



Badger Hollow Wind Farm LLC

Application for Certificate of Public Convenience and Necessity

Docket Number: 9827-CE-100
Grant and Iowa Counties, Wisconsin

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ACRONYMS & ABBREVIATIONS

AC	Alternating Current
ADLS	Aircraft Detection Lighting System
AFR	Application Filing Requirements
AIS	Agricultural Impact Statement
ASNRI	Area of Special Natural Resource Interest
ATC	American Transmission Company
BESS	Battery Energy Storage System
BMP	Best Management Practices
CCP	Construction Compliance Program
CPCN	Certificate of Public Convenience and Necessity
CRP	Conservation Reserve Program
DATCP	Department of Agriculture, Trade, and Consumer Protection
dBA	A-weighted decibels
DC	Direct Current
ECSWMP	Erosion Control and Storm Water Management Plan
EMF	Electric and Magnetic Fields
EPA	Environmental Protection Agency
EPC	Engineering, Procurement, and Construction
ER	Endangered Resource
ERIS	Energy Resource Interconnection Service
ERR	Endangered Resource Review
FAA	Federal Aviation Administration
FERC	Federal Energy Regulatory Commission
Gen-Tie Line	Generator Transmission Tie Line
GIA	Generator Interconnection Agreement
GIS	Geographic Information System
HDD	Horizontal Direction Drilling
IPaC	Information for Planning and Consultation
KCMiL	Thousand Circular Mils (Wire Gauge Measurement)
KOP	Key Observation Point
kV	Kilovolt
kW	Kilowatt
LLC	Limited Liability Corporation
MET	Meteorological
MISO	Midcontinent Independent System Operator
MW	Megawatt
NAIP	National Agriculture Imagery Program
NDR	Navigability Determination Request
NEC	National Electrical Code
NESC	National Electrical Safety Code
NEXRAD	Next-Generation Radar
NLEB	Northern Long-Eared Bat
NRIS	Network Resource Interconnection Service
O&M	Operation and Maintenance

OHWL	Ordinary High-Water Mark
PADUS	Protected Area Database of United States
PSC	Public Service Commission
ROW	Right of Way
SCADA	Supervisory Control and Data Acquisition
SCS	Site Characterization Study
SHPO	State Historic Preservation Office
SPCC	Spill Prevention, Control, and Countermeasures
SWDV	Surface Water Data Viewer
TCSB	Temporary Clear Span Bridge
US	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMS	Vegetation Management Strategy
WDNR	Wisconsin Department of Natural Resources
WGNHS	Wisconsin Geological and Natural History Survey
WHPD	Wisconsin Historic Preservation Database
WHS	Wisconsin Historical Society
Wiscland	Wisconsin Land Cover Dataset
WisDOT	Wisconsin Department of Transportation
WPDES	Wisconsin Pollutant Discharge Elimination System
WRRD	Wisconsin Remediation and Redevelopment Database

1. Project Description and Overview

1.1 General Project Location and Description of Project and Project Area

(The overall size of the project area will have an impact on the amount of data and analyses required in this AFR. It is recommended that the project area be optimized so that the project retains flexibility for siting turbines while at the same time reducing the total area for which data will be required.) Provide the following information about the project:

1.1.1 Project location – county and towns in the project area.

The Badger Hollow Wind Energy Center (“Project”) is located in the towns of Clifton, Eden, Linden, Mifflin, and Wingville in Grant and Iowa Counties, Wisconsin.

1.1.2 Size of project area (acres) and area to be disturbed by construction activities (acres).

The Project will be built within a 15,704-acre general project area (“Project Area”). Within the Project Area, Badger Hollow Wind Farm LLC (“Badger Hollow Wind”) has leased approximately 13,261 acres. Of the 13,261 acres under lease, approximately 570 acres of temporary ground disturbance impacts are expected during construction of the Project, approximately 28 acres of which will be long-term for the operational life of the Project.

The Project will include the following facilities (“Project Facilities”):

- Up to 19 wind turbines;
- Electrical collection and supervisory control and data acquisition (“SCADA”) systems;
- A 34.5 kilovolt (“kV”) to 345 kV collector substation (“Collector Substation”);
- A 345 kV generator transmission tie line (“Gen-Tie Line”);
- The existing 345 kV Hill Valley Substation (“Interconnection Switchyard”);
- An operations and maintenance facility (“O&M Facility”);
- Access roads;
- Up to two meteorological (“MET”) towers;
- Up to two aircraft detection lighting system (“ADLS”) towers; and
- Temporary construction areas, including crane paths, public road improvements, general construction laydown yard, staging areas, and concrete batch plant, as needed.

The preliminary Project layout (“Project Layout”) is displayed in Figures 4.1.1 and 4.1.2 in **Appendix A**.

1.1.3 Size (rated capacity), in both DC and alternating current (AC) MWs, of the proposed project. When providing the DC MW size, a range can be provided. (If an actual turbine model is not yet under contract, the applicant must provide information on at least two turbine models that are being considered. Those turbines must represent the maximum and minimum megawatt size under consideration for purchase for the project.)

The Project's turbines will have an aggregate nameplate capacity of up to 118 MW alternating current ("AC"). As wind turbines directly produce AC power, direct current ("DC") power capacity is not typically relevant to wind energy facilities. Turbines produced by several manufacturers are under consideration for the Project including General Electric ("GE") and Vestas ("V"). No turbine supply agreements have been executed for the Project. Examples of turbine models that may be utilized are the GE 3.8-154 on the low wattage end and the V 162-6.2 on the high wattage end. While these two turbine models are examples of equipment that may be installed, Badger Hollow Wind will take into balanced consideration the cost, efficiency, and technology available during the procurement process to make a final selection on turbine equipment. Given the continuous advancement of turbine technology, turbines considered during procurement may include higher wattage turbines, potentially leading to fewer total turbines installed. It is also possible that a different manufacturer of a substantially similar product may be selected during the procurement process. Documentation for the GE 3.8-154 and V 162-6.2 turbine models is provided in **Appendix B**. Any turbine model(s) selected will be similar in size, specifications, and capacity as the two turbine models identified in **Appendix B**.

1.1.4 Number of turbine sites proposed for the project and the number of alternative turbine sites that have been identified (See the discussion on page 1 regarding alternatives).

The Project Layout contains 19 Proposed Turbine Locations and 6 Alternative Turbine Locations displayed in Figures 4.1.1 and 4.1.2 in **Appendix A**. There are 25 total turbine locations under consideration for the Project. The Proposed and Alternative Turbine Locations offer a range of different characteristics and allow the Public Service Commission ("PSC") to consider multiple configurations, with unique benefits, for the final Project layout. These Proposed and Alternative Turbine Locations satisfy the PSC's requirement that the Project must have a total number of viable turbine sites that are at least 25 percent greater than the minimum number of sites needed to achieve the rated output of the Project.

Badger Hollow Wind has performed a thorough suite of environmental studies, engineering analyses, and other development activities to refine the design of the Project and avoid or minimize potential impacts. As will further be addressed later in this Application, the final Project layout will account for a variety of interrelated factors. For example, unforeseen circumstances may arise just before or during construction that may require a turbine location to be slightly adjusted. For these reasons, Badger Hollow Wind respectfully requests that the CPCN, if granted, allow all turbine, MET tower, and ADLS tower locations to be shifted within 250 feet of their currently proposed locations, so long as they are located on leased land, specified noise and shadow flicker thresholds are not exceeded, and all applicable siting standards are complied with.

1.1.5 Identify any new or modified electric transmission lines or other electric transmission facilities that might be needed. Provide all associate MISO interconnection studies, such as definitive planning phase studies, as well as the MISO interconnection queue number(s) associated with the project and any ancillary energy storage systems, such as battery energy storage systems (BESS).

A new 345 kV Gen-Tie Line approximately 0.26 miles in length will connect the Collector Substation to the existing Interconnection Switchyard within the Project Area owned by American Transmission Company (“ATC”). The Collector Substation, Gen-Tie Line, and Interconnection Switchyard are associated facilities to the Badger Hollow Wind electric generating facility and are essential to allowing the electricity generated by the Project to be transmitted on the Midcontinent Independent System Operator (“MISO”) transmission system.

Pursuant to the Generator Interconnection Agreement (“GIA”) executed by Badger Hollow Wind, ATC, and MISO provided in **Appendix C**, no network upgrades or standalone network upgrades are to be constructed by Badger Hollow Wind to support its 99 MW J1483 queue position. Badger Hollow Wind holds an additional 40 MW queue position, J1931, in the MISO DPP 2021 Cycle East (ATC) study cluster. Current study results for J1931 are provided in **Appendix C**.

1.1.6 Provide a general map showing the location of the project area, nearest communities, townships, and major roads. Include an inset map showing where the project is located in the state. Scale should be appropriate for showing communities within at least 10 miles of the project area boundary.

Please see Figure 1.1.6 in **Appendix A** for the requested information.

1.2 Ownership

Identify the corporate entity or entities that would own and/or operate the plant.

Badger Hollow Wind Farm LLC, a wholly owned subsidiary of Invenergy Wind Development North America LLC and an affiliate of Invenergy LLC (“Invenergy”), is currently the entity anticipated to own and operate the Project. Badger Hollow Wind is a wholesale merchant plant as defined by Wis. Stat. § 196.491(1)(w)1.

Badger Hollow Wind, provided it receives a Certificate of Public Convenience and Necessity (“CPCN”) from the PSC, may directly or indirectly through its affiliates, own, construct, and operate the Project by selling the power using long term power purchase agreements or other available options. Alternatively, Badger Hollow Wind may sell or assign the Project, or a portion thereof, to one or more public utilities or other qualified entity or entities at any time. Any future buyer or assignee will be required to meet all permit conditions and any power purchase agreement obligations associated with the Project or portion thereof. As part of any such sale or assignment, Badger Hollow Wind or an affiliate may function as the Engineering, Procurement, and Construction (“EPC”) contractor to construct the Project and function as the O&M services provider to operate and maintain the Project.

Invenergy develops, builds, owns, and operates electric generating facilities across four core technologies: wind (118 projects; 19,274 MW), solar (53 projects; 6,989 MW), natural gas (13 projects; 6,071 MW), and battery storage (21 projects; 556 MW / 1,817 MWh). Invenergy projects are mainly located in the United States, but Invenergy has a global presence with projects located in Japan, Poland, Scotland, Mexico, El Salvador, and Uruguay. Invenergy has a

proven development track record of 202 electric generating facilities with a capacity of over 32,000 MW.

In Fond du Lac and Dodge Counties, Wisconsin, Invenergy developed the Forward Wind Energy Center (“Forward Wind”), a 129 MW wind electric generating facility that began operating in 2008 and provides electricity to Wisconsin Public Service Corporation (“WPSC”), Wisconsin Power & Light (“WPL”), and Madison Gas & Electric (“MGE”). (See PSC Docket No. 9300-CE-100). Invenergy constructed, owned, and operated Forward Wind for 10 years while providing electricity and renewable energy certificates to its customers. In 2018, Invenergy sold Forward Wind to its customers and will continue to operate the facility through its remaining service life. (See PSC Docket No. 05-BS-226).

In Iowa County, Wisconsin, Invenergy developed the Badger Hollow Solar Farm (“Badger Hollow Solar”), a 300 MW solar electric generating facility. (See PSC Docket Nos. 9697-CE-100 and 9697-CE-101). The first phase of 150 MW was constructed by Invenergy and is now owned by WPSC and MGE. The second phase of 150 MW was constructed by Invenergy and is now owned by Wisconsin Electric Power Company (“WEPCO”) and MGE. Invenergy operates both phases of the facility on behalf of its customers.

In Kenosha County, Wisconsin, Invenergy is constructing the Paris Solar Energy Center (“Paris Solar”), a 200 MW solar electric generating facility with a 110 MW battery energy storage system (“BESS”). The CPCN for Paris Solar was approved in December 2020. (See PSC Docket No. 9801-CE-100).

In Walworth and Rock Counties, Wisconsin, Invenergy is constructing the Darien Solar Energy Center (“Darien Solar”), a 250 MW solar electric generating facility with a 75 MW BESS. The CPCN for Darien Solar was approved in August 2021. (See PSC Docket No. 9806-CE-100).

In Dane County, Wisconsin, Invenergy is developing the Koshkonong Solar Energy Center (“Koshkonong Solar”), a 300 MW solar electric generating facility with a 165 MW BESS. The CPCN for Koshkonong Solar was approved in May 2022. (See PSC Docket No. 9811-CE-100).

In Columbia County, Wisconsin, Invenergy is developing the High Noon Solar Energy Center (“High Noon Solar”), a 300 MW solar electric generating facility with a 165 MW BESS. The CPCN for High Noon Solar was approved in July 2023. (See PSC Docket No. 9814-CE-100).

In Rock County, Wisconsin, Invenergy is developing the Dawn Harvest Solar Energy Center (“Dawn Harvest Solar”), a 150 MW solar electric generating facility with a 50 MW BESS. The CPCN for Dawn Harvest Solar was filed on April 30, 2024. (See PSC Docket No. 9809-CE-100).

1.3 Project Need/Purpose

Independent Power Producers (IPP) (merchant plants) skip to Subsection 1.3.6.

Subsections 1.3.1 thru 1.3.5 apply to **utilities only. These subsections focus on compliance with Wis. Stat. § 196.374, the Renewable Portfolio Standard (RPS).**

-
- 1.3.1 The utility's renewable baseline percentage and baseline requirement for 2001-2003 and the amount of renewables needed in the future.
 - 1.3.2 Amount of renewable energy currently owned and operated by the utility as defined by the RPS requirements for additional renewable energy.
 - 1.3.2.1 Total existing renewable generation capacity.
 - 1.3.2.2 Total energy produced by renewable assets in previous calendar year separated by generation type (Hydro, biomass, methane, wind etc.).
 - 1.3.2.3 Amount of renewable energy acquired through purchase power agreements (separated by type (hydro, biomass, wind, solar, etc.).
 - 1.3.2.4 Amount of RPS credits purchased.
 - 1.3.3 Expected annual energy output for the project. Discuss how any associated energy storage systems will impact the expected energy output.
 - 1.3.4 Other need not covered in Section 1.3.1
 - 1.3.4.1 Monthly demand and energy forecast for peak and off peak periods over the next 20-25 years.
 - 1.3.4.2 Describe how the availability of purchase power was analyzed, including purchase power agreements or energy efficiency and demand response options.
 - 1.3.4.3 Provide Attachment Y and Attachment Y-2 retirement or economic suspension studies performed by MISO.
 - 1.3.4.4 Provide the capacity position and planning reserve margin forecast for the next 10 years.
 - 1.3.4.5 Identify plant retirements forecast over the next 20-25 years.
 - 1.3.4.6 Describe how the existing and expected applications for generation from IPPs have been factored into your forecast.
 - 1.3.4.7 Describe how the proposed project meets the requirements of the Energy Priorities Law, Wis. Stat. §§ 1.12 and 196.025(1).
 - 1.3.4.8 Describe utility's compliance under Wis. Stat. § 196.374 for energy efficiency.
 - 1.3.5 **Utilities Only** – Generation Capacity Expansion Modeling

The generation capacity expansion modeling should be performed in a software program like EGEAS or similar software and include a 30-year extension period. Coordinate with PSC to electronically submit the generation capacity expansion modeling data set(s). In addition to filing the generation capacity expansion modeling data set(s), a document describing the filing and making any necessary request for confidential treatment should be filed on the Commission's ERF system.

 - 1.3.5.1 Describe the 25-year optimal generation expansion plan for all of the entities that are part of the generation plan.
 - 1.3.5.2 Describe how the availability of purchase power was analyzed, including purchase power agreements or energy efficiency and demand response options.
 - 1.3.5.3 Provide the capacity position and planning reserve margin forecast for the next 10 years.
-

- 1.3.5.4 Provide Attachment Y and Y-2 retirement or economic suspension studies performed by MISO.
- 1.3.5.5 The wind resource should be modeled as non-dispatchable, using an hourly wind profile if the project does not include a storage component. If the proposed wind project includes a storage component, the project can either be modeled as two units, one non-dispatchable (wind resource) and one dispatchable (storage component) or as a single unit as long as the single unit can accurately reflect the operational characteristics of the project.
- 1.3.5.6 Discuss how energy efficiency was modeled, including if energy efficiency/demand response were selectable alternatives in any generation capacity expansion modeling or if energy efficiency/demand response was incorporated into the load forecasts in the model as peak demand or energy production reductions.

Sections omitted, only apply to utilities.

1.3.6 **IPPs Only** – Energy Agreements

- 1.3.6.1 Identify all Wisconsin utilities under contract for delivery of energy from the proposed project.
- 1.3.6.2 For each utility under contract or with which an agreement in principle for delivery of energy is in place provide the following, by utility:
- 1.3.6.3 Rated capacity under contract.
- 1.3.6.4 Annual energy to be delivered under contract or expected to be delivered, including expected capacity factor.

There are no Wisconsin utilities currently under contract for delivery of energy from the Project.

1.4 Alternatives

1.4.1 **Utilities (CPCN)** – Supply Alternatives. Describe the supply alternatives to this proposal that were considered (including a “no-build” option) and present the justification for the choice of the proposed option(s).

1.4.1.1 Describe any alternative renewable fuel options considered and why those options were not selected.

- 1.4.1.1.1 Solar
- 1.4.1.1.2 Biomass
- 1.4.1.1.3 Hydro
- 1.4.1.1.4 Landfill Gas
- 1.4.1.1.5 Fuel Cell

1.4.1.2 Describe Purchase Power Agreements (PPAs) considered or explain why a PPA was not considered for this project.

1.4.1.3 No-Build Option.

Sections omitted, only apply to utilities.

1.4.2 *Utilities (CPCN)* – Demand-Side Alternatives

Conduct an analysis to identify the options that were considered for using demand-side programming to reduce, alter, or eliminate the need for the project. The analysis should include:

- 1.4.2.1 A description of the existing services available to customers, including any demand response programs or voluntary energy efficiency programs operated by the utility.
- 1.4.2.2 An indication of the amount of additional energy efficiency and demand response needed to reduce, alter, or eliminate the need for the project. This analysis should clearly identify and distinguish the amount of energy efficiency and demand response assumed to be achieved through Focus on Energy and utility programs from the additional energy efficiency and demand response needed to affect the project.
- 1.4.2.3 An analysis identifying the feasibility of achieving the amount of energy efficiency and demand response needed to reduce, alter, or eliminate the need for the project. This analysis should take into account:
 - 1.4.2.3.1 A clear definition of the energy efficiency and demand response programming options considered by the utility, and the potential savings, defined as the reduction in energy and capacity associated with the programs, that are available through those options;
 - 1.4.2.3.2 The cost-effectiveness of available energy efficiency and demand response options, relative to the costs per unit of the proposed project; Explain in detail how brownfields were considered in the selection of sites to develop.
 - 1.4.2.3.3 The total savings required to reduce, alter, or eliminate the need for the project, and the corresponding financial investment required to achieve those savings; and
 - 1.4.2.3.4 The utility's ability to implement new or expanded programs to achieve available savings.

Utilities are encouraged to integrate this analysis with the generation expansion planning modeling conducted under Section 1.3.5. It may be appropriate for analysis to address multiple different scenarios that distinguish between options for reducing, altering, and eliminating the project need.

Sections omitted, only apply to utilities.

1.4.3 *Utilities (CPCN OR CA) and IPPs (CPCN)* – Project Area Selection

- 1.4.3.1 **Alternative Project Areas.** Describe the project area screening and selection process used to select the proposed project area. Provide the following:
 - 1.4.3.1.1 List individual factors or site characteristics used in project area selection.

Invenergy acquired the Project, formerly known as Blue River Wind, from RES Group in 2018. The Project Area was analyzed for wind resource, proximity to transmission infrastructure,

topography, land cover, property rights, and community acceptance. Favorable results for these characteristics are present in the Project Area.

1.4.3.1.2 Explain in detail how brownfields were considered in the selection of sites to develop.

Wis. Stat. § 238.13(1)(a) defines a brownfield as “abandoned, idle, or underused industrial or commercial facilities or sites, the expansion or redevelopment of which is adversely affected by actual or perceived environmental contamination.” Wis. Stat. § 196.491(3)(d)8 requires brownfields to be used to the extent practicable for large electric generating facilities.

The potential use of existing brownfield sites was evaluated. A comprehensive list of brownfield sites was accessed from the United States Environmental Protection Agency (“EPA”) RE-Powering Mapper¹. The largest brownfield site in the state of Wisconsin is 369.25 acres and located in Outagamie County. There are two brownfield sites in Grant County; both of which are less than one acre each. There are no brownfield sites located in Iowa County. No brownfield sites reviewed were identified as suitable for the Project.

Badger Hollow Wind relied on EPA data rather than the Wisconsin Remediation and Redevelopment Database (“WRRD”)² to identify brownfields because not all sites listed in the WRRD are brownfields. The WRRD lists all sites where the discharge of a hazardous substance has been reported and either the site has been remediated, is being remediated, requires no further action, or has ongoing remediation obligations. Many of those sites are still used and useful to the property owner or may already have been redeveloped, and do not meet the definition of a brownfield. The WRRD does not indicate which of the sites WDNR considers brownfields.

1.4.3.1.3 Explain how individual factors and project area characteristics were weighted for your analysis and why specific weights were chosen.

As identified in Section 1.4.3.1.1, numerous characteristics were considered in siting the Project. All of the criteria evaluated are important for the successful development of a utility-scale wind electric generating facility and thus were equally weighted in selecting the Project Area.

1.4.3.1.4 Provide a list of all project areas reviewed with weighted scores for each siting factor or characteristic used in the analysis.

As noted in Section 1.4.3.1.3, Badger Hollow Wind views the described siting factors equally. A more detailed description of the Project’s approach to the siting process is described in Section 1.4.3.2.

1.4.3.2 Provide a narrative describing why the proposed project area was chosen.

¹ U.S. Environmental Protection Agency (US EPA). 2024. RE-Powering Mapper - Geospatial information for Brownfield Properties with latitude/longitude data.

² <https://dnr.wisconsin.gov/topic/Brownfields/WRRD.html>

Wind Resource: A strong wind resource is key for development of a competitive, economically viable wind electric generating facility. To obtain an accurate representation of the wind resource within the Project Area, Badger Hollow Wind collected wind speed, wind speed standard deviation, wind direction, and temperature data from on-site MET towers. The data was correlated to long-term reference data from the European Centre for Medium-Range Weather Forecasts' fifth generation atmospheric reanalysis of the global climate ("ERA-5") to predict long-term wind speeds at measurement height. Shear coefficients for each tower were determined by analyzing measured shear at each tower, with displacement heights or directional displacement applied based on surrounding vegetation. These shear values were used to extrapolate wind speed at each tower to the hub heights of the proposed turbines. Results of the wind resource analysis determined the Project Area to have a strong wind resource suitable for the Project.

Proximity to Transmission Infrastructure: Preferred interconnection points are found where the existing high-voltage transmission system possesses adequate capacity to accommodate additional electrical supply, thereby minimizing interconnection facility costs and network upgrades. The MISO generator interconnection process and resulting GIA confirmed that the point of interconnection is conducive for interconnection of the Project. As described below, sufficient flat, open land is located in proximity to the point of interconnection thereby minimizing the length of the Gen-Tie Line necessary to connect the Project to the MISO transmission system.

Topography: The existing topography in the Project Area generally consists of gently rolling hills with elevations that range from approximately 974 to 1,224 feet above mean sea level. Slopes generally range between 0 and 6% over a majority of the Project Area with limited areas with slopes from 6 to 20%. The most significant topographic changes generally occur near waterways. This topography is typically conducive for wind electric generating facilities.

Land Cover: Similar to topography, open terrain reduces the amount of clearing required for wind electric generating facilities, simplifying both construction and maintenance tasks, and minimizing potential environmental and logistical challenges. Land cover within the Project Area from the Level 1, Wisland 2 Land Cover Data, which combines ground-level mapping, satellite imagery, and United States Department of Agriculture data in a product produced jointly by the WDNR, UW- Madison, and the State Cartographer's Office was reviewed in evaluating the Project Area. Updated land cover data procured incorporating a field reconnaissance completed by Westwood Professional Services, Inc. ("Westwood") was reviewed and considered during the siting of Project Facilities. The majority of the Project Area is comprised of traditional cropland (80.7%) which will be able to continue in agricultural use while diversifying landowner's income. This is complemented by the fact that the Project will be constructed on land participating in the Project through voluntary agreements, indicating a collaborative and mutually beneficial approach to land use. The Project Layout generally avoids land cover types that require more significant preparation.

Property Rights: As a wholesale merchant plant, Badger Hollow Wind is not vested with the powers of eminent domain. Therefore, the Project must be constructed on land participating in

the Project through voluntary agreements. Property ownership data, including property rights secured, was reviewed in evaluating the Project Area. The landowners participating in the Project understand the value of renewable energy not only as an environmental benefit, but an economic benefit and opportunity to diversify their agricultural operations.

Community Acceptance: Badger Hollow Wind is committed to serving as a dedicated member of the community and will continue to work hard to earn and uphold trust over the life of the Project. Our engagement with the community goes well beyond job creation, economic investment, and providing clean, renewable energy. We strive to build lasting partnerships with civic leaders, property owners, and community members. We pride ourselves on being transparent in our communication and responsive to public feedback. Project representatives have been meeting with area landowners to discuss the Project and land leasing since mid-2019. Participating landowners have received welcome packets, update mailings, and notification letters since joining the Project. Badger Hollow Wind employed a local representative to serve as a resource for both participating landowners and members of the community. Additionally, Project representatives have shared information with the public via presentations to the towns, engaging in 30 to 120-minute public comment question and answer sessions at each. Badger Hollow Wind has also given presentations to the Platteville Regional Chamber of Commerce, Iowa County Board and Supervisors, Grant County Board and Supervisors, and the President of the Village of Montfort Council. A public meeting for the Project was held on September 25, 2024, with ads displayed by the hosting township on their website and in local online media outlets. Project representatives have been in regular attendance at town board meetings and have followed up with individuals who have stated they would like to learn more about the Project. Furthermore, Project representatives have been meeting with Project neighbors to answer questions and have executed eight Good Neighbor Agreements with three others under negotiation. Project representatives have continued to provide education throughout the community at local schools and organizations and have called and attempted to meet with citizens who posed questions about the Project in the docket.

1.5 Utilities (CPCN or CA) and IPPs (CPCN) – Turbine Site Selection

1.5.1 List the individual factors or characteristics used to select the proposed and alternative turbine sites.

Once the Project Area was identified and determined viable, Badger Hollow Wind continued to collect data and refine placement of turbines based on engineering and design parameters, and conduct landowner meetings and community engagement to solicit public input. The following factors were considered in siting the Proposed and Alternative Turbine Locations.

- Wis. Admin. Code PSC ch. 128
- Existing infrastructure;
- Topography;
- Land use and zoning;
- Property rights;
- Geology;
- Soils;

- Existing vegetative communities;
- Sensitive habitats;
- Threatened and endangered species;
- Cultural resources;
- Wetlands;
- Waterways;
- Floodplains;
- Noise;
- Shadow Flicker;
- Airspace constraints;
- Microwave and communication paths;
- Recreation and publicly owned lands; and
- Public outreach and community feedback.

To the extent any turbine location is determined by the Commission to be non-optimal, Badger Hollow Wind respectfully requests the Commission to consider the practical effects on Project design and constructability of such a decision, and to the extent possible, retain the Proposed and Alternative Turbine Locations. Badger Hollow Wind seeks to utilize practices and equipment of industry leading quality and the closer the Project can adhere to this standard, the more efficient design, construction, and operation will be and, thus, the more economical the Project will be. Badger Hollow Wind respectfully requests that the PSC review the Proposed and Alternative Turbine Locations and approve all locations deemed suitable for use by Badger Hollow Wind.

1.5.2 Provide information on how turbine site characteristics and the type/s of turbines chosen factored into the selection of final turbine sites. Discuss any risks associated with supply chain disruption for the turbines under consideration and how such risks would be mitigated.

Site characteristics were considered as described in Sections 1.4.3 and 1.5.1. The conceptual design for the Project utilizes V 162-6.2 turbines. During the procurement process, Badger Hollow Wind will analyze current market offerings to make a final selection on turbine equipment. Badger Hollow Wind will take into balanced consideration the cost, efficiency, and technology available during the procurement process, which may include higher wattage turbines, potentially leading to fewer total turbines installed. The final Project layout will be optimized for the final equipment selected. Example documentation of turbine equipment that may be installed is provided in **Appendix B**.

Invenergy's industry-leading procurement team works to maintain flexibility and innovates to respond to the challenges of an ever-changing marketplace. The procurement team's strategy is to take a proactive and collaborative approach with suppliers to de-risk projects and ensure mutual success while meeting deadlines and minimizing costs. This is done through conducting risk assessments, creating contingency plans that outline how to respond to various scenarios and mitigating risks, exploring opportunities to diversify projects or markets, and fostering a culture of shared learning and innovation. Supply chain disruptions are not anticipated at this time.

1.5.3 Turbine setback distances

1.5.3.1 Minimum setback distances (in feet) from:

- Residences
- Property lines
- Other buildings (e.g. animal barns, storage sheds)
- Roads
- Wetlands and waterways
- Existing utility infrastructure (i.e. natural gas pipelines, electric distribution lines)
- Any other features.

Badger Hollow Wind selected the minimum setback distances provided in **Table 1.5.3.1** to ensure safe construction, operation, and maintenance of the Project. In accordance with Wis. Admin. Code § PSC 128.13(1)(b), these setbacks are measured from the vertical centerline of turbine towers. The minimum setback distances take into consideration property rights, applicable state statutes and regulations, and avoidance of impacts to sensitive infrastructure and environmental features. The conceptual design for the Project utilizes V 162-6.2 turbines which have a maximum blade tip height of 656.17 ft, blade length of 260.33 ft, and hub height of 390.42 ft.

Table 1.5.3.1 Minimum Setback Distances	
Type	Distance to Turbines
Participating Residences	1.1 times the maximum blade tip height
Non-Participating Residences	The lesser of 1,250 feet or 3.1 times the maximum blade tip height
Non-Participating Property Lines	1.1 times the maximum blade tip height
Occupied Community Buildings	The lesser of 1,250 feet or 3.1 times the maximum blade tip height
Other Buildings	1.1 times the turbine blade length
Public Road Right-of-Way	1.1 times the maximum blade tip height
Electrical Transmission Lines	1.1 times the maximum blade tip height
Electrical Distribution Lines (not including utility service lines to individual houses or outbuildings)	1.1 times the maximum blade tip height
Natural Gas Transmission Pipelines	1.1 times turbine hub height
Wetlands	Target of 50 feet to turbine tower where practicable, depending on wetland type.
Waterways	75 feet from the ordinary high-water mark (“OHWM”) of navigable waterways.
Floodplain	28 feet

1.5.3.2 Identify any sites where setback waivers are needed or have been executed.

A setback waiver for Parcel APN 012002250000 owned by Biddick Inc. is currently being negotiated to site Proposed Turbine Location 8.

1.5.3.3 Identify any sites where non-participating “good neighbor” agreements have been executed.

Badger Hollow Wind initiated a Good Neighbor Program in January 2024 with the goal of including non-participating residential property owners as participants in the Project. Non-participating residential property owners proximal to Proposed and Alternative Turbine Locations identified as potentially being over statutory noise and shadow flicker limit thresholds during preliminary siting have been invited to participate. **Table 1.5.3.3** identifies property owners and their associated parcel APN(s) that have executed good neighbor agreements. Communication with non-participating residential property owners will continue throughout all phases of the Project lifecycle.

Table 1.5.3.3 Good Neighbor Agreements	
Landowner Name	Parcel APN(s)
Donelle A. Fitzsimmons	010-0464.A
Glenn Langfoss and Vicki Langfoss	016-0068.A
Jeremy J. Cordts and Tamara J. Cordts,	014-0312.B
EEAMT Trust	014-0288.B
Daniel Richgels	016-0162.A
Ryan A. Cordts	016-0693.A
Timothy and Kristi Loeffelholz	147-0009
Harry Simons, Jr.	062-00760-0010 062-00763-0010

1.5.3.4 Status of easement agreements:

1.5.3.4.1 Identify all turbine sites, proposed and alternative, for which easement agreements have been executed.

1.5.3.4.2 Identify turbine sites where easement agreements have not been signed and provide a short description of the status of negotiations.

Please refer to **Table 1.5.3.4** for the requested information. Badger Hollow Wind is currently in the process of seeking a renewal of a wind easement agreement for Parcel APN 016-0282 associated with Alternative Turbine Location 22.

Table 1.5.3.4 Turbine Location Agreements						
Turbine ID	Latitude	Longitude	Turbine Location Type	Landowner Name	Parcel APN(s)	Status
T1	-90.38313173	42.85020573	Proposed	Mark and Janice Lee	016-0681	Signed
T2	-90.39449982	42.86672565	Proposed	Double T & D Grain Inc.	016-0512	Signed

Table 1.5.3.4 Turbine Location Agreements						
Turbine ID	Latitude	Longitude	Turbine Location Type	Landowner Name	Parcel APN(s)	Status
T3	-90.39903577	42.89190131	Proposed	Coulthard family Farm Inc	016-0305	Signed
T4	-90.41791428	42.89693383	Proposed	TEVA LLC	016-0273	Signed
T5	-90.40942122	42.89396582	Proposed	Jeffrey and Rebecca Allen	016-0275	Signed
T6	-90.41833723	42.91024346	Proposed	Trelay Land and Cattle Co.	016-0258	Signed
T7	-90.43287304	42.88885919	Alternative	David and Carol Rundell	12004910 000	Signed
T8	-90.4235923	42.92226176	Proposed	Trelay Land and Cattle Co.	016-0103	Signed
T9	-90.41816832	42.9246337	Proposed	Trelay Land and Cattle Co.	016-0098	Signed
T10	-90.43249286	42.94043541	Proposed	Kramer Farms LLC	12000010 000	Signed
T11	-90.42479249	42.94331724	Proposed	Kramer Farms LLC	016-0085	Signed
T12	-90.41723728	42.94364113	Proposed	Wolf-Georg Fehrensens	016-0081	Signed
T13	-90.41467079	42.93248228	Proposed	Trelay Land and Cattle Co.	016-0094	Signed
T14	-90.38552887	42.941387	Proposed	Adam and Karsey Mueller	016-0052	Signed
T15	-90.39181164	42.93846673	Proposed	Adam and Karsey Mueller	016-0066	Signed
T16	-90.34632632	42.92607547	Alternative	Daniel Spurley	016-0173, 016-0174	Signed
T17	-90.31305691	42.95778326	Alternative	Stephen and Korena Esser	010-0544	Signed
T18	-90.30679269	42.95986253	Alternative	Jason M Esser	014-0311	Signed
T19	-90.30365681	42.96432123	Alternative	Travis and Tyler Mueller	014-0297	Signed
T20	-90.40686875	42.9391496	Proposed	Trelay Land and Cattle Co.	016-0069	Signed
T21	-90.40247802	42.94943226	Proposed	Cole and Eric Faull	010-0482	Signed

Table 1.5.3.4 Turbine Location Agreements						
Turbine ID	Latitude	Longitude	Turbine Location Type	Landowner Name	Parcel APN(s)	Status
T22	-90.41248482	42.8893713	Alternative	James R Biddick	016-0282	In Progress
T23	-90.41629875	42.88048855	Proposed	David and Carol Rundell	016-0478	Signed
T24	-90.39137145	42.86047727	Proposed	Double T & D Grain Inc.	016-0526	Signed
T25	-90.39309707	42.89061847	Proposed	Daryl L Runde	016-0309	Signed

1.5.4 Identify whether setbacks are consistent with local zoning (county or municipality) or if there are variations from local zoning setbacks, describe why.

The minimum setback distances provided in **Table 1.5.3.1** are consistent with Wis. Admin. Code PSC ch. 128. The Project is compliant with Grant County and Iowa County Ordinances, including zoning setbacks. The Project is not compliant with local ordinances to the extent they include purported requirements that are more restrictive than those established in Wis. Admin. Code PSC ch. 128, as Wis. Admin. Code § PSC 128.03 does not allow local governments to impose setback requirements that are more restrictive than those established in ch. 128.

1.6 Utilities Only – Cost

1.6.1 Provide capital cost of the completed facility organized by Plant Account Codes (PAC) found in the PSC’s Uniform System of Accounts for Private Electric Utilities – 1/1/90. Provide a breakdown within each PAC and a subtotal. Include, at least, the following PACs:

- 1.6.1.1 PAC 340 – Land and Land Rights**
- 1.6.1.2 PAC 341 – Structures and improvements (operation and maintenance (O&M) buildings, access roads)**
- 1.6.1.3 PAC 344 – Generators (foundations, engineering, procurement, construction management, erection)**
- 1.6.1.4 PAC 345 – Accessory Electrical Equipment (substation, meteorological towers, collector circuit system, SCADA)**

1.6.2 Provide the complete terms and conditions of all lease arrangements.

- 1.6.2.1 Turbine site lease**
- 1.6.2.2 Setback waivers**
- 1.6.2.3 Neighbor of non-participant agreements**
- 1.6.2.4 Affiliated Provide a statement demonstrating how conditions of Wis. Stat. § 196.52(9)(a)3(b) have been met (this pertains to leased generation contracts).**
- 1.6.2.5 Affiliated interest approvals required. Include those applied for or received.**

- 1.6.3 Discuss and provide the comparative costs of the alternatives identified and evaluated in Section 1.4.**
- 1.6.4 Describe the effect of the proposed project on wholesale market competition. Include a description of how, at the time of this filing, the proposed facility would be treated as an intermittent resource in the Midcontinent Independent System Operator, Inc. (MISO) market.**
- 1.6.5 Provide an estimate of the expected life span for the power plant.**
- 1.6.6 Describe how the facility would be decommissioned at the end of its life span. Describe expected decommissioning actions and timelines.**
 - 1.6.6.1 Provide an estimate of the cost of and source of funding for decommissioning. State whether financial security would be provided to cover decommissioning costs, including the amount and time it would be provided.**
 - 1.6.6.2 State how the start of decommissioning would be decided, including a description of what constitutes site abandonment.**
 - 1.6.6.3 Discuss any recycling or repurposing options that can be employed to eliminate waste streams for electric generating site components, including any BESS systems.**

Sections omitted, only apply to utilities.

1.7 IPPs Only – MISO and Project Life Span

1.7.1 MISO Market. Describe how, at the time of this filing, the proposed facility would be treated as an intermittent resource in the MISO market.

Intermittent resources in the MISO market, such as wind energy, qualify to provide both energy and capacity so long as they are registered with MISO and deliverable to load via Firm Transmission Service or Network Resource Interconnection Service (“NRIS”). Alternatively, intermittent resources can exclusively provide energy via Non-Firm Transmission Service or Energy Resource Interconnection Service (“ERIS”). However, during periods of grid congestion, generating facilities may be limited to delivering only the NRIS capacity allocated.

The GIA for Badger Hollow Wind’s J1483 queue position allocates 99 MW ERIS. Badger Hollow Wind’s J1931 queue position currently in the MISO DPP 2021 Cycle East (ATC) study cluster allocates 12 MW NRIS and 40 MW ERIS.

MISO, in accordance with Federal Energy Regulatory Commission (“FERC”) acceptance of the Reliability Availability & Need seasonal capacity construct (ER22-495-000), developed four unique seasonal class-average capacity values for wind for Planning Year 2024-2025. The wind default seasonal capacity credits in Planning Year 2024-2025 are 18.1% for summer, 15.6% for fall 2024, 53.1% for winter 2024-2025, and 18.0% for spring 2025.

1.7.2 Provide an estimate of the expected life span for the power plant.

The Project is anticipated to be operational for approximately 30 years, but the actual life span may be longer. The majority of wind easement agreements executed for the Project provide for a total operational period of 60 years.

**1.7.3 Describe how the facility would be decommissioned at the end of its life span.
Describe expected decommissioning actions and timelines.**

Badger Hollow Wind will be responsible for the removal of all aboveground Project Facilities and underground Project Facilities to a depth of 4 feet below grade. Badger Hollow Wind reserves the right to seek to extend commercial operations by applying for an extension of any required permits. Subject to applicable regulatory approval, should Badger Hollow Wind decide to continue operations, a decision will be made as to whether to upgrade the facility with newer technologies which may allow the Project to continue to produce energy efficiently and successfully for a longer duration.

Decommissioning of the Project will include removal of turbines, foundations, transformers, collector circuits and communication cables, and ancillary equipment. Civil facilities and access roads will be removed at the discretion of the landowner. Some Project Facilities, such as the O&M Facility, Collector Substation, and Gen-Tie Line may remain in use or be repurposed after the end of the useful life of the wind electric generating facility. Project Facilities that remain in use or can be repurposed will not be removed during decommissioning.

Standard decommissioning practices will be utilized, including dismantling and repurposing, salvaging and recycling, or disposing of the equipment. Decommissioned equipment and materials will be evaluated for recycling based on practicability and economic viability. Disposal of materials will be consistent with applicable regulations and industry standards. Badger Hollow Wind anticipates decommissioning will take approximately 12 months. A Decommissioning Plan for the Project is provided in **Appendix D**.

**1.7.3.1 Provide an estimate of the cost of and source of funding for decommissioning.
State whether financial security would be provided to cover decommissioning costs, including the amount and time it would be provided.**

A preliminary cost estimate for decommissioning the Project is provided in **Appendix D**. Based on current pricing, technology, and regulatory requirements, the estimated net decommissioning cost (cost of decommissioning minus any potential estimated resale and salvage value revenue) resulted in a net surplus of approximately \$2,625,654 for the initial period of Project operation. The cost estimate is non-binding and was based on 2024 pricing for removal of components.

Badger Hollow Wind believes that, based on the potential resale and salvage value of the installed equipment, it is unnecessary to establish a decommissioning funding source at the early stages of operation. Badger Hollow Wind proposes to update the Decommissioning Plan at the 10th anniversary of commercial operations. At the 10th anniversary of commercial operations, Badger Hollow Wind will post a form of financial security, such as a surety bond, letter of credit, escrow account, reserve fund, parent guarantee or other suitable financial mechanism, if any estimated net cost of decommissioning exists. The Decommissioning Plan will be updated every 5 years thereafter and the financial security will be adjusted to be consistent with the then current estimated net decommissioning cost.

1.7.3.2 State how the start of decommissioning would be decided, including a description of what constitutes site abandonment.

At the end of commercial operations, Badger Hollow Wind will assess whether to decommission the Project or seek to extend the life of the Project. Subject to applicable regulatory approval, should Badger Hollow Wind decide to pursue continued operations, it will evaluate whether to continue with the existing equipment or to upgrade the facility with newer technologies. If Badger Hollow Wind does not pursue continued operations or repowering of the Project, the decommissioning process will begin when Badger Hollow Wind determines the Project is discontinued or after approximately one year without energy production. In the unlikely event that the decommissioning process is not complete within 12 months following the termination of commercial operations, the Project will be considered abandoned.

1.7.3.3 State whether a participating landowner could be responsible for decommissioning costs in any situations.

Participating landowners will not be responsible for decommissioning costs in any situation.

1.7.3.4 Discuss any recycling or repurposing options that can be employed to eliminate waste streams for electric generating site components, including any BESS systems.

Badger Hollow Wind is committed to employing sustainable practices and minimizing waste streams. To the extent practicable and economically viable, equipment will be recycled or repurposed. Details regarding equipment and materials that are anticipated to be recycled based on current recycling programs are provided in **Appendix D**.

1.8 Utilities and IPPs – Required Permits and Approvals

1.8.1 Approvals and Permits. For each of the regulatory agencies listed below provide the following information:

- regulatory agency,
- the approvals/permits required,
- application filing date,
- the status of each application,
- agency contact name and telephone number.

1.8.1.1 Federal

1.8.1.1.1 Federal Aviation Administration (FAA)

1.8.1.1.2 U.S. Army Corps of Engineers

1.8.1.1.3 U.S. Fish and Wildlife Service

1.8.1.1.4 Other federal agencies not listed above

1.8.1.2 State

1.8.1.2.1 WisDOT

1.8.1.2.2 DNR

1.8.1.2.3 DATCP

1.8.1.2.4 Other state agencies not listed above

1.8.1.3 Local Permits – including county, town, city, and village

All potentially required federal- and state-level permits and approvals that may be necessary for the construction of the Project are identified in **Table 1.8.1**. Permits to be applied for will be determined based on Badger Hollow Wind’s final engineering following issuance of a final decision in the CPCN proceeding. In addition to the permits identified in **Table 1.8.1**, Badger Hollow Wind may apply for local permits to facilitate cooperation with local governments. In the event local permits are withheld or delayed subsequent to the issuance of a CPCN, installation and utilization of the facility may nevertheless proceed under Wis. Stat. § 196.491(3)(i).

Table 1.8.1 Preliminary Permits and Approvals				
Agency	Permit/Approval	Notes	Filing Date	Status
Federal				
Federal Aviation Administration	Determinations of No Hazard	Required for any proposed construction over 200 feet above ground level.	Q3 2024	In progress
United States Department of Commerce – National Telecommunications and Information Administration	NTIA Letter of Concurrence	No interference with federal communication systems anticipated.	Q1 2025	Not started
Federal Aviation Administration	Marking and Lighting Recommendations	Required for approval of light-mitigating technology.	Q1 2026	Not started
Federal Communications Commission	Antenna Structure Registration	Required for ADLS	Q3 2026	Not started
Federal Communications Commission	Land Mobile Radio Location License	Required for ADLS	Q3 2026	Not started
United States Army Corps of Engineers	Section 401 Water Quality Certification	Impacts to jurisdictional water resources will be avoided and minimized to the extent practicable. The final Project layout will be evaluated to determine the appropriate	N/A	Not required at this time

Table 1.8.1 Preliminary Permits and Approvals				
Agency	Permit/Approval	Notes	Filing Date	Status
		authorization for unavoidable impacts.		
United States Army Corps of Engineers	Section 404 Wetland Permit	Impacts to jurisdictional water resources will be avoided and minimized to the extent practicable. The final Project layout will be evaluated to determine the appropriate authorization for unavoidable impacts.	N/A	Not required at this time
United States Army Corps of Engineers	Section 10 Waterway Permit	There will be no impacts to Section 10 waterways as the Project is currently designed.	N/A	Not required
United States Fish and Wildlife Service	Endangered Species Act Review	Consultation is required if the Project has a federal nexus or otherwise may impact federally listed species or designated critical habitats. Endangered Species Act Review includes potential for Incidental Take Permit.	N/A	Not required at this time
State				
Public Service Commission of Wisconsin	Certificate of Public Convenience and Necessity	Required for construction of a large electric generating facility.	Q4 2024	In progress
Wisconsin Department of Natural Resources EAS Geri Radermacher – Wetland Regulatory/Zoning Specialist 262-574-2153 Geri.Radermacher@wisconsin.gov	Wetland Fill Permit (Wis. Stat. Ch. 281)	Impacts to wetland resources will be avoided and minimized to the extent practicable. Field delineations within the final Project layout will be performed to determine the presence and extent of wetland resources, quantify potential impacts, and determine the appropriate	N/A	Not required at this time

Table 1.8.1 Preliminary Permits and Approvals				
Agency	Permit/Approval	Notes	Filing Date	Status
		authorization for unavoidable impacts.		
Wisconsin Department of Natural Resources EAS Geri Radermacher – Wetland Regulatory/Zoning Specialist 262-574-2153 Geri.Radermacher@ wisconsin.gov	Construction Affecting Navigable Waterways (Wis. Stat. Ch. 30)	Impacts to jurisdictional water resources will be avoided and minimized to the extent practicable. The final Project layout will be evaluated to determine the appropriate authorization for unavoidable impacts.	Q3 2026	Not started
Wisconsin Department of Natural Resources Melissa Yarrington 715-401-1794 Melissa.Yarrington @wisconsin.gov	Wisconsin Pollutant Discharge Elimination System Pit/Trench De-Watering (Wis. Stat. Ch. 283)	Required for point-source discharge of any pollutants into the waters of the State.	Q3 2026	Not started
Wisconsin Department of Natural Resources Melissa Yarrington 715-401-1794 Melissa.Yarrington @wisconsin.gov	Wisconsin Pollutant Discharge Elimination System Construction Stormwater General Operating Permit (Wis. Stat. Ch. 283, Wis. Admin. Code Ch. NR 216 & NR 151)	Required for land disturbance or construction activities that disturb one or more acres with a point source discharge to surface waters of the United States.	Q3 2026	Not started
Wisconsin Department of Natural Resources EAS Stacy Rowe Endangered and Threatened Resources Review 608-228-9796	Incidental Take of Threatened or Endangered Resource (Wis. Stat. Ch. 29)	Consultation and the potential for an Incidental Take Permit is required if state listed species are impacted.	N/A	Not required at this time

Table 1.8.1 Preliminary Permits and Approvals				
Agency	Permit/Approval	Notes	Filing Date	Status
Wisconsin Department of Natural Resources Bureau of Drinking and Groundwater Deborah Lyons- Roehl Operations Program Associate 608-267-9350 Deborah.LyonsRoehl@wisconsin.gov	Private Well Notification Number	Required for construction of a private well.	Q4 2026	Not started
Wisconsin Department of Transportation Bureau of Highway Maintenance P.O. Box 7980 Madison, WI 53707- 7980 608-266-7320 Oversize- permits.dmv@dot.wi.gov	Oversize- Overweight Vehicle Permit	Required for any vehicles exceeding posted limits on state roads.	Q1 2026	Not started
Wisconsin Department of Transportation SW Region Bob Fasick Bureau of Highway Maintenance 608-266-3438 robert.fasick@dot.wi.gov	Connection Permit	Required for construction of driveway or public/private road on property abutting a state highway.	Q1 2026	Not started
Wisconsin Department of Transportation Bureau of Highway Maintenance Bob Fasick	Right-of-Way Permit	Required for any construction in a state highway right-of-way.	Q4 2025	Not started

Table 1.8.1 Preliminary Permits and Approvals				
Agency	Permit/Approval	Notes	Filing Date	Status
4822 Madison Yards Way, 5th Floor South Madison, WI 53705 (608) 266-3438 robert.fasick@dot.wi.gov				
Wisconsin Department of Transportation Bureau of Highway Maintenance Bob Fasick 4822 Madison Yards Way, 5th Floor South Madison, WI 53705 (608) 266-3438 robert.fasick@dot.wi.gov	Utility Permit	Required for construction or maintenance of a utility facility in state highway right-of-way.	Q4 2025	Not started
Wisconsin Department of Transportation Josh Cothren Joshua.cothren@dot.wi.gov	High Structure Permit	Required for construction of a structure greater than 500 feet above ground level.	Q3 2025	Not started
Wisconsin Department of Safety and Professional Services 608-266-2112	Electrical and Plumbing Plan Review	Required for installation of electrical, plumbing, and certain mechanical systems in a commercial building.	Q1 2027	Not started

No impacts to cultural resources are anticipated that would necessitate Section 106 review under the National Historic Preservation Act (“NHPA”).

1.8.2 Correspondence with Permitting Agencies. Provide copies of correspondence to and from state and federal agencies that relate to permit approval, compliance approval, or project planning and siting. Provide copies of any correspondence to or from local governments. This should continue after submittal of the application.

Copies of official correspondence to and from state and federal agencies that relate to permit approval, compliance approval, or Project planning are provided in **Appendix E**, except for the

current Wisconsin Department of Natural Resources (“WDNR”) Endangered Resource Review (“ERR”) and U.S. Fish and Wildlife Service (“USFWS”) Information for Planning and Consultation (“IPaC”) Official Species List, which are provided in **Appendix F**. Correspondence to or from local governments is provided in **Appendix G**. Section 14.2 contains detailed information regarding Badger Hollow Wind’s public outreach efforts. Badger Hollow Wind will continue to correspond with permitting agencies as applicable throughout the lifecycle of the Project.

2. Technical Description – Project Area, Turbines, Turbine Sites, and Ancillary Facilities

2.1 Estimated Wind Speeds and Projected Energy Production

Provide a complete wind speed energy production assessment for the project. This report should include, at a minimum:

2.1.1 Wind speeds and source of wind speed data used in analysis, including the name of any modeling program used to estimate such data.

To evaluate the wind energy resource for the Project, Badger Hollow Wind collected wind speed, wind speed standard deviation, wind direction, and temperature data from on-site MET towers. The data was correlated to long-term reference data from the atmospheric reanalysis of the global climate ERA-5 to predict long-term wind speeds at measurement height. Shear coefficients for each tower were determined by analyzing measured shear at each tower, with displacement heights or directional displacement applied based on surrounding vegetation. These shear values were used to extrapolate wind speed at each tower to the hub heights of the proposed turbines. Results of the wind resource analysis determined the Project Area to have a strong wind resource suitable for the Project. Energy production and modeling reports for the Project are provided in **Appendix H**.

2.1.2 Wind roses (monthly and annual).

Please see **Appendix H** for the requested information.

2.1.3 Gross and net capacity factor (explain the method used to calculate the capacity factors and provide the data used).

Capacity factor is defined as the ratio of the electricity generated, for the time considered (one typical meteorological year, or 8,760 hours), to the energy that could have been generated at continuous full-power operation (118 MW) during the same period. Gross capacity factor is measured at the point of generation, the turbines, and net capacity factor is measured at the point of interconnection, net of any system losses. With these definitions, the Project will have an estimated gross capacity factor of approximately [REDACTED]% and an estimated net capacity factor of approximately [REDACTED]%. These values were calculated utilizing the OpenWind modeling software and realistic loss assumptions based on years of wind electric generating facility operational experience.

2.1.4 Estimated energy production of project.

2.1.4.1 Estimated production losses.

Energy losses within the system include electrical losses in the electrical collection system and Gen-Tie Line and energy conversion losses within the transformers and other electrical equipment. Additional losses may also be incurred due to factors such as equipment selection, plant availability, wind waking and blockage, climatic and environmental factors, and operational curtailment strategies, and mechanical availability. Taking these factors into account, energy production losses are estimated to be approximately 23.37% of the maximum output of the Project. Individual loss factors are provided in **Appendix H**.

2.1.4.2 Estimated net energy production.

The net energy production of the Project will be approximately [REDACTED] GWh per year over the 30-year operational lifetime. Annual energy production output will depend on final design and equipment selection, turbine placement and configuration, any operational curtailment strategies, and additional wind resource measurements.

2.2 Turbine Type and Turbine Characteristics

2.2.1 Identify the manufacturer and model of turbine generator to be used. (If no Turbine Purchase Agreement has been signed, applicants should identify the turbine or turbines being considered. It is acceptable to identify a range by providing information on the largest and smallest turbine being considered, however, consult with Commission staff prior to preparing the application.)

Turbines produced by several manufacturers are under consideration for the Project including General Electric and Vestas. No turbine supply agreements have been executed for the Project. Examples of turbine models that may be utilized are the GE 3.8-154 on the low wattage end and the V 162-6.2 on the high wattage end. While these two turbine models are examples of equipment that may be installed, Badger Hollow Wind will take into balanced consideration the cost, efficiency, and technology available during the procurement process to make a final selection on turbine equipment. Given the continuous advancement of turbine technology, turbines considered during procurement may include higher wattage turbines, potentially leading to fewer total turbines installed. It is also possible that a different manufacturer of a substantially similar product may be selected during the procurement process. Documentation for the GE 3.8-154 and V 162-6.2 turbine models is provided in **Appendix B**. Any turbine model selected will be similar in size, specifications, and capacity as the two turbine models identified in **Appendix B**.

2.2.2 Turbine Delivery Date – Indicate whether or not this date is firm. Discuss how supply chain risks could impact the project.

Turbine deliveries are anticipated to begin in Q2 of 2027. This date is not firm. Supply chain risks could delay or slow construction of the Project but are not expected at this time.

2.2.3 Total number of turbines required for project.

Badger Hollow Wind requires 19 turbines to meet the Project's 118 MW nameplate capacity.

2.2.4 Technical characteristics of Turbines.

- 2.2.4.1 Hub Height.
- 2.2.4.2 Blade Length.
- 2.2.4.3 Swept Area.
- 2.2.4.4 Total Height.
- 2.2.4.5 Cut-in Speed.
- 2.2.4.6 Cut-out Speed
- 2.2.4.7 Fixed or Variable Speed – include rpm.
- 2.2.4.8 Rated Wind Speed.

Please see Table 2.2.4 for the requested information.

Table 2.2.4 Turbine Specifications		
Specification	GE 3.8-154	V 162-6.2
Hub Height (meters)	98 m	119 m
Blade Length (meters)	75.7 m	79.35 m
Swept Area (square meters)	18723 m ²	20612 m ²
Total Height (meters)	176 m	200 m
Cut-in Speed (meters per second)	3 m/s	3 m/s
Cut-out Speed (meters per second)	25 m/s	24 m/s
Speed (revolutions per minute)	≤ 10.6 rpm	≤ 12.1 rpm
Rated Wind Speed (meters per second)	14.5 m/s	12.5 m/s

2.2.4.9 Turbine Power Curve (provide actual data – wind speed and rated output needed to create the curve).

Please see Table 2.2.4.9 for the requested information.

Table 2.2.4.9 Turbine Power Curves		
Wind Speed (m/s)	GE 3.8-154 (kW)	V 162-6.2 (kW)
█	█	█
█	█	█
█	█	█
█	█	█
█	█	█
█	█	█

2.2.5.1 Type of tower and material used.

The turbine towers will be self-supporting, tubular steel towers connected to turbine foundations by anchor bolts. The towers will be painted a non-glare white, off-white, or gray to comply with FAA regulations.

2.2.5.2 Tower dimensions and number of sections required.

The hub height of the GE 3.8-154 is 98m and will require 3 tower sections in addition to the nacelle. The hub height of the V 162-6.2 is 119m and will require 6 tower sections in addition to the nacelle.

2.2.6 Scale drawings of turbines including turbine pad and transformer box.

Scale drawings of turbine pad sites for the GE 3.8-154 and V 162-6.2 are provided in **Appendix I**.

2.3 Construction Equipment and Delivery Vehicles

Provide a description of the types of construction equipment needed to build the project and the types of delivery vehicles that would be used to deliver turbines, towers, and blades to tower sites. For large equipment and vehicles include:

2.3.1 Types of construction equipment and delivery vehicles.

Typical construction equipment may include but is not limited to tree removal equipment, cranes, backhoes, truck mounted drill rigs, dump trucks, front-end loaders, bucket trucks, bulldozers, motor graders, rollers, skid steers, telehandlers, forklifts, boring trucks, trenchers, flatbed tractor trailers, flatbed trucks, pickup trucks, concrete trucks, puller-tensioner equipment, and various transport trailers. The Project will require different equipment depending on the phase of construction. The first phase consisting of civil work and access road construction will primarily require dozers, motor graders, and rollers. Foundation work will require excavators and other dirt-moving equipment, followed by concrete trucks and flatbed trucks for delivery of reinforcing steel and anchoring materials. Collection trenching will mainly utilize trenchers and boring trucks. Delivery of turbine components will require various transport trailers. Unloading and erection of turbine components will utilize large crawler cranes and truck cranes. For the Collector Substation, a large truck crane or telescopic crawler crane will be needed to set the main power transformer and other heavy equipment. For other components, smaller cranes, bucket trucks, skid steers, and forklifts will be used to place equipment. For the Gen-Tie Line, a wheeled or tracked drill rig will be used to drill holes for pole placement and a wheeled or tracked crane will lift the transmission structures into place. All-terrain vehicles and light duty trucks will be used for employee transportation across the site. Equipment and materials will be delivered by semitrucks, dump trucks, concrete and boom trucks, and water trucks.

2.3.2 Gross vehicle weight (loaded and unloaded) for all vehicles using local roads.

Please see **Table 2.3.2** for the requested information. Final specifications may vary. Delivery trucks transporting turbine components, main power transformers, cranes used for offloading and erection activities, grading machines, and excavators will require oversize-overweight permits.

Badger Hollow Wind’s construction contractor will work with state and local authorities to obtain the applicable oversize-overweight permits. All other vehicles using local roads are anticipated to be legal loads in terms of size and weight.

Table 2.3.2 Vehicle Weights		
Vehicle Type	Weight Unloaded (pounds)	Weight Loaded (pounds)
Blade Transport Trailer	45,000	125,000
Nacelle Transport Trailer	200,000	390,000
Tower Transport (Base and Mid)	100,000	280,000
Tower Transport (Top)	60,000	195,000
Dump Truck	30,000	80,000
Semi-Truck or Flatbed Trailer	35,000	Varies
Concrete Truck	25,000	70,000
Trencher	210,000	210,000
Bore Truck	100,000	100,000
Water Truck	Up to 55,000	Up to 90,000
Crane Transporter	30,000 to 50,000	Varies

2.3.3 For vehicles used for turbine/tower/blade/crane delivery (diagrams or drawings of vehicles are acceptable). Include:

- 2.3.3.1 Overall vehicle length**
- 2.3.3.2 Turning radius**
- 2.3.3.3 Minimum ground clearance**
- 2.3.3.4 Maximum slope tolerance**

Please see **Table 2.3.3** for the requested information. Final specifications may vary.

Table 2.3.3 Vehicle Specifications				
Vehicle Type	Length (feet)	Turning Radius (feet)	Minimum Ground Clearance (inches or K-values)	Maximum Slope Tolerance (degrees)
Blade Transport Trailer	318	90-degree turn: 300 45-degree turn: 465	K = 24.0 US Units	4.57
Nacelle Transport Trailer	145	90-degree turn: 300 45-degree turn: 465	K = 24.0 US Units	4.57
Tower Transport (Base and Mid)	195	90-degree turn: 300 45-degree turn: 465	K = 24.0 US Units	4.57
Tower Transport (Top)	135	90-degree turn: 300 45-degree turn: 465	K = 24.0 US Units	4.57

Table 2.3.3 Vehicle Specifications

Vehicle Type	Length (feet)	Turning Radius (feet)	Minimum Ground Clearance (inches or K- values)	Maximum Slope Tolerance (degrees)
Semi-Truck or Flatbed Trailer	72	50	6 in.	10
Crane Transporter	5- to 30-foot sections	360-degree steering capability	6 in.	Varies

2.3.4 Cranes. Describe types of cranes to be used and for what purpose. Include:

2.3.4.1 Weight of crane

2.3.4.2 Crane lift rating

2.3.4.3 If assembly of crane is required at work site answer the following

2.3.4.3.1 Time required to assemble crane.

2.3.4.3.2 If the crane must be disassembled and reassembled during construction explain why.

Crawler cranes will be utilized for unloading and erection of turbine components. A MLC650 lattice-boom crawler crane or similar will be used. The total working weight of the MLC650 is approximately 1,427,000 pounds, with shipping weight of components being 20,000 to 92,000 pounds. The max lifting capacity of the MLC650 is 716 U.S. tons. Cranes will be walked between turbine sites where applicable or transported with a self-propelled modular transporter (“SPMT”) system. If cranes must be disassembled and reassembled at another turbine site, this process will take approximately 3 to 5 days. This breakdown process will be utilized in situations such as when insufficient access rights exist between turbine sites, the distance between turbine sites is prohibitively significant, and major roads require crossing. Telescopic crawler cranes will be used for assembly of the larger turbine erection cranes. These crawler cranes have an operating weight of approximately 400,000 pounds, transport weight of 107,000 pounds, base lift rating of 250 U.S. tons, and can typically be assembled in one day.

A large truck crane or telescopic crawler crane will be utilized to unload and set the main power transformer in the Collector Substation. Smaller cranes will be utilized to place other electrical equipment within the Collector Substation. Wheeled or tracked cranes will be utilized to lift transmission structures in place for the Gen-Tie Line. These crawler cranes and truck cranes will have an operating weight between 100,000 and 400,000 pounds and a lift rating of 50 to 250 U.S. tons. Most of these cranes can be assembled in one day. Final crane specifications will be selected based on equipment weights and final engineering design.

2.3.5 Roads and Infrastructure. Estimate the potential impacts of construction and delivery vehicles on the local roads. Provide the following:

2.3.5.1 Describe methods to be used to handle heavy or large loads on local roads.

Badger Hollow Wind is currently in the process of negotiating local agreements with the local governments to determine arrangements regarding road use, damage, and compensation. Badger Hollow Wind's construction contractor will work with state and local authorities to obtain applicable oversize-overweight permits. In general, heavy or large construction deliveries will utilize transport trailers with additional axles to reduce the weight per axle of each load.

2.3.5.2 Probable routes for delivery of heavy and oversized equipment and materials.

The most likely haul route for heavy and oversized equipment and materials is U.S. Highway 18 and State Roads 80 and 39. County and township roads within the Project Area will be used to deliver equipment and materials to the general construction laydown yard and directly to construction sites. Final haul routes for construction deliveries have not yet been selected.

2.3.5.3 Potential for road, culvert, or right-of-way damage, and any compensation for such damage.

Badger Hollow Wind is currently in the process of negotiating local agreements with the local governments to determine arrangements regarding road use, damage, and compensation. Badger Hollow Wind will take responsibility for any road damage that occurs during construction and will remediate accordingly to bring the road to the quality prior to construction or better.

2.3.5.4 Probable locations where local roads would need to be modified, expanded, or reinforced in order to accommodate delivery of turbines, blades, or towers.

Badger Hollow Wind anticipates that improvements to local roads will be necessary for equipment deliveries. The specific locations where road improvements will be necessary will be dependent on the final Project layout, equipment specifications, and haul routes. It is anticipated that most intersections between U.S. Highway 18 and the final turbine locations will require widening to accommodate the turning radii of trailers delivering turbine components.

2.3.5.5 Include an estimate of whether or not trees near or in road right-of-way (ROW) might need to be removed.

Badger Hollow Wind anticipates that trimming or removal of trees near or in road ROW may be necessary in select locations to accommodate construction deliveries depending on the final Project layout, equipment specifications, and haul routes. Badger Hollow Wind will make commercially reasonable efforts to minimize tree clearing and replace removed trees.

2.3.5.6 Provide an estimate of likely locations where local electric distribution lines will need to be disconnected in order to allow passage of equipment and materials.

2.3.5.6.1 Describe how residents will be notified before local power would be cut.

2.3.5.6.2 Estimate the typical duration of a power outage resulting from equipment or materials delivery.

No disconnection of local electric distribution lines is anticipated to be necessary to accommodate construction deliveries, and therefore there is no anticipated power outage. However, should any distribution lines need to be disconnected for construction deliveries,

Badger Hollow Wind will coordinate with the local utilities accordingly. Landowners would be notified in accordance with the local utilities' notification protocol.

2.3.6 Construction Traffic. Describe anticipated traffic congestion and how congestion will be managed, minimized or mitigated. Include:

2.3.6.1 List of roads most likely to be affected by the construction and materials delivery.

The majority of roads in the Project Area will be used for construction and materials delivery. Every road that is planned to receive an access road entrance in the final Project layout will be affected by construction and materials delivery. The roads most likely to be affected by construction and materials delivery are State Road 80, County Line Road, Bollant Road, County Road XX, County Road G, Lower Mifflin Road, Lovers Lane, East County Road E, County Road IG, U.S. Highway 18, and County Road J.

2.3.6.2 Duration of typical traffic disturbance and the time-of-day disturbances are most likely to occur.

Traffic congestion will be managed, minimized, or mitigated to the extent practicable. To the extent site conditions and schedule allow, delivery trucks will be off-loaded near the point of use to minimize double handling and the amount of trucking. Prior to any deliveries, a traffic control plan will be developed and reviewed with town, county, and/or Wisconsin Department of Transportation ("WisDOT") officials as appropriate. Signage will be installed to guide trucks to the appropriate roads after reviewing with local officials. Trucks will not be allowed to stage in or block public roads. If trucks cannot exit the roadway in a timely fashion, they will be directed to a designated staging area.

A traffic increase will likely occur twice a day when construction workers are traveling to and from the site in the morning and evening. Smaller vehicles for personnel arriving onsite may occur prior to or after daylight hours. Deliveries of equipment and materials will generally be scheduled throughout the day.

2.4 Other Project Facilities

2.4.1 Turbine Site Foundation. Describe the type of foundation or foundations to be used. If more than one type of foundation may be needed describe each and identify under what circumstances each foundation type would be used. Include the following:

2.4.1.1 Dimensions, surface area, and depth required for each foundation.

Badger Hollow Wind plans to use a spread footing foundation design for the turbines. Foundation size will vary based on the turbine model that is selected and will have a depth of up to 12 feet. Except for approximately 12 inches that will remain aboveground to allow turbine towers to be bolted to the foundations, the foundations will be underground. The final foundation designs will be engineered for the specific turbine model, soils, and subsurface conditions at each turbine site and stamped by a registered professional engineer.

2.4.1.1.1 Amount of soil excavated for each foundation type.

Approximately 2,800 cubic yards of soil are anticipated to be excavated for each turbine foundation.

2.4.1.1.2 Describe how excavated soils will be handled including disposal of excess soil.

Topsoil and subsoil will be stored separately in a semicircle around the turbine foundations. Turbine foundations will be constructed by excavating an approximately 100-foot-diameter hole, placing reinforcing steel and pouring concrete into the excavation. Next, the subsoil will be replaced over most of the concrete foundation followed by the topsoil, leaving only the pedestal of the foundation above surface grade. Excess soil will be spread nearby.

2.4.1.2 Materials to be used for the foundation. Include:**2.4.1.2.1 Approximate quantity and type of concrete required for typical foundation.****2.4.1.2.2 Materials required for reinforcement.****2.4.1.2.3 Description of the tower mounting system.**

Turbine foundations will be constructed from concrete and reinforcing steel to support the turbine structures. Badger Hollow Wind anticipates approximately 800 cubic yards of 5,500 pounds per square inch (“PSI”) concrete will be used for each turbine foundation and approximately 100 additional cubic yards of 6,500 PSI concrete will be used for each pedestal. Turbine towers will be connected to turbine foundations by anchor bolts. The final foundation designs will be engineered for the specific turbine model, soils, and subsurface conditions at each turbine site and stamped by a registered professional engineer.

2.4.1.3 Provide technical drawings of each foundation type to be used showing foundation dimensions.

Typical turbine foundation drawings are provided in **Appendix I**.

2.4.2 Turbine Site Construction Area. Describe turbine site construction area. Include the number of, location, and dimensions for:**2.4.2.1 Crane pads****2.4.2.2 Lay-down areas****2.4.2.3 Parking area**

Badger Hollow Wind will clear, grade, and develop an up to 350-foot radius construction workspace around each turbine site, including an up to 100 by 200-foot crane pad area extending from the access road to the turbine location that will be used to erect the turbine, laydown components and materials, and provide parking for construction workers at the site.

2.4.2.4 Provide a scale drawing showing the general construction setup for turbine sites.

A scale drawing showing a typical turbine site construction configuration is provided in **Appendix I**.

2.4.3 Access Roads

2.4.3.1 Provide the total number and miles of required turbine access roads. This should be provided for both temporary (used during construction only) and permanent access (for long term facility operation and maintenance). State if any temporary access roads would be converted into permanent access roads.

The Project Layout includes approximately 8.5 miles of permanent access roads to connect the Proposed Turbine Locations to public roadways, approximately 1.85 miles of permanent access roads to connect the Alternative Turbine Locations to public roadways, and approximately 1 mile of permanent access roads to connect the Collector Substation and O&M Facility to public roadways. The total number and length of permanent access roads in the final Project layout will depend on final engineering.

The Project Layout includes a temporary access road extending from the O&M Facility access road to the general construction laydown yard. After construction is complete, this temporary access road will be removed, and the area will be restored to pre-construction conditions. No temporary access roads will be converted into permanent access roads.

2.4.3.2 Describe materials to be used and methods for construction of access roads including road bed depth.

Permanent access roads will be constructed by first removing the topsoil and organic material. The subgrade will then be compacted and constructed according to civil design requirements. Subgrade work will likely include cement stabilization or other treatments as needed to create a suitable base. A layer of road base will then be added and compacted. Road aggregate or fill will be a local pit run aggregate material that meets WisDOT specifications. Badger Hollow Wind expects to utilize up to 12 inches of aggregate for access roads. A final geotechnical investigation will be completed prior to construction which will be used to determine final access road designs.

2.4.3.3 Specify the required width of temporary and permanent access roads. Fully describe any differences between final road size and that required during construction. (i.e. if access roads would be used for temporary crane paths).

Permanent access roads connecting turbine sites, MET towers, and ADLS towers to public roadways will be approximately 16 feet wide. Permanent access roads connecting the Collector Substation and O&M Facility to public roadways will be approximately 24 feet wide. During construction, access roads may be temporarily increased up to 40 feet wide to accommodate transportation of the turbine erection crane and other large construction equipment.

2.4.3.4 Describe any site access control (i.e. fences or gates).

Access to the turbines will be through a lockable steel door at the base of each tower. Turbine tower exteriors will be designed to be unclimbable. Fencing around the Collector Substation and O&M Facility's storage area will likely be a chain link design 7 feet high topped with 1 foot of barbed wire. Access to the Project will be limited to Project personnel, first responders, and approved contractors. Lockable gates will be installed at the Collector Substation and O&M Facility's storage area.

2.4.4 Crane Paths. Provide the following if cross-country crane paths would be needed to move construction cranes between turbine sites:

- 2.4.4.1 Explain why existing roads and access roads cannot be used and why cross-country crane paths are required.**
- 2.4.4.2 Description of materials to be used and methods for construction of crane paths.**
- 2.4.4.3 Crane path widths and depths.**
- 2.4.4.4 Discuss when and how crane paths would be removed and land restored.**

Temporary crane paths approximately 100 feet wide on land participating in the Project will be utilized between select turbine sites to facilitate cross-country movement turbine erection cranes. While not required, crane paths are anticipated to be utilized where advantageous to avoid the time- and resource-intensive breakdown and reassembly of the turbine erection crane. Compared to transporting disassembled crane components, crane walking can incur less traffic on public roads and potentially reduce or eliminate distribution line disruption. Where cranes are required to travel across sensitive areas (soft ground, roads, pipelines), cribbing, bedding, or mats will be placed to support the weight of the crane, minimizing impacts to the underlying ground. The cribbing, bedding, or mats will be removed immediately following passage of the crane, to be re-used ahead of the crane or elsewhere in the Project Area. Following completion of construction, crane paths will be restored by decompacting the soil and seeding in accordance with landowner or local agency requests. The total number and length of crane paths utilized will depend on final engineering.

2.4.5 General Construction Areas**2.4.5.1 Identify the number, size, and location of lay-down areas outside of those found at the turbine sites and any other areas used for material storage.**

The Project's construction contractor will establish an approximately 20-acre temporary general construction laydown yard that will include construction trailers with administrative offices, employee parking, water service, power service, tool sheds, storage containers, and a laydown area for equipment and material delivery and storage. The preliminary location for the temporary general construction laydown yard is displayed in Figures 4.1.1 and 4.1.2 in **Appendix A**. Additional temporary laydown/staging areas may be needed during construction around the turbines, Gen-Tie Line ROW, Collector Substation, and O&M Facility.

2.4.5.2 Identify size and location of construction parking areas.

Temporary parking for construction activities will be provided in the laydown/staging areas. The exact dimensions of the parking areas within the laydown/staging areas will be determined during final engineering.

2.4.5.3 Describe the expected use of these areas after project completion.

Laydown/staging areas will be revegetated in accordance with the Project's Vegetation Management Strategy ("VMS") (**Appendix J**) or returned to agricultural use and seeded by landowners in accordance with their land management program. After construction is complete, aggregate surfaces will be removed to a depth where clean aggregate without soil mixing can be

retrieved. This aggregate may be applied throughout the Project on access roads as a final top layer. Once the aggregate is removed, the subgrade will be decompacted and topsoil will be evenly spread within the area.

2.4.5.4 Provide a list of all hazardous chemicals to be used on site during construction and operation (including liquid fuel).

The primary hazardous chemicals that will be present on-site during construction and operation are fuel for vehicles and construction equipment and generators, oil in the transformers at the Collector Substation, and heating fuel for the O&M Facility. Smaller quantities of additional chemicals will also be used during operation and maintenance activities including paints, lubricants, and cleaning products.

2.4.5.5 Discuss spill containment and cleanup measures including the Spill Prevention, Control, and Countermeasures (SPCC) and Risk Management planning for the chemicals proposed.

A Spill Prevention, Control, and Countermeasure (“SPCC”) Plan complying with all EPA and state law requirements will be developed for both construction and operation of the Project. Spill kits will be available on-site, and training, inspection protocols, and response procedures will be established in the SPCC Plan. The SPCC Plan will be developed and implemented after initial construction mobilization to the site, but prior to storage of materials on the site that would require it. At a minimum, the SPCC Plan will identify the following:

- Typical fuels, chemicals, lubricants, and paints to be used or stored on-site;
- Methods and location of storage;
- Locations designated for lubrication and refueling (i.e., outside of sensitive resource areas);
- Preventive measures to be used to minimize potential impacts;
- Mitigation methods to be employed, should a spill occur;
- Location of construction spill kits (gloves, booms, sorbents, barrier materials, etc.);
- Emergency notification procedures and forms;
- Contact information for individuals requiring notification if a spill should occur; and
- Procedures for handling contaminated and spill response materials.

All construction contractors will be responsible for their own SPCC plans that will be tailored to the specific work being conducted. Each plan will be continually updated through the course of construction.

2.4.5.6 Discuss any temporary storm water ponds, sediment basins, or other actions to manage storm water flow from these sites.

Several temporary measures will be implemented to mitigate erosion, control sediment transport, and ensure proper drainage from construction workspaces.

Sediment basins may be necessary for the construction of the Collector Substation, general construction laydown yard, and O&M Facility depending on disturbance, slope, and proximity to waters of the State. For the construction of access roads, delivery routes, staging areas and turbine excavations, the sediment control practices will be determined by the Soil Loss &

Sediment Discharge Calculation Tool. Practices may include a mix of sediment basins, sediment traps, straw bales, filter socks, silt fences and mulch stabilization.

Rapid establishment of temporary vegetative cover, such as grass, will also be used to stabilize soil and reduce erosion, especially in areas prone to erosion. Continuous monitoring of storm water management structures will be conducted throughout the construction phase to identify any issues promptly. Based on monitoring results, adaptive management strategies will be employed to modify or enhance storm water controls as needed to ensure their effectiveness. These measures will collectively help manage storm water flow effectively, minimizing environmental impacts and supporting the successful completion of the Project.

2.4.6 Transmission and Distribution Interconnection

If the project includes the construction of an electric generator tie line, that is not the subject of a separate application before the Commission, provide the following information:

2.4.6.1 Describe any transmission or distribution grid interconnection requirement.

Badger Hollow Wind anticipates the following facilities to be required as part of interconnection of the Project:

- A newly constructed 34.5 kV to 345 kV Collector Substation.
- A newly constructed 345 kV Gen-Tie Line connecting the Collector Substation to the Interconnection Switchyard.
- Fiber optic communications cable between the Collector Substation and Interconnection Switchyard.

2.4.6.2 Identify the length of the tie line.

The Gen-Tie line will be approximately 0.26 miles long.

2.4.6.3 Provide details on the types of structures (underground or overhead, single pole/H-frame, direct embed/concrete caisson, typical span length, etc.) and lines that would be constructed as part of any necessary electric transmission generator tie line, including the height of the structures. If the installation would be underground, identify the installation method(s), such as directional bore, open-cut trench, plow, etc.

The Gen-Tie Line will consist of approximately five monopole steel transmission structures, either on concrete pier foundations or directly embedded, pending final engineering. The typical span length will be approximately 400 to 600 feet. Transmission structure heights are anticipated to be approximately 95 to 130 feet above ground. The Gen-Tie Line will be designed and built in compliance with the National Electric Safety Code (“NESC”). No underground installations for the Gen-Tie Line are anticipated.

2.4.6.3.1 Describe the transmission configuration (single-circuit, double circuit, etc.).

The transmission configuration will be a single circuit design.

2.4.6.4 Describe the right-of-way (ROW) size needed for the tie line and the status of any easements or other land agreements with property owners.

The permanent Gen-Tie Line ROW is anticipated to be 150 feet pending final engineering with up to 150 feet of additional temporary ROW during construction. Badger Hollow Wind is currently in negotiations with ATC for a transmission easement agreement for the Gen-Tie Line ROW.

2.4.6.5 Describe all communications and agreements, official or otherwise, with the transmission or distribution owner.

Badger Hollow Wind is currently in negotiations with ATC for a transmission easement agreement for the Gen-Tie Line ROW. Badger Hollow Wind has executed a GIA for its 99 MW J1483 queue position which is provided in **Appendix C**. Badger Hollow Wind holds an additional 40 MW queue position, J1931, in the MISO DPP 2021 Cycle East (ATC) study cluster. Current study results for J1931 are provided in **Appendix C**.

2.4.6.6 For transmission interconnections, indicate the project's MISO generation interconnection queue number(s), as well as those of any associated energy storage project associated with the wind project, and provide copies of the latest draft or final MISO report for the project interconnect. During the PSC review process applicant must continue to supply the latest reports from MISO. Discuss how the project will be interconnected to the grid (MISO generator interconnection queue, surplus interconnection request, or similar).

Badger Hollow Wind has executed a GIA for its 99 MW J1483 queue position which is provided in **Appendix C**. Badger Hollow Wind holds an additional 40 MW queue position, J1931, in the MISO DPP 2021 Cycle East (ATC) study cluster. Current study results for J1931 are provided in **Appendix C**. There is no BESS proposed as part of the Project. The Project will be interconnected to the grid through the MISO generator interconnection process.

2.4.6.7 Indicate how equipment access would occur, and if off-ROW access roads would be utilized. If off-ROW access roads would be utilized, provide the following:

- 2.4.6.7.1 Provide the number of off-ROW access roads proposed, and an identifying name or number for each off-ROW access road.**
- 2.4.6.7.2 For each route, provide the dimensions (length and width) and construction method, including if any modifications would be needed to utilize the off-ROW access roads, such as road widening, road fill placement, or tree clearing.**
- 2.4.6.7.3 Discuss the reasons for the necessity for off-ROW access roads such as topography, rivers/wetlands, etc. If protection of a natural resource is a reason, discuss how the resource would be protected during construction and operation of the proposed project.**
- 2.4.6.7.4 Provide quantitative land cover information for off-ROW access roads similar to the information provided in PSC Impact Tables.**
- 2.4.6.7.5 If the off-ROW access roads would be modified post-construction, provide details.**

Equipment access will occur along the Gen-Tie Line ROW. If necessary, seasonal wooden matting over native ground may be utilized. Badger Hollow Wind does not anticipate any off-ROW access roads to be utilized for the Gen-Tie Line.

2.4.6.8 Describe the type of construction machinery that would be used.

Typical construction equipment used for the Gen-Tie Line may include but is not limited to tree removal equipment, mowers, cranes, backhoes, digger-derrick trucks, track mounted drill rigs, dump trucks, front-end loaders, bucket trucks, bulldozers, flatbed tractor trailers, flatbed trucks, pickup trucks, concrete trucks, puller-tensioner equipment, and various trailers.

2.4.6.9 Describe the construction disturbance zone, if different from the ROW.

The permanent Gen-Tie Line ROW is anticipated to be 150 feet wide pending final engineering with up to an additional 75 feet of temporary ROW on either side of the permanent ROW. The construction workspace for the Gen-Tie Line will be limited to parcel APNs 062-00746-0000 and 062-00747-0000.

2.4.6.10 Describe how spoil materials would be managed on and off-site.

To the extent practicable, all spoil material will be managed and kept on-site and will be spread and leveled with the surrounding topography in the immediate vicinity of the excavation.

2.4.6.11 Describe the dewatering method(s) that may be utilized during excavation activities, such as pit/trench dewatering or high capacity wells. Identify treatment methods that would be utilized to treat the discharge, and the discharge location.

If necessary, ground water will be pumped into a filter bag and velocity dissipator located in a nearby upland location. Pumping and treatment of water generated during construction will be implemented according to the WDNR Technical Standard 1061 for Dewatering Practices for Sediment Control. Drilled pier structure excavation may utilize an approved tremie method which uses a pump to place concrete into the hole and displaces water. Direct embedment structure excavation may utilize steel casings or concrete slurry casings as a wet hole excavation method.

2.4.7 Collector Circuits

2.4.7.1 Total number of miles of collector circuits required – separated by circuit type (overhead vs. underground).

The Project Layout includes approximately 44 miles of underground collector circuits to connect the Proposed and Alternative Turbine Locations to the Collector Substation. No overhead collector circuits are anticipated to be used for the Project. The total number and length of collector circuits in the final Project layout will depend on final engineering.

2.4.7.2 Specify the collector circuit voltage to be used.

The collector circuits will operate at 34.5 kV.

2.4.7.3 Transformer type, location, and physical size of transformer pad at each turbine site.

The V 162-6.2 is designed with a transformer located within the turbine nacelle. The GE 3.8 MW-154 utilizes a pad-mounted transformer located adjacent to the turbine tower that is approximately 9 feet long by 11 feet wide by 8 feet tall. The transformer(s) utilized for the Project will depend on the final turbine model(s) selected.

2.4.7.4 Underground Collector Circuits

2.4.7.4.1 Conductor to be used.

The collector circuits will contain copper or aluminum cable with a concentric neutral and 105° Celsius XLPE jacket. Conductor sizes up to 1500 KCMiL will be used.

2.4.7.4.2 Burial depth and width of trench (if applicable).

Collector circuits will typically be direct buried in native soil arranged in a triangular configuration with 48 to 60 inches of cover in a 12- to 18-inch-wide trench depending on final engineering. Collector circuits routed in parallel will be separated to maintain cable ampacity.

2.4.7.4.3 Describe installation type(s) and how lines would be laid (e.g. open-cut trench, vibratory plow, directional bore, etc.) Provide scale drawing of underground circuit.

Collector circuits will be installed using open-cut trenches, plows, or directional bores depending on conditions and location. Construction details for these installation methods are provided in **Appendix I**. All delineated wetland, waterway, roadway, railroad, and natural gas pipeline crossings will be directionally bored. Representative drawings of collector circuits are provided in **Appendix B**.

2.4.7.5 Overhead Collector Circuits

2.4.7.5.1 Size of pole to be used.

2.4.7.5.2 Engineering drawing of structure to be used.

No overhead collector circuits are anticipated to be used for the Project.

2.4.8 Construction Site Lighting

2.4.8.1 Describe the site lighting plan during project construction.

Badger Hollow Wind does not plan to utilize permanent lighting on-site during construction outside of the general construction laydown yard which may have lights mounted to poles to support construction activities and security during non-daylight hours. During extended working hours, temporary light plants may be used. All lighting will be illuminated downward and shielded away from abutting properties and public roads.

2.4.8.2 Provide copies of any local ordinances relating to lighting that could apply.

Grant and Iowa Counties do not administer any lighting ordinances applicable to Agricultural Districts. No lighting ordinances are administered by the townships of Clifton, Eden, Linden, Mifflin, or Wingville.

2.5 Substation

If the project includes the construction of a substation or modifications to an existing substation, provide the following information:

2.5.1 A complete electrical description of required substation facilities including a list of transformers, busses, and any interconnection facilities required.

The Collector Substation will transform the 34.5 kV electrical collection system voltage to the 345 kV transmission system voltage. A preliminary Collector Substation schematic is provided in **Appendix I**. The Collector Substation will have a footprint of approximately 290 by 135 feet and will generally include the following items:

- 34.5 kV, 1200A Air-insulated circuit breakers;
- 34.5 kV, 3000A Air-insulated bus and supporting structures (includes air insulated isolation switches for the main power transformers and the individual collector circuit breakers);
- 34.5 kV Metering and instrument transformers;
- 165 kVA Station service transformer installation, which includes AC panels, station service transformer with fuses, equipment for a secondary source for AC power, conductors and support structure for all equipment;
- 165 MVA Main power transformer;
- 345 kV, 1200A Circuit breaker;
- 345 kV, 1200A Air-insulated gang operated disconnect switch;
- 345 kV Surge arrestors, if required;
- 345 kV Bus and supporting structures;
- 345 kV Metering and instrument transformers;
- 345 kV Dead-end structure for outgoing Gen-Tie Line;
- Protection and control building, which will include DC power equipment, DC panels, and relay/control/communication equipment;
- Internal drive path;
- Security fence with vehicle gate, man gate, and barbed wire. Fence to be grounded to the substation ground grid per NESC requirements;

- Bare copper grounding grid (to be installed below grade) with high resistance gravel/rock installed above grade for protection against electrical shock;
- Power cables and control cables installed in a below grade concrete trench, polyvinyl conduit and manholes, as required;
- Lightning protection masts, as required;
- Yard lighting and receptacles to be used during maintenance and or during emergency; and
- Any required power factor control equipment (i.e., capacitor bank) with associated isolation equipment such as reactive power switching equipment and disconnect switches.

The 345 kV Gen-Tie Line approximately 0.26 miles in length will connect the Collector Substation to the existing Interconnection Switchyard.

2.5.2 Indicate the size (in acres) of the land purchase required for the new substation or substation expansion.

The Collector Substation is sited on a parcel that is owned by ATC. Discussions regarding purchase options for the property upon which the Collector Substation is located are currently ongoing. The final location and size of land purchased for the Collector Substation may be adjusted during final engineering.

2.5.3 Indicate the actual size of the substation or substation addition in square feet, the dimensions of the proposed substation facilities, and the orientation of the substation within the purchased parcel. This should include the size of any new driveways associated with the substation.

The Collector Substation will have a footprint of approximately 290 by 135 feet (39,150 square feet, or 2.02 acres). The Project Layout includes an approximately 490-foot long, 24 feet wide access road to connect the Collector Substation to the public roadway. The orientation of the Collector Substation is displayed in Figure 4.1.4.1 in **Appendix A**.

2.5.4 Identify current land ownership and whether applicant has control of property or whether or not an option to buy has been signed.

The Collector Substation is sited on a parcel that is owned by ATC. Discussions regarding purchase options for the property upon which the Collector Substation is located are currently ongoing.

2.5.5 Describe substation construction procedures (in sequence as they would occur) including erosion control practices (see Section 3.1).

Construction of the Collector Substation will require the steps below. Sequencing may vary and multiple steps may occur simultaneously.

1. Mobilize equipment and personnel to the site.
2. Install sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures.
3. Install perimeter erosion control measures (silt fences, silt fence rock outlets, rock check dams, filter socks, temporary storm water basins, etc.).

4. Install permanent storm water BMPs.
5. Construct access road and grade Collector Substation area.
6. Install grounding and conduit.
7. Install foundations and base aggregate.
8. Perform above-grade construction of bus work and install major electrical equipment.
9. Complete all terminations.
10. Testing.
11. Commissioning.

A site-specific construction specification and schedule will be developed during final engineering. All contractors will be required to follow the Erosion Control and Stormwater Management Plan (“ECSWMP”) as well as adhere to any site-specific environmental requirements, including erosion and dust control.

2.5.6 Describe associated permanent storm water management facilities that would be constructed, or expansion of or modifications to existing storm water treatment facilities. Identify the locations of the point(s) of collection and discharge.

A permanent storm water basin is expected to be constructed to detain storm water runoff from the Collector Substation. The storm water basin for the Collector Substation is anticipated to be constructed south of the Collector Substation. Grades will be constructed to ensure water is properly routed to the storm water basin via overland sheet flow and/or vegetated swales, if necessary. The storm water basins will be designed to detain water and discharge to the pre-development outflow point. The storm water basin will have an emergency overflow weir designed to pass the 100-year storm event.

An ECSWMP will be completed and provided, documenting compliance with Wis. Admin. Code §§ NR 151.121 through 151.128. The ECSWMP will be provided with the Notice of Intent when submitted to obtain Construction Site Storm Water General Permit Coverage from WDNR. Final storm water BMP design/selection will be completed during final engineering. Please refer to Figure 4.1.4.1 in **Appendix A** for preliminary locations of BMP and discharge points.

2.6 Operations and Maintenance Building

2.6.1 Describe the purpose and use of the proposed O&M building.

The O&M Facility will include an O&M building, parking lot, storage area, and other associated facilities that may be required such as a drinking water well, aboveground water storage tanks, septic system, security system, lighting, and signage. The O&M building will house administrative and maintenance equipment and personnel. The O&M building will be the main working base for the Project’s technicians and house the Project’s control system hardware that provides real time data to technicians and the Invenergy Control Center. The O&M building will have workstations for the technicians to use to organize their days in the field, and a garage with tools and an inventory of parts and maintenance supplies.

2.6.2 Number of full-time employees that would be working at the facility.

Badger Hollow Wind expects the Project will employ approximately 3 full-time employees during operations. The O&M building will have additional office space for traveling workers.

2.6.3 Indicate the size (physical dimensions and acres) of the land purchase required for the building.

The O&M Facility is anticipated to occupy approximately 2.1 acres and is sited on a parcel that is participating in the Project through a wind easement agreement. Discussions regarding purchase options for the O&M Facility property are currently ongoing with the landowner. The final location and size of land purchased for the O&M Facility may be adjusted during final engineering.

2.6.4 Building and Building Footprint

2.6.4.1 Provide a drawing or diagram of the O&M building with dimensions including square feet, and the size of any permanent driveways or parking lots for the building to be constructed.

A preliminary O&M building schematic is provided in **Appendix I**. The Project Layout includes an approximately 525-foot long, 24 feet wide access road to connect the O&M Facility to the public roadway. An approximately 12,195 square feet parking lot will be constructed adjacent to the O&M building.

2.6.4.2 Describe the type of building to be constructed (metal, frame, etc.).

A preliminary O&M building schematic is provided in **Appendix I**. The O&M building design will be refined during final engineering. The major material components of the O&M building will generally consist of metal, brick, wood, concrete, or other forms of structural materials. The final design and construction of the building will be consistent with applicable Wisconsin State Building Code.

2.6.5 Lighting and Security Plan for O&M Property

2.6.5.1 Describe how the building property would be lit and how the lighting plan minimizes disturbance to nearby residences.

The O&M Facility will include lighting for security purposes that will be illuminated downward and shielded away from adjacent properties and public roads. The lighting is not anticipated to persist through all non-daylight hours and may utilize motion sensors or a timer for limited hours at night.

2.6.5.2 Describe any security plans for the property (fences etc.).

Fencing around the O&M storage area will likely be a chain link design 7 feet high topped with 1 foot of barbed wire. Security cameras will be installed at the O&M building. Doors to the O&M building and gates to the O&M storage area will be secured using a key control or badge reader system.

2.6.6 Describe any other facilities needed, including:

2.6.6.1 Parking lots.

An approximately 12,195 square feet parking lot will be constructed adjacent to the O&M building.

2.6.6.2 Sheds or storage buildings.

No sheds or additional storage buildings are planned for the O&M Facility. An outdoor O&M storage area approximately 0.95 acres in size will be constructed adjacent to the O&M building.

2.6.6.3 Supplies of water.

A domestic water well will be constructed to provide water service to the O&M building. Badger Hollow Wind will work with the applicable regulatory authorities and obtain all necessary permits to construct a new domestic water well.

2.6.6.4 Sewer requirements.

A septic system will be constructed to provide sanitary service to the O&M building. Badger Hollow Wind will work with the applicable local regulatory authorities and obtain all necessary permits to construct sanitary facilities.

2.6.6.5 Construction of any storm water management facilities, or expansion of or modifications to existing storm water treatment facilities. Identify the locations of the point(s) of collection and discharge.

A permanent storm water basin is expected to be constructed to detain storm water runoff from the O&M Facility. The storm water basin for the O&M Facility is anticipated to be constructed north of the O&M Facility. Grades will be constructed to ensure water is properly routed to the storm water basin via overland sheet flow and/or vegetated swales, if necessary. The storm water basins will be designed to detain water and discharge to the pre-development outflow point. The storm water basin will have an emergency overflow weir designed to pass the 100-year storm event.

An ECSWMP will be completed and provided, documenting compliance with Wis. Admin. Code §§ NR 151.121 through 151.128. The ECSWMP will be provided with the Notice of Intent when submitted to obtain Construction Site Storm Water General Permit Coverage from WDNR. Final storm water BMP design/selection will be completed during final engineering. Please refer to Figure 4.1.5.1 in **Appendix A** for preliminary locations of BMP and discharge points.

2.7 Battery Storage

If the proposed project would include a large-scale Battery Energy Storage System (BESS) or plans to include one in the future, provide the following information. State clearly if the project is seeking authorization to construct a BESS in the current wind electric generation facility docket. Provide all of the environmental impact information for the BESS if one is being proposed, identical to the environmental impact information provided with all other project facilities.

- 2.7.1 Describe the location of the proposed BESS, including a map that shows its placement within the other project facilities. Discuss if the BESS will be centralized in one location or distributed throughout the project site and why either choice was made or is being considered.**
- 2.7.2 Explain what criteria was used to decide whether to use a BESS and provide information on how its inclusion would affect the electrical design of the project and MISO interconnection process. Provide MISO interconnection queue number(s) for any associated BESS project.**
- 2.7.3 Identify the manufacturer and model of battery systems to be used. (It is acceptable to identify several potential units). Include technical specifications.**
- 2.7.4 Provide information on how the BESS would be installed, any changes to project impacts through its inclusion, and ongoing operations and maintenance actions it would require.**
- 2.7.5 Discuss any security and safety requirements specific to the BESS both on site and for local first responders.**
- 2.7.6 Describe construction procedures (in the sequence as they would occur), including erosion control practices (see Section 3.1).**
- 2.7.7 Describe associated permanent storm water management facilities that will be constructed, or expansion/modification of existing storm water treatment facilities, to comply with applicable post-construction performance standards in Wis. Admin. Code §§ NR 151.121 through 128. Identify the locations of the point(s) of collection and discharge.**
- 2.7.8 If applicable, describe any risk analysis the applicant conducted when siting the BESS and Collector Substation within a “potential impact radius” of any natural gas pipelines in the area. Provide a description of how any risks to facilities could be mitigated.**

Sections omitted. There is no BESS proposed as part of the Project.

3. Construction Sequence and Workforce

3.1 Construction Sequence and Schedule

- 3.1.1 Provide the construction schedule for the proposed project, identifying any potential seasonal or regulatory constraints. Include a timeline showing construction activities from beginning of construction to in-service. Identify all critical path items.**

Construction of the Project is planned to begin in Summer 2026 and be completed by the end of 2027, pending successful completion of permitting, agency approvals, and other development and pre-construction activities. **Table 3.1.1** identifies the preliminary construction schedule for the Project. The construction schedule may be impacted by events outside of Badger Hollow Wind’s control, such as unanticipated issues with equipment procurement, contracting, weather, or other scheduling factors. Seasonal standdowns may occur during construction.

Table 3.1.1 Preliminary Construction Schedule

Activity	Start	End
Start of Construction	August 2026	
Site Preparation	August 2026	November 2026
Access Roads	August 2026	December 2026
Collector Substation Construction	October 2026	August 2027
Turbine Foundations	September 2026	December 2026
Electrical Collection System	September 2026	December 2026
Turbine Deliveries	May 2027	July 2027
Turbine Installation	May 2027	August 2027
Turbine Wiring	May 2027	August 2027
Mechanical Completion	June 2027	August 2027
Backfeed	June 2027	June 2027
Commissioning	June 2027	October 2027
Substantial Completion	December 2027	December 2027
Commercial Operations	December 2027	

3.1.2 Provide a description of the staging and construction sequence required for building the proposed project at a typical turbine site. Include the delivery of materials.

Badger Hollow Wind will initiate the construction of a typical turbine site by installing sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures. Next, perimeter erosion control measures will be installed. Badger Hollow Wind will then begin clearing, removing, and stockpiling the topsoil and subsoil at the turbine site and corresponding access road. Topsoil and subsoil will be stored separately in a semicircle around the turbine foundation. An up to 350-foot radius construction workspace will be developed at each turbine site, including an up to 100 by 200-foot crane pad area extending from the access road to the turbine location. The construction workspace will be used to lay down turbine components and maneuver the turbine erection crane during turbine assembly. A scale drawing showing a typical turbine site construction configuration is provided in **Appendix I**.

Turbine foundations will be constructed by excavating an approximately 100-foot-diameter hole then placing reinforcing steel and pouring concrete into the excavation. Next, the subsoil will be replaced over most of the concrete foundation followed by the topsoil, leaving only the pedestal of the foundation above surface grade.

The turbine components will be transported to the Project Area by semi-truck and then assembled by the turbine erection crane. The typical assembly process includes the following steps:

1. The tower sections are assembled and bolted to the foundation.
2. The hub and nacelle are mounted on the yaw ring attached to the top tower section.
3. The rotor blades are connected to the hub via anchor bolts, then connected to the main shaft protruding from the nacelle.

Each turbine will require approximately 4 to 5 days to erect. Following completion of construction, the temporary construction workspace around each turbine will be restored by decompacting the subsoil, replacing the topsoil, and seeding in accordance with the VMS and landowner requests.

3.1.3 Provide an estimate of time required to complete construction at a typical turbine site.

Construction of a typical turbine site takes approximately 4 months to complete from site preparation to turbine erection.

3.1.4 Provide a description of the staging and construction sequence for any other facilities to be constructed.

The construction procedure for the Collector Substation is provided in Section 2.5.5.

Construction of the O&M Facility will require the steps below. Sequencing may vary and multiple steps may occur simultaneously.

1. Mobilize equipment and personnel to the site.
2. Install sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures.
3. Install perimeter erosion control measures (silt fences, silt fence rock outlets, rock check dams, filter socks, temporary storm water basins, etc.).
4. Construct permanent storm water BMP.
5. Construct access road and grade O&M Facility area.
6. Construct O&M Facility including building, parking lot, storage area, and utilities.
7. Finalize grading, permanent stabilization, and final placement of aggregate.

Construction of the Gen-Tie Line will require the steps below. Sequencing may vary and multiple steps may occur simultaneously.

1. Mobilize equipment and personnel to the site.
2. Install sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures.
3. Install perimeter erosion control measures (silt fences, silt fence rock outlets, rock check dams, filter socks, temporary storm water basins, etc.).
4. Install matting (if applicable) and stage the structure/equipment as necessary.
5. Excavate holes for drilled pier installation.
6. Pour and test concrete into the excavated holes using pump trucks and concrete trucks.
7. Set the steel pole structures once concrete piers pass all tests.
8. Frame the structures with the proposed assemblies.
9. Set up puller-tensioners and stringing blocks and string wire.

Construction of the MET towers will require the steps below. Sequencing may vary and multiple steps may occur simultaneously.

1. Mobilize equipment and personnel to the site.
2. Install sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures.

3. Install perimeter erosion control measures (silt fences, silt fence rock outlets, rock check dams, filter socks, temporary storm water basins, etc.).
4. Install matting (if applicable) and stage the structure/equipment as necessary.
5. Excavate holes for drilled pier installation.
6. Pour and test concrete into the excavated holes using pump trucks and concrete trucks.
7. Erect MET towers with all instrumentation installed.

Construction of ADLS towers will require the steps below. Sequencing may vary and multiple steps may occur simultaneously.

1. Mobilize equipment and personnel to the site.
2. Install sensitive resource/impact avoidance signage/flagging, survey staking, and wildlife exclusion measures.
3. Install perimeter erosion control measures (silt fences, silt fence rock outlets, rock check dams, filter socks, temporary storm water basins, etc.).
4. Excavate, place steel or drill piers, pour and test concrete as determined by foundation design.
5. Erect ADLS tower with all instrumentation installed.

3.1.5 If grading, land leveling, or any other activity that would result in bare soil would be occurring, indicate how much area (square feet or acres) of bare soils would occur at a given time.

The Project will be designed to use the existing topography to the extent practicable in order to minimize the amount of grading. Construction phasing, including clearing, grading, and other activities, will likely include multiple areas across the Project simultaneously. During the early stages of construction, 50 or more acres could be disturbed at a given time as temporary and permanent vegetation is seeded and established. Final disturbance numbers will not be known until final engineering is complete and construction sequencing finalized. Badger Hollow Wind will strive to minimize the number of contiguous acres disturbed and the length of disturbance during construction planning.

3.2 Workforce

3.2.1 Provide information on the workforce size and skills required for plant construction and operation.

During construction, the workforce will be primarily comprised of laborers, equipment operators, electricians, and management personnel. During peak construction periods, approximately 200 workers are anticipated to be on-site. However, this is for an ideal construction schedule and peak workforce may vary based on the final schedule. During operation, Badger Hollow Wind expects the Project will employ approximately 3 full-time employees. Certified maintenance technicians will have specific training and expertise to operate the Project.

Badger Hollow Wind will implement a Construction Compliance Program (“CCP”) consisting of environmental training, regularly scheduled inspections, and tools such as permit matrices to ensure all environmental laws and conditions are met. Under the CCP, the environmental lead will provide environmental training to all managers and the foreman prior to construction.

Thereafter, the construction contractor will ensure any employee who works on-site is trained in accordance with the CCP.

3.2.2 Estimate how much of the expected workforce would come from local sources.

The amount of labor that will be sourced locally is unknown at this time, and will be dependent upon the construction contractor selected, local labor market, and the availability of qualified employees at the time of construction. Badger Hollow Wind estimates that roughly 50% of the construction workforce will be Wisconsin residents. During operations, Badger Hollow Wind expects the full-time employees will reside locally.

4. Project Maps, GIS Data, and Photo Simulations

In addition to providing the static maps listed below, GIS data used to create those maps must also be submitted with the application (see Section 4.2 for a list of GIS data required and pages vi-vii for instructions on GIS map projections). The extent of the orthorectified aerial imagery in the static maps must be inclusive enough to show the landscape context within which the proposed facilities would be placed. Typically, this requires extending the map extent to at least two miles beyond any project boundary. Submitted GIS data should be shapefiles only. Do not provide geodatabases or aerial imagery raster data.

Provide the maps in both hard copy and digital versions.

Refer to Application Formats in the Introduction.

4.1 Project Area Maps

Basic (background) features for both the general and the detailed project area maps must include: recent aerial imagery (no older than three years), county boundaries, major roads, waterbodies and waterways, and municipality boundaries. All features should be labeled appropriately. In addition the maps should contain the following features:

4.1.1 General Project Area Map. (The extent of this map should show the entire project area and reach at least 1 mile beyond the project area boundary. Approximate scale 1:4800.) Clearly show:

- **The boundaries of the project area,**
- **All proposed and alternative turbine sites (symbolized differently and identified by number),**
- **Any new substation facilities or required expansion of an existing substation,**
- **O&M building and facilities,**
- **Distribution and transmission interconnection,**
- **All turbine access roads.**

Please see Figure 4.1.1 provided in **Appendix A** for the requested information.

4.1.2 Detailed Project Area Map. (The scale for this map should be larger than that of the general project map so that the added detail is clearly visible. This usually necessitates a series of maps.) Clearly show:

- All the features listed for the General Project Map,
- All collector circuits both underground and overhead, symbolized by the underground installation method,
- Any cross-country crane paths that may be needed during construction,
- Existing utility facilities (electric transmission and distribution, pipelines etc.),
- Industrial/commercial facilities out to one mile from project area boundary,
- All residences out to one mile from project area boundary,
- Daycare centers out to one mile from project area boundary, and;
- Hospitals or other health care facilities out to one mile from project area boundary.

(If new residences, day-care centers, hospitals, or commercial or industrial facilities have been built since the date of the aerial image base map, note those features accurately on the detailed project area map.)

Please see Figure 4.1.2 provided in **Appendix A** for the requested information.

4.1.3 Topographic Maps

Provide topographic maps at 1:24,000 or larger scale showing: project boundary, all turbine sites (proposed and alternative), substation facilities, collector circuits, access roads, and O&M building.

Please see Figure 4.1.3 provided in **Appendix A** for the requested information.

4.1.4 Substation

4.1.4.1 Provide a map showing the following features:

- The location, dimensions (in feet and acres), and layout of any new substation or proposed additions to an existing substation.
- Recent aerial images of the substation site.
- The location of all power lines entering and leaving the substation, including any turning structures. Show details in a separate diagram of any turning structures that might impact adjacent land owners (size, type of structure, guying, etc.).
- For new substations, show the location of the access road, other permanent impervious ground surfaces (e.g. gravel, asphalt, concrete, etc.) and the location of permanent storm water management features (i.e. pond, swale, etc.). For expansion of existing substations, show details on changes to access

roads that may be required (width, length, location, etc.), as well as any other ground disturbing construction activities.

- Show parcel data including the name of landowners for the substation site or substation addition. Include adjacent landowners.
- Show topographic contours of the property.

Please see Figure 4.1.4.1 provided in **Appendix A** for the requested information.

4.1.4.2 Provide an engineering diagram/s of the substation and substation equipment including any turning structures and interconnection facilities.

Please see **Appendix I** for the requested information.

4.1.5 O&M building

4.1.5.1 Provide a map showing the O&M building, parking area, roads, and any other facilities overlaid upon recent aerial imagery of the property.

Please see Figure 4.1.5.1 provided in **Appendix A** for the requested information.

4.1.5.2 Provide an engineering drawing of the O&M building.

Please see **Appendix I** for the requested information.

4.1.6 Natural Resources and Land Use/Ownership Maps

4.1.6.1 Wetland and waterway maps. Refer to Section 6.3 for the map sets to provide.

Please see Figures 6.3.1 and 6.3.2 provided in **Appendix A** for the requested information.

4.1.6.2 Land ownership maps, minimum scale 1:10,000 (map extent to 1.0 mile from the project boundary). Show the following features:

- Current parcel boundaries and landowners
- Roads
- Municipal boundaries
- Project boundary
- All Turbine sites (proposed and alternative)
- Access roads
- Collector circuits
- Crane path
- Topographic contours

Please see Figure 4.1.6.2 provided in **Appendix A** for the requested information.

4.1.6.3 Public lands. Show the following features:

- All publicly owned lands inside the project boundary and within two miles of the project area (parks, trails, national/county/state forests, etc.). Public lands should be clearly labeled.

- Roads
- Project boundary
- Turbine sites
- Access roads
- Substation
- O&M Building

Please see Figure 4.1.6.3 provided in **Appendix A** for the requested information.

4.1.6.4 Land cover. Show the following features

- The distribution of vegetative communities within the project area using the land cover categories in Section 5.3
- Project area boundary
- Proposed and alternative turbine sites
- Substation
- O&M Building
- Access roads
- Crane paths
- Collector circuits

Please see Figure 4.1.6.4 provided in **Appendix A** for the requested information.

4.1.6.5 Flood Insurance Rate maps (FIRMs) (within the project boundary). Provide flood insurance maps if the site is within one-half mile of a floodplain.

Please see Figure 4.1.6.5 provided in **Appendix A** for the requested information.

4.1.6.6 Soil Survey maps (within the project boundary).

Please see Figure 4.1.6.6 provided in **Appendix A** for the requested information.

4.1.6.7 Bedrock maps (within the project boundary). Map showing depth to bedrock for the entire project area.

Please see Figures 4.1.6.7a/b provided in **Appendix A** for the requested information.

4.1.7 Community Maps

4.1.7.1 Zoning maps. Provide a map or maps of the project area showing existing zoning (e.g. agriculture. Recreation, forest, residential, commercial, etc.). Map should show existing zoning out to 0.5 miles beyond the boundaries of the project area.

Please see Figure 4.1.7.1 provided in **Appendix A** for the requested information.

4.1.7.2 Sensitive sites. Additional map (if necessary) showing proximity to schools, day care centers, hospitals, and nursing homes up to 0.5 miles from the substation site.

Please see Figure 4.1.7.2 provided in **Appendix A** for the requested information.

4.1.7.3 Airports. Include the following features:

- All runways for public airports within 10 miles of the project boundary,
- All runways for private airports within 10 miles of the project boundary,
- All landing strips inside and within two miles of the proposed project boundary,
- Project boundary,
- Turbine sites both proposed and alternative.

Please see Figure 4.1.7.3 provided in **Appendix A** for the requested information.

4.1.8 Communication Infrastructure

4.1.8.1 Identify radio, microwave towers, and any NEXRAD or Doppler weather radar installations on a map and show the results of the line of-sight analysis. Include communications and NEXRAD/Doppler installations within a 50-mile radius of the project area.

Please see Figure 4.1.8.1 provided in **Appendix A** for the requested information.

4.2 GIS data

Provide GIS data with attributes as listed and described below. GIS attribute table information should be clearly labeled to identify fields and feature names.

A list of GIS shapefiles is provided in **Appendix K**.

4.2.1 Project area boundary (polygon). Include area in acres.

4.2.2 Proposed turbine site components including:

- 4.2.2.1 Turbine locations identified by number (point).**
- 4.2.2.2 Collector circuits (line). Include voltage, installation method, length in feet, length in miles, and differentiate whether located underground or overhead.**
- 4.2.2.3 Access roads (polygon). Include area in acres and differentiate between permanent and temporary.**
- 4.2.2.4 Crane paths (polygon). Include path width in feet.**

4.2.3 Alternative turbine site components including:

- 4.2.3.1 Turbine locations identified by number (point).**
- 4.2.3.2 Collector circuits (line). Include voltage, installation method, length in feet, length in miles, and differentiate whether located underground or overhead.).**
- 4.2.3.3 Access roads (polygon). Include area in acres and differentiate between permanent and temporary.**
- 4.2.3.4 Crane paths (polygon). Include path width in feet.**

- 4.2.4 Bore pits for trenchless installation of any facilities (point). Include whether used for proposed or alternative routes/areas if applicable.**
- 4.2.5 Laydown areas (polygon). Include whether used for proposed or alternative routes/areas if applicable.**
- 4.2.6 Temporary matting (polygon). Include whether used for proposed or alternative routes/areas if applicable.**
- 4.2.7 Electric distribution lines within and up to one mile of the project area boundary (line). Include voltage of each line and phases present (e.g. A, B, and/or C)**

All existing distribution line locations have been provided based on aerial photos and are displayed in Figure 4.1.2 in **Appendix A**. Voltage and phase of all existing distribution lines is currently unknown. Because Badger Hollow Wind is an IPP, not the local distribution owner, specific phase and voltage information is not readily available. Typical distribution lines in Wisconsin range from 4 to 35 kV and can be either one or three-phase lines.

- 4.2.8 Electric transmission lines within and up to one mile of the project area boundary identified by voltage (line). Include voltage.**
- 4.2.9 Natural gas high-pressure pipelines within and up to one mile of the project area boundary (line)**
- 4.2.10 New substation components including:**

- 4.2.10.1 Perimeter of entire parcel acquired or to be acquired (polygon).**

Badger Hollow Wind may purchase the property hosting the Collector Substation. The extent of the property purchased may be subdivided from the existing parcel based on landowner preferences, Project needs, and economic feasibility.

- 4.2.10.2 Perimeter of substation (polygon).**
- 4.2.10.3 Access road (polygon)**
- 4.2.10.4 Other facilities such as a retention pond or storm water management (polygon).**
- 4.2.10.5 All collector circuits entering the substation (line)**
- 4.2.10.6 Transmission interconnect (point).**

- 4.2.11 Expansion of an existing substation components including:**

- 4.2.11.1 Perimeter of original substation and of expanded area (polygon).**
- 4.2.11.2 Boundary showing any new land acquisition (polygon).**
- 4.2.11.3 All new power lines and reconfigured line work (line).**
- 4.2.11.4 All collector circuits entering the substation (line).**
- 4.2.11.5 Other facilities such as permanent storm water management features (polygon).**
- 4.2.11.6 Location of any modified interconnection (point).**

Pursuant to the GIA, no network upgrades or standalone network upgrades are to be constructed by Badger Hollow Wind. Badger Hollow Wind will not be purchasing the property hosting the Interconnection Switchyard.

- 4.2.12 O&M building components including:**

4.2.12.1 Perimeter of property acquired (polygon).

Badger Hollow Wind may purchase the property hosting the O&M Facility. The extent of the property purchased may be subdivided from the existing parcel based on landowner preferences, Project needs, and economic feasibility.

4.2.12.2 Perimeter of building (polygon).**4.2.12.3 Perimeter of other buildings (polygon).****4.2.12.4 Perimeter of parking lot (polygon).****4.2.12.5 Access road (polygon).****4.2.12.6 Other facilities such as permanent storm water management features (polygon).****4.2.13 Battery Energy Storage System components including:****4.2.13.1 Perimeter of entire parcel acquired or to be acquired (polygon).****4.2.13.2 Perimeter of Battery Energy Storage System (polygon).****4.2.13.3 Access Road (polygon).****4.2.13.4 Other facilities such as permanent storm water management features (polygon).**

Sections omitted. There is no BESS proposed as part of the Project.

4.2.14 Wetlands and waterways in the project area:**4.2.14.1 Delineated wetlands (polygon). See Section 6.****4.2.14.2 Field identified waterways (polygon). See Section 6.****4.2.15 Land owners/buildings:****4.2.15.1 All residences within and up to one mile of the project area boundary (point). Include land owner name, address, and status as either participating or non-participating.****4.2.15.2 All parcels within and up to one mile of the project area boundary (polygon). Include land owner name, address, and status as either participating or non-participating.****4.2.15.3 All industrial/commercial facilities within and up to one mile of the project area boundary (point). Include facility name, ownership name, and address.****4.2.15.4 Confined animal operations within and up to 0.5 miles of the project area boundary (point). Include type(s) of animal(s), the number of confined animals, and land owner name, address.****4.2.15.5 All sensitive sites, including schools, daycares, hospitals, nursing homes, places of worship, and cemeteries within and up to one mile of the project area boundary (point). Include facility name, ownership name, and address.****4.2.15.6 All other buildings within and up to 300 feet of the project area boundary (point). Include type of building.****4.2.16 All known/mapped culverts within the project area boundary (line).****4.2.17 All known/mapped drainage system features (e.g. field drains and ditches, main district drain, drain laterals) within the project area boundary (line).**

- 4.2.18 All public lands within and up to two miles of the project area boundary (polygon).**
- 4.2.19 All participating properties enrolled in the Conservation Reserve Program within the project area (polygon). Information would be dependent on authorization from landowners to release CRP information. Work with PSC staff if any information is considered sensitive and/or confidential.**

Two participating landowners have indicated that they have property enrolled in the Conservation Reserve Program (“CRP”) within the Project Area. The specific extent of property enrolled in CRP is not known at this time.

- 4.2.20 All properties known to be enrolled in a conservation easement within the project area boundary (polygon). Include entity that holds rights to conservation easement (e.g. state/federal government, private land trust, etc.).**

Badger Hollow Wind is not aware of any properties enrolled in a conservation easement. No participating landowners have indicated that they have property that include conservation easements.

- 4.2.21 All communication infrastructure in and near the project area boundary (point). Include radio, television, microwave towers, and any NEXRAD or Doppler weather radar installations located within and up to one mile of the project area.**
- 4.2.22 All public and private airport runways and landing strips within and up to 10 miles of the project area boundary (line). Include facility name and public status.**
- 4.2.23 Land cover/Vegetative communities (polygon). Do not use obsolete DNR Land Cover data. See section 5.3.**
- 4.2.24 Land cover/Vegetative communities within each fenced area (polygon). Include acreages of each dissolved land type identified by fence area number.**
- 4.2.25 Local zoning designations within and up to one mile of the project.**

4.3 Photo Simulations

Photo simulations are required. Simulations should seek to provide an accurate representation of what the project area would most likely look like after the project is completed. In order to be certain that any photo simulations provided in an application will be useful, please consult with PSC staff before preparing and submitting photos.

PSC staff consultations were conducted to determine the suitability for Key Observation Points (“KOP”) for the photo simulations. KOP were selected to represent areas frequented by the public and provide a representative view of the Project from different perspectives. A Visual Impact Assessment including photo simulations is provided in **Appendix L**.

5. Natural and Community Resources, Description and Potential Impacts

5.1 Site Geology

5.1.1 Describe the geology of the project area.

The Wisconsin Geological and Natural History Survey (“WGNHS”) Bedrock Geology of Wisconsin Map³ identifies the bedrock of the Project Area as Sinnipee Group and Ancell Group which range from dolomite with some limestone shale to orthoquartzitic sandstone with minor limestone, shale and conglomerate (Figure 4.1.6.7a **Appendix A**). Based on a WGNHS Depth to Bedrock Map of Grant and Iowa Counties^{4, 5} Wisconsin, the depth to bedrock in the majority of the Project Area is between 5 and 50 feet below ground surface with a portion of the Project Area where greater than 70% of the area has bedrock within 5 feet of the surface (Figure 4.1.6.7b **Appendix A**). According to the WGNHS Karst and Shallow Carbonate Bedrock in Wisconsin Map⁶, carbonate bedrock, as categorized between the ranges of 0 to 50 feet below ground surface, covers the majority of the Project Area. Potential karst features, including highly pitted or vuggy dolomite and limestone, were encountered at a select number of locations across the Project Area during a geotechnical investigation performed by Barr Engineering. Based on the overall results of the geotechnical investigation and a qualitative risk assessment, the site is determined to be of moderate risk for karst.

No fault lines are mapped within the Project Area, and southwest Wisconsin is generally considered an area without notable risk of seismic activity⁷. According to the Natural Resources Conservation Service (“NRCS”)⁸ the major soil units in the Project Area consist of Dodgeville silt loams at approximately 35.3% of the Project Area (5,528 acres) and Tama silt loams (driftless; 7,202 acres) which represents 45.7% of the Project Area (Figure 4.1.7.6 **Appendix A**).

5.1.2 Geotechnical report on soil conditions.

5.1.2.1 Provide a summary of conclusions from any geotechnical report or evaluation of soils in the project area including:

- **Results of soil borings including a review of soil bearing capacity and soil settlement potential.**

Barr Engineering performed a geotechnical investigation for the Project. The geotechnical investigation consisted of geotechnical borings (hollow-stem auger, air rotary, and rock core drilling), standard penetration tests (“SPT”), split spoon sampling, undisturbed thin-walled tube sampling, piezometer installation and monitoring, field electrical resistivity testing, thermal resistivity testing, and general laboratory testing in accordance with American Society for Testing and Materials (“ASTM”) standards. The geotechnical investigation evaluated the strength, compressibility, stiffness, and density characteristics of the soils and rock at the

³ WGNHS. 2005. Bedrock Geology of Wisconsin. Accessed: March, 2024.

⁴ Trotta, L. C. and R. D. Cotter. 1973. Depth to Bedrock in Wisconsin. Accessed: July, 2024.

⁵ WDNR, USGS, WGNHS, and UW-Madison. 1987. Groundwater Contamination Susceptibility Model (GCSM) Bedrock Depth.

https://services5.arcgis.com/Ul9AyFFeFTjf08DW/arcgis/rest/services/GCSMBedrock_Depth/FeatureServer

⁶ Bradbury, K. R. 2009. Karst and Shallow Carbonate Bedrock in Wisconsin.

⁷ Mudrey, Jr., M. G., B. A. Brown, and J. K. Greenberg. 1982. Bedrock Geologic Map of Wisconsin. Accessed: July, 2024.

⁸ National Resources Conservation Service. Web Soil Survey. Accessed: July 2024.

Proposed and Alternative Turbine Locations, except for Turbine 22 which was inaccessible during the investigation.

In general, topsoil was observed to be approximately 12 to 24 inches thick at the turbine sites and presumed to be thicker along swales and in lower portions of the Project Area. The geotechnical investigation found competent soils and weathered rock suitable for turbine foundation support. Some turbine foundations may require engineered fill, soil remediation, and Karst grouting to remediate local conditions.

Allowable bearing capacity for rock was calculated based on rock laboratory testing and geological strength index. Bearing capacity was also calculated for cohesive and granular soils under both undrained and drained conditions. It was determined that the allowable bearing capacity during undrained conditions (soil) will govern the foundation design. Considering the anticipated foundation design parameters for the V 162-6.2 turbine and design undrained shear strength of 1,500 pounds per square foot (“psf”), the gross allowable bearing capacity is approximately 3,350 psf under normal operation loads, 4,400 psf under extreme loads, and 5,300 psf under abnormal extreme loads. As the foundation designs progress, Barr Engineering will be contacted to revise bearing capacity analysis.

Immediate settlement was calculated based on assumed bearing pressure and foundation design size, the immediate differential settlement is less than 1 mm/m. Long-term settlement was calculated based on consolidation test results on a thin wall tube collected during the field investigation and is estimated to be up to 1.3 mm/m. Both immediate and long-term settlement estimates are less than the established differential settlement criteria of 3 mm/m for wind turbine foundation design. Barr Engineering will be contacted to revise the settlement calculations once final foundation designs are complete.

- **Identify any soil conditions related to site geology that might create circumstances requiring special methods or management during construction.**

Most soils, where rock is not present at the assumed foundation embedment depth, are generally in a medium stiff to hard or medium dense to dense condition. At other locations, turbines are anticipated to bear directly on rock. Both conditions are suitable for support of the proposed foundations based on an evaluation of bearing capacity and differential settlement. Engineered fill to a depth of 13.5 feet below grade is recommended in some locations to correct soil conditions. Soil remediation to a depth of 21 feet below grade is recommended in the form of rammed aggregate piers to correct low strength soil layers in other locations. Karst grouting from 10 to 60 feet below grade may be necessary in some locations to remediate Karst conditions.

Shallow bedrock or restrictive material less than 5 feet below ground surface may be encountered across the Project Area but is not anticipated to be prevalent. Where rock daylights or is very shallow, it is anticipated that rock trenching will be necessary to install the electrical collection and SCADA systems.

A final geotechnical investigation will be completed prior to construction which will be used to determine final foundation designs and construction methods. Final engineering designs will be

approved by a structural engineer to ensure compliance with all applicable regulations, the safety and durability of the Project, and geologic risks considered and mitigated.

5.1.2.2 Depth to bedrock

- **Identify any sites where turbine supports or foundation construction must be modified because of the presence of bedrock.**

Based on a WGNHS Depth to Bedrock Map of Grant and Iowa Counties^{9, 10} Wisconsin, the depth to bedrock in the majority of the Project Area is between 5 and 50 feet below ground surface with a portion of the Project Area where greater than 70% of the area has bedrock within 5 feet of the surface (Figure 4.1.7.7a **Appendix A**). As described in Section 5.1.2.1, some turbine foundations will bear directly on rock, others will bear on soils, and some may encounter karst at shallow depths. Subsurface conditions can be remediated through replacement, aggregate piers, or Karst grouting. A final geotechnical investigation will be completed prior to construction which will be used to determine final foundation designs and construction methods. In general, the site is expected to be suitable for turbine foundations.

- **Describe construction methods and foundation issues associated with situations where bedrock formations are near the surface.**

The depth to rock at the Proposed and Alternative Turbine Locations included in the geotechnical investigation varied from 5 to 25 feet below ground surface. Much of the rock is considered to have hard to very hard ripping excavation characteristics. For weaker or highly fractured rock, a bulldozer-mounted ripper may be sufficient to remove the rock. For stronger rock, a heavy-duty hydraulic rock hammer or precision rock trencher/cutter may be used to remove the rock for foundation excavation. Some areas of the intact sedimentary rock may be difficult to remove with a bulldozer-mounted ripper and may require some degree of blasting. In general, stronger rock is anticipated in the upper 15 feet below ground surface at approximately 35% of the turbine sites.

In cases where ripping and/or blasting is required to excavate for the turbine foundations, a reasonable effort will be made to remove loose blast rock from the base of the excavation to expose the rock surface. A flowable concrete mud mat can be used to create a level surface for turbine foundation construction. The exposed surface of excavations will be uniform and typically consist of a combination of solid rock and lean concrete or entirely of lean concrete. If, during construction, it is determined that the rock is too friable to expose a competent rock surface, it may be possible to recompact the rock fragments to break down the particle size of the material to create a uniform bearing surface.

- **Discuss the likelihood or potential that construction on bedrock formations may negatively impact private wells within two miles of turbine sites.**

⁹ Trotta, L. C. and R. D. Cotter. 1973. Depth to Bedrock in Wisconsin. Accessed: July, 2024.

¹⁰ WDNR, USGS, WGNHS, and UW-Madison. 1987. Groundwater Contamination Susceptibility Model (GCSM) Bedrock Depth.
https://services5.arcgis.com/Ul9AyFFeFTjf08DW/arcgis/rest/services/GCSMBedrock_Depth/FeatureServer

There is a low likelihood that construction on bedrock formations may negatively impact private wells within two miles of turbine sites. Measures will be implemented to guard against the introduction of contaminants into groundwater due to accidental release of construction related chemicals, fuels, or hydraulic fluid. Spill-related impacts during construction are primarily associated with equipment refueling and equipment maintenance. To avoid spill-related impacts, construction contractors will be required to follow the SPCC plan and/or ECSWMP, as required, that outlines measures that will be implemented to prevent accidental releases of fuels and other hazardous substances and describes response, containment, and cleanup procedures. By implementing the protective measures set forth in these plans, long-term contamination due to construction and operation activities is not anticipated.

5.2 Topography

5.2.1 Describe the general topography of the project area.

The existing topography in the Project Area generally consists of gently rolling hills with elevations that range from approximately 974 to 1,224 feet above mean sea level. Slopes generally range between 0 and 6% over a majority of the Project Area with limited areas with slopes from 6 to 20%. The most significant topographic changes generally occur near waterways.

5.2.2 Describe expected changes to site topography due to grading activities.

The Project will be designed to use the existing topography to the extent practicable in order to minimize the amount of grading. Minimal grading is anticipated due to the Project's relatively flat terrain where grade-sensitive Project Facilities are located. Grading changes to the existing topography that would affect land use, water inflow/outflow directions from the site, and flow rates impacting erosion on or off the site, will be minimized during final engineering. Cut/fill and associated blending of the site will be required in areas, pending final engineering, but will not change the overall nature of the topography on the site.

5.3 Land Cover

5.3.1 Vegetative Communities in the Project Area. List and identify the dominant plants in the following community categories: Analysis should use recent data, not greater than two years old. Land cover can be based on recent aerial imagery or on-site evaluation.

5.3.1.1 Agricultural

- **Row/Traditional crops**
- **Specialty Crops/Other**

The Project Area is dominated by row crop agriculture, primarily composed of corn (*Zea mays*) and soybeans (*Glycine max*). Other species observed in agricultural fields include smooth brome (*Bromus inermis*), annual ragweed (*Ambrosia artemisiifolia*), orchard grass (*Dactylis glomerata*), Kentucky bluegrass (*Poa pratensis*), white clover (*Trifolium pratense*), common dandelion (*Taraxacum officinale*), and reed canary grass (*Phalaris arundinacea*).

No specialty crops were identified within the Project Area. Information on herd management identified within the Project Area is provided in Section 7.1.4.

5.3.1.2 Non-Agricultural upland

- **Prairie/Grasslands/Pasture/Fallow field**
- **Upland Woods**

Areas of hay and pasture were observed within the Project Area and generally included species similar to those observed in agricultural swales and field edges including smooth brome, Kentucky bluegrass, orchard grass, clover, common dandelion, reed canary grass and annual ragweed.

Wooded areas were common along riparian areas and near farmsteads throughout the Project Area. Typical tree species include oak (*Quercus* sp.), maple (*Acer* sp.) and cottonwood (*Populus* sp.) species.

5.3.1.3 Wetlands (Eggers and Reed classification type)

As further discussed in Section 6, desktop delineations of wetlands and waterways were performed for the entire Project Area. Additionally, wetlands and waterways were field delineated within a 580-acre “Field Delineation Corridor” which included a 500-foot radius buffer around turbine and ADLS tower locations, a 100-foot buffer around access roads, a 60-foot buffer around collector circuits, and a 150-foot buffer around the ADLS tower access road.

The majority of wetlands within the Project Area consist of fresh wet meadow wetlands with shallow marsh and seasonally flooded basins as the next most common wetland type. Wetland vegetation was generally dominated by reed canary grass with minor components of sedge species (*Carex* sp.), and meadow foxtail (*Alopecurus pratensis*). For purposes of land cover calculations, the area of delineated waterways was incorporated into the wetland land cover category (Table 5.3.2).

5.3.1.4 Developed Land

- **Residential**
- **Commercial/Industrial**

Developed land within the Project Area includes residential, commercial/industrial, and roadways. Maintained gravel, paved, or lawn areas surrounding buildings were considered developed and are included in the total acreage of developed land in Table 5.3.2.

5.3.2 Acres of Land Cover Categories in Project Area

Estimate of the number of acres within each land cover category listed below. Provide this information in table format and explain what method was used to calculate the areas reported.

Land cover within the Project Area was originally mapped and described using data and descriptions from the U.S. Geological Survey’s (“USGS”) National Land Cover Dataset

(“NLCD”)¹¹. Within the Project Area, Western EcoSystems Technology, Inc. (“West”) conducted a field reconnaissance for Badger Hollow Wind in October 2022 to perform a coarse-scale ground-truthing of NLCD land cover types and document areas of potential habitat for sensitive species¹². Additionally, in June 2024, Westwood conducted field wetland and waterway delineations in portions of the Project Area which further informed the land cover types present in the Project Area¹³. Using the NLCD as a baseline, the land cover was updated with GIS software and 2022 NAIP photography to further evaluate current land cover conditions within the Project Area to make a more accurate representation of the extent of land cover categories and to group and quantify land cover using the categories identified in Section 5.3. Wetland land cover determinations were based on field and desktop delineation data and incorporates the area of delineated waterways within the Project Area.

5.3.2.1 Agricultural

- Row/Traditional crops
- Specialty Crops/Other

5.3.2.2 Non-Agricultural Upland

- Prairie/Grasslands/Pasture/Fallow field
- Upland Woods

5.3.2.3 Wetlands (Eggers and Reed classification type)

5.3.2.4 Developed Land

- Residential
- Commercial/industrial

Please see **Table 5.3.2** for the requested information.

Table 5.3.2 Land Cover within the Project Area		
Land Cover Type	Area (Acres)	Percent of Total
Row/Traditional Crops	12672.5	80.7
Prairie/Grasslands/Pasture/Fallow Field	1050.7	6.7
Wetland	617.3	3.9
Residential	436.8	2.8
Commercial/Industrial	401.7	2.6
Developed	294.1	1.9
Upland Woods	230.8	1.5
Total	15,703.9	100

¹¹ Multi-Resolution Land Characteristics Consortium (MRLCC). 2021 National Land Cover Database (NLCD). <https://www.mrlc.gov/>

¹² Western EcoSystems Technology, Inc. 2022. Site Characterization Study, Badger Hollow Wind Farm, Grant and Iowa Counties, Wisconsin. Final Report.

¹³ Westwood Professional Services, Inc. 2024. Badger Hollow Wind Energy Center, Wetland Delineation Report.

5.3.2.4.1 Floodplain

There are 253.2 acres of floodplain within the Project Area (Figure 4.1.6.5 **Appendix A**).

5.3.3 Land Cover Impacts

In table format, estimate the number of acres, in each land cover type identified in Section 5.3.2, that will be affected by project construction and or facilities. Breakdown impacts into temporary vs. permanent impacts for the following categories.

5.3.3.1 Turbine Pads

5.3.3.2 Collector Circuits. For collector circuits in wooded areas, disclose whether or not a ROW around the cables would be maintained in an open (no tree) condition.

5.3.3.3 Access Roads

5.3.3.4 Crane Paths

5.3.3.5 Substation

5.3.3.6 O&M Building

Please see **Table 5.3.3** for the requested information. Collector Circuits will be directionally bored through wooded areas. Thus, no ROW around the cables would be maintained in an open (no tree) condition.

Table 5.3.3 Land Cover Impacts

Facility Type	Impact Type	Row/Traditional Crops (Acres)	Prairie/Grasslands/Pasture/Fallow Field (Acres)	Wetland (Acres)	Developed (Acres)	Industrial /Commercial (Acres)	Upland Woods (Acres)	Total (Acres)
Turbines - Proposed	Temporary	163.81	2.44	-	-	-	-	166.25
	Permanent	1.23	-	-	-	-	-	1.23
Turbines - Alternative	Temporary	52.5	-	-	-	-	-	52.5
	Permanent	0.39	-	-	-	-	-	0.39
Electrical Collection and SCADA Systems - Proposed	Temporary	84.457	2.459	0.518	1.406	-	-	88.84
	Permanent	-	-	-	-	-	-	0
Electrical Collection and SCADA Systems - Alternative	Temporary	38.188	0.309	0.399	0.498	-	0.144	39.538
	Permanent	-	-	-	-	-	-	0
Access Roads - Proposed	Temporary	26.018	0.027	-	0.229	-	-	26.274
	Permanent	17.487	<0.001	-	0.087	-	-	17.574
Access Roads - Alternative	Temporary	5.232	-	-	0.045	-	-	5.277
	Permanent	3.579	-	-	0.015	-	-	3.594
Collector Substation	Temporary	-	-	-	-	-	-	0
	Permanent	2.1	-	-	-	-	-	2.1
Collector Substation Access Road	Permanent	0.272	-	-	-	-	-	0.272
Collector Substation Stormwater Facilities		0.655	-	-	-	-	-	0.655
O&M Facility	Temporary	-	-	-	-	-	-	0
	Permanent	2.111	-	-	-	-	-	2.111
Gen-Tie Line	Temporary	1.638	-	-	-	0.149	-	1.787
	Permanent	4.028	-	-	-	0.746	-	4.774
Gen-Tie Line Staging Area	Temporary	1.639	-	-	-	0.149	-	1.788
MET Towers	Temporary	3.238	-	-	-	-	-	3.238
	Permanent	-	-	-	-	-	-	0

Table 5.3.3 Land Cover Impacts								
Facility Type	Impact Type	Row/Traditional Crops (Acres)	Prairie/Grasslands/Pasture/Fallow Field (Acres)	Wetland (Acres)	Developed (Acres)	Industrial /Commercial (Acres)	Upland Woods (Acres)	Total (Acres)
ADLS Towers	Temporary	-	-	-	-	-	-	0
	Permanent	1.619	-	-	-	-	-	1.619
Crane Paths - Proposed	Temporary	99.896	2.432	0.465	0.517	-	-	103.31
	Permanent	-	-	-	-	-	-	0
Crane Paths - Alternative	Temporary	23.408	-	-	0.113	-	-	23.521
	Permanent	-	-	-	-	-	-	0
General Construction Laydown Yard	Temporary	20	-	-	-	-	-	20
	Permanent	-	-	-	-	-	-	0
General Construction Laydown Yard Access Road	Temporary	0.382	-	-	-	-	-	0.382
Total		556.695	7.667	1.382	2.91	1.044	0.144	569.842
* There are no temporary or permanent impacts anticipated to Residential or Commercial/Industrial land cover types or Floodplain areas.								

5.4 Wildlife

5.4.1 Describe existing wildlife resources and estimate expected impacts to plant and animal habitats and populations.

Numerous wildlife studies have been completed for the Project between December 2021 and August 2024, which are described in the following sections and were used to characterize and modify the Project Area and Project Layout to account for wildlife resources. As often occurs during development of a wind electric generating facility, Badger Hollow Wind has refined the Project Area since wildlife studies began; therefore, the Project Area used for the studies has evolved over time.

Table 5.4.1 identifies the wildlife studies that were used to characterize the Project Area. The methods and results of these studies are provided in **Appendices F, M, N, O, P,** and **Q** and again summarized in the Bird and Bat Conservation Strategy (“BBCS”) provided in **Appendix R**.

Table 5.4.1 Wildlife Studies Conducted	
Study	Timeline
Tier 1 & 2 Site Characterization Study	October 27-28, 2022; updated July 2024
Tier 1 & 2 Bat Habitat Assessment	October 2022; updated July 2024
Tier 3 Avian Use Surveys, Year 1	December 2021-November 2022
Tier 3 Raptor Nest Survey, Year 1	March 19-21 and April 24 and 26, 2022
Tier 3 Eagle Nest Monitoring	March 19-21 and April 24 and 26, 2022
Tier 3 Bat Acoustic Survey	April 1-November 2, 2022
Tier 3 Avian Use Surveys, Year 2	December 2022-November 2023
Tier 3 Raptor Nest Survey, Year 2	April 9 and June 11, 2024
Tier 3 Bat Presence/Absence Mist-net Survey	August 6-15, 2024

General Wildlife Resources

As detailed in Section 5.3 (see also **Table 5.3.2** and Figure 4.1.6.4 in **Appendix A**), the land cover within the Project Area is dominated by row crop agriculture including corn and soybean fields (80.7%). Corn and soybeans are annual cover types that are typically used by a few common wildlife species on a limited seasonal basis. Species that may use agricultural land include white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*) and small mammals such as mouse [Family Muridae] and vole [Family Cricetidae] species, thirteen-lined ground squirrel (*Ictiodmys tridencemlineatus*), ground hog (*Marmota monax*), Virginia opossum (*Didelpjhis virginiana*), eastern gray squirrel (*Sciurus carolinensis*), Eastern cottontail (*Sylvilagus floridanus*), striped skunk (*Mephitis mephitis*), red fox (*Vulpes vulpes*) and gray fox (*Urocyon cinereoargenteus*).

Among bird species, agricultural fields within the Project Area may be used by Canada goose (*Branta canadensis*), American robin (*Turdus migratorius*), mallard (*Anas platyrhynchos*), red-

tailed hawk (*Buteo jamaicensis*), sandhill crane (*Antigone canadensis*), herring gull (*Larus argentatus*), killdeer (*Charadrius vociferus*), common grackles (*Quiscalus quiscula*), and brown-headed cowbirds (*Molothrus ater*).

Reptile species that may use agricultural fields within the Project Area include common garter snakes (*Thamnophis sirtalis*) and eastern fox snake (*Panatherophis vulpinus*). The Dekay's brownsnake (*Storeria dekayi*) may inhabit the woodlands or woodland edges within the Project Area and limited emergent and riverine wetland habitats could be used by the Common watersnake (*Nerodia sipedon*). For amphibians, wetlands, ponded areas, and woodlands within the Project Area may be used by the Cope's gray treefrog (*Hyla chrysocelis*), the gray treefrog (*Hyla versicolor*), spring peeper (*Pseudacris crucifer*), and American toad (*Anaxyrus americanus*). The eastern tiger salamander (*Ambystoma tigrinum*) has adapted to living in agricultural landscapes and may be found in ponded areas within the Project Area.

Due to the relative lack of plant diversity and habitat structure, and the temporary seasonal nature of the crop cover, the use of these habitats by the aforementioned species is likely limited. Furthermore, the area of disturbance and permanent conversion of agricultural land is relatively limited so the Project is unlikely to impact these species as there is abundant, similar habitats available in the surrounding region and within portions of the Project Area that will not be utilized for permanent infrastructure.

Prairie/grasslands/pasture/fallow land cover type comprises 6.7% of the Project Area and mostly consists of actively grazed pasture. Typical vegetation in grasslands include brome (genus *Bromus*), goldenrod (genus *Solidago*), Kentucky bluegrass, orchard grass, clover, common dandelion, reed canary grass, and annual ragweed. Species that may use grasslands include white-tailed deer, cottontail rabbit (*Sylvilagus floridanus*), mouse and vole species, raccoon, and striped skunk. Bird, amphibian, and reptile species that may use grassland will be similar to those listed for agricultural areas. Project related impacts to prairie/grasslands/pasture/fallow land cover type totals 7.67 acres, almost all of which are temporary impacts and represents less than 1% of this land cover type in the overall Project Area. As such, minimal impacts to species that use this land cover type are anticipated.

Water resources within the Project Area represent less than 4% of the total Project Area. In addition to the general wildlife species noted above that would occupy wetland and ponded areas, waterways like the Little Platte River, the Pecatonica River and its tributaries, and the Livingston Branch may be used by fish species including bluntnose minnow (*Pimephales notatus*), fathead minnow (*Pimephales promelas*), southern redbelly dace (*Chrosomus erythrogaster*), and spotfin shiner (*Cyprinella spiloptera*). Project-related impacts to wetland/waterway habitats will be avoided and therefore will not negatively impact the populations of species that use these habitats. Erosion control BMPs will be employed to avoid indirect impacts to wetlands and waterways during construction.

Developed areas (i.e., commercial/industrial/residential uses, manicured lawns, landscaping, roads), which comprise 7.3% of the Project Area, are typically used by species accustomed to human disturbance, including mammal species such as the eastern gray squirrel and thirteen-lined ground squirrel and bird species, such as the house sparrow (*Passer domesticus*) and

European starling (*Sturnus vulgaris*). No impacts to these types of species in developed areas are anticipated; species that use developed areas are typically common and tolerant of human activity^{14,15,16}. Because these species have robust and secure populations, are adaptable/tolerant to anthropogenic disturbance of land covers, and developed areas are already altered by human activity, no impacts to these species are expected.

Upland woods, which comprises 1.5% of the Project Area, is generally located along waterways and wetland complexes. Species that may use these forested areas are similar to those common species that use agricultural areas including white-tailed deer, eastern gray squirrel, and mouse and vole species. Small woodlands may also support bird species including downy woodpecker (*Dryobates pubescens*), hairy woodpecker (*D. villosus*), blue jay (*Cyanocitta cristata*), black-capped chickadee (*Parus atricapillus*), song sparrow (*Melospiza melodia*), yellow-rumped warblers (*Setophaga cornata*), and northern cardinal (*Cardinalis cardinalis*). Wooded patches may also provide roosting and foraging habitat for bat species such as little brown bat (*Myotis lucifugus*), big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), evening bat (*Nycticeius humeralis*), and silver-haired bat (*Lasionycter noctivagans*). Approximately 0.14 acres of forested area will be impacted by Project-related activities; therefore, disturbance within any forested areas should have minimal impact on the populations of these forest-dwelling species.

State and/or Federally Protected Bats

The IPaC identified two bat species with the potential to occur in the Project Area, the federally-listed endangered and state-listed threatened northern long-eared bat (*Myotis septentrionalis*) (“NLEB”) and the tricolored bat (*Perimyotis subflavus*) (“TRBA”), which is proposed as federally endangered (**Appendix F**). The little brown bat (*Myotis lucifugus*) (“LBBA”), under federal review for listing and state-threatened, was captured in the Project Area during summer presence/probable absence mist-net surveys in August 2024 (**Appendix Q**).

NLEB roost singly or in colonies underneath bark or in cavities of both live and dead trees of forested areas during the summer. NLEB summer roosting habitat generally includes trees at least three-inch diameter at breast height with exfoliating bark that creates cavities and crevices. NLEB will occasionally roost in abandoned buildings or barns. During winter, NLEB hibernate in caves and mines. TRBA primarily roosts in trees; however, they will also roost in buildings or bridges. LBBA roosts in a variety of habitats, including trees, buildings, and under rocks, and forage in interior forest and riparian areas in spring, summer, and fall. LBBA maternity colonies occur in tree cavities and human structures, such as old barns. All three species forage on insects over aquatic habitats including lakes and streams, primarily along forested riparian areas. During

¹⁴ Scalice, S., M. Benson, and A. Howard. 2018. Increased tolerance of human presence observed in urban compared to rural eastern gray squirrels. *Journal of Ecology* (2):2-9.

¹⁵ Lowther, P.E. and C.L. Link. 2006. House sparrow (*Passer domesticus*), version 2.0. In the Birds of North America (A.F. Poole, Ed.). Cornell Lab of Ornithology. Ithaca, NY.

¹⁶ Cabe, P.R. 1993. European starling (*Sturnus vulgaris*), version 2.0. In the Birds of North America (P.G. Rodewald, Ed.). Cornell Lab of Ornithology, Ithaca, NY.

winter, they generally hibernate in caves or mines (**Appendix F**). According to WDNR, TRBA are known to occur in Grant and Iowa counties¹⁷.

A Bat Habitat Assessment was conducted for the Project Area in July 2024. The study objectives were to document potentially suitable foraging and roosting habitat for listed bat species (or those under review), including the NLEB, TRBA, and LBBA, within the Project Area (**Appendix F**). The study was consistent with Phase I of the USFWS 2024 *Range-wide Indiana Bat & Northern Long-eared Bat Survey Guidelines* (Guidelines; USFWS 2024), which was approved for use for TRBA surveys in 2024.

All potentially suitable foraging and roosting habitat (forested areas) within the Project Area were classified using the NLCD (NLCD 2021). The total number of acres of forested habitat that could be potentially suitable summer habitat for bat species within the Project Area was calculated and mapped. Man-made structures were not included in potential bat habitat.

Based on results of the desktop evaluation at the time of the survey, approximately 156 acres (1% of the Project Area) of potential suitable foraging and roosting bat habitat were identified in the Project Area. Potential suitable foraging and roosting bat habitat was composed of deciduous forest, mixed forest, evergreen forest, shrub/scrub, and woody wetlands. A greater amount of potential suitable habitat exists outside of the Project Area along forested riparian corridors and larger tracts of forested areas.

Bat summer presence/probable absence mist net surveys were conducted for the Project August 6 – 15, 2024 (**Appendix Q**). The objective of the survey was to determine the presence/probable absence of federally listed or currently under review bat species (NLEB, TRBA, and LBBA) during the summer maternity period.

A desktop NLCD data assessment of potential summer habitat for these protected bat species identified 156 acres of potential summer habitat within the Project Area. Mist-net surveys were conducted at two sites that were most suitable for capturing NLEB, TRBA, and/or LBBA within the Project Area. Mist-net surveys were conducted at the two sites using 10 net nights per 123 acres of suitable summer habitat to meet the minimum survey effort recommended by the Guidelines (USFWS 2024). Radio-telemetry surveys were conducted to determine if NLEB, TRBA, and LBBA were utilizing areas in or near the Project Area at roost sites if captured.

Three adult male LBBA were captured at site 1 and one adult male LBBA was captured at site 2. One adult male LBBA was transmitted at site 1 and tracked to two individual barn locations outside of the Project Area. The closest barn is located 0.7 mi from the Project Area and 1.4 mi from the nearest turbine location (Turbine 25); the second barn is located 1.7 mi from the Project Area and 2.4 mi from the nearest turbine location (Turbine 25). One adult male LBBA was transmitted at site 2 and no signal was heard for four days, therefore no roost location was

¹⁷ WDNR. No Date B. Tricolored Bat (*Perimyotis subflavus*).
<https://apps.dnr.wi.gov/biodiversity/Home/detail/animals/6733>

confirmed. No NLEB or TRBA were captured during the surveys, confirming probable absence at the Project Area during the summer survey season.

Bat studies conducted for the Project documented limited suitable bat habitat within the Project Area and probable absence of NLEB and TRBA within the Project Area during summer. Potential impacts to bats at the Project have been minimized through Project design, and conservation measures to be implemented during construction. Project design has included avoidance of NLEB summer habitat by 1,200 feet, also benefiting TRBA, LBBA, and other tree-roosting bat species. No known hibernacula were documented within the Project Area. Project construction includes no tree removal within NLEB summer habitat and minimal tree removal outside of NLEB summer habitat. Tree removal will be avoided from April 15 through October 31 to reduce potential impacts to roosts and other tree roosting habitats for NLEB and other bat species. Limited turbine curtailment will be utilized during the fall season to reduce the risk of impacting bat species during fall migration.

State and/or Federally Protected Birds

The IPaC and ERR and/or species identified during environmental surveys, identified the following bird species with the potential to occur in the Project Area: the bald eagle (*Haliaeetus leucocephalus*), whooping crane (*Grus americana*), [REDACTED] and peregrine falcon (*Falco peregrinus*).

Bald eagles are known to occur in Wisconsin year-round (**Appendix F**). Bald eagles typically nest in mature trees adjacent to waterbodies large enough to provide foraging opportunities. The ERR stated a couple bald eagle nests have been recorded within one mile of the Project Area (**Appendix F**).

Two years of avian use surveys were conducted for the Project from December 2021 – November 2023. The objectives of the study were to assess spatial and temporal use of the Project Area by small birds, large birds, and species of concern (USFWS 2012), including eagles (**Appendix M**). Results of the Year 2 Large Bird Use Study recorded 33 bald eagle observations. The Year 1 Avian Use Study recorded 28 bald eagle observations. Additionally, 31 incidental bald eagle observations were recorded during Year 1 and seven incidental bald eagle observations were recorded during Year 2.

Two years of raptor nest surveys were conducted for the Project in March and April of 2022 and April and June 2024 (**Appendix N**). The objectives of the aerial survey were to identify and record the location and status of any bald eagle and other large raptor nests within the Project Area and 2-mile buffer. A follow-up, ground-based nest survey was conducted at all eagle-sized nests to confirm species, occupancy, and activity status.

A 2022 Eagle Nest Monitoring Report was completed for monitoring of one nest recorded during the 2022 Raptor Nest Survey to verify the presence and status of the nest and record eagle spatial distribution and intensity of use within and adjacent to the Project Area (**Appendix O**).

Results of the 2022 Raptor Nest Survey found an active eagle nest within the Project Area (**Appendix N and O**). The 2024 Raptor Nest Survey found the one eagle nest in the Project Area to be occupied active.

While one active, occupied eagle nest is present within the Project Area, turbines are set back over one mile from all active bald eagle nests so impacts to the bald eagle are not anticipated. For reference, guidance from the USFWS recommends at least a 660-foot buffer around active eagle nests.

Eagle studies conducted documented relatively low eagle use in the Project Area compared to regional data, and nesting habitat in the Project Area is limited compared to the surrounding area. The documented bald eagle nest in the Project Area will include a 1-mile turbine setback and construction activity will be avoided within 660 feet of the active bald eagle nest from January 15 through July 30 to avoid human disturbance to the nest. The 2022 Eagle Nest Monitoring Report documented that most of the flight paths recorded at the bald eagle nest in the Project Area were localized and were associated with the Sudan Branch east of the Project Area and the Pecatonica River south of the Project Area and avoidance of those areas have been accounted for in the Project Layout.

The whooping crane is identified as a non-essential experimental population in Wisconsin. Non-essential experimental population designations are assigned to populations deemed unnecessary for the continued existence of the species¹⁸. Regulatory restrictions are reduced for non-essential experimental populations. Whooping cranes use a variety of habitats during migration including inland marshes, lakes, open ponds, shallow bays, wet meadows, rivers, pastures and agriculture fields. Wetlands within the Project Area are limited in both number and size and are generally associated with stream corridors or are degraded, farmed wetlands. While farmed wetlands are occasionally used by whooping cranes during stopover, these resources are prevalent in the surrounding landscape, so the species is not expected to be adversely affected. No observations of whooping cranes were reported in either of the Year 1 or Year 2 avian use studies, or any other environmental study incidentally (**Appendix M**).

The state-threatened [REDACTED] are area-sensitive species that require relatively large (greater than 20 acres) tracts of grassland with minimal woody cover (**Appendix F**). [REDACTED] Areas of herbaceous land and pasture occur throughout the Project Area that can provide potentially suitable foraging and nesting habitat is limited with less than 7% of the Project Area consisting of prairie/pasture/grassland/fallow field land cover (**Appendix F**). Results from the Year 1 Avian Use Study recorded 16 total [REDACTED] observations and 5 observations in the Year 2 Avian Use Study (**Appendix M**).

[REDACTED] were documented over two years of avian use surveys at the Project and majority of the observations occurred in summer in the central portion of the Project Area near larger tracts of hay/pasture. Prairie/pasture/grassland/fallow field land cover type comprises

¹⁸ USFWS. 2016. Endangered Species Act: Experimental Populations Pacific Region Fact Sheet. Pp. 1-2.

6.7% of the Project Area and mostly consists of actively grazed pasture. Though nesting habitat for [REDACTED] exists within the Project Area, the surrounding landscape contains greater amounts of larger contiguous tracts of hay/pasture habitat. Badger Hollow Wind revised the Project Area to exclude grassland conservation areas identified by the WDNR. Project related impacts to grasslands are limited and temporary; therefore, [REDACTED] are not likely to be negatively impacted.

Impacts to the [REDACTED] are not anticipated from the Project. Project Facilities are mostly located within areas of row crop agriculture, which further minimizes potential impacts to the [REDACTED]. To avoid potential impact to the [REDACTED], Badger Hollow Wind will adhere to the ERR required action in areas of suitable habitat within the portion of the Project Area identified in the ERR. This includes either assuming the species is present and avoiding disturbance from April 30 - July 25 or having a qualified biologist conduct surveys to determine if the species is present. Badger Hollow Wind will provide survey protocol to the WDNR for approval prior to the start of surveys. Badger Hollow Wind may elect to discuss other options with WDNR prior to committing to one of the two actions, as outlined in the ERR.

The state-endangered peregrine falcon nests on cliffs, rocky ledges, or buildings and is commonly found in developed urban areas, and forages in a variety of open habitats. Foraging habitat exists throughout the Project Area and 2-mile Study Area including cropland, fallow fields, hay/pasture, and forested areas. The Project Area and Study Area provides habitat that may be suitable for peregrine falcon stopovers in fall migration and winter, and based on survey data, the bird occurs in spring. However, peregrine falcons are unlikely in summer as the Project Area and Study Area does not contain suitable nesting habitat. One peregrine falcon observation was recorded in the southern portion of the Project Area in spring during Year 2 of the avian use surveys, no observations were recorded during Year 1. Considering the lack of suitable nesting habitat in the Project Area and the prevalence of suitable foraging habitat on the surrounding landscape, the peregrine falcon is not expected to be adversely affected by the Project.

Other State and/or Federally Protected Species

Other protected species identified from the IPaC and the ERR include the federal and state-endangered Hine's emerald dragonfly, the federally proposed endangered salamander mussel (*Simpsonaias ambigua*), and the federally proposed for listing monarch butterfly (*Danaus plexippus*). Identified state-protected species include the state-endangered [REDACTED] [REDACTED] and the state-threatened [REDACTED] and [REDACTED]. The ERR also recommended actions to help conserve the state species of concern [REDACTED] and special concern plant species including [REDACTED] [REDACTED]

The Hine's emerald dragonfly is federally and state endangered and can be found in graminoid dominated wetlands which contain seeps, slowing moving, cool water, and in open areas in close proximity to forest edges. Three important characteristics common to wetlands inhabited by Hine's emerald dragonfly include being groundwater fed, shallow water slowly flowing through

vegetation, dolomitic bedrock or calcareous limestone and co-inhabited by crayfish¹⁹. Sites in which the dragonfly are found can typically be classified as calcareous wetlands or northern fens. According to the WDNR²⁰, Hine's emerald dragonfly are known to occur in Grant and Iowa Counties. While wetlands and waterways within the Project Area are limited, and there are no mapped calcareous fens within the Project Area, the site is underlain by dolomitic limestone. Because the Project avoids impacts to wetlands and waterways, Hine's emerald dragonfly habitat and populations are not anticipated to be adversely affected.

In Wisconsin, the proposed endangered salamander mussel inhabits swift flowing tributaries of the Mississippi River and Lake Michigan. The salamander mussel is very habitat specific, found only under medium to large-sized rocks and undercut ledges in mud, silt, or sand substrates. Given the lack of suitable habitat in the Project Area, salamander mussels are unlikely to occur in the Project Area, with more suitable habitat occurring outside of the Project Area. An ECSWMP will be prepared for the Project and erosion control BMPs will be employed to avoid indirect impacts to wetlands and waterways during construction therefore impacts to the salamander mussel are not anticipated.

The Project Area occurs within the summer range of the monarch butterfly. Although the monarch butterfly primarily inhabits grasslands, it can be found in a variety of habitats including cropland edges, grassland edges, along roads, shrublands, and woodlands (**Appendix F**). The monarch butterfly requires milkweed (*Asclepias* spp.) to complete its life cycle. Herbaceous, hay/pasture and deciduous forest were noted throughout the Project Area during site reconnaissance which can potentially provide suitable monarch butterfly foraging and breeding habitat (**Appendix F**). While potential suitable habitat is present in the Project Area, the majority of Project Facilities are sited in areas of row crop agriculture so disturbance to uncropped portions of the Project Area where milkweed can occur is minimal. For these reasons, no impacts to the monarch butterfly are anticipated from the Project.

The state-endangered [REDACTED] range extends into the Project Area. [REDACTED] prefer [REDACTED] (**Appendix F**). Emergent herbaceous wetlands, streams and open water ponds were documented during the site reconnaissance throughout the Project Area and can potentially provide suitable habitat in all seasons for this species. While there is potentially suitable habitat within the Project Area, wetlands and waterways are avoided by the Project and BMPs will be employed to prevent erosion and runoff to water resources. For these reasons, impacts to the [REDACTED] are not anticipated from the Project.

The state-endangered [REDACTED] inhabits [REDACTED]. Forested land cover represents less than 2% of the Project Area so, while occurrence of this species is

¹⁹ USFWS. No Date. Hine's Emerald Dragonfly (*Somatochlora hineana*). <https://www.fws.gov/species/hines-emerald-somatochlora-hineana>

²⁰ Wisconsin Department of Natural Resources. No Date A. Hine's Emerald Dragonfly (*Somatochlora hineana*). <https://apps.dnr.wi.gov/biodiversity/Home/detail/animals/7685>

possible, habitat for this species is limited (**Appendix F**). Because Project Facilities are mostly sited in areas of row crop agriculture, and little forested habitat will be disturbed as part of construction, impacts to the [REDACTED] are not anticipated.

The state-endangered [REDACTED] is typically found in openings of [REDACTED] (Appendix F). Similar to the [REDACTED] forested habitat is limited within the Project Area, but occurrence is still possible in the limited habitat that is present. Because wetlands, waterways, and wooded areas are being avoided by the Project, impacts to the [REDACTED] are not anticipated.

The state-threatened [REDACTED] commonly inhabits [REDACTED] (Appendix F). The Livingston Branch and its tributaries within the Project Area were noted during field reconnaissance to be clear streams with gravel and rock substrates that could potentially provide suitable habitat for the [REDACTED]. The ERR identified waterways and associated tributaries within Grant County as suitable habitat for the [REDACTED].

Within the Project Area, the Little Platte River in Grant County, and its tributaries, are avoided by the Project with the closest Project Facilities more than 300 feet from these features. Badger Hollow Wind will implement runoff prevention measures when working within 300 feet of this waterway and implement appropriate runoff prevention measures in proximity to all wetlands and waterways during construction of the Project. Because all waterways will be physically avoided or avoided by directional bore, no impact to the [REDACTED] is anticipated from the Project.

The state-threatened [REDACTED] typically inhabits prairies and prairie remnants along roadsides and railroads. The ERR noted suitable prairie habitat for this species southeast of Rewey that may be impacted by the Project; however, no Project Facilities are planned to be sited in that portion of the Project Area. Therefore, no impacts to the [REDACTED] are anticipated from the Project.

The ERR recommended actions to help conserve the state special concern species [REDACTED] and plant species [REDACTED].

A recommended voluntary action from the ERR for suitable [REDACTED] habitat within two miles of Livingston include minimizing impacts to wetlands and waterbodies at least 3 feet deep at all times of the year as this species can be present in these types of wetlands throughout the year and conducting work in resources less than 3 feet deep outside of the [REDACTED] active season between March 5 and November 15. Badger Hollow Wind plans to avoid impacts to wetlands and waterways within the Project Area, thereby adhering to the voluntary measure of avoiding impacts to overwintering and non-overwintering areas.

Recommended actions for the state special concern plant species listed in the ERR; [REDACTED], include avoiding or minimizing take. Based on the ERR, suitable habitat for all plant species with recommended actions are in areas east or southeast of Rewey, Wisconsin and are likely associated with habitats outside of areas with row

crop cultivation. The Project is avoiding and minimizing potential impact to these species through siting, and it is unlikely construction of the Project will disturb potentially suitable habitat for these species.

5.4.2 Avian and bat pre-construction surveys. (See Habitat Surveys and Biological Assessments in the Introduction)

Avian and bat pre-construction surveys that have occurred within the Project Area include 2022 Eagle Nest Monitoring (**Appendix O**), a 2022 and 2024 Raptor Nest Survey (**Appendix N**), a Year 1 Avian Use Study, December 2021 - November 2022, a Year 2 Large Bird Use Study, December 2022 - November 2023 (**Appendix M**), and a Bat Acoustic Activity Survey (**Appendix P**). A Bat Habitat Assessment was also prepared and is included as an Appendix to the Site Characterization Study (**Appendix F**). Bat presence/absence surveys of the Project Area concluded in August 2024 (**Appendix Q**).

5.4.2.1 Provide a summary of pre-application consultation meetings held with DNR for the purposes of determining whether or not pre-construction bird and/or bat studies would be required for the project.

Badger Hollow Wind held a meeting with WDNR, USFWS, and WEST staff on October 10, 2023 to introduce the Project, discuss pre-construction studies and to receive initial agency feedback (**Appendix E**). The October 10, 2023 meeting included sharing results of year 1 studies including site characterization of the Project, Year 1 Avian Use Surveys, Year 1 Raptor Nest Surveys, an Eagle Nest Monitoring Study, and a Passive Acoustic Bat Survey. The WDNR stated several NLEB hibernacula were documented within 10 miles of the Project Area. Badger Hollow Wind stated they intended to conduct bat summer presence/probable absence surveys to inform potential summer risk at the Project.

On July 31, 2024, Badger Hollow Wind held a meeting with WDNR, USFWS, and WEST to discuss the Project timeline, changes to the Project Area, Year 2 Large Bird Use and Year 2 Raptor Nest Survey results, and to go over bat presence/probably absence survey methods (**Appendix E**). Badger Hollow Wind reviewed the Project Area changes, stating revisions were made in response to WDNR feedback on protected grasslands as well as leased land constraints. Badger Hollow Wind further added, after review of the WDNR data portal, the Project Area was shifted west to remove riparian forested habitat.

On August 5th, Badger Hollow Wind held the Pre-Application Meeting for the Project with PSC, WDNR, and Westwood staff. Information from the July 31 meeting with WDNR and USFWS was reiterated to the PSC staff, no environmental questions came up during that meeting.

5.4.2.2 If, after consultation with DNR, avian and/or bat preconstruction studies are required, provide the following:

- **A copy of DNR approved survey methodologies for both avian and/or bat studies including the dates of surveys and a schedule for releasing data and reports to the PSC and DNR.**
- **Copies of all data collected for all pre-construction studies (data should be provided using a format acceptable to DNR and PSC staff.).**

- **Final report/s or analyses prepared using the data collected (minimum of three seasons).**

Results of pre-construction studies are included in **Appendix F**, and **Appendices M, N, O, P, Q, and R** and all data associated with these studies is provided as shapefiles.

5.4.3 Discuss any mitigation actions that have been evaluated to reduce the impacts to avian or bat species (i.e. operational curtailment, FAA-compliant non-permanent lighting, etc.). State which of these mitigation actions are planned to be used during the operational life of the project.

Badger Hollow Wind made efforts during initial site selection and Project design to locate Project Facilities such that bird and bat collisions are minimized. Project design and siting measures to avoid or minimize risk to avian and bat species include the following:

- To the extent commercially reasonable, maximize power generation per turbine to reduce the number of turbines needed to achieve maximum energy production.
- Locate transmission lines in areas where Badger Hollow Wind has site control and, to the extent possible, in areas where previous disturbance has occurred, thereby minimizing impacts to trees and associated birds and bats.
- Where applicable, the Project's aboveground transmission lines shall be designed and constructed to minimize avian electrocution and collision risks, referencing guidelines outlined in the *APLIC Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*.
- To the extent commercially reasonable, use un-guyed met towers for permanent monitoring.
- Use the existing road network, where feasible and reasonable, to reduce the need for new road construction.
- Avoid siting Project Facilities in wetlands and waterbodies.
- Site turbines in cropland where previous disturbance has occurred.
- Avoid siting turbines within 1,200 feet of bat summer roosting and foraging habitats benefiting protected bat species and other tree-roosting bat species.
- Avoid siting turbines within 1 mile of currently known bald eagle nests.
- Turn off unnecessary lighting at night to limit the attraction of migratory birds. Follow lighting guidelines, where applicable, from the WEG. This includes using lights with timed shutoff, downward-directed lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. Extinguish all internal turbine nacelle and tower lighting when unoccupied.
- Light the turbines and met towers in accordance with FAA requirements.
- Prepare a BBCS (**Appendix R**), in accordance with the USFWS 2012 Wind Energy Guidelines that will be implemented to minimize impacts to avian and bat species during construction and operation of the Project.

Construction of the Project is expected to begin in 2026. The following conservation measures will be implemented to avoid or minimize risk to avian and bat species during construction:

- Avoid tree removal from April 15 through October 31 to reduce potential impacts to roosts and other tree roosting habitats for NLEB and other bat species.

- Minimize tree clearing as much as feasible to minimize potential impacts to bat roosting habitat. Project Facilities have been sited to avoid tree clearing, to the extent feasible, and reasonable.
- Establish turbine buffer zones around occupied eagle nests.
- To the extent feasible and reasonable, the area required for construction and operation will be minimized. Badger Hollow Wind will restore all areas of temporary disturbance to their previous condition, including the use of applicable seed mixes.
- Limit vehicle speeds to 25 mph, where feasible and safe to do so, to avoid wildlife collisions and construction vehicles will be restricted to pre-designated access routes.
- Cover all trash in containers; work sites will be cleared regularly of any garbage and debris related to food to prevent scavengers.
- The Project will follow the minimization measures outlined in the Broad Incidental Take Permit/Authorization for Cave Bats²¹, which includes no tree clearing or bridge repairs (if any) from June 1 – August 15. The Project is avoiding tree removal from April 15 – Oct. 31, going beyond the measures outlined in the Incidental Take Permit.

While still in development, operational conservation measures may include:

- Vehicle speeds will be limited to 25 mph, where feasible and safe to do so, to avoid wildlife collisions.
- Fire hazards from vehicles and human activities will be reduced (e.g., use of spark arrestors on power equipment, avoiding driving vehicles off roads, allowing smoking in designated areas only).
- Pest and weed control measures will be implemented as specified by county, state, and federal requirements.
- Turbines will be feathered below the cut-in speed. Curtailment of turbines will take into consideration Project-specific bat studies and current USFWS recommendations and will be developed and the BBCS updated prior to operations.
- All Badger Hollow Wind employees and contractors working on site will receive worker awareness training for identifying and responding to encounters with sensitive biological resources, including avian and bat species.

5.5 Public Lands and Recreation

List all public properties within the project area and in a separate list all public properties within 10 miles of the project area boundary.

To determine the presence of public lands, recreational sites, and other special-use areas within the Project Area and 10 miles of the Project Area, Badger Hollow Wind reviewed the USGS Protected Areas Database of U.S. (“PADUS”), USGS Topographical Maps, WDNR DNR Managed Properties Database (WDNR Open Data, 2024), Grant and Iowa County websites, and aerial imagery. The results of this effort indicated that there are no federal, state, or local public lands, or other special management areas located within the Project Area. The following is a summary of public lands within the 10 miles of the Project Area.

²¹ [WDNR. 2023. Broad Incidental Take Permit/Authorization for Cave Bats](#)

5.5.1 State properties, including but not limited to:

5.5.1.1 Wildlife Areas

The Snow Bottom, Ipswich Prairie, and Pecatonica River Woods State Natural Areas, the Blackhawk Lake Recreational Area, and the Barreltown Grassland and Stream Conservation Area are among state wildlife areas located within 10 miles of the Project Area. **Table 5.5.1** identifies all state public lands, including conservation easements areas, located within 10 miles of the Project Area.

5.5.1.2 Fisheries Areas

There are no state fisheries located within 10 miles of the Project Area.

5.5.1.3 State Parks

Two state parks, Belmont Mound State Park and Governor Dodge State Park are located within 10 miles of the Project Area as well as the Military Ridge, Mound View, and Pecatonica State Trails.

There are a total of 7,491 acres of state public lands located within 10 miles of the Project Area which include conservation easements, habitat areas, and the state parks and wildlife areas noted above (**Table 5.5.1**).

Table 5.5.1 State Properties within 10 miles of the Project Area		
Unit Name	PADUS Designation	Acres
Rem-Blue River	CONE	5.1
Rem-Otters Creek	CONE	20.8
Stream Bank Easement Program	CONE	1.4
Rem-Castle Rock Creek	CONE	1.5
Rem-Harker Creek	CONE	13.8
Rem-Blue River	CONE	2.2
Rem-Harker Creek	CONE	6.5
Rem-Otters Creek	CONE	22.6
Stream Bank Easement Program	CONE	6.0
Rem-Big Rock Creek	CONE	5.5
Rem-Big Spring Branch	CONE	24.6
Rem-Big Spring Creek	CONE	4.8
Rem-Blue River	CONE	119.4
Rem-Castle Rock Creek	CONE	40.2
Rem-Dickinson Creek	CONE	9.4
Rem-Doc Smith Branch	CONE	14.9
Rem-Harker Creek	CONE	16.1
Rem-Little Platte River	CONE	124.0

Table 5.5.1 State Properties within 10 miles of the Project Area

Unit Name	PADUS Designation	Acres
Rem-Pompey Pillar Creek	CONE	12.1
Rem-Rock Branch	CONE	7.2
Stream Bank Easement Program	CONE	19.8
Ipswich Prairie State Natural Area	SCA	15.6
Pecatonica River Woods State Natural Area	SCA	106.0
Snow Bottom State Natural Area	SCA	350.7
Statewide Habitat Areas	SCA	145.4
Stream Bank Protection Fee Program	SCA	122.4
Snow Bottom State Natural Area	SCA	65.6
Belmont Mound State Park	SP	276.4
Governor Dodge State Park	SP	2121.6
Military Ridge State Trail	SP	28.7
Mound View State Trail	SP	98.8
Pecatonica State Trail	SP	80.5
Governor Dodge State Park	SP	82.6
Barreldown Grassland And Stream Conservation Area	SREC	361.0
Blackhawk Lake Recreational Area	SREC	2048.8
Cox Hollow Streambank Protection Area	SREC	122.4
Headwaters Little Platte River State Habitat Area	SREC	6.7
Rem-Big Spring Creek	SREC	282.1
Rem-Blue River	SREC	241.7
Rem-Castle Rock Creek	SREC	85.9
Rem-Pompey Pillar Creek	SREC	83.1
Statewide Habitat Areas - Sd	SREC	82.0
James J Rule Timber Demo Forest	SRMA	81.5
Governor Dodge State Park 3	UNKE	123.5
Total		7491.0
*CONE: Conservation easement, SCA: State conservation area, SP: State park, SREC: State recreation area, SRMA: Forest management, UNKE: Unknown easement.		

5.5.2 Federal properties, including but not limited to:

There are a total of 246.9 acres of federally managed lands located within 10 miles of the Project Area which consist of one agricultural easement under the Farm and Ranch Lands Protection Program (“FRPP”) and one conservation easement under the Wetlands Reserve Program (“WRP”).

5.5.2.1 Wildlife Refuges

There are no federal wildlife refuges located within the Project Area or 10 miles of the Project Area.

5.5.2.2 Parks

There are no federal parks located within the Project Area or 10 miles of the Project Area.

5.5.2.3 Scenic Riverways

There are no federal scenic riverways located within the Project Area or 10 miles of the Project Area.

5.5.3 County Parks/Recreation Trails

There are no county parks located within the Project Area. There is one Iowa County-owned recreational area, Bloomfield Prairie, within 10 miles of the Project Area and is located east of Edmund, WI. Bloomfield Prairie is an over 400-acre area of land that is open to the public and co-managed by Driftless Area Land Conservancy, Iowa County Prairie Recreation and Prairie Restoration and Iowa County²². As noted above, there are three state recreational trails located within 10 miles of the Project Area. In addition, according to Iowa²³ and Grant²⁴ County Snowmobile Trail maps, there are approximately 5.04 miles of snowmobile trails located within the Project Area and 172.77 miles of snowmobile trails located within 10 miles of the Project Area. According to the Lafayette County trail data²⁵, which covers Iowa and Grant County, there are approximately 4.4 miles of biking/walking trails and approximately 133 miles of ATV trails associated with local roadways within 10 miles of the Project Area. Additional local recreational resources include approximately 362 acres of local parks in the cities of Dodgeville and Platteville and includes a skate park, dog park and golf course.

5.5.3.1 Identify the owner/manager of each recreation resource.

5.5.3.2 Provide any communications with these owners/managers.

5.5.3.3 Discuss how short and long-term impacts to these resources will be avoided and/or minimized.

There are no county parks or county recreational trails located within the Project Area or 10 miles of the Project Area. Badger Hollow Wind does not anticipate any impacts to recreational trails within the Project Area or 10 miles of the Project Area.

²² Comprehensive Outdoor Recreation Plan, Iowa County, WI. April 2022.

<https://www.iowacounty.org/media/Departments/County%20Administrator/Documents/2022%20Final%20Iowa%20County%20-%20CORP%204.22.2022.pdf>

²³ Iowa County Snowmobile Alliance Map. No Date.

<https://evogov.s3.amazonaws.com/media/107/media/157696.pdf>

²⁴ Snowmobile Trails of Grant County Wisconsin. 2022. <https://grantcounty.org/wp-content/uploads/2022/03/GC-Snowmobile-Map-2022-PRINT.pdf>.

²⁵ Lafayette County Trails & Tri-County ATV Club ATV Trail Map. 2021. Accessed: August 2024.

<https://lafay.maps.arcgis.com/apps/PublicGallery/index.html?appid=da8f9f3f7e4bf79d7178e007625930>.

5.6 Local Zoning and Safety

Utilities (CA)

5.6.1 Provide copies of any zoning ordinances affecting the project area and within two miles of the project boundary. Provide only the page(s) directly citing ordinance language.

5.6.2 Describe any zoning changes needed for the project.

5.6.3 Describe zoning changes that the applicant has requested of local government for the proposed project. Include:

5.6.3.1 The name of the entity responsible for zoning changes.

5.6.3.2 Description of the process required to make the zoning change.

5.6.3.3 The outcome or expected outcome for requested zoning changes.

5.6.4 Township road safety and use plans.

5.6.4.1 Provide details on any plan or permit requirement pertaining to local road safety, use, or repair

5.6.5 Other conditional use permits.

5.6.5.1 Provide details on any other conditional use permit required by local government.

Section omitted, only apply to utilities.

Utilities and IPPs (CPCN)

5.6.6 Provide a list of potential local issues normally associated with zoning, road use and safety, or other condition uses.

Badger Hollow Wind has met with local officials and members of the public to discuss zoning, road use, and local concerns. Badger Hollow Wind is currently in the process of negotiating local agreements with Grant and Iowa Counties, the towns of Clifton, Eden, Linden, Mifflin, and Wingville. Additional details on public engagement are provided in Sections 13 and 14.

Local officials and members of the public have inquired about the following matters:

- Land use and zoning;
- Wind siting guidelines;
- Governing body residing jurisdiction over the application approval process;
- Responsibility for maintenance and repair of roads used during construction;
- Construction materials;
- Temporary and permanent construction impacts;
- Storm water management impacts during and after construction;
- Emergency response needs;
- Source of construction and operations staff;

- Facility lighting;
- Local government and school tax impacts;
- Utility aid;
- Wildlife impacts and recreational paths;
- Blade inspections and servicing;
- Blade and Turbine Failure/Collapse;
- Decommissioning;
- Construction noise impacts;
- Project site selection process;
- Economic impact of land use change;
- Property values;
- Shadow flicker and noise impacts;
- Public safety and health;
- Stray voltage;
- Public and emergency response communication system impacts; and
- Facility specifications.

5.6.6.1 Provide copies of all correspondence to and from local government pertaining to issues of zoning, safety, or local road use safety plans.

Copies of local government correspondence are provided in **Appendix G**.

5.6.6.1.1 Provide a discussion of how local concerns will be accommodated.

Badger Hollow Wind has established a thorough and multi-faceted outreach plan to receive and address local concerns as further discussed in Sections 13.1 and 14.2. Badger Hollow Wind is currently in the process of negotiating local agreements with Grant and Iowa Counties, and the towns of Clifton, Eden, Linden, Mifflin, and Wingville. The current draft of the local agreement is provided in **Appendix S**. Badger Hollow Wind will continue to work with the county, towns, and local community to identify and address issues and concerns should they arise. Upon receipt of a local concern, Badger Hollow Wind will work in good faith to reach a mutually agreeable resolution.

5.7 Land Use Plans

Provide a copy of all land-use plans adopted by local governments that pertain to the project area, extending out two miles from the project boundary. (See Application Size in the Introduction.) Include not only general land-use plans, but also other relevant planning documents such as:

- 5.7.1 County Recreation Plans**
- 5.7.2 Farmland Preservation Plans**
- 5.7.3 Highway Development Plans**
- 5.7.4 Sewer Service Area Plans**

Land use plans, zoning ordinances, and relevant planning documents are identified in **Table 5.7** and provided in **Appendix T**.

Table 5.7 Land Use Plans and Ordinances	
Local Government	Plan or Ordinance
Grant County	Wind Energy Siting Ordinance Zoning Ordinance Farmland Preservation Plan Shoreland Zoning Ordinance Floodplain Zoning Ordinance
Iowa County	Wind Siting Ordinance Wind Siting FAQ Zoning Ordinance Farmland Preservation Plan Comprehensive Plan
Town of Clifton	Large Wind Turbines Ordinance Small Wind Turbines Ordinance Comprehensive Plan
Town of Eden	Wind Energy Facility Licensing Ordinance Comprehensive Plan
Town of Mifflin	Wind Energy Ordinance Comprehensive Plan
Town of Linden	Wind Energy Facility Licensing Ordinance Zoning Ordinance Comprehensive Plan
Town of Wingville	Comprehensive Plan
Village of Cobb	Comprehensive Plan
Village of Livingston	Comprehensive Plan
Village of Montfort	Comprehensive Plan

5.8 Archeological and Historic Resources

Confidential information includes only the specific location and other sensitive details of archaeological and human burial sites (e.g. maps). Confidential information should be submitted on ERF as a confidential version in addition to a redacted public version. The Wisconsin Historical Society (WHS) can provide a list of qualified archaeologists, architectural historians, human burial specialists, or tribal preservation officers who may be required to perform steps of this review. Access to the Wisconsin Historic Preservation Database (WHPD) is required to complete this review. Access to WHPD is free at the WHS headquarters or can be used online for a fee. Depending on the outcome of this review, the Commission may be required to consult with the State Historic Preservation Office (SHPO). SHPO consultation may take up to an additional 30 days. The Guide for Public Archeology in Wisconsin, provides information about best management practices.

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- 5.8.1 Provide maps and a description of all archaeological sites, historic buildings and districts, and human burial sites within the project’s area of potential effect (APE). For archaeological and historic sites, the APE is comprised of the physical project area where any ground disturbing activity may occur (e.g. digging, heavy equipment movement, etc.). For historic buildings and districts, the APE consists of the distance that the project may be visible from the outside of the project area. Maps of archaeological and burial sites must be submitted confidentially.**
 - 5.8.2 For archaeological sites and historic buildings or districts within the APE, determine the boundaries, historic significance, and integrity of each resource. Additional field surveys may be required to make these determinations. In some cases, such as a landowner not granting land access, field surveys may instead be performed following the approval of a project.**
 - 5.8.3 Identify the potential project effects on each resource.**
 - 5.8.4 Describe modifications to the project that would reduce, eliminate, avoid, or otherwise mitigate effects on the resources. Examples of modifications include changes to construction locations, modified construction practices (e.g. use of low-pressure tires, matting, etc.), placement of protective barriers and warning signage, and construction monitoring.**
 - 5.8.5 For any human burial sites within the APE, contact WHS to determine whether a Burial Site Disturbance Authorization/Permit is required.**
 - 5.8.6 Provide an unanticipated archaeological discoveries plan. The plan should outline procedures to be followed in the event of an unanticipated discovery of archaeological resources or human remains during construction activities for the project.**
 - 5.8.7 Notify Wisconsin Tribal Historic Preservation Officers of any Native American human burial sites and significant prehistoric archaeological sites within the APE. Provide copies of all correspondence**

Westwood completed a cultural resources review and architectural history evaluations for the Project. These analyses were conducted to ensure compliance with all applicable state and federal historic preservation laws and were assessed through the review of published literature and records maintained by the Wisconsin State Historic Preservation Office (“SHPO”) and the Wisconsin Office of the State Archaeologist. Survey documentation from the Wisconsin Historic Preservation database (“WHPD”) was reviewed for previously identified archaeological and cemetery/burial sites and aboveground architectural/historical resources within and adjacent to the Project Area. The area of potential effects (“APE”) for direct effects to archaeological resources was defined to encompass the Project Area; the APE for indirect (visual) effects to aboveground architectural/historic resources included a one-mile buffer around the Project Area.

The cultural resource review provided in **Appendix U** identified 1 previously reported cemetery and 9 historic structures within the Project Area. An additional 18 additional sites, of which 12 are archaeological sites, 4 are burial sites, and 2 are both an archaeological and burial site, and 25 historic structures were identified within one-mile of the Project Area. In accordance with Wisc. Stat. § 157.70, Westwood recommended avoidance of the cemetery within the Project Area, which was incorporated into the Project Layout to avoid potential impacts. After reviewing the

Project Layout, Westwood concluded that direct effects to historic and cultural resources identified within the Project Area will not occur.

The architectural history evaluation provided in **Appendix U** was completed to reassess the previously surveyed properties. Based on the survey completed in July 2024, 2 aboveground historic structures were recommended as eligible for the National Register of Historic Places (“NRHP”). After reviewing the Project Layout, Westwood concluded that no adverse effects would occur for the resources recommended as eligible for the NRHP.

No adverse impacts to archaeological or architectural resources are anticipated. If unrecorded archaeological resources or human remains are discovered during construction, the Unanticipated Discoveries Plan provided in **Appendix U** will be followed.

No Native American human burial sites or significant prehistoric archaeological sites exist within the Project Area.

5.9 ER Review – Endangered, Threatened, and Special Concern Species and Communities

In the Introduction, page ii of this document, additional details are provided on how to perform an Endangered Resources (ER) screening and about performing habitat assessments, if required.

5.9.1 Provide a copy of the completed ER screening and all supporting materials for all project areas, including all applicable components such as off-ROW access routes, staging areas, new substations, and expansions of existing substations (see DNR Application Needs in the Introduction)

An ERR for the Project Area was originally completed on December 15, 2022 (ERR Log # 22-830) and updated on August 16, 2024, and is provided in **Appendix F**. The ERR identified 3 species with required actions, 9 recommended actions, and 7 species with no follow-up actions.

5.9.2 Submit results from habitat assessments and biological surveys for the proposed project, if completed or if required to be completed per the ER screening. If surveys or assessments are required to be completed prior to construction but have not yet been completed, state when these surveys will be completed. Results from additional surveys conducted during the review of the application, prior to the start of construction, and/or post-construction must be submitted as they are completed.

Please see **Table 5.4.1** for a list of all habitat and biological surveys conducted for the Project to date. Based on the results of the ERR, the Project will either conduct a pre-construction [REDACTED] survey, comply with the timing restrictions outlined in the ERR, or work with the WDNR to discuss other options. Additionally, Badger Hollow Wind will either conduct [REDACTED] breeding call surveys prior to any work within 75 feet of suitable waterways and wetlands or the Project will adhere to the time of year restrictions outlined in the ERR. No additional surveys have been identified as required prior to the start of construction, based on the ERR results.

5.9.3 For all project facilities and areas impacted by construction, discuss potential impacts to rare species as identified in the completed ER screening and/or field assessments.

5.9.3.1 For any required follow-up actions that must be taken to comply with endangered species law, discuss how each required action would affect the proposed project, and how the required action would be complied with.

Required follow up actions in the ERR were listed for the [REDACTED], and [REDACTED].

To avoid potential impact to the [REDACTED], Badger Hollow Wind will adhere to the ERR required action in areas of suitable habitat within the portion of the Project Area identified in the ERR. This includes either assuming the species is present and avoiding disturbance from April 30 - July 25 or having a qualified biologist conduct surveys to determine if the species is present. Badger Hollow Wind will provide survey protocol to the WDNR for approval prior to the start of surveys. If the [REDACTED] is not found on-site, there will be no restrictions related to the species. If the species is confirmed during surveys, the time of year restriction will be implemented. Badger Hollow Wind may elect to discuss other options with WDNR prior to committing to one of the two actions, as outlined in the ERR.

Suitable habitat for the [REDACTED] may be present within [REDACTED] in Grant County along with associated [REDACTED]. Required actions to avoid potential impact to the species include time of year restrictions for activities below the OHWM of waterways and implementation of erosion control measures. Badger Hollow Wind plans to avoid work below the OHWM, however, should impact be unavoidable in suitable habitat, work will be conducted below the OHWM outside of the [REDACTED] season, which is May 1 - August 10. Erosion and runoff prevention measures will be implemented when working within 300 feet of suitable waterways during construction of the Project. Within the Project Area, the Little Platte River and its tributaries are avoided by the Project with the closest Project Facilities more than 300 feet from these features. Badger Hollow Wind will implement runoff prevention measures when working within 300 feet of this waterway and implement appropriate runoff prevention measures in proximity to all wetlands and waterways during construction of the Project.

Required actions for the [REDACTED] include implementing time of year restrictions or conducting [REDACTED] breeding call surveys to determine presence or absence of the species. To avoid potential impact to the species in suitable habitat in portions of the Project Area included in the ERR, Badger Hollow Wind will either avoid work within 75 feet of waterways and standing water in wetlands from March 5 – November 30 and within 50 feet of standing water from December 1 – March 4, or conduct [REDACTED] breeding call surveys (according to the [REDACTED] Species Guidance document). If [REDACTED] are not found on-site, there will be no restrictions related to the [REDACTED]. If [REDACTED] are recorded on-site, the time of year restrictions will be adhered to.

5.9.3.2 For any recommended follow-up actions to help conserve Wisconsin's rare species and natural communities, discuss if and how any recommended actions would be incorporated into the proposed project.

Recommended actions for 8 species were included in the ERR and include the bald eagle, state-endangered species [REDACTED], and [REDACTED]; state-threatened species [REDACTED]; species of concern [REDACTED]; and special concern species [REDACTED]. Recommended actions for a [REDACTED] community with potential to occur in the Project Area were also included.

Recommended measures for the bald eagle include avoiding human activity from January 15 - July 30 within 660 feet of an active bald eagle nest. Results of the 2024 Raptor Nest Survey identified one occupied active bald eagle nest within the Project Area, and two occupied active nests in the two-mile buffer; the closest approximately one mile from the Project Area (**Appendix N**). Because the nearest turbine and associated infrastructure is more than a mile from the occupied nest within the Project Area, Badger Hollow Wind anticipates the Project can maintain a 660-foot seasonal no disturbance buffer around the nest if occupied and active during construction of the Project.

A recommended voluntary action for suitable [REDACTED] habitat within two miles of Livingston include minimizing impacts to wetlands and waterbodies at least 3 feet deep at all times of the year as this species can be present in these types of wetlands throughout the year and conducting work in resources less than 3 feet deep outside of the [REDACTED] active season between March 5 and November 15. Badger Hollow Wind plans to avoid impacts to wetlands and waterways within the Project Area, thereby adhering to the voluntary measure of avoiding impacts to overwintering and non-overwintering areas.

5.9.3.3 If any recommended actions are not planned to be incorporated into project construction or operation, state the reasons why.

Recommended actions for the endangered, threatened, or special concern plant species listed in the ERR include avoiding or minimizing take which may include site surveys to confirm presence/absence and fencing off areas of occupied habitat. Based on the ERR, suitable habitat for all of the plant species with recommended actions are in areas east or southeast of Rewey, Wisconsin and are likely associated with habitats outside of areas with row crop cultivation. Based on the Project Layout, the closest turbine location to potential habitat for these species east and southeast of Rewey is approximately 1,500 feet and is sited in crop land. As such, the Project is avoiding and minimizing potential impact to these species through siting, and it is unlikely construction of the Project will disturb potentially suitable habitat for these species.

5.9.4 Provide communications with DNR and U.S. Fish and Wildlife Service, as applicable.

Please see **Appendix E** for the requested information.

5.10 Invasive Species

- 5.10.1 Describe locations where invasive species, forest pests, or diseases have been observed in the project area (e.g., invasive plants, oak wilt, etc.). State if invasive species surveys have occurred or will be conducted. If invasive species surveys have been conducted, provide documentation showing where surveys occurred and locations of invasive species found, indicating which species.**
- 5.10.2 Describe mitigation actions that would be used to prevent the introduction or spread of invasive species, forest pests, or diseases.**
- 5.10.3 Describe planned ongoing invasive species management for the project during operations.**

Please see the VMS provided in **Appendix J** for the requested information.

5.11 Contaminated Sites

- 5.11.1 Using the Wisconsin Remediation and Redevelopment Database (WRRD), <http://dnr.wi.gov/topic/Brownfields/WRRD.html>, identify any contaminated sites (open and closed) within the project area and within two miles of the project area.**

According to the Wisconsin Remediation and Redevelopment Database (“WRRD”), there are no BRRTS listings of contaminated sites within the Project Area. **Table 5.11.1** identifies BRRTS listings within 2 miles of the Project Area. In total, there are 41 BRRTS listings within 2 miles of the Project Area, one of which is open.

Table 5.11.1 BRRTS Listings Within 2 Miles of the Project Area		
Site Name	BRRTS #	Site Status
INSIGHT FS - COBB	0225594370	Open
FRIENDLY PLACE	0325151947	Closed
JEWEL PROPERTY	0322002388	Closed
IOCO SPEEDE SHOPPE #49	0322221784	Closed
IOCO MINI-SHOPPE	0322001669	Closed
ESSERS SERVICE STATION	0322002221	Closed
FRONTIER FS INC - COBB	0225547227	Closed
COBB ELEMENTARY SCHOOL	0325001529	Closed
IOWA LAFAYETTE FS	0325002630	Closed
211 N DIVISION ST	1325575504	Closed
201 WATER ST	1325575505	Closed
EASTMAN ST & WATER ST – E OF 112 WATER ST	1325573826	Closed
EDMUND – IMC & ICC	0225000934	Closed
CENEX-LOL - EDMUND	0225547207	Closed
3224 BAKER RD	1325582656	Closed
BAKER RD	1325582661	Closed
BAKER RD	1325582657	Closed
BAKER RD	1325582659	Closed

Table 5.11.1 BRRS Listings Within 2 Miles of the Project Area

Site Name	BRRS #	Site Status
BAKER RD	1325582658	Closed
BAKER RD	1325582660	Closed
2472 COMMERCE ST	1325582651	Closed
3168 N MAIN ST	1325582654	Closed
3162 N MAIN ST	1325582655	Closed
3169 N MAIN ST	1325582653	Closed
3168 N HANCOCK ST	1325582652	Closed
LARRYS SERVICE SITE #2	0325218049	Closed
LARRYS SERVICE STATION	0325000141	Closed
LINDEN CHEESE CO	0325178538	Closed
LIVINGSTON ELEMENTARY SCHOOL	0322001590	Closed
BIDDICK ESTATE PROPERTY	0322002788	Closed
B-L AGRI SERVICE INC - LIVINGSTON	0222547201	Closed
320 PARK ST	1322582778	Closed
330 PARK ST	1322582779	Closed
410 PARK ST	1322582780	Closed
420 PARK ST	1322582781	Closed
426 PARK ST	1322582782	Closed
345 GRAND ST	1322582783	Closed
MARTINVILLE RD	1322582784	Closed
LIVINGSTON COOP OIL CO	0322002606	Closed
TEVA LLC PARCE (FIELD)	1322573819	Closed
CROSSROADS FEEDS & NEEDS	0322167573	Closed

5.11.2 Using the Historic Registry of Waste Disposal Sites,
<http://dnr.wi.gov/topic/Landfills/registry.html>, identify any Environmental Repair
and Solid Waste disposal sites within the project area and within two miles of the
project area.

According to the WDNR Solid Waste-Landfills and Historic Waste Site Extents, there are no listings of waste disposal sites located within the Project Area. **Table 5.11.2** identifies sites within 2 miles of the Project Area. In total, there are fourteen records representing seven sites within two miles of the Project Area.

Table 5.11.2 WDNR Solid Waste-Landfills and Historic Waste Sites Within 2 Miles of the Project Area

Facility Name	Site ID	WM ACT UID	Site Status
MONTFORT VIL	1812800	1812800070	Unknown
MONTFORT VIL	1812800	1812800135	Unknown
MONTFORT VIL	1628500	1628500135	Closed
MONTFORT VIL	1628500	1628500071647	Closed
LINDEN VIL LF	20863900	20863900135	Closed
LINDEN VIL LF	20863900	20863900070	Closed
COBB VIL LF	17171900	17171900070	Closed

Table 5.11.2 WDNR Solid Waste-Landfills and Historic Waste Sites Within 2 Miles of the Project Area			
Facility Name	Site ID	WM ACT UID	Site Status
COBB VIL LF	17171900	17171900135	Closed
LINDEN TN LF	1691300	1691300135	Closed
LINDEN TN LF	1691300	16913000711649	Closed
LINDEN VIL LF	1641600	1641600135	Closed
LINDEN VIL LF	1641600	1641600071813	Closed
MIFFLIN TN LF	20108000	20108000135	Closed
MIFFLIN TN LF	20108000	20108000070	Closed

5.12 Floodplain

5.12.1 Identify any work occurring in floodplains or flood-prone areas.

5.12.2 Discuss if impacts to the floodplain have been evaluated, and how impacts to the floodplain will be avoided or minimized.

5.12.3 Provide information on any discussions that have occurred with the application floodplain zoning authority, and how the project will comply with local floodplain ordinance(s). This requirement is not intended to preclude or otherwise modify Wis. Stat. §196.491(3)(i).

No work is planned within floodplain as all floodplain is avoided by the Project Layout.

5.13 Vegetation Management and Site Restoration

5.13.1 Provide a vegetation removal plan that discusses the types and location of vegetation to be removed (i.e. herbaceous, agricultural crop clearing, shrub, forested, etc.), the timing of vegetation removal, and the equipment to be used.

5.13.2 Provide a detailed revegetation and site restoration plan that discusses the following items:

5.13.2.1 Types of revegetation proposed for impacted areas. Include seed mixes if known, and if seed mixes will be pollinator friendly.

5.13.2.2 Vegetation monitoring and management protocols for subsequent years after construction.

Please see the VMS provided in **Appendix J** for the requested information.

6. Waterway/Wetland Permitting Activities

This section covers information required by DNR for waterway and wetland permits. The following subsections apply to both proposed and alternative turbine sites. These sections should be consistent with the wetlands and waterway included in the DNR Tables 1 and 2 and associated wetland and waterway maps. See the Wetlands and Waterways section of the introduction portion of this document on what to include in DNR Tables 1 and 2 regarding waterway resources. Questions about this section should be directed to DNR Office of Energy's Energy Project Liaison staff.

6.1 Waterway Permitting Activities

This section should be consistent with the waterways included in DNR Tables 1 and 2 and associated maps. This section should apply to the proposed and alternative sites/routes and their associated facilities (for example, off-ROW access roads, staging areas, permanent structures, associated driveways and permanent storm water management features to be constructed).

6.1.1 Identify the number of waterways present, including DNR-mapped waterways and additional field identified waterways. Also identify the number of times the waterway meanders in and out of the ROW and indicate the number of waterway crossings:

The Project has been designed to avoid all permanent impacts to waterways. Waterways were field delineated within a 580-acre “Field Delineation Corridor”, a subset of the larger Project Area, as displayed in Figures 6.3.1 and 6.3.2 in **Appendix A**. The Field Delineation Corridor consisted of a 500-foot radius buffer around turbine and ADLS tower locations, a 100-foot buffer around access roads, a 60-foot buffer around collector circuits, and a 150-foot buffer around the ADLS tower access road. Portions of the electrical collection system and crane paths were not included in the Field Delineation Corridor at the time of the June 2024 field work but will be covered in future field delineation efforts planned for Spring 2025 (Figures 6.3.1 and 6.3.2 **Appendix A**). The field delineation was completed using the level two routine determination method set forth in the USACE 1987 Manual²⁶ and the Midwest Regional Supplement²⁷. Prior to the field delineation, an Off-site Hydrology Review was completed within the Field Delineation Corridor. Aerial signatures such as drainage patterns, erosional features or incised channels helped to distinguish potential wetlands from waterways in the off-site review. The field delineation was conducted between June 17 - June 19, 2024. The field-delineated resources are displayed in Figures 6.3.1 and 6.3.2 in **Appendix A** and included in DNR Table 2 (**Appendix V**). Full results of the field delineation are provided in the Wetland and Water Resources Report in **Appendix V**.

The WDNR 24K Hydrography Dataset mapped nine (9) WBIC Flowlines that intersect the Field Delineation Corridor. During the delineation, Westwood field-delineated four (4) waterways totaling approximately 0.27 acres (1,975 linear feet) within the Field Delineation Corridor. All four overlapped with WDNR WBIC flowlines and all exhibited physical OHWM characteristics. Five WBIC flowlines, 5038347, 5037286, 930200, 5037497 and 5037854 were found not to exhibit an OHWM in the field and were determined not to be waterways within the Field Delineation Corridor and upstream as defined in the Navigability Determination Request (“NDR”) prepared for the Project (**Appendix V**). Just outside of the Field Delineation Corridor, WBIC flowline 5038301 also lacked evidence of an OHWM in the field and was included in the

²⁶ Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS

²⁷ U. S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (*Version 2.0*), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

NDR package (**Appendix V**). It is worth noting that a portion of WBIC flowline 5037497 was incorporated into field-delineated wetland WB-02 (**Appendix V**).

Table 6.1.1 Field-Delineated Waterways within the Field Delineation Corridor				
Waterway ID	Acres	Linear Feet	Flow Regime	WBIC ID
WW-01	0.05	421	Perennial	932700
WW-02	0.03	194	Perennial	5036975
WW-03	0.02	160	Perennial	5037251
WW-04	0.17	1200	Intermittent	5037553
Total	0.27	1,975		

The 15,124 acres of the Project Area that were not field delineated were assessed via a desktop evaluation (“Desktop Delineation Area”), and consisted of that portion of the Project Area outside of the Field Delineation Corridor as displayed in Figures 6.3.1 and 6.3.2 in **Appendix A**. The desktop delineation was completed using available public data resources, including the WDNR SWDV, the WDNR 24K Hydrography Dataset, and multiple years of historical aerial imagery. Desktop waterway features were delineated to further refine the boundaries of waterways identified on public datasets as well as identify waterways which were not mapped on these datasets. A total of 49 waterways totaling 79.5 acres were identified in the Desktop Delineation Area. The WDNR 24K Hydrography Dataset²⁸ mapped 58 WBIC flowlines, totaling 50.3 miles within the Desktop Delineation Area (Figure 6.1.1 **Appendix V**). Three WBIC flowlines, 5038180, 5037375 and 5037340, were not captured as a desktop-delineated waterway because they exhibited no OHWM signatures during the desktop review. They were also not included in the prepared NDR because they did not fall within the Field Delineation Corridor. These three WBIC flowlines are identified in DNR Tables 1 and 2 by their WBIC identification number for their Unique ID (**Appendix V**).

The desktop delineated resources are displayed in Figures 6.3.1 and 6.3.2 (**Appendix A**) and included in DNR Table 2 (**Appendix V**). All waterway crossings are indicated in DNR Table 1 and includes whether a waterway crossing is associated with a Proposed or Alternative Turbine Location, access road, collector circuit, or crane path and whether a waterway was field or desktop delineated. Full results of the desktop delineation are provided as part of the Wetland and Water Resources Report in **Appendix V**.

There will be three waterway crossings associated with crane paths for the Project (WBIC flowlines 5037251 (DWW-10), 5037730 (DWW-36), and 5037286. One waterway (5037286) crane path crossing is in a location with a pending NDR and is anticipated to be found non-navigable. The crossing locations will be field delineated prior to start of construction and will obtain all necessary WDNR and USACE permits.

²⁸ Wisconsin Department of Natural Resources (WDNR). 2022. 24K Hydro Full Geodatabase. Wisconsin Department of Natural Resources. <https://data-wi-dnr.opendata.arcgis.com/datasets/cb1c7f75d14f42ee819a46894fd2e771/about>

Two waterway crossings are associated with proposed access roads (WBIC flowlines 5037286 & 5038347). Similarly, these two access road crossings are in locations with pending NDRs and are anticipated to be found non-navigable.

All of the remaining waterway crossings consist of proposed and alternative collector circuits which will be accomplished via directional bore thus avoiding waterway impacts (Figures 6.3.1 **Appendix A**, DNR Table 1 **Appendix V**). All of the crossing locations will be field delineated prior to start of construction and will confirm all bore pits are located outside of waterways to avoid impacts.

6.1.2 Identify any waterways in the project area that are classified as Outstanding or Exceptional Resource Waters, Trout Streams, Wild Rice Waters, and/or Wild or Scenic Rivers.

One (1) waterway was identified as a Trout Stream in the Project Area; Sudan Branch intersects the northeast corner of the Project Area and is completely avoided by Project Facilities. No features identified as Exceptional Resource Waters, Outstanding Resource Waters, or Wild or Scenic Rivers were identified in the Project Area.

6.1.3 State if you are requesting DNR staff perform a navigability determination on any of the DNR mapped waterways and/or field identified waterways that will be impacted and/or crossed by project activities. If a navigability determination is requested, provide the following information in a separate appendix with the application filing a table with columns for:

- The crossing unique ID.
- Waterbody Identification Code (WBIC) for each waterway (found in the Surface Water Data Viewer or in the GIS data for the DNR mapped waterways).
- Latitude and longitude for each crossing.
- Waterway name.
- Waterway characteristics from field investigation.
- Any other pertinent information or comments.
- Site photographs, clearly labeled with the photo number, direction, date photo taken, and crossing unique ID. A short description of what the photo is showing, and any field observation must also be included in the caption.
- Aerial photograph review of multiple years, including historical photos
- Project map showing the following:
 - Aerial imagery (leaf-off, color imagery is preferred).
 - DNR mapped waterways (labeled with their unique ID).
 - Field identified waterways (labeled with their unique ID).
 - The location of each site photograph taken (labeled with the photo number).
 - The project area.
 - Call out box/symbol for each DNR mapped waterway crossing where the navigability determination is requested (labeled with their unique ID).

Westwood prepared an NDR dated July 29, 2024 for confirmation of navigability status of portions of six waterways within and adjacent to the Field Delineation Corridor of the Project Area; WBIC ID# 930200, 5037286, 5037497, 5037854, 5038301 and 5038347. The full NDR is provided in **Appendix V**. These six waterways are listed in DNR Table 2 (**Appendix V**) and depicted in Figure 6.3.1 (**Appendix A**).

Three WBIC flowlines, 5038180, 5037375 and 5037340, were not included as desktop-delineated waterways because of the lack of aerial signatures during the desktop review. Additionally, these flowlines do not intersect the Field Delineation Corridor, so they have not yet been reviewed in the field. These three are included in DNR Tables 1 and 2 and are proposed to be crossed by collector circuits. An additional NDR will be prepared once they have been reviewed in the field as it is anticipated that WBIC flowlines 5038180, 5037375 and 5037340 will lack evidence of an OHWM.

6.1.4 Provide the following:

6.1.4.1 How many waterway crossings are proposed to be traversed with equipment for temporary access roads, and how that crossing will be accomplished (i.e. temporary clear span bridges (TCSB), driving on the bed, use of existing bridge or culvert, etc.).

Two waterway crossings (DWW-10 and DWW-36) are proposed to be traversed via temporary culverts for construction access. The culverts are anticipated to be between 18 - 24" with rip rap. Crane matting will be utilized over the culverts to bridge. For the crane path and access road crossings in locations with pending NDRs, "driving on bed" was the equipment crossing method entered in DNR Table 1.

6.1.4.2 How many structures are proposed to be placed below the ordinary high water mark (OHWM) of a waterway. Indicate if structures are temporary or permanent.

No structures are proposed to be placed below the OHWM of a waterway permanently. Two temporary culverts are being proposed to be placed below the OHWM of two waterways, WBIC ID #5037251 (DWW-10) and #5037730 (DWW-36), to allow for a crane walk.

6.1.4.3 How many waterways will be impacted for permanent access roads, and how that crossing will be accomplished (i.e. placement of culvert, ford, permanent bridge, etc.).

One waterway crossing of WBIC ID # 5037286 is proposed for a permanent access road between Turbines 13 and 20 and a second permanent access road crossing of WBIC ID# 5038347 is proposed from Lower Mifflin Road to Turbine 24. The field delineation found these portions of WBIC ID# 5037286 and 5038347 lacked an OHWM and has requested it be determined non-jurisdictional in the NDR. If these portions of WBIC ID# 5037286 and 5038347 are determined to be jurisdictional, Badger Hollow Wind will minimize impacts by appropriately using siting or construction strategies such as avoidance or culvert or low water crossing methods.

6.1.4.4 Indicate if any other waterways will be impacted and/or crossed by other construction activities regulated under Chapter 30 Wis. Stats. (i.e. placement of a new storm water pond within 500 feet of a waterway, stream relocation, staging areas, placement of riprap, etc.).

No other waterways will be impacted and/or crossed by other construction activities, other than what is described in Section 6.1.4.2, such as placement of a storm water pond within 500 feet of a waterway, stream relocation, etc.

6.1.4.5 How many waterways will be impacted and/or crossed by fence installation and footings.

No waterways will be impacted and/or crossed by fence installation or footings.

6.1.4.6 How many waterways will be impacted and/or crossed by other construction activities or facilities (i.e. placement of a storm water pond within 500 feet of a waterway, stream relocation, staging areas, etc.).

No waterways will be impacted and/or crossed by other construction activities, other than what is described in Section 6.1.4.2, such as placement of a storm water pond within 500 feet of a waterway, stream relocation, etc.

6.1.4.7 For underground installation only: Indicate the amount of waterway crossings via underground installation and specify the installation method (i.e. X waterways will be bored, Y waterways will be trenched, etc.).

Fifteen waterways (WW-03, WW-04, DWW-01, DWW-04, DWW-05, DWW-36, DWW-42, DWW-44, DWW-45, DWW-51, WBIC 5038180, WBIC 5037286, WBIC 5038347, WBIC 5037375, and WBIC 5037340) are proposed to be crossed via directional bore for the installation of collector circuits (Figure 6.3.1 **Appendix A**, DNR Table 1 **Appendix V**). There are a total of 21 Proposed Collector Circuits at 10 crossing locations and 11 Alternative Collector Circuits at 11 crossing locations. All of them will be directionally bored. Collector circuit crossings of waterways are detailed in Figure 6.3.1 (**Appendix A**) and DNR Table 1 (**Appendix V**).

6.1.5 Provide the methods to be used for avoiding, minimizing, and mitigation construction impacts in and near waterways. This discussion should include, but not limited to, avoiding waterways, installation methods (i.e. directional bore versus open-cut trenching or plowing), equipment crossing methods (i.e. for temporary access, the use of TCSB versus temporary culvert; for permanent access, the use of permanent bridge versus permanent culvert), sediment and erosion controls, invasive species protocols for equipment, etc.

Impacts to waterways will be avoided through siting and construction methods where possible. All collector circuit crossings of waterways will be directionally bored to avoid impacts. Two waterways will be impacted to install two temporary culverts during construction to allow access for crane walks. Appropriate sediment and erosion control measures will be implemented during construction to avoid sedimentation into waterways. This information will be incorporated into the ECSWMP. When feasible, horizontal directional drilling (“HDD”) equipment, trenching equipment, and backhoes will be power washed before mobilization to the site to prevent

introduction of invasive species from off-site sources and equipment will be inspected and cleaned of reproductive parts between work zones where invasive species have been identified within the Project Area.

6.1.6 Describe fence crossings of waterways, including the location of support pilings (i.e. in waterway channel, at the top of the waterway banks) and the amount of clearance between the bottom of the fence and the ordinary highwater mark. Also describe any existing public use of the waterway and how this public use may be impacted by the fence crossing.

No waterways will be impacted and/or crossed by fence installation or footings.

6.1.7 For waterways that will be open-cut trenched, provide the following:

6.1.7.1 State if any waterways are wider than 35 feet (measured from OHWM to OHWM).

6.1.7.2 The machinery to be used, and where it will operate from (i.e. from the banks, in the waterway channel) and if a TCSB is needed to access both banks.

6.1.7.3 The size of the trench (length, width, and depth) for each waterway crossing.

6.1.7.4 Details on the proposed in-water work zone isolation/stream flow bypass system (i.e. dam and pump, dam and flume, etc.).

6.1.7.5 Details on the proposed dewatering associated with the in-water work zone isolation/stream flow bypass system, including where the dewatering structure will be located.

6.1.7.6 Duration and timing of the in-stream work, including the installation and removal of the isolation/bypass system and the trenching activity.

6.1.7.7 How impacts to the waterway will be minimized during in-water work (i.e. energy dissipation, sediment controls, gradually releasing dams, screened and floating pumps, etc.).

6.1.7.8 How the waterway bed and banks will be restored to preexisting conditions.

All collector circuit crossings of waterways will be directionally bored. No open-cut trenching across waterways is proposed, and no other crossings of waterways for access roads or fences is proposed to be included in the final Project layout.

6.1.8 For waterways that will be directionally bored, provide the following:

6.1.8.1 The location and size of any temporary staging and equipment storage.

Temporary staging and equipment storage will be located in upland areas in an area of up to 200 by 50 feet, depending on the length of the bore, which includes area to stage the bore pipe.

6.1.8.2 The location and size of bore pits and their distance from waterways.

Bore pits will generally be 20 feet long, 20 feet wide, and 4 feet deep. Installation depths will be at least 5 feet below the bottom of the waterway crossing. Entry points and exit points will be positioned at least 10 feet outside of the OHWM for the waterways and will be moved further away when appropriate to achieve the proper depth required for each bore and to avoid tree lines or other obstacles.

6.1.8.3 Provide a contingency plan for bore refusal and a plan for the containment and clean-up of any inadvertent releases of drilling fluid (e.g. a frac-out).

Typical crossing details and a standard frac-out plan are provided in **Appendix I**. In the event of a refused boring, the boring will be re-attempted from the same boring pit on a slightly different path than the refused bore. In the case it is determined that the area of the refused bore is not adequate for a bore, the bore location will be moved to a new location and the bore re-attempted, which may require an additional bore pit at that location.

6.1.9 For waterways that will have a TCSB installed across them, provide the following:

- 6.1.9.1 Description of the TCSB proposed, including dimensions, materials, and approaches. Verify the TCSB will completely span the waterway.**
- 6.1.9.2 State if any waterways are wider than 35 feet (measured from OHWM to OHWM), and/or if any in-stream supports will be used.**
- 6.1.9.3 State how the TCSB placement and removal will occur (i.e. carried in and placed with equipment, assembled on site, etc.) and if any disturbance would occur to the bed or banks for the installation and removal, including bank grading or cutting.**
- 6.1.9.4 Duration of the placement of the TCSB.**
- 6.1.9.5 Sediment controls that will be installed during the installation, use, and removal of the TCSB's.**
- 6.1.9.6 How the TCSB's will be inspected during use and how they will be anchored to prevent them from being transported downstream.**
- 6.1.9.7 State if the required 5-foot clearance will be maintained, or if the standards in NR 320.04(3), Wis. Adm. Code will be complied with.**
- 6.1.9.8 How the waterway bed and banks will be restored when the TCSB is removed.**

No temporary clear span bridge ("TCSB") crossings of waterways are proposed.

6.1.10 Describe the proposed area of land disturbance and vegetation removal at waterway crossings. Include a description of the type of vegetation to be removed (e.g. shrub, forest), and if this vegetation removal will be temporary (allowed to regrow) or permanent (maintained as cleared).

An approximately 20 by 20-foot area will be temporarily cleared of vegetation for bore pits utilized for waterway crossings. Bore pits will be positioned in upland areas at least 10 feet from the OHWM of waterways and will be moved further away when appropriate to achieve the proper depth required for each bore. Bore pits will be located to avoid the need to clear woody vegetation. Badger Hollow Wind expects that the vegetation will be removed temporarily and will be replanted and/or allowed to regrow after construction in accordance with the VMS and the ECSWMP.

6.1.11 If any of the following activities are proposed, provide the information as detailed on the applicable permit checklist:

- **New culvert placement:**

<https://dnr.wi.gov/topic/waterways/documents/PermitDocs/GPs/GP-CulvertWPEDesign.pdf> (General Permit) or

<https://dnr.wi.gov/topic/Waterways/documents/PermitDocs/IPs/IP-culvert.pdf> (Individual Permit)

- New permanent bridge placement:

<https://dnr.wi.gov/topic/waterways/documents/PermitDocs/GPs/GP-ClearSpanBridge.pdf> (General Permit, no in-stream supports) or

<https://dnr.wi.gov/topic/Waterways/documents/PermitDocs/IPs/IP-bridgeTempCross.pdf> (Individual Permit, in-stream supports).

- New storm water pond placed within 500 feet of a waterway:

<https://dnr.wi.gov/topic/waterways/documents/PermitDocs/GPs/GP-StormwaterPond.pdf>

No permanent basins are expected to be constructed within 500 feet of a waterway. Badger Hollow Wind will conform to Wisconsin Pollution Discharge Elimination System (“WPDES”) requirements for temporary storm water ponds that may be located within 500 feet of a waterway pending final engineering. It is anticipated that temporary culvert placement will be permitted via a WDNR General Permit and via a non-reporting USACE Utility Regional General Permit, which will be obtained prior to culvert installation. Design of the culvert is pending final engineering.

6.2 Wetland Permitting Activities

This section should be consistent with the waterways included in DNR Tables 1 and 2 and associated maps. This section should apply to the proposed and alternative sites/routes (if applicable) and their associated facilities (for example, off-ROW access roads, staging areas, permanent structures, associated driveways and permanent storm water management features to be constructed).

- 6.2.1 Describe the method(s) used to identify wetland presence and boundaries within the project area (i.e. wetland field delineation, wetland field determination, conservative desktop review, etc.). If conservative desktop review was the only method used to identify the presence of wetlands, state if any areas will be field-verified (and when). If a combination of methods were used, describe which project areas utilized which method. The associated delineation report and/or desktop review documentation should be uploaded to the PSC’s website as part of the application filing.**

A field wetland delineation was conducted within a 580-acre “Field Delineation Corridor”, a subset of the larger Project Area, as displayed in Figures 6.3.1 and 6.3.2 in **Appendix A**. The Field Delineation Corridor consisted of a 500-foot radius buffer around turbine and ADLS tower locations, a 100-foot buffer around access roads, a 60-foot buffer around collector circuits, and a 150-foot buffer around the ADLS tower access road. Prior to the field delineation, an Off-site Hydrology Review was completed within the Field Delineation Corridor to identify frequently occurring wetland signatures in cropland using readily available imagery, contours, and mapped hydric soils according to the methods detailed in the July 1st, 2016 Minnesota Board of Water and Soil Resources (BWSR)/USACE-accepted protocol for conducting off-site wetland

determinations, *Guidance for Off-site Hydrology/Wetland Determinations*²⁹. Desktop mapped wetlands were confirmed in the field and, if meeting the criteria for wetland conditions, delineated as wetlands with associated upland/wetland transects using USACE Midwest region datasheets. If the field conditions (hydrology, soils, and vegetation) indicated that a desktop delineated wetland was actually an upland, a data point, USACE datasheet, and photos were taken. The field delineation was conducted between June 17 - June 19, 2024. The field-delineated resources are displayed in Figures 6.3.1 in **Appendix A** and included in DNR Table 2 (**Appendix V**). Full results of the field wetland delineation are provided in the Wetland and Water Resources Report in **Appendix V**.

The 15,124 acres of the Project Area that were not field delineated were assessed via a desktop evaluation (“Desktop Delineation Area”), and consisted of that portion of the Project Area outside of the Field Delineation Corridor as displayed in Figures 6.3.1 and 6.3.2 in **Appendix A**. Westwood completed a desktop wetland evaluation using ArcGIS software, topographic contours, mapped hydric soils and multiple years of historical aerial photography to identify frequently occurring wetland signatures and help determine the presence and extent of potential wetlands, particularly in agricultural areas. Desktop-delineated wetlands were assigned a unique identifier of “DW” followed by a number (e.g. DW-01) and an anticipated Eggers and Reed classification based on estimated vegetation and hydrological conditions observed via aerial imagery. Wetlands which appeared to contain multiple Eggers and Reed community types were split into multiple polygons and assigned a letter after the number to indicate the different community (e.g. DW-01a, DW-01b, etc.).

The desktop delineated resources are displayed in Figures 6.3.1 and 6.3.2 (**Appendix A**) and included in DNR Table 2 (**Appendix V**). Full results of the desktop delineation are provided as part of the Wetland and Water Resources Report in **Appendix V**.

6.2.2 Identify the number of wetlands present and by wetland type, using the Eggers and Reed classification. Provide as an overall project total, as well as broken down by the proposed site and the alternative site(s) (if applicable) and their associated facilities.

Within the Field Delineation Corridor, two wet meadow wetlands (WB-01 and WB-02) totaling 0.1 acres were delineated in the field and are associated with Proposed Turbines Locations 6, 8 and 9 and associated collector circuits. Portions of six desktop-delineated wetlands were within the Field Delineation Corridor, one of which, DW 201, was ultimately delineated as WB-02. Desktop-delineated wetlands in Desktop Delineation Area are summarized in **Table 6.2.2**.

Table 6.2.2 Desktop-delineated Wetlands within the Desktop Delineation Area		
Eggers and Reed Classification	Number	Acres
Fresh wet meadow	102	368.3
Shallow marsh	40	76.7

²⁹ U.S. Army Corps of Engineers, St. Paul District and Minnesota Board of Water and Soils Resources. 2016. *Guidance for Off-site Hydrology/Wetland Determinations*.

Table 6.2.2 Desktop-delineated Wetlands within the Desktop Delineation Area		
Eggers and Reed Classification	Number	Acres
Seasonally flooded basin	60	40.6
Floodplain forest	20	38.0
Shallow open water	3	9.0
Shrub-carr	4	5.1
Total	229	537.7

6.2.3 Wetland functional values:

- 6.2.3.1 Discuss the existing functional values of the wetland present. Functional values include but are not limited to floristic diversity, fish and wildlife habitat, flood storage, water quality, groundwater discharge and recharge, public use, etc.**
- 6.2.3.2 Discuss how the project may impact existing functional values of wetlands.**
- 6.2.3.3 Provide Wisconsin Rapid Assessment Methodology (WRAM) forms, or other assessment methodology documentation, if completed.**

No permanent wetland impacts are anticipated for the Project; therefore, assessments of functional values, impacts to functional values, and procurement of WRAM forms or similar documentation is not provided. Observations made by a field biologist during the field delineation concluded the wetlands delineated in the Project Area were of lower quality and many are degraded from agricultural practices. While the quality of desktop-delineated wetlands is not known, they are similarly situated in agricultural areas or are extensions of wetlands that were field delineated, so they are likely to share similar, low-quality, degraded characteristics. While one temporary crane path crossing of a desktop-delineated wetland (DW-66b) is proposed, this activity is unlikely to impact the wetland's ability to provide functional services like wildlife habitat, flood storage, water quality and groundwater recharge that it may currently be providing.

6.2.4 Identify any wetlands in the project area that are considered sensitive and/or high-quality wetlands, including, but not limited to:

- 6.2.4.1 Any wetlands in or adjacent to an area of special natural resource interest (ASNRI) (NR 103.04, Wis. Adm. Code).**

Within the Field Delineation Corridor, the two delineated wetlands, WB-01 and WB-02, are not adjacent to tributaries of designated Trout Streams. One Trout Stream, Sudan Branch, intersects the northeast corner of the Project Area and there is a desktop-delineated wetland immediately adjacent (DW-168). There are also designated Trout Streams outside the northwest, southwest and south parts of the Project Area whose tributaries extend into the Project Area. The desktop delineated wetlands listed in **Table 6.2.4.1** qualify as wetlands adjacent to an area of special natural resource interest ("ASNRI") because of their location adjacent to tributaries of designated Trout Streams off site.

Table 6.2.4.1 Desktop-delineated Wetlands Adjacent to an ASNRI		
Wetland ID	Wetland Type	Acreage
DW-01a	Fresh Wet Meadow	2.53

Table 6.2.4.1 Desktop-delineated Wetlands Adjacent to an ASNRI		
Wetland ID	Wetland Type	Acreage
DW-01b	Seasonally Flooded Basin	0.21
DW-02	Fresh Wet Meadow	1.45
DW-04a	Fresh Wet Meadow	0.17
DW-04b	Seasonally Flooded Basin	0.29
DW-05a	Shallow Marsh	1.99
DW-05b	Fresh Wet Meadow	4.15
DW-05c	Shallow Open Water	3.24
DW-06	Shallow Marsh	0.85
DW-07a	Shallow Marsh	4.37
DW-07b	Seasonally Flooded Basin	6.34
DW-09a	Fresh Wet Meadow	2.36
DW-09b	Shallow Marsh	1.21
DW-100	Fresh Wet Meadow	0.23
DW-101a	Fresh Wet Meadow	8.47
DW-101b	Seasonally Flooded Basin	1.87
DW-101c	Floodplain Forest	3.42
DW-101d	Shrub-carr	2.13
DW-103	Shallow Marsh	1.47
DW-112	Fresh Wet Meadow	0.48
DW-113	Fresh Wet Meadow	1.84
DW-117a	Floodplain Forest	8.91
DW-117b	Seasonally Flooded Basin	3.79
DW-117c	Fresh Wet Meadow	3.92
DW-11a	Shallow Marsh	22.15
DW-11b	Fresh Wet Meadow	7.83
DW-11c	Seasonally Flooded Basin	0.38
DW-11d	Floodplain Forest	3.37
DW-12	Fresh Wet Meadow	2.23
DW-120	Fresh Wet Meadow	2.21
DW-123	Fresh Wet Meadow	0.35
DW-124	Fresh Wet Meadow	0.31
DW-13	Fresh Wet Meadow	2.40
DW-15a	Fresh Wet Meadow	5.69
DW-15b	Floodplain Forest	3.21
DW-164	Fresh Wet Meadow	1.75
DW-168	Seasonally Flooded Basin	2.81
DW-169	Fresh Wet Meadow	2.80
DW-16a	Floodplain Forest	0.18
DW-16b	Fresh Wet Meadow	0.38
DW-16c	Shallow Marsh	0.35
DW-17	Shallow Marsh	1.04
DW-171	Fresh Wet Meadow	0.54

Table 6.2.4.1 Desktop-delineated Wetlands Adjacent to an ASNRI

Wetland ID	Wetland Type	Acreage
DW-172	Fresh Wet Meadow	2.97
DW-174	Fresh Wet Meadow	0.27
DW-183	Fresh Wet Meadow	3.41
DW-206a	Fresh Wet Meadow	3.22
DW-206b	Seasonally Flooded Basin	0.82
DW-23	Fresh Wet Meadow	0.09
DW-24	Fresh Wet Meadow	1.03
DW-35	Shallow Marsh	2.59
DW-36	Shallow Marsh	0.46
DW-39	Shallow Marsh	0.45
DW-40a	Shrub-Carr	1.79
DW-40b	Shallow Marsh	5.21
DW-40c	Seasonally Flooded Basin	0.21
DW-40d	Floodplain Forest	0.95
DW-40e	Fresh Wet Meadow	8.37
DW-41a	Shallow Marsh	0.23
DW-41b	Fresh Wet Meadow	1.01
DW-69	Shallow Marsh	0.17
DW-70	Seasonally Flooded Basin	0.43

6.2.4.2 Any of the following types: deep marsh, northern or [REDACTED] not dominated by reed canary grass, wet or wet [REDACTED] not dominated by reed canary grass, fresh wet meadows not dominated by reed canary grass, coastal marsh, interdunal or ridge and swale complex, wild rice-dominated emergent aquatic, open bog, bog relict, muskeg, floodplain forest, and ephemeral ponds in wooded settings.

Two wet meadow wetlands totaling 0.1 acres were delineated within the Field Delineation Corridor and were generally dominated by reed canary grass. Deep marsh and floodplain forest wetlands are present in the greater Project Area but are outside of the anticipated limits of disturbance. No northern or [REDACTED], wet or wet-[REDACTED] or fresh wet meadows not dominated by reed canary grass; coastal marsh, interdunal or ridge and swale complex, wild rice-dominated emergent aquatic, open bog, bog relict, muskeg, or ephemeral ponds in wooded settings communities were identified during the field delineation.

6.2.4.3 Any wetlands with high functional values based on factors such as abundance of native species and/or rare species, wildlife habitat, hydrology functions, etc.

No permanent wetland impacts are anticipated for the Project; therefore, assessments of functional values, impacts to functional values, and procurement of WRAM forms or similar documentation is not provided. Observations made by a field biologist during the field delineation concluded the wetlands delineated in the Project Area were generally of lower quality and degraded from grazing and agricultural practices. As noted in the Wetland and Water Resources Report provided in **Appendix V**, wetlands had a dominance of reed canary grass, an

indicator of low functional value. While the quality of desktop-delineated wetlands is not known, they are similarly situated in agricultural areas or are extensions of wetlands that were field delineated, so they are likely to share similar, low-quality, degraded characteristics.

6.2.5 Provide the following:

6.2.5.1 The number of wetlands that would have construction matting placed within them to facilitate vehicle access and operation and/or material storage. Provide the total amount of wetland matting, in square feet.

Construction matting is proposed in one desktop delineated wetland (DW-66b) for Project construction. The desktop delineated wetland will be field delineated prior to placing construction mats in the wetland.

6.2.5.2 The number of structures that would be constructed within wetlands. Indicate if structures are temporary or permanent. Provide the total square footage of permanent and temporary wetland impact for the placement of structures.

No structures, temporary or permanent, will be constructed within wetlands.

6.2.5.3 How many wetlands will have permanent fill placed within them. Provide the total amount of permanent wetland fill, in square feet.

No permanent fill will be placed in wetlands.

6.2.5.4 How many wetlands will be impacted for permanent access roads and indicate if culverts will be installed under the roads to maintain wetland hydrology.

No permanent access roads will be constructed in wetlands.

6.2.5.5 How many wetlands will be impacted and/or crossed by fence installation and footings.

No wetlands will be crossed or otherwise impacted by fence installation or footings.

6.2.5.6 How many shrub and/or forested wetlands will be cleared for construction. Provide the total amount of shrub and/or forested wetland conversion, in square feet.

No shrub and/or forested wetlands will be cleared as part of Project construction.

6.2.5.7 How many wetlands will be impacted and/or crossed by other construction activities regulated under 281.36 Wis. Stats. (i.e. road building activities such as grading and cutting, substation upgrades, new tie-ins, vehicle/equipment access across wetland resulting in soil mixing or soil rutting, etc.).

One desktop delineated wetland, DW-66b, will be crossed with a temporary crane path as part of Project construction and will include the placement of construction matting to facilitate the crossing.

6.2.5.8 For underground installation only: how many wetlands will be crossed by collection lines and specify the installation method (i.e. X wetlands will be bored, Y wetlands will be trenched, etc.).

Two field-delineated wetlands, WB-01 and WB-02 will be crossed with collector circuits installed via directional boring. Seven desktop-delineated wetlands (DW-183, 201, 66b, 110a, 158, 172 and 183) will be crossed with collector circuits installed via directional boring (Figure 6.3.1 **Appendix A**, DNR Table 1 **Appendix V**).

6.2.6 Describe if wetlands will be disturbed for site preparation activities:

6.2.6.1 Grading, leveling, etc. across the site.

6.2.6.2 If vegetation removal will be conducted in wetlands, describe how debris (i.e. brush piles, wood chips, etc.) would be handled and disposed of when clearing shrub and forested wetlands.

No shrub and/or forested wetlands will be impacted by Project construction.

6.2.7 Describe the sequencing of matting placement in wetlands and the anticipated duration of matting placement in wetlands. For matting placed in any wetland for longer than 60 consecutive days during the growing season, prepare and submit a wetland matting restoration plan with the application filing.

Ingress and egress to the wetlands will be avoided where possible and practical. Ingress and egress to wetlands will be done either during frozen ground or dry conditions when possible to avoid and minimize impacts to wetlands. Construction mats may be temporarily placed across DW-66b for construction ingress and egress and remain in place until construction is complete. Any matting utilized during the growing season will be removed within 60 days after it is placed.

6.2.8 For wetlands that will be open-cut trenched, provide the following:

6.2.8.1 Provide details on the total disturbance area in wetland, including how total wetland disturbance was calculated. Include the size of the trench (length, width, and depth), where stockpiled soils will be placed (i.e. in upland, in wetlands on construction mats, etc.), and where equipment will operate.

6.2.8.2 Details on the proposed trench dewatering, including the method(s) that may be used (pumps, high capacity wells, etc.), how discharge will be treated, and where the dewatering structure will be located.

6.2.8.3 Duration and timing of the work in wetland.

6.2.8.4 How the wetland will be restored to pre-existing conditions.

No open-cut trenching of wetlands is proposed for Project construction.

6.2.9 For wetlands that will be directionally bored, provide the following:

6.2.9.1 How bored wetlands and associated bore pits will be accessed.

Bored wetlands and associated bore pits will be accessed from adjacent upland areas.

6.2.9.2 The location and size of any temporary staging and equipment storage.

Temporary staging and equipment storage will be located in upland areas in an area of up to 200 feet by 50 feet, depending on the length of the bore, which includes area to stage the bore pipe.

6.2.9.3 The location and size of bore pits and the distance from wetlands.

Entry points and exit points will be positioned at least 10 feet outside of the established wetland boundaries and will be moved further away when appropriate to achieve the proper depth required for each bore and to avoid tree lines or other obstacles. Bore pits will generally be 20 feet long, 20 feet wide, and 4 feet deep.

6.2.9.4 Provide a contingency plan for bore refusal and a plan for the containment and clean-up of any inadvertent releases of drilling fluid (e.g. a frac-out).

Typical crossing details and a standard frac-out plan are provided in **Appendix I**. In the event of a refused boring, the boring will be re-attempted from the same boring pit on a slightly different path than the refused bore. In the case it is determined that the area of the refused bore is not adequate for a bore, the bore location will be moved to a new location and the bore re-attempted, which may require an additional bore pit at that location.

6.2.10 For wetlands that will be plowed, resulting in a discharge of fill (soil mixing and/or soil rutting), provide the following:

6.2.10.1 Provide details on the total disturbance area in wetland, including how total wetland disturbance was calculated

6.2.10.2 Duration and timing of the work in wetlands.

6.2.10.3 How the wetlands will be restored to pre-existing conditions.

Note: Plowing through saturated or wet/soggy wetlands would likely result in soil mixing and rutting, and thus the plowing would then be 281.36 Wis. Stats. regulated activity.

No wetlands will be plowed as part of Project construction.

6.2.11 For wetlands that will be crossed/accessed by vehicle/equipment resulting in a discharge of fill (soil mixing and/or soil rutting), provide the following:

6.2.11.1 Provide details on the total disturbance area in wetland, including how total wetland disturbance was calculated.

6.2.11.2 Duration and timing of the work in wetlands.

6.2.11.3 How the wetlands will be restored to pre-existing conditions.

Note: Vehicle/equipment access through saturated or wet/soggy wetlands would likely result in soil mixing and rutting, and thus the plowing would then be 281.36 Wis. Stats. regulated activity.

No vehicle/equipment access through wetlands will result in a discharge of fill as part of Project construction.

6.2.12 Describe how fence installation will occur in wetlands, including the footing types (i.e. direct imbed, concrete, etc.), any associated wetland impact such as vegetation clearing, operation of equipment, etc.

No fence installation in wetlands will occur as part of Project construction.

6.2.13 For wetland vegetation that will be cleared or cut for construction, provide the following:

6.2.13.1 Justification for why wetland trees and shrubs are proposed to be cleared, and what construction activity the clearing is associated with (e.g. transmission line installation, off-ROW access road, staging area, etc.).

6.2.13.2 The timing and duration of vegetation removal

6.2.13.3 Describe the type of equipment that will be used, and if the vegetation removal will result in soil disturbance, including rutting and soil mixing.

6.2.13.4 The type of wetland and type of vegetation to be cleared.

6.2.13.5 State if tree and shrubs that are removed will be allowed to regrow or be replanted, or if cleared areas will be kept free of trees and shrubs long-term

6.2.13.6 Indicate the plan for handling and disposing of the debris (brush piles, tree trunks, wood chips, etc.) resulting from vegetation clearing in wetlands. State if debris would be removed from all wetlands to be cleared and disposed of in upland or other nonwetland locations.

6.2.13.6.1 If debris is not proposed to be removed from all wetlands during clearing, explain why disposal in non-wetland areas is not feasible.

6.2.13.6.2 If debris is not proposed to be removed from all wetlands during clearing, state how debris left in wetland will not restrict re-vegetation growth, will not alter surface elevations, and will not obstruct water flow. If wood chips will be placed in wetlands, state the depth (in inches) proposed.

6.2.13.6.3 If debris is not proposed to be removed from all wetlands during clearing, state how these wetlands will be monitored to ensure re-vegetation growth, surface elevations, and water flow are not impacted, and that the proposed depth of chip cover is adhered to. If re-vegetation growth becomes impeded, surface elevations become altered, and/or water flow becomes obstructed from wood chip placement, state how these impacts will be addressed and corrected, if they should occur.

Clearing will be limited to herbaceous vegetation as there are no trees or shrubs at the crossing locations and will be limited in time and duration to only those windows in which site activity is occurring. Because only herbaceous vegetation will be cleared, soil rutting and soil mixing is not anticipated.

6.2.14 Provide the methods to be used for avoiding, minimizing, and mitigating construction impacts in and near wetlands. This discussion should include, but is not limited to, how wetland impact was first avoided then minimized by shifting the project boundary, relocating structures and/or fill outside of wetland, minimizing construction ROW through wetland, by installation methods (i.e. directional bore

versus open-cut trenching, soil segregation during trenching, etc.), equipment crossing methods (i.e. use of construction matting, frozen ground conditions, etc.), sediment and erosion controls, invasive species protocols for equipment, etc. Additional guidance to prepare this discussion can be found here: <https://widnr.widen.net/s/fxddd8pmqgg/paasupp3utility>.

Impacts to wetlands will be avoided through siting and construction methods where possible. All collector circuit crossings of wetlands will be directionally bored to avoid impacts. Construction will be done during dry conditions when possible. Where possible, a 50-foot setback from wetland boundaries will be maintained from any construction-related disturbance. Appropriate sediment and erosion control measures will be implemented during construction to avoid sedimentation into wetlands. This information will be incorporated into the ECSWMP. When feasible, HDD equipment, trenching equipment and backhoes will be power washed before mobilization to the site to prevent introduction of invasive species from off-site sources and equipment will be inspected and cleaned of reproductive parts between work zones where invasive species have been identified within the Project Area.

6.2.15 Indicate if an environmental monitor will be employed during project construction and restoration activities. If so, describe the monitors roles and responsibilities, frequency of visits, etc.

A third-party storm water/environmental monitor will be on-site periodically throughout construction to ensure compliance with the construction storm water permit, that wetland/waterway impacts are being avoided, and that environmental BMPs are being properly utilized to avoid encounters with wildlife species.

6.2.15.1 Describe how all wetlands within the project area will be restored. This discussion should include details on the seeding plan, maintenance and monitoring, restoring elevations and soil profiles, restoring wetland hydrology, etc.

Temporary wetland impacts will be restored to pre-existing contours and re-seeded. Seeding of wetland areas will be comprised of native sedge, grass, rush, and forb species classified as FAC, FACW, or OBL. Spot herbicide treatments will be used to prevent invasive species propagation as needed before, during, and after construction in accordance with the ECSWMP.

6.3 Mapping Wetland and Waterway Locations, Impacts, and Crossings

Provide the following map sets, as described below, for each proposed and alternative sites/routes and associated components. Each map set should include an overview or index page that includes page extents for the corresponding smaller-scale map pages within the remainder of the map set. The smaller-scale map pages should show the project and resources in greater detail, include pages numbers to reference to the overview page, and have consistent scales throughout the pages.

6.3.1 Aerial map imagery showing the following:

- Delineated wetlands, labeled with the feature unique ID

- Wisconsin Wetland Inventory (“Mapped Wetlands” SWDV layer) and hydric soils (“Wetland Indicators & Soils” SWDV layer), if a delineation was not conducted
- DNR mapped waterways, labeled with the feature unique ID
- Field identified waterways, labeled with the feature unique ID
- Wind turbines and all connecting facilities (permanent and temporary access roads, fences, and collector circuits) with the installation method identified for the collector lines (i.e. directional bore, plow, open-cut trench, etc.).
- O&M Building
- New and existing substations (if existing substations will be expanded, include the expanded footprint) and associated driveways
- Staging areas (labeled with identifying name or number) and all temporary work spaces, such as crane pads.
- Generator tie line, including pole locations and all access roads, including off-ROW access roads in their entirety and labeled with the off-ROW access road label.
- ROW
- Locations of other temporary and permanent structures
- Locations of proposed permanent storm water features (i.e. ponds, swales, etc.)
- Vehicle crossing method of waterways for both permanent and temporary access, labeled by the crossing method (i.e. TCSB, installation of culvert, installation of bridge, installation of ford, use of existing culvert, use of existing bridge, use of existing ford, driving on the bed, etc.).
- Placement of construction matting in wetlands.
- Excavation areas in wetlands (i.e. bore pits, open-cut trench, etc.).
- Locations of any other waterway or wetland impacting activity regulated under Wis. Stats. Chapter 30 and 281.36

6.3.2 A map showing which method(s) were used to identify wetland presence and boundaries within the project area (i.e. wetland field delineation, wetland field determination, conservative desktop review).

Please see Figures 6.3.1 and 6.3.2 in **Appendix A** for the requested information.

7. Agricultural Impacts

7.1 Current Agricultural Activities

Provide information on current farming activities at the proposed turbine sites and wherever construction activities would occur or affect farming properties.

The primary land use in the Project Area is agricultural crop production. The primary crops grown in the Project Area are corn and soybeans. Land currently utilized for agricultural crop production that hosts Project Facilities in the final Project layout will be removed from

agricultural use. Land temporarily disturbed during construction to facilitate the construction of Project Facilities may be returned to agricultural use following construction. Badger Hollow Wind will coordinate with all participating landowners receiving Project Facilities to minimize impacts to farming operations to the extent practicable. No interference with non-participating farming operations is anticipated during construction.

7.1.1 State whether a DATCP Agricultural Impact Statement (AIS) would be required. If the project would affect any properties used for agricultural purposes, submit one of the following, either 1.) a completed Agricultural Impact Notice (see DATCP website and search "Agricultural Impact Notice" for appropriate form or contact DATCP). Or, 2.) a release letter from DATCP stating that an AIS will not be written for this proposed project.

Pursuant to Wis. Stat. Sec. 32.035(4)(a), an Agricultural Impact Statement ("AIS") is only required if a project involves the actual or potential exercise of eminent domain that may impact an interest in more than 5 acres of farmland. Therefore, an AIS will not be required as Badger Hollow Wind is not vested with the powers of eminent domain.

7.1.2 Identify current agricultural practices in the project area.

The primary land use in the Project Area is agricultural crop production. The primary crops grown in the Project Area are corn and soybeans. Additionally, several actively grazed cattle pastures are located in the Project Area.

7.1.3 Identify the location of agricultural drainage systems (tiles, ditches, laterals), irrigation systems, erosion control and water management practices and facilities in the project area that could be impacted by construction activities or the location of the proposed facilities.

Grant and Iowa Counties do not have a comprehensive file detailing drainage tile systems within the Project Area. Badger Hollow Wind has reached out to all participating landowners to ask for their assistance in locating drain tile; requesting drain tile maps, personal knowledge of their property, and knowledge of existing drain tile that was placed without written record. Badger Hollow Wind will continue discussions with participating landowners to determine, to the extent practicable, where drain tile exists.

It is expected that drain tile will be impacted in portions of the Project Area that are tiled and that undergo construction. Badger Hollow Wind will repair drain tile that is damaged during construction.

7.1.4 Identify any farming operations such as herd management, specialty crop production, field and building access, organic farming, etc. that could be impacted by the construction of the project.

During construction, there may be temporary limited impacts to herd management and field and building access from construction activities. Herd management impacts may include temporarily moving herds to alternative property during construction. Field and building access impacts include siting access roads on currently existing access paths. **Table 7.1.4** identifies parcels used

for herd management and field and building access that may be impacted. Badger Hollow Wind will work with all landowners hosting Project Facilities to minimize impacts to agricultural operations. No impacts to specialty crop production or organic farming are anticipated.

Table 7.1.4 Parcels Used for Herd Management and Field and Building Access That May be Temporarily Impacted by Construction Activities		
Parcel Owner	Impact Type	Parcels APN(s)
Trelay Land & Cattle Co	Herd Management, Field and Building Access	016-0101, 016-0100, 016-0097, 016-0102, 016-0103, 016-0098, 016-0105, 016-0194
Stephen M Esser	Herd Management	010-0556
Kramer Farms, LLC	Field and Building Access	012000010000, 016-0085
Trelay Land & Cattle Co	Field and Building Access	016-0262
David and Carol Rundell	Field and Building Access	012004870000
Mark Lee	Field and Building Access	016-0680
Double T & D Grain Inc	Field and Building Access	016-0512
TEVA LLC	Field and Building Access	016-0276, 016-0273
Trelay Land & Cattle Co	Field and Building Access	016-0094
Cole D Faull	Field and Building Access	010-0482
Adam and Karsey Mueller	Field and Building Access	016-0065
Daniel Spurley	Field and Building Access	016-0173, 016-0174
Travis and Tyler Mueller	Field and Building Access	014-0299

7.1.5 Describe how damage to agricultural facilities and interference with farming operations would be minimized during construction.

No damage to agricultural facilities, beyond those discussed in Section 7.1.3, or interference with non-participating farming operations is anticipated during construction. Minimal interference between construction equipment and farm equipment travelling on roadways may occur but is not anticipated to be an issue. The Project will be constructed on land participating in the Project through voluntary agreements. The wind easement agreements include a provision to address crop damage if construction begins when crops have not yet been harvested. Badger Hollow Wind will communicate the construction schedule with participating landowners and coordinate regarding any prolonged field and building access impacts.

7.1.6 Describe how damage to agricultural facilities would be identified and repaired.

No damage to agricultural facilities is anticipated for this Project beyond those discussed in Section 7.1.3.

7.1.7 Identify any farmland affected by the project that is part of an Agricultural Enterprise Area.

The Project is not located within an Agricultural Enterprise Area.

7.1.8 Identify any parcels of land in the project area that are part of a Drainage District, and identify the Drainage District if applicable. The County Drainage Board will need to be notified before undertaking any action, including any change in land use that will alter the flow of water into or from a district drain, increase the amount of soil erosion, or the movement of sediment solids to a district drain or affect the operation of the drainage district, or the costs incurred by the Drainage District. This applies to parcels of land that receive water from, or discharge water to a Drainage District, regardless of whether the land is included in the Drainage District. The following items apply when any part of a project is located within a Drainage District.

7.1.8.1 Describe any permits needed from a Drainage District Board for construction and operation of the proposed project, and the status of any permits

7.1.8.2 Identify if and where any culverts would be installed in areas of the Drainage District

7.1.8.3 Provide any correspondence with State Drainage Engineer regarding the project.

The Project is not located within a Drainage District.

7.1.9 Identify any lands within the project boundary that are enrolled in agricultural conservation or agricultural tax incentive programs, such as farmland preservation programs and permanent agricultural or conservation easements.

Table 7.1.9 identifies the two participating landowners that have indicated that they have property enrolled in the Conservation Reserve Program (“CRP”) within the Project Area. The specific extent of property enrolled in CRP is not known at this time. No property participating in the Project is subject to a Farmland Preservation Agreement or enrolled in the Managed Forest Law program.

Table 7.1.9 Conservation Reserve Program		
Landowner Name	Parcel APN(s)	Acres
Coulthard Family Farms	016-0304, 016-0289, 016-0300, 016-0319, 016-0320	29.36
David and Carol Rundell	012005030000, 012005080000, 012005110000, 012005120000	67.2

7.1.10 Describe the process for returning land to agricultural use after decommissioning, including any subsequent years of monitoring.

Detailed decommissioning steps for the Project are provided in Section 1.7.3 and **Appendix D** and outline a process for returning the Project to productive agricultural use. Badger Hollow Wind will be responsible for the removal of all aboveground Project Facilities and underground Project Facilities to a depth of 4 feet below grade. After removal the soil will be decompacted and topsoil reapplied as needed to ensure it is suitable for farming. Cover vegetation will be planted to stabilize the soil for future use.

7.2 Stray Voltage

Discuss induced voltage issues as they relate to the project, including collector circuits and any generator tie line. Provide the following information:

7.2.1 Identify the location of confined animal dairy operations within one-half mile of any proposed transmission or distribution centerline or other project facilities.

Fifty-four confined animal dairy operations were identified within 0.50 miles of Project Facilities. All confined animal operations identified as consisting of cattle were assumed to be dairy operations. Confined animal dairy locations are displayed in Figure 4.1.2 in **Appendix A**.

7.2.2 Identify the location of agricultural buildings within 300 feet of any proposed transmission or distribution centerline or other project facilities.

Forty agricultural buildings were identified within 300 feet of Project Facilities. Agricultural building locations are displayed in Figure 4.1.2 in **Appendix A**.

7.2.3 Discuss induced voltage issues related to the project and its transmission or distribution line routes.

Badger Hollow Wind does not anticipate issues regarding induced (stray) voltage as a result of the Project. Induced voltage issues are generally caused by improperly grounded and/or isolated electrical circuits found in older buildings, factories, or barns.

Badger Hollow Wind will be constructed to meet the standards of Wis. Admin. Code chapters SPS 316, SPS 371, and PSC 114 - Wisconsin State Electrical Code, and the NESC. Following the adopted electric codes and guidelines will ensure the system is designed correctly and potential issues of induced voltage are mitigated in accordance with applicable law.

7.2.4 Discuss any plans to conduct stray voltage testing pre- and post-construction.

Badger Hollow Wind does not believe stray voltage testing is necessary based on the Project's engineering design and test results at other renewable energy generation projects in Wisconsin.

8. Airports and Landing Strips

8.1 Public Airports

8.1.1 Identify all public airports inside the proposed project boundary.

There are no public airports within the Project Area (Figure 4.1.7.3 **Appendix A**).

8.1.2 Identify all public airports within 10 miles of the project boundary and list the distance to the nearest proposed turbine from the end of the runway.

There is one public airport located within 10 miles of the Project Area, the Iowa County Airport. The distance to the nearest Iowa County Airport runway is approximately 5.53 miles from the nearest Alternative Turbine and 7.3 miles from the nearest Proposed Turbine (Figure 4.1.7.3 **Appendix A**).

8.1.2.1 Identify separately all public airports within:**8.1.2.1.1 10,000 feet of the nearest turbine.****8.1.2.1.2 20,000 feet of the nearest turbine.**

There are no public airports within 20,000 feet of a Proposed or Alternative Turbine Location (Figure 4.1.7.3 **Appendix A**).

8.1.3 Describe any mitigation measures pertaining to public airport impacts.

The Project will comply with FAA marking and lighting standards in accordance with FAA Advisory Circular 70/7460-1M to promote aviation safety. Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. Because the nearest public airport to a turbine location is 5.53 miles, additional mitigation measures are not anticipated.

8.2 Private Airports/Grass Landing Strips**8.2.1 Identify all private airports/landing strips within the proposed project boundary.**

There are no private airports or landings strips located within the Project Area (Figure 4.1.7.3 **Appendix A**).

8.2.2 Identify all private airports/landing strips within two miles of the project boundary.

There is one private airport/landing strip located within two miles of the Project Area. The Hird Airport (turf landing strip) is located 0.80 miles from the Project Area (Figures 4.1.7.3 **Appendix A**).

8.2.3 Provide the distance from each private airport/landing strip (ends of runway) to the nearest turbines.

The nearest turbine location is located 1.55 miles from the Hird Airport (Figure 4.1.7.3 **Appendix A**).

8.2.4 Describe any mitigation measures pertaining to private airport or airstrip impacts.

Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. While the FAA does not analyze private airports or airstrips in their review process, they have published general traffic patterns by aircraft type. Badger Hollow Wind will work with landowners and airspace consultants to appropriately protect private airport or airstrips. Since the Hird Airport is a turf runway, Badger Hollow Wind is considering Category A airspace traffic patterns and has sited turbines further than 1.25 nautical miles of runway ends per FAA Order 7400.2.

8.3 Commercial Aviation

8.3.1 Identify all commercial air services operating within the project boundaries (i.e. aerial applications for agricultural purposes, state programs for control of forest diseases and pests (i.e. spongy moth (*Lymantria dispar*) control).

8.3.2 Describe any potential impact to commercial aviation operations.

8.3.3 Describe any mitigation measures pertaining to commercial aviation.

According to the Department of Agriculture, Trade, and Consumer Protection's ("DATCP") Interactive Map of the Spongy Moth Aerial Spray Program, an approximately 200-acre area east of Rewey that partially overlaps the Project Area was treated with aerial applications in 2024. Coordination with DATCP may need to occur should future aerial applications for the spongy moth occur within the Project Area.

Inquiries with local landowners determined that the use of targeted aerial application services occurs annually within the Project Area. Commercial aerial applications for agricultural purposes may be impacted by the need to maneuver around turbines which may influence the delivery system between fixed-wing and helicopter-type applications.

Badger Hollow Wind will work with agricultural spray applicators who request for the temporary shutdown of turbines as needed to accommodate safe and effective aerial spraying activities. Badger Hollow Wind shall accommodate reasonable requests provided the agricultural spray applicator provides notice of intent to spray 3 days prior, and subsequent notices 12 hours and 2 hours prior to spraying.

Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. Badger Hollow Wind will implement additional mitigation measures as determined necessary during the FAA review process.

8.4 Emergency Medical Services – Air Ambulance Service

8.4.1 Identify the provider/s of air ambulance services within the project area

8.4.2 Describe any planned mitigation of possible impacts to air ambulance services in the project area (e.g. establishment of safe landing zones, etc.)

No air ambulance service provider facilities were identified within the Project Area. The nearest air ambulance service provider facility is located at the Iowa County Airport. The air ambulance is operated by University of Wisconsin Med Flight and utilizes an EC145 helicopter.

Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. Badger Hollow Wind will implement additional mitigation measures as determined necessary during the FAA review process.

8.5 Federal Aviation Administration

8.5.1 Provide copies of all correspondence with the FAA.

Badger Hollow Wind submitted Notices of Proposed Construction or Alteration (Form 7460-1) for the Proposed and Alternative Turbine Locations to the FAA on 9/27/24 (**Appendix E**).

8.5.2 Provide copies of all FAA determinations of hazard/no hazard.

8.5.3 Provide a summary of the status of all FAA determinations with details on how any unresolved problems with aircraft safety are being addressed.

Determinations from the FAA are currently pending.

8.5.4 Provide a detailed description of any obstruction marking and lighting that will be required by the FAA.

The Project will comply with FAA marking and lighting standards in accordance with FAA Advisory Circular 70/7460-1M to promote aviation safety. Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. A detailed Marking and Lighting Plan will be submitted to the FAA in Q1 2026. If approved by the FAA, an ADLS will be installed to minimize illumination time of the lights. An ADLS is an automated radar-based system that monitors airspace and activates lighting when an aircraft is detected at or below 1,000 feet above turbine tip height and approaching within 3 miles of a turbine location. When an aircraft exits the detection zone, the ADLS will turn the lights off.

8.6 Wisconsin Department of Transportation – Bureau of Aeronautics – High Structure Permits

8.6.1 Provide a list of all turbine sites requiring WisDOT high structure permits.

All Proposed and Alternative Turbine Locations will require WisDOT High Structure Permits.

8.6.2 List the permit status and conditions for each turbine site requiring high structure permits.

Badger Hollow Wind plans to submit applications for High Structure Permits from WisDOT in Q3 2025.

9. Electric and Magnetic Fields (EMF)

9.1 Provide an estimate of the magnetic profile created by collector circuits and any generator tie line (as applicable).

Estimates should be made using the following criteria:

9.1.1 Show a separate profile for the typical buried collector circuits. If some trenches would support more than one buried circuit, provide a separate estimate for each bundled configuration.

- 9.1.2 Show a separate profile for any overhead collector circuits or generator tie line (as applicable)
- 9.1.3 Assume all turbines are working and project is producing at maximum capacity.
- 9.1.4 Show EMF profile at 0 ft., 25 ft., 50 ft., and 100 ft. from the centerline of each circuit type modeled.

Please see the EMF Study provided in **Appendix W** for the requested information.

10. Line-of-sight and Broadcast Communications

10.1 Microwave Communications

- 10.1.1 Provide a line-of-sight analysis showing that turbines, installed at all of the proposed (and alternative) wind turbine sites, will not interfere with microwave communications.
- 10.1.2 List potential impacts, mitigation measures used in design and post construction mitigation measures and plans.

Please see the Microwave Study provided in **Appendix X** for the requested information. Badger Hollow Wind does not anticipate the Project to cause any interference to microwave communications.

10.2 Radio and Television interference

- 10.2.1 Provide an analysis of the potential for television interference within and adjacent to (within one mile) of the project boundary.
- 10.2.2 Discuss how television interference will be eliminated or mitigated for the project

Please see the AM and FM and TV Reports provided in **Appendix X** for the requested information. Badger Hollow Wind does not anticipate the Project to cause any interference to radio and television.

10.3 NEXRAD interference

- 10.3.1 Describe whether the proposed development is likely to interfere with any of the following Doppler weather radar installations:
 - 10.3.1.1 National Weather service WSR-88D NEXRAD Doppler radar network installations within 150 miles (250 km) of the project boundary.
 - 10.3.1.2 Doppler radar installations operated by broadcast television stations with Federal Communications Commission authorized service areas that completely or partially include the project area.

Table 10.3 identifies the four NEXRAD installations located within 150 miles of the Project Area. Badger Hollow Wind is not located within line of sight or published impact zones of any NEXRAD installation. Thus, Badger Hollow Wind does not anticipate the Project to cause any interference to NEXRAD installations. Badger Hollow Wind did not identify any doppler radar installations operated by broadcast television stations with Federal Communications Commission authorized service areas that completely or partially include the Project Area.

Table 10.3 NEXRAD Installations

ID	Location	Distance from Project Area (Miles)
KARX	La Crosse, Wisconsin	70
KDVN	Davenport, Iowa	84
KMKX	Milwaukee, Wisconsin	87
KLOT	Chicago, Illinois	143

10.4 Other Communication Systems

10.4.1 Provide an analysis or supportive data to predict whether or not any aspect of the proposed project will interfere with:

10.4.1.1 Cell phone communications

Please see the Mobile Phone Carrier Report provided in **Appendix X** for the requested information. Badger Hollow Wind does not anticipate the Project to cause any interference to cell phone communications.

10.4.1.2 Radio broadcasts

Please see the AM and FM Radio Report provided in **Appendix X** for the requested information. Badger Hollow Wind does not anticipate the Project to cause any interference to radio broadcasts.

10.4.1.3 Internet (WiFi)

Please see the Microwave Study provided in **Appendix X** for the requested information. Badger Hollow Wind does not anticipate the Project to cause any interference to internet services.

10.4.1.4 Describe mitigation measures should interference occur during project operation.

In addition to the items analyzed in Section 10, Badger Hollow Wind does not anticipate the Project to cause any interference to land and mobile emergency services. Please refer to the Land Mobile & Emergency Services Report provided in **Appendix X** for more information.

Although unlikely, if any resident or business were able to show impacts to line-of-sight or broadcast communications due to the Project, such impacts will be mitigated to the extent practicable. Mitigation measures could include the deployment of a high-gain directional antenna, or provision of cable or satellite service.

11. Noise

Pre- and post-construction noise studies are required for all turbine projects. Noise measurement studies must be approved by PSC staff.

11.1 Noise Studies

11.1.1 Provide existing (ambient) noise measurements and projected noise impacts from the project using the PSC’s Noise Measurement Protocol. The PSC Noise Measurement Protocol can be found on the PSC website at: <https://psc.wi.gov/SiteAssets/WindNoiseProtocol.pdf>.

Hankard Environmental, Inc. performed a Noise Analysis for the Project which is provided in **Appendix Y**. The Noise Analysis consisted of determining the location of all noise-sensitive receptors located near the Project (residences and occupied community buildings), measuring existing noise levels within the Project Area, and predicting both construction and operation noise levels for the Project. The Noise Analysis was carried out in accordance with the PSC’s Measurement Protocol for Sound and Vibration Assessment of Proposed and Existing Electrical Power Plants. In summary, the Noise Analysis determined that under typical operating conditions noise emissions from the Project are predicted to be less than 44 dBA at all non-participating noise-sensitive receptors.

11.1.2 Provide copies of any local noise ordinance.

Please see **Appendix T** for local ordinances containing noise standards.

11.1.3 Provide turbine manufacturer’s description of noise attenuating methods and materials used in the construction of proposed turbines.

Please refer to **Appendix Y**.

11.2 Noise Complaints

11.2.1 Describe how noise complaints will be handled. Include a description of when and how subsequent noise measurements from specific residences or buildings would be conducted.

Badger Hollow Wind will maintain equipment and conduct repairs in a timely manner to avoid excess noise. If Badger Hollow Wind receives a noise complaint from a local resident, a Project representative will meet with the resident to investigate the complaint. Badger Hollow Wind will determine if the noise is the result of a mechanical issue that can be repaired. If not, Badger Hollow Wind will attempt to reach a mutually agreeable solution with the resident. All complaints received and processed will comply with requirements established in Wis. Admin. Code § PSC 128.14(3)-(4) and Wis. Admin. Code § PSC 128.40.

11.2.2 Discuss any mitigation measures that would be used to address noise complaints during the operation of the project.

With a predicted maximum noise level of 44 dBA or less at all non-participating noise-sensitive receptors, Badger Hollow Wind believes it is unlikely that the Project will elicit noise complaints that require mitigation. However, in the unlikely event that mitigation becomes necessary, Badger Hollow Wind will evaluate options such as turbine curtailment to reduce noise propagation.

12. Shadow Flicker

12.1 Shadow Flicker Analysis/Modeling

12.1.1 Provide an analysis showing the potential for shadow flicker in the area of a typical wind turbine site. Include contours for 100, 50, 30, and 20 hours per year of potential shadow flicker. (The analysis should list the basic assumptions used and the methodology/software used for creating the shadow flicker analysis.)

Stantec Consulting Services Inc. performed a Shadow Flicker Analysis for the Project which is provided in **Appendix Z**. In summary, the Shadow Flicker Analysis determined that shadow flicker from the Project is predicted to be less than 30 hours per year at all non-participating receptors (residences and occupied community buildings). This is consistent with the standards established in Wis. Admin. Code § PSC 128.15(2).

12.2 Mitigation

12.2.1 Describe mitigation available to reduce shadow flicker.

With a predicted shadow flicker level of less than 30 hours per year at all non-participating receptors, Badger Hollow Wind believes it is unlikely that the Project will elicit shadow flicker complaints that require mitigation. However, in the unlikely event that mitigation becomes necessary, Badger Hollow Wind will evaluate options such as localized vegetative buffers, blinds, and/or turbine curtailment to reduce shadow flicker.

12.2.2 State the level at which anticipated shadow flicker would result in outreach to a landowner to proactively offer mitigation.

Badger Hollow Wind will offer to provide reasonable shadow flicker mitigation at non-participating receptors that are predicted to receive greater than 20 hours per year of shadow flicker based on the final Project layout upon receipt of a request for mitigation from the owner(s).

12.3 Compliance Process

12.3.1 In the event of an inquiry or complaint by a resident in or near the project area, describe what modeling or other analysis would be used to evaluate the possibility of shadow flicker at the residence.

In the event of a complaint regarding shadow flicker from an owner of a residence in or near the Project Area, the complaint would be investigated using information provided by the resident along with detailed potential shadow flicker calendars from within the WindPRO modeling software. Additional information regarding the shadow flicker on the residence may be acquired by Badger Hollow Wind's onsite operations team. WindPRO is the modeling application that was used to assess the expected shadow flicker occurrence described in the Shadow Flicker Analysis provided in **Appendix Z**. Additional investigation and detailed results exported from the model would then be compared to the real time documented shadow flicker incidents to verify that the occurrence falls within the potential periods predicted at the residence.

12.3.2 If the likelihood were high that the resident would experience shadow flicker, describe what measures would be used to reduce the impacts on the resident.

As described in Section 12.2.2, Badger Hollow Wind will offer to provide reasonable shadow flicker mitigation at non-participating receptors that are predicted to receive greater than 20 hours per year of shadow flicker based on the final Project layout upon receipt of a request for mitigation from the owner(s). As described in Section 12.2.1, shadow flicker mitigation measures include localized vegetative buffers, blinds, and/or turbine curtailment.

13. Local Government Impacts

13.1 Joint Development and Other Agreements

13.1.1 Provide a summary of major agreement items agreed upon in any Joint Development Agreements (JDA) or other type of agreement including:

- 13.1.1.1 All services to be provided by the city, town, and/or county during construction and when the plant is in operation (e.g. water, fire, EMS, police, security measures, and traffic control).**
- 13.1.1.2 Specifically, address community and facility readiness for incidents such as fires and critical turbine structure failures.**

13.1.2 Provide a copy of all agreements with local communities (e.g. JDA)

Although the Project is under the PSC's jurisdiction, Badger Hollow Wind is currently in the process of negotiating local agreements with Grant and Iowa Counties, the towns of Clifton, Eden, Linden, Mifflin, and Wingville memorializing Badger Hollow Wind's commitments to the local community. The current draft of the local agreement is provided in **Appendix S**.

Should they be required, Badger Hollow Wind anticipates that local fire and emergency medical services will be provided during construction and operation of the Project. Badger Hollow Wind will require that all contractors on-site meet all state, federal, and industry best practice standards for employee and public safety. Badger Hollow Wind will communicate regularly with local first response agencies and coordinate training meetings in accordance with the Project's Emergency Response Plan to ensure first responders are prepared for incidents that may occur on-site. Should any aspect of the Project construction or operations present unfamiliar situations for first responders, Badger Hollow Wind will arrange for adequate professional training to address those concerns. If needed, the Grant and Iowa Counties Sheriff's Office is expected to provide traffic control and security services.

13.2 Infrastructure and Service Improvements

13.2.1 Identify any local government infrastructure and facility improvements required (e.g. sewer, water lines, railroad, police, and fire)

Badger Hollow Wind anticipates that improvements to local roads will be necessary for equipment deliveries. The specific locations where road improvements will be necessary will be dependent on the final Project layout and corresponding haul routes. It is anticipated that most

intersections between U.S. Highway 18 and the final turbine locations will require widening to accommodate the turning radii of trailers delivering turbine components.

13.2.2 Describe the effects of the proposed project on city, village, town and/or county budgets for these items.

If improvements are necessary, such as the repair/improvement to specific roads used in hauling equipment and materials during construction, they will be done at Badger Hollow Wind's expense. Additionally, local government budgets will be positively impacted by hosting the Project. Wisconsin's Shared Revenue Utility Aid Program provides for payments to be distributed annually to communities hosting large electric generating facilities. The Project will be eligible for two components of the Shared Revenue Utility Aid Program: the MW-based payment and the incentive payment.

13.2.3 For each site provide an estimate of any revenue to the local community (i.e. city, village, town, county) resulting from the project in terms of taxes, shared revenue, or payments in lieu of taxes.

The Project will generate approximately \$590,000 in annual payments through Wisconsin's Shared Revenue Utility Aid Program. Over its anticipated 30-year life, the Project is anticipated to generate \$17,700,000. In accordance with the Shared Revenue Utility Aid Program distribution formula, Grant and Iowa Counties will receive approximately 57% of the annual payments and the towns of Eden, Mifflin, Linden, Clifton, and Wingville will receive the remaining approximately 43%. Final payment distributions between the towns will be determined based on the final Project layout.

13.2.4 Describe any other benefits to the community (e.g. employment, reduced production costs, goodwill gestures).

During construction, the workforce will be primarily comprised of laborers, equipment operators, electricians, and management personnel. During peak construction periods, approximately 200 workers are anticipated to be on-site. The amount of labor that will be sourced locally is unknown at this time, and will be dependent upon the construction contractor selected, local labor market, and the availability of qualified employees at the time of construction. Badger Hollow Wind estimates that roughly 50% of the construction workforce will be Wisconsin residents. During operation, Badger Hollow Wind expects the three full-time employees will reside locally. For additional predicted economic benefits to the local community and the state of Wisconsin, please see the Economic Impact Study provided in **Appendix ZA**.

Throughout the development process, Badger Hollow Wind has engaged with the community and made goodwill donations to the following groups:

- Cobb First Responders
- Cobb-Eden Fire Department
- Dodgeville Area Chamber of Commerce, Annual Golf Outing
- Dodgeville School District FFA
- Farmer's Appreciation Day
- Grant County Fair

- Iowa County 4-H Leaders Association
- Iowa County Cancer Coalition
- Iowa County Fair Society
- Iowa County Sheriff's Office
- Iowa-Grant High School Rodeo Association
- Iowa-Grant School District FFA
- Iowa-Grant High School's Trap Shooting Team
- Iowa-Grant High School's Band Team
- Iowa-Grant School District's "Panther Pack's Program"
- Linden Fire Department
- Livingston Community Improvement Corporation
- Livingston-Clifton Fire Department
- Montfort Fire Department
- Montfort Rescue Squad
- Platteville Regional Chamber's "Annual Golf Outing"
- Rewey Fire Department and First Responders
- Seniors United for Nutrition Program
- The Mining & Rollo Jamison Museum
- The Second Harvest Foodbank
- United Way of Platteville
- Village of Cobb's "Splash Pad"
- Village of Livingston's "Baseball Diamond at Jinkins Field & Sports Park"

14. Landowners Affected and Public Outreach

14.1 Mailing Lists

Provide a separate alphabetized list (names and addresses) in Microsoft excel for each of the groups described below:

- 14.1.1 Property owners and residents within the project boundary and a separate list of property owners and residents from the project boundary out to a distance of one mile. It is strongly recommended that applicants consult with PSC staff in order to ensure that the format and coverage are appropriate considering the project type, surrounding land use, etc.**
- 14.1.2 Public property, such as schools or other government land within one mile of the project area boundary.**
- 14.1.3 Clerks of cities, villages, townships, counties, and Regional Planning Commissions directly affected. Also include on this list the main public library in each county the proposed facilities would occupy.**
- 14.1.4 Applicable state and federal agencies.**

Please see **Appendix ZB** for the requested information.

- 14.1.5 Tribal government representatives for Native American Tribes that hold off-reservation treaty rights in Ceded Territory. This only applies to projects within the**

following counties: Ashland, Barron, Bayfield, Burnett, Chippewa, Clark, Douglas, Dunn, Eau Claire, Florence, Forest, Iron, Langlade, Lincoln, Marathon, Marinette, Menominee, Oconto, Oneida, Polk, Portage, Price, Rusk, Sawyer, Shawano, St. Croix, Taylor, Vilas, Washburn, and Wood County.

The following Tribes hold off-reservation treaty rights in Ceded Territory:

- **Bad River Band of Lake Superior Chippewa Indians**
- **Lac Courte Oreilles Band of Lake Superior Chippewa Indians**
- **Lac du Flambeau Band of Lake Superior Chippewa Indians**
- **Red Cliff Band of Lake Superior Chippewa Indians**
- **St. Croix Chippewa Indians of Wisconsin**
- **Sokaogon Chippewa Community (Mole Lake Band of Lake Superior Chippewa Indians).**

The Project is not located in the counties listed in Section 14.1.5, therefore, this Section is not applicable.

14.2 Public Outreach

14.2.1 List and describe all attempts made to communicate with and provide information to the public. Describe efforts to date and any planned public information activities. Provide copies of public outreach mailings.

14.2.2 Describe plans and schedules for maintaining communication with the public (e.g. public advisory board, open houses, suggestion boxes, and newsletters).

Badger Hollow Wind is committed to serving as a dedicated member of the community and will continue to work hard to earn and uphold trust over the life of the Project. Our engagement with the community goes well beyond job creation, economic investment, and providing clean, renewable energy. We strive to build lasting partnerships with civic leaders, property owners, and community members. We pride ourselves on being transparent in our communication and responsive to public feedback. Public outreach materials compiled and shared with the community thus far are provided in **Appendix ZC**.

Landowners

Project representatives have been meeting with area landowners to discuss the Project and land leasing since early-2019. Participating landowners have received welcome packets, update mailings, and notification letters since joining the Project. In 2019, Badger Hollow Wind employed a local representative to serve as a resource for both participating landowners and members of the community. The local representative is a participating landowner in the Badger Hollow Solar Project developed by Invenergy in Iowa County, adjacent to Badger Hollow Wind. Badger Hollow Wind believes that her real-world experience with solar project development, her role as the clerk of a nearby township, and professional agricultural background helps facilitate communication and affinity with the local community. In July 2022, she began hosting office hours at 2625 County Road J, Montfort WI 53569, on every second and fourth Wednesday of the month. Special appointments are also available upon request.

Regulatory Agencies

Badger Hollow Wind held a consultation with WDNR and USFWS staff on October 10, 2023 and July 31, 2024. On August 5, 2024, Badger Hollow Wind held the Pre-Application Meeting for the Project with PSC and WDNR staff. During these meetings, Project plans, surveys, vegetation management strategy, siting, BMP, and special status species were discussed.

Local Governmental Units

Beginning in fall 2022, meetings to describe the Project were held with local government representatives. The list of local governmental units engaged with the Project to date includes Iowa County (Chair, Supervisors), Iowa County Planning and Development (Director), Grant County (Chair, Supervisors), Town of Mifflin (Chair, Supervisors), Town of Linden (Chair, Supervisors), Town of Eden (Chair, Supervisors), Town of Clifton (Chair, Supervisors), Town of Wingville (Chair, Supervisors), Village of Montfort (Chair), and the Platteville Regional Chamber (Board of Directors).

General Public

Project representatives have shared information with the public via presentations to the Town of Mifflin, Town of Linden, Town of Eden, the Town of Clifton, and the Town of Wingville, engaging in 30 to 120-minute public comment question and answer sessions at each. Badger Hollow Wind has also given presentations to additional local governments and community groups identified in **Table 14.2b**. Badger Hollow Wind held a public forum meeting which was advertised on online media outlets and the township website, by the Town of Linden, on September 25, 2024. Project representatives and developers have been in regular attendance at town board meetings and have followed up with individuals who have stated they would like to learn more about the Project. Badger Hollow Wind will continue working with members of the public via local government meetings, small group meetings, one-on-one meetings, social media, advertisements, mailings, the local office, and the local representative.

Online

The Badger Hollow Wind Facebook presence is nested within a single, statewide page called “WisconSUN.” This is updated regularly to share project information, receive questions and comments from the public, and further communicate on Project status. The Facebook page can be found at <https://www.facebook.com/WisconSUN>. Additionally, Badger Hollow Wind created a Project-specific website for the general public to access information about the Project. The Project website can be accessed at <https://BadgerHollowWind.Invenergy.com>. Digital ads aimed to increase Project awareness by driving community members to the Project website were distributed via Facebook May - June 2024 and July 23 - August 7, 2024.

Dates for Appendix ZC

Table 14.2a provides a list of mailings sent to Project participants and neighbors within or adjacent to the Project Area.

Table 14.2a Public Outreach Mailings	
Date	Mailing
2/13/2019	Landowner Dinner Invitation

Table 14.2a Public Outreach Mailings	
Date	Mailing
05/2019	Spring Landowner Newsletter
10/2019	Fall Landowner Newsletter
5/21/2020	Project Update Letter to Landowners
10/2020	Fall Landowner Newsletter
10/2021	Fall Landowner Newsletter
3/11/2022	Landowner Dinner Invitation
4/28/2022	Landowner Dinner Follow Up Letter
5/13/2022	Letter to Non-Participants
7/1/2022	Office Hours Invitation to Landowners
7/18/2022	Agreement Letter to Landowners
10/2022	Fall Landowner Newsletter
11/11/2022	Letter to Non-Participants
12/1/2022	Agreement Letter to Landowners
11/16/2023	Site Visit Notice
01/2024	Winter Landowner Newsletter
1/2/2024	Landowner Questionnaire
1/16/2024	Good Neighbor Agreement Informational Letter
1/23/2024	Study Notice
1/30/2024	Landowner Dinner Invitation
2/15/2024	Landowner Dinner Follow Up Letter
3/4/2024	Municipal Public Meeting Notice to Landowners
3/5/2024	Good Neighbor Agreement Informational Letter
4/4/2024	Municipal Public Meeting Notice to Landowners
4/25/2024	Good Neighbor Agreement Informational Letter
5/15/2024	Stakeholder Information Letter
5/22/2024	Spring Planting Postcard
6/6/2024	Study Notice
6/10/2024	Study Notice
6/20/2024	Stakeholder Information Letter
7/8/2024	Landowner Questionnaire Follow Up
7/18/2024	Landowner Newsletter
8/7/2024	Landowner Dinner Invitation
9/1/2024	Phase 1 ESA Notice
10/2/2024	Happy Harvest Postcard

Table 14.2b provides a list of meetings and events held throughout the local community that Project representatives have participated in.

Table 14.2b Public Outreach Meetings / Events	
Date	Organization/Meeting
2/13/2019	Informational Landowner Dinner

Table 14.2b Public Outreach Meetings / Events	
Date	Organization/Meeting
4/20/2022	Informational Landowner Dinner
4/21/2022	Iowa County Planning and Development Director
9/12/2022	Village of Rewey Monthly Board Meeting
9/14/2022	Town of Linden Monthly Board Meeting
9/17/2022	Town of Mifflin Monthly Board Meeting
10/3/2022	Town of Eden Monthly Board Meeting
2/26/2023	2023 Winter Lyceum, Panelist – The Mining & Rollo Jamison Museums
8/10/2023	The Mining and Rollo Jamison Museum Donation Meeting and Tour
8/21/2023	Town of Mifflin Monthly Board Meeting
9/13/2023	Town of Clifton Monthly Board Meeting
9/13/2023	Town of Linden Monthly Board Meeting
9/19/2023	Town of Clifton Monthly Board Meeting
10/2/2023	Town of Eden Monthly Board Meeting
10/11/2023	Town of Linden Monthly Board Meeting
11/6/2023	Town of Eden Monthly Board Meeting
11/11/2023	The Platteville Regional Chamber's "Day on the Farm" Event
12/11/2023	President of the Village of Montfort
1/9/2024	Iowa County, County Administrator
2/1/2024	Wisconsin State Senator's Office
2/7/2024	Informational Landowner Dinner
2/14/2024	Town of Linden Monthly Board Meeting
2/29/2024	Iowa-Grant FFA Donation Meeting
2/29/2024	Iowa-Grant Elementary and Middle School Panther Packs Donation Meeting
3/4/2024	Town of Eden Monthly Board Meeting Presentation
3/5/2024	Linden Fire Department Donation Meeting
3/5/2024	Cobb-Eden Fire Department and Cobb First Responders Donation Meeting
3/5/2024	Rewey Fire Department and First Responders Donation Meeting
3/18/2024	Town of Mifflin Monthly Board Meeting Presentation
3/20/2024	Town of Linden Monthly Board Meeting
4/2/2024	Iowa County Planning and Development Director
4/16/2024	Dodgeville FFA Donation Meeting
4/17/2024	Iowa County Cancer Coalition Donation Meeting
4/19/2024	President and CEO of Wisconsin Counties Association
4/24/2024	Iowa Grant School District Career Fair
4/25/2024	Grant County Board Chairman
5/8/2024	Town of Clifton Monthly Board Meeting Presentation

Table 14.2b Public Outreach Meetings / Events	
Date	Organization/Meeting
5/20/2024	Iowa County Highway Commissioner
5/20/2024	Wisconsin Department of Transportation
6/4/2024	Iowa County Highway Department
6/10/2024	Livingston-Clifton Fire Department and First Responders Donation Meeting
6/17/2024	Town of Mifflin Monthly Board Meeting
7/1/2024	Town of Eden Monthly Board Meeting
7/10/2024	Town of Clifton Monthly Board Meeting
7/11/2024	Montfort Fire Department and Rescue Squad Donation Meeting
7/29/2024	Iowa County Fair Donation Meeting
7/29/2024	Grant County Fair Donation Meeting
7/30/2024	Wisconsin Department of Transportation Site Tour
7/31/2024	Wisconsin High School Rodeo Association Donation Meeting
8/5/2024	Town of Eden Monthly Board Meeting
8/5/2024	PSC and WDNR Pre-Application Meeting
8/7/2024	Iowa County Board Chairman
8/7/2024	Informational Landowner Dinner
8/14/2024	Town of Linden Monthly Board Meeting
8/19/2024	Town of Mifflin Monthly Board Meeting
8/20/2024	Grant County Monthly Board Meeting Presentation
8/20/2024	Iowa County Monthly Board Meeting Presentation
8/21/2024	Platteville Regional Chamber of Commerce Monthly Board Meeting Presentation
8/26/2024	Local Operating Contract Discussion - Iowa County
8/28/2024	President of Southwest Wisconsin Technical College
9/4/2024	UW Platteville Student Welcome Day
9/9/2024	Town of Wingville Monthly Board Meeting Presentation
9/11/2024	Highway Commissioner of Iowa County Highway Department
9/25/2024	Town of Linden Public “Special Meeting”

14.2.3 Identify all local media that have been informed about the project. The list of local media should include at least one print and one broadcast.

Badger Hollow Wind aired radio ads for the Project on 93.7 WGBR May 2024 - August 2024 and published print ads in the Grant, Iowa, Lafayette Shopping News on May 7, 2024, and October 1, 2024.

15. Aesthetic Impacts

15.1 Visual Impact Assessment

- 15.1.1 Provide a visual impact assessment (VIA) of the project that includes a map of all photo simulation locations agreed to by the applicant and Commission staff, and the photo simulations.**
- 15.1.2 Include in the VIA a cumulative visibility analysis map showing the number of wind turbines visible over bare terrain within a 10-mile study area out from the project area boundaries. Provide information on how many turbines would be visible at residences within that 10-mile study area through estimated zones of visibility.**
- 15.1.3 Include an analysis of visual impacts along any scenic roads, local parks or recreation facilities, or scenic viewpoints through the 10-mile assessment area.**
- 15.1.4 Describe the turbine safety lighting to be used and how visual impacts from this lighting can be mitigated.**

Please see the Visual Impact Assessment provided in **Appendix L** for the requested information. The Project will comply with FAA marking and lighting standards in accordance with FAA Advisory Circular 70/7460-1M to promote aviation safety. Turbines will be painted white or light grey, as these colors have been shown to be the most effective method for providing daytime conspicuity. Turbines will be equipped with FAA L-864 aviation red lights to provide nighttime visibility to pilots. A detailed Marking and Lighting Plan will be submitted to the FAA in Q1 2026. If approved by the FAA, an ADLS will be installed to minimize illumination time of the lights. An ADLS is an automated radar-based system that monitors airspace and activates lighting when an aircraft is detected at or below 1,000 feet above turbine tip height and approaching within 3 miles of a turbine location. When an aircraft exits the detection zone, the ADLS will turn the lights off.

16. DNR Information regarding Erosion Control and Storm Water Management Plans (not PSC requirements)

This section serves as guidance for development of Erosion Control and Storm Water Management Plans associated with DNR NR 216 Permits. These are not requirements for a PSC CPCN or CA.

16.1 Erosion Control and Storm Water Management Plans

DNR requires a detailed description of temporary and permanent erosion and sediment control measures to be utilized during and after construction of the project.

If the project would involve one or more acres of land disturbance, the applicant's request for permits under Wis. Stat. § 30.025 must identify the need for coverage under the Construction Site Storm Water Runoff General Permit from DNR. The permit application itself must be submitted through DNR's electronic Water Permits system after the PSC order. This permit may also authorize construction site dewatering discharges under certain conditions.

The Storm Water Permit and Wis. Admin. Code ch. NR 216 require a site-specific Erosion Control Plan, Site Map, and Storm Water Management Plan. The permittee would be required to implement and maintain, as appropriate, all erosion and sediment control practices identified in the plans from the start of land disturbance until final stabilization of the site. Final stabilization means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established with a density of at least 70 percent of the cover for the unpaved areas and areas not covered by permanent structures or equivalent stabilization measures.

The Erosion Control Plan, Site Map, Storm Water Management Plan, and any supporting documentation (such as modeling input/output, design specifications, geotech/soil report, site photos, etc.) must be submitted with the Storm Water Permit application through the DNR's Permitting system.

Erosion Control Plan - See Wis. Admin. Code § NR 216.46 for details regarding information required in the Erosion Control Plan as part of a complete permit application. Sections include:

- Site-specific plans.
- Compliance with construction performance standards in Wis. Admin. Code § NR 151.11.
- Details about the site and the project.
- List and schedule of construction activities.
- Site map(s) with site, project, and erosion and sediment control details.
- Description of temporary and permanent erosion and sediment controls.
- Compliance with material management, velocity dissipation, and inspection schedule requirements.

Storm Water Management Plan – See Wis. Admin. Code § NR 216.47 for details regarding information required in the Storm Water Management Plan as part of a complete permit application. Sections include:

- Compliance with applicable post-construction performance standards in Wis. Admin. Code § NR 151.121 through § NR 151.128.
- Description of permanent storm water management practices at the site and technical rationale.
- Groundwater and bedrock information if using permanent infiltration devices.
- Separation distances of permanent storm water management practices from wells.
- Long-term maintenance agreement for site vegetation and any other permanent storm water management features.

An ECSWMP will be completed and provided documenting compliance with Wis. Admin. Code § NR 216 and Wis. Admin. Code § NR 151. The ECSWMP will be provided with the Notice of Intent when submitted to obtain Construction Site Storm Water General Permit Coverage from WDNR. Final storm water BMP design/selection will be completed during final engineering.