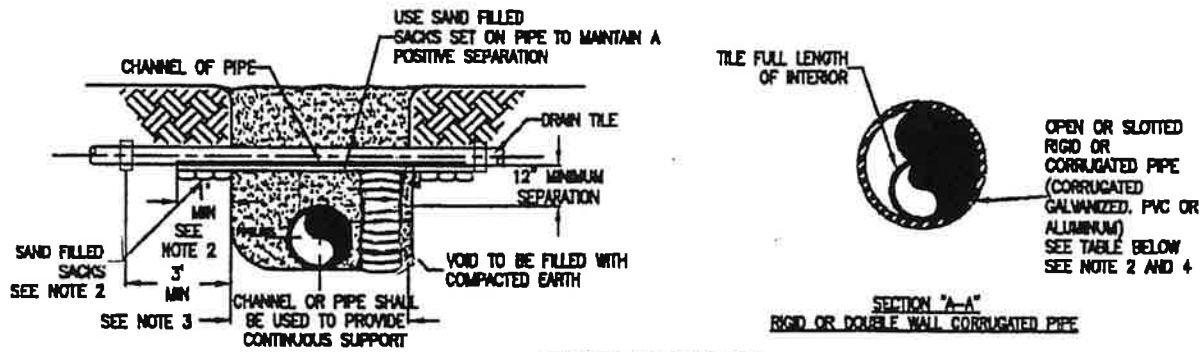
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE		
TILE SIZE	CHANNEL SIZE	PIPE SIZE
3"	4" @ 5.4 #/ft	4" STD. WT.
4"-5"	5" @ 8.7 #/ft	6" STD. WT.
8"-9"	7" @ 9.8 #/ft	8"-10" STD. WT.
10"	10" @ 15.3 #/ft	12" STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR

Appendix A.

Guidelines for Conducting Proper and Successful Decompaction

1. Decompaction is required when all three conditions apply.
 - A. the area has been trafficked or traversed by vehicles or construction equipment, and
 - B. the soil penetrometer readings are 300 psi or greater, and
 - C. The soil strength (psi) in the right-of-way area is greater than that of the non-trafficked area.
2. An Environmental and/or Agricultural Inspector (AI), with experience and training in the proper identification of compacted soil and operation methods of deep decompaction tools is required to observe the daily operation of the ripper/subsoiler to ensure the conditions are appropriate for decompaction efforts and that the proper equipment is utilized and that equipment is set-up and operated correctly.
3. To achieve the most effective shatter of the compacted soil the following guidelines have been established:
 - A. Conduct ripping when the soil is dry. Follow the "Soil Plasticity Test Procedures" detailed in Appendix B to determine if soil conditions are adequately dry to conduct decompaction efforts.
 - B. Deep ripping shall be conducted using a ripper or subsoiling tool with a shank length of no less than 18 inches and a shank spacing of approximately the same measurement as the shank length.
 - C. Use a ripper with a knife length of no less than 2 inches more than the desired depth of decompaction.
 - D. To best promote revegetation and restore crop production, a total depth of 30 or more inches of soil (topsoil plus subsoil) is required.
 - E. The minimum depths of decompaction stated above in 3.D. are required where possible. A safe distance from sub-surface structures (tile drains, pipelines, buried utilities, bedrock, etc.) must be maintained at all times. Where such structures exist, a lesser depth of decompaction will be required to prevent damage to equipment and the structures as well as to maintain a safe work environment. The allowable decompaction depth in these instances will be determined on a site by site basis.
 - F. When the knives are in the soil to the desired depth, the tongue of the ripper should be parallel to the surface of the ground.
 - G. Select a tractor that has enough horsepower to pull the ripper at a speed of 1.5 to 2 mph and whose footprint is of equal or lesser width than the ripper. Tracked equipment is preferred and typically required to achieve this criteria.
 - H. The ripper shanks should not create ruts, channels, or mixing of the sub-soil with topsoil. A speed of 1.5 to 2 mph is recommended to minimize the risk of rutting and soil mixing. The ideal operating speed can vary with soil characteristics, tractor and ripping tool used. An excessive travel speed will often increase mixing of soil horizons.
 - I. When the equipment is set up and operated correctly, the ripper should create a wave across the surface of the ground as it lifts and drops the soil.

- J. Make one ripping pass through the compacted area. Using a penetrometer, the AI will measure the PSI between the ripped knife tracks to determine if the single ripping pass was successful. Additional passes should only be used where needed as they may reduce the effectiveness of the ripping by recompacting the soil shattered in the previous pass.
- K. If the first pass does not successfully decompact the soil, additional passes will be needed. Should multiple passes of the ripper be needed to achieve decompaction between the knives tracks of the ripping tool, the subsequent passes should be positioned so the knife tracks from the previous pass are split by the second pass. If three or more passes have been made and sufficient decompaction has not yet been achieved the AI may choose to halt further decompaction efforts in that area until conditions improve or better methods are determined.
- L. Following ripping, all stone and rock three or more inches in size which has been lifted to the surface shall be collected and removed from agricultural areas.
- M. After ripping has been conducted, do not allow unnecessary traffic on the ripped area.
- N. In agricultural lands and croplands that will not be replanted to vegetation by the Company, recommend to landowners to plant a cover crop (cereal rye, clover, alfalfa, tillage radish, turnips, etc.) following decompaction. Reduced compaction created by the ripper pass will not remain over time without subsequent root penetration. Root penetration into the shattered soil is necessary to establish permanent stabilized channels to conduct air and water into the soil profile. Two good sources for landowner cover crop education are <http://www.mccc.msu.edu/CCinfo/cropbycrop.html> and <http://mcccdev.anr.msu.edu/>. For local expertise, consult with your county's Soil and Water Conservation District /USDA Natural Resource Conservation Service (NRCS) office for cover crop selection and compliance with NRCS planting deadlines.

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Appendix B.

Soil Plasticity Test Procedures

The Agricultural Inspector will test the consistency of the surface soil to a depth of approximately 4 to 8 inches using the Field Plasticity Test procedure developed from the *Annual Book of ASTM Standards, Plastic Limit of Soils* (ASTM D-4318).

1. Pull a soil plug from the area to be tilled, moved, or trafficked to a depth of 4-8 inches.
2. Roll a portion of the sample between the palms of the hands to form a wire with a diameter of one-eighth inch.
3. The soil consistency is:
 - A. Tillable (able to be worked) if the soil wire breaks into segments not exceeding $\frac{3}{8}$ of an inch in length.
 - B. Plastic (not tillable) if the segments are longer than $\frac{3}{8}$ of an inch before breaking.
4. This Procedure is to be used to aid in determining when soil conditions are dry enough for construction activities to proceed.
5. Once the soil consistency has been determined to be of adequate dryness, the plasticity test is not required again until the next precipitation event.



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