

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Badger Wind, LLC
Badger Wind Project – McIntosh and Logan Counties
Siting Application

Case No. PU-22-086

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

_____, 2022

Appearances

Commissioners Julie Fedorchak, Randy Christmann, and Sheri Haugen-Hoffart.

Mollie M. Smith and Bridget A. Duffus, Fredrikson & Byron, P.A., 200 South 6th Street, Suite 4000, Minneapolis, MN 55402, on behalf of the Applicant, Badger Wind, LLC.

Mitch Armstrong, Special Assistant Attorney General, North Dakota Public Service Commission.

Kevin Pranis, 81 East Little Canada Road, St. Paul, MN 55117, on behalf of Laborers District Council of Minnesota and North Dakota (LIUNA).

Hope L. Hogan, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street – Suite 303, Bismarck, ND 58503, as Procedural Hearing Officer.

Preliminary Statement

On February 25, 2022, Badger Wind, LLC (Badger Wind) filed an Application for a Certificate of Site Compatibility (Application) for a proposed wind energy conversion facility (Project) to be located in McIntosh and Logan Counties, North Dakota.

On May 17, 2022, the North Dakota Public Service Commission (Commission) issued a Notice of Filing and Notice of Hearing, scheduling a public hearing for June 28, 2022, at 9:30 a.m. Central Time at Wishek Civic Center, 715 1st Avenue South, Wishek, ND 58495. The Notice identified the following issues to be considered:

1. Will the location and operation of the proposed facility produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Is the proposed facility compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed facility location minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On May 24, 2022, Badger Wind filed a letter agreeing to waive the requirement in Section 49-22-16(4) of the North Dakota Century Code that state agencies must submit comments on an application at least 30 days prior to the public hearing, and stating that Badger Wind agrees to accept comments from agencies regarding the Project up until the date of the public hearing.

On May 25, 2022, the Commission deemed the Application complete. The Commission's written motion conditioned completeness on receipt, at least 30 days prior to the hearing, of the final site layout plan, including Figures 1 through 11 of the Application with the associated GIS shapefiles and all updated studies, including updated sound, shadow flicker, and telecommunications studies. However, per discussion at the May 25, 2022 regular meeting, the motion was modified to limit the 30 day filing requirement to the final site layout plan and updated figures/GIS, since Badger Wind had waived the requirement in Section 49-22-16(4) of the North Dakota Century Code that state agencies must submit comments on an application at least 30 days prior to the public hearing.

On May 26, 2022, Badger Wind filed updated Figures 1 through 11, which included the final site layout plan, and associated GIS data in support of the Application.

On June 1, 2022, the North Dakota Department of Environmental Quality (NDDEQ) filed comments on the Project.

Also on June 1, 2022, the North Dakota Game and Fish Department (NDGF) filed comments on the Project. On June 3, 2022, NDGF filed revised attachment 7 to its comments.

On June 8, 2022, Badger Wind filed the following Hearing Exhibit Nos. 2 – 30-A: (2) Updated Figures 1 through 11 in support of the Application; (3) Comparison Figure; (4) Updated Application Table 7-1 (Potential Permits and Approvals); (5) Summary of Project Adjustments; (6) Additional Noise Waiver Obtained; (7) Updated Shadow Flicker Analysis Report; (8) Updated Sound Analysis Report; (9) Grassland Habitat Assessment; (10) Plains Sharp-Tailed Grouse Conservation Strategy; (11) Summary of Avoidance, Minimization, and Mitigation Measures; (12) Project Receptor Chart; (13) Class III Cultural Resources Inventory [Public and Confidential versions]; (14) Class I Literature Review and Class II Architectural Reconnaissance Inventory, and State Historical Society of North Dakota (SHSND) Letter; (15-A) Aquatic Resources Delineation Report (Atwell 2022); (15-B) Aquatic Resources Inventory Report (WEST 2021); (16) Emergency Response Plan; (17) TV Reception Baseline Study; (18) Logan County Conditional Use Permit/Wind Energy Facility Siting Permit; (19) Letter of support from the Wishek Job

Development Authority; (20) Additional North Dakota Department of Trust Lands (NDDTL) Correspondence; (21) Additional NDGF Correspondence; (22) Additional North Dakota Department of Transportation (NDDOT) Correspondence; (23) Red Lake Township Correspondence; (24) Additional SHSND Correspondence; (25) Additional NDDEQ Correspondence; (26) Preliminary Building Inventory Figure; (27) Signed Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications; (28) Updated Bird and Bat Conservation Strategy (BBCS); (29) Prefiled Testimony of Sarah Aftergood; (29-A) Aftergood Resume; (30) Prefiled Testimony of Nicholas Gebauer; and (30-A) Gebauer Resume.

On June 10, 2022, Badger Wind filed an Application for Protection of Information for cultural resource location information contained in the Class III Cultural Resources Inventory and the associated GIS data.

On June 14, 2022, LIUNA filed a Petition to Intervene.

On June 15, 2022, ALJ Hogan issued an Order granting LIUNA's Petition to Intervene.

On June 17, 2022, Badger Wind filed a letter informing the Commission of the potential for all 79 proposed turbine locations identified in the final layout to be constructed.

On June 23, 2022, LIUNA filed: (1) Prefiled Testimony of Steve Cortina; (2) Prefiled Testimony of Kevin Pranis; and (3) Case Study of the Badger Wind Farm.

On June 24, 2022, Badger Wind filed additional agency correspondence (Hearing Exhibit No. 31).

On June 27, 2022, SHSND filed comments on the Project.

On June 27, 2022, the United States Fish and Wildlife Service (USFWS) filed comments on the Project.

On June 27, 2022, Badger Wind filed additional agency correspondence (supplement to Hearing Exhibit No. 31).

On June 28, 2022, the public hearing was held. At the public hearing, Badger Wind submitted a National Land Cover Database (NLCD) Land Cover Map (Hearing Exhibit No. 32).

On July 1, 2022, ALJ Hogan issued an Order granting Badger Wind's Application for Protection of Information.

On August 26, 2022, Badger Wind filed Late-Filed Hearing Exhibit Nos. 33 – 36-A: (33) Cultural Resources Reports and State Historical Society of North Dakota Correspondence; (33-A) Updated Class III Cultural Resources Inventory, dated June 27, 2022 [CONFIDENTIAL]; (33-B) State Historical Society of North Dakota Concurrence Letter, dated July 26, 2022 (for Updated Class III Cultural Resources Inventory, dated June 27, 2022); (33-C) Supplemental 2022 Intensive Cultural Resources Inventory, dated June 27, 2022 [CONFIDENTIAL]; (33-D) State Historical Society of North Dakota Concurrence Letter, dated July 26, 2022 (for Supplemental 2022 Intensive Cultural Resources Inventory, dated June 27, 2022); (33-E) Intensive Cultural Resource Inventory of Collection Line Reroutes, dated August 2, 2022 [CONFIDENTIAL]; (34) McIntosh County Weed Board Information; (34-A) McIntosh County Weed Board Correspondence; (35) Response to North American Coal Comments; (36) Shadow Flicker Information; and (36-A) Detailed Shadow Flicker Calculations.

Also on August 26, 2022, Badger Wind filed an application for protection of information.

Also on August 26, 2022, Badger Wind filed proposed findings of fact, conclusions of law and order.

Having allowed all interested persons an opportunity to be heard and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes its:

Findings of Fact

1. Badger Wind is a Delaware limited liability company and is an indirect, wholly-owned subsidiary of Ørsted Onshore North America, LLC (Ørsted).
2. Badger Wind is authorized to do business in the State of North Dakota, as evidenced by the Certificate of Good Standing issued by the North Dakota Secretary of State on January 13, 2022 (Case No. PU-22-085).
3. The Project will be owned and operated by Badger Wind.

Size, Type, and Preferred Location of Facility

4. Badger Wind proposes to construct the Project within approximately 31,467 acres of land in Logan and McIntosh Counties in North Dakota (Project Area). Badger Wind requests that the Project Area, as depicted on Figure 2 in Hearing Exhibit No. 2, be designated as the site for the Project. The Project will consist of up to 79 wind turbines and have a nameplate capacity of up to 251.6 megawatts (MW), with up to 250 MW delivered to the grid.

5. Badger Wind has not yet selected a specific turbine model for the Project. Turbine model specifications for the GE-3.4 MW, a turbine model under consideration, are provided in Section 4.1.1 of the Application (Hearing Exhibit No. 1).
6. For all 79 proposed turbine locations, Badger Wind sited the locations to comply with applicable setbacks for a turbine up to 98 meters (322.5 feet) in hub height, with an up to 140-meter (459.3 feet) rotor diameter, and with a total tip height of 168 meters (551.2 feet).
7. The number of turbines constructed is dependent upon the final turbine model or models selected, but the proposed turbine locations will not change. The turbine model or models selected will use all or a subset of the 79 proposed turbine locations.
8. In addition to turbines, associated Project facilities constructed within the Project Area will include access roads and improvements to existing roads (as needed), an underground electrical collection and communication system with aboveground junction boxes and/or underground splices, up to three permanent meteorological towers, an operations and maintenance (O&M) facility, light-mitigating technology components (currently anticipate use of an Aircraft Detection Lighting System (ADLS)), and a collector substation. Other temporary facilities required for the Project's construction may include a three-acre temporary batch plant, a 15-acre laydown yard for construction offices, a seven-acre multi-purpose laydown area, a ten-acre marshaling yard to assist with logistics during turbine component deliveries, crane paths, staging areas, and temporary road and intersection improvements.
9. Foundation size and design will be finalized based on the results of the geotechnical analyses conducted once the turbine model(s) is selected.
10. Each turbine will communicate directly with the Supervisory Control and Data Acquisition (SCADA) system for remote monitoring, reporting, troubleshooting, and control of turbine equipment and performance.
11. Construction of the Project is anticipated to begin as soon as September 2022 and be completed as soon as the end of the Fourth Quarter of 2023. Commercial testing is anticipated to take place after construction is complete, with commercial operations expected in the Fourth Quarter of 2023.
12. The estimated cost for construction of the Project is approximately \$390 million.
13. The Project will interconnect to the grid at the Montana-Dakota Utilities Wishek Junction 230-kV substation, located in McIntosh County, North Dakota. To interconnect the Project to the grid, Badger Wind will construct an approximately 0.75-mile transmission line between the Project substation and the Wishek Junction 230-kV substation. The transmission line will be less than one mile long and therefore is not subject to the jurisdiction of the Commission as a "transmission facility."

Study of Preferred Location

14. Badger Wind performed a desktop evaluation of the Project Area for soils, land use, wetlands and waterbodies, trees and shrubs, protected species, and critical habitats.

15. Woodlands comprise less than one percent of the total Project Area. If trees or shrubs are impacted by the Project, Badger Wind will coordinate with landowners regarding tree removal and replacement and comply with the Commission's tree and shrub mitigation specifications.

16. Wetland delineations were completed for the Project, with the exception of the one collection line that has been re-routed to avoid an archaeological site. Badger Wind will conduct wetland delineations of the collection line re-route described above and will file the results with the Commission prior to beginning construction in that area. In the event the Project layout changes from what is depicted in Hearing Exhibit No. 2, Badger Wind will complete a wetland delineation of any previously unsurveyed areas, as necessary.

17. Badger Wind has designed the Project to minimize temporary wetland impacts. Where collection lines would intersect a wetland, impacts will be avoided by boring beneath the wetlands. Wetland impacts are anticipated to be less than the threshold for a U.S. Army Corps of Engineers (USACE) Clean Water Act Nationwide Permit.

18. The Project avoids permanent impacts to delineated wetlands, with the exception of one access road that will cross a field-delineated drainage wetland that parallels an existing road, resulting in a permanent impact to this wetland of less than 0.01 acre. The wetland extends across the property and would be difficult to avoid. Badger Wind has sited this access road in the location of an existing farm road to minimize impacts to this wetland. Additionally, a culvert will be installed where the road crosses the drainage to facilitate continued wetland function and local hydrology. This impact will be self-certified under the USACE Clean Water Act Nationwide Permit program. Badger Wind has demonstrated that there is no reasonable alternative to impacting this wetland.

19. USFWS wetland easements are present in the northeastern portion of the Project Area. Impacts are anticipated to occur within USFWS wetland easements; however, the Project obtained leases for these parcels prior to the USFWS obtaining the easements and, as such, Badger Wind's easements have priority over the USFWS wetland easements. Nevertheless, Badger Wind has been coordinating regularly with the USFWS Kulm office to determine best approaches for construction to avoid permanent and minimize temporary impacts to the USFWS wetland basins.

20. Underground collection lines are sited on USFWS grassland easements in two areas. Badger Wind has consulted with the USFWS Kulm office and will bore collection lines under the USFWS grassland easements to avoid impacts.

21. There are no fee-owned USFWS Waterfowl Production Areas (WPAs) in the Project Area.

22. Badger Wind conducted environmental studies of the Project Area, and impacts to wildlife are anticipated to be minimal. Among the studies conducted were:

A. Avian Surveys. Badger Wind conducted baseline general avian use surveys, fixed-point avian use surveys, and aerial and ground-based eagle and raptor nest surveys. The surveys identified avian species and raptor and eagle nests within and/or near the Project Area. No known, active golden eagle nests were identified within the Project Area or within ten miles of it. One active bald eagle nest and one alternate nest were identified within the Project Area but are located more than two miles from Project turbine locations.

B. Whooping Crane Stopover Habitat Analysis. Based on the potential use of the Project Area by whooping cranes, Badger Wind conducted a whooping crane habitat assessment to understand what potential stopover habitat exists within the Project Area, and how that habitat compares to the habitat present in surrounding areas. The assessment indicated that potential whooping crane stopover habitat is present in the Project Area, but that the habitat is of relatively lower quality and quantity compared to the nearby reference areas analyzed.

C. Sharp-tailed Grouse Lek Surveys. The surveys found two confirmed lek locations within the current Project Area boundary, four confirmed and one possible lek locations within one mile of the Project Area boundary, and seven confirmed and one possible lek locations more than one mile from the Project Area boundary. Badger Wind retained Western EcoSystems Technology, Inc. (WEST) to develop a Plains Sharp-Tailed Grouse Conservation Strategy to minimize potential impacts to sharp-tailed grouse. The majority of turbines are sited in areas that are not suitable for sharp-tailed grouse, and all turbines located in identified suitable habitat are sited in previously fragmented areas, which helps minimize impacts to the local sharp-tailed grouse population. Additionally, all turbines are spaced a minimum of 0.6 miles apart, which may facilitate movement between key habitats.

D. Acoustic Bat Monitoring and Bat Habitat Assessment. Bat activity in the Project Area is relatively low. No northern long-eared bat (NLEB) calls were confirmed, although there were two unconfirmed calls from the *Myotis* species group, which includes the NLEB. The desktop Bat Habitat Assessment found that potentially suitable habitat for NLEB is limited within the Project Area. The results of the acoustic monitoring and habitat assessment indicate the potential for NLEB to occur in the Project Area is low.

E. Grassland Assessment. Badger Wind conducted desktop and field verifications of unbroken grassland within the Project Area. No turbines are located on unbroken grasslands. Additionally, Badger Wind sited turbines in already fragmented areas to minimize potential impacts to grassland species.

23. Badger Wind has prepared a BBCS (Hearing Exhibit No. 28), which outlines specific avoidance, minimization, and mitigation measures.

24. Badger Wind completed a Class I Archeological Literature Review of a larger potential Project Area plus a one-mile buffer, and Class III Cultural Resources Inventories of all areas that might be impacted by construction of the Project.

25. The Class III Inventories identified one Site Lead and seven archaeological sites that are unevaluated for listing in the National Register of Historic Places (NRHP), and these sites will be avoided. Badger Wind incorporated the SHSND's comments and recommendations into the Class III reports. With the exception of the Class III report for a recently re-routed collection line area, Badger Wind has received concurrences from the SHSND for the Class III reports. Badger Wind will obtain and file a copy of SHSND's concurrence for the re-routed collection line Class III report with the Commission prior to beginning construction in said area.

26. In the event any element of the Project layout changes from the layout provided in Hearing Exhibit No. 2, Badger Wind will do the following: complete Class III cultural resource survey work for any previously unsurveyed areas, per SHSND's guidance; submit the findings to SHSND for review; and obtain and file with the Commission a copy of SHSND's response prior to beginning construction in those areas.

27. Badger Wind completed a Class I Literature Review and Class II Architectural Reconnaissance Inventory Survey for structures 45 years of age or older within a two-mile visual area of potential effect of potential turbine locations. The Class II Survey identified five architectural resources and one contributing resource that are recommended as potentially eligible for listing in the NRHP, but the Project is not anticipated to have an adverse direct or indirect impact on them. SHSND concurred with the Class II survey report.

28. Project facilities will avoid identified cultural resource sites; thus, cultural resources are not expected to be impacted by the Project.

29. Section 49-22-16(4) of the North Dakota Century Code provides that a site shall not be designated that violates the rules of any state agency, and that compliance with an agency's rules shall be presumed if the agency fails to present its position with respect to the proposed facility at the public hearing. The federal, state and local departments, agencies and entities that were consulted and provided comment are as follows:

- a. Federal – U.S. Department of Defense (DOD); USACE, North Dakota Regulatory Office; Federal Aviation Administration (FAA); United States Department of Commerce – National Telecommunications and Information Administration (NTIA); USFWS; U.S. Department of the Interior, Bureau of Land Management (BLM); and U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS).

b. State – North Dakota Aeronautics Commission (NDAC); NDDEQ; NDDTL; NDGF; North Dakota Department of Water Resources; North Dakota Parks & Recreation; NDDOT; North Dakota Geological Survey; and SHSND.

c. Local – Wishek Municipal Airport; Logan County Zoning Commission and Board of County Commissioners; Logan County Weed Board; McIntosh County Board of Commissioners; McIntosh County Weed Board; and Red Lake Township Board of Supervisors.

30. Agency consultations and comments are noted in Appendix D of the Application and in the exhibits and the testimony presented at the public hearing.

31. Section 49-22-16(2) of the North Dakota Century Code provides that no energy conversion facility site shall be designated that violates any local land use, zoning or building rules, regulations or ordinances. Badger Wind obtained a wind energy facility siting permit/conditional use permit for the Project from Logan County on May 11, 2022. McIntosh County does not have zoning regulations. Badger Wind will comply with applicable county zoning ordinance requirements.

32. Badger Wind currently holds wind energy lease agreements and easements covering all land within the Project Area that is needed to construct and operate the Project.

33. The Project will be constructed in accordance with applicable National Electric Safety Code (NESC) and National Electric Code (NEC) requirements.

Siting Criteria

34. Chapter 69-06-08 of the North Dakota Administrative Code sets forth certain criteria to guide the Commission in evaluating the suitability of granting an application for a certificate of site compatibility. The criteria, as set forth in Section 69-06-08-01 of the North Dakota Administrative Code are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria.

35. Five Exclusion Areas specific to wind energy conversion facilities are present within the Project Area: (a) areas less than 1.1 times the height of the turbine from the nearest edge of an interstate or state roadway right-of-way; (b) areas less than 1.1 times the height of the turbine plus 75 feet from the centerline of any county or maintained township roadway; (c) areas less than 1.1 times the height of the turbine from the nearest edge of any railroad right-of-way; (d) areas less than 1.1 times the turbine height from the nearest edge of a 115 kV or higher transmission line right-of-way; and (e) areas less than 1.1 times the turbine height from the property line of a non-participating landowner and three times the height of the turbine from an inhabited rural residence of a non-

participating landowner, unless a variance has been granted. No turbines will be located within these Exclusion Areas.

36. All setbacks are measured from the closest edge of the turbine tower base to the closest edge of the applicable feature.

37. An energy conversion facility must not be sited within an Avoidance Area unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites.

38. With respect to Avoidance Areas, cultural resources are present within the Project Area, but the Project has been sited to avoid cultural resource sites. An Unanticipated Discovery Plan has been developed and was reviewed by SHSND.

39. Wetlands are present within the Project Area, but the Project has been sited to avoid and/or minimize permanent and temporary impacts to delineated wetlands to the extent practicable. Where collection lines would intersect a wetland, temporary impacts will be avoided by boring beneath the wetland. One access road will cross a field-delineated drainage wetland that parallels an existing road, resulting in less than 0.01 acres of permanent impacts to wetlands. Badger Wind has sited this access road in the location of an existing farm road to minimize impacts to this wetland, and a culvert will be installed where this access road crosses a drainage to facilitate continued wetland function and local hydrology. The wetland functionality will continue, and the access road placement minimizes overall environmental impacts. Wetland impacts will be covered by one or more USACE Nationwide Permits.

40. Minimal trees and shrubs are located within the Project Area. The Project has been designed to minimize tree removal to the extent possible. Badger Wind will minimize temporary impacts to trees. Any tree and shrub removal and replacement will be conducted in accordance with the Commission's tree and shrub mitigation specifications. Badger Wind may need to clear areas up to 100 feet in order to construct collection lines, access roads, and/or crane walks adjacent to one another. Badger Wind requested Commission approval to remove trees and/or shrubs from an area wider than 50 feet in these locations.

41. In accordance with the Commission's Selection Criteria, a site may be approved if it is demonstrated that any significant adverse effects resulting from the location, construction, and operation of the energy conversion facility will be at an acceptable minimum or that the effects will be managed and maintained at an acceptable minimum. In accordance with the Commission's Policy Criteria, preference may be given to an

applicant demonstrating certain benefits of the proposed energy conversion facility in accordance with Section 69-06-08-01(6) of the North Dakota Administrative Code.

42. With all 79 proposed turbine locations and associated facilities, the Project would occupy up to approximately 78 acres of land, or approximately 0.25 percent of the total Project Area, during the life of the Project. Badger Wind will continue to work with landowners to minimize land use disruptions from the siting of the facilities. No impacts to the quality of the agricultural land are anticipated.

43. Badger Wind submitted evidence demonstrating any significant adverse effects resulting from the location, construction, and operation of the Project as they relate to the Selection Criteria set forth in Section 69-06-08-01(5) of the North Dakota Administrative Code will be at an acceptable minimum or managed and maintained at an acceptable minimum.

44. During construction, the Project will likely result in a temporary increase in traffic on county and township roads. The increase in traffic during construction is not expected to be at a volume that will significantly disrupt residents or travel in the Project Area. Haul road permits will be obtained from applicable townships, McIntosh and Logan Counties, and NDDOT, if needed. Badger Wind has entered into road use and maintenance agreements with Logan County and McIntosh County. County and township roads will be restored in accordance with the Signed Certification Relating to Order Provisions Wind Energy Conversion Facility Siting (dated June 7, 2022). During operation, no adverse effects to transportation facilities or networks are anticipated.

45. The Project will not have significant adverse impacts on the ability of the affected area to provide community services, such as housing, health care, educational services, police and fire protection, water and sewer, or solid waste management.

46. The Project will benefit the local economy through the creation of construction and operation and maintenance jobs; easement payments to landowners; state and local tax revenue; and local expenditures for equipment, fuel, operating supplies, products, and services.

47. Badger Wind submitted evidence demonstrating its commitment to maximize the benefits of the Project to the extent possible to meet the Policy Criteria set forth in Section 69-06-08-01(6) of the North Dakota Administrative Code.

48. Badger Wind coordinated with USFWS and NDGF with respect to the Project. From early 2020 through to the present, Badger Wind has engaged in extensive coordination with USFWS and NDGF on surveys and protocols, Project site selection, turbine placement, avoidance and minimization measures, and voluntary offsets.

49. Both agencies recommended avoidance of unbroken grassland to minimize potential impacts to grassland species, and both agencies acknowledged the changes Badger Wind made to reduce potential Project impacts to unbroken grasslands. No

turbines are sited within unbroken grasslands. Additionally, the majority of turbine locations are in areas that are not suitable for grassland species habitat, and all turbines in suitable habitat are sited in already fragmented areas.

50. In its May 27, 2022 letter, NDGF requested that Badger Wind include a specific statement in the BBCS regarding its voluntary commitment to provide offsets for potential direct and indirect waterfowl and grassland breeding bird impacts. In its June 27, 2022 letter, USFWS requested that Badger Wind update the BBCS with offset calculation and implementation specifics, once determined. Badger Wind has updated its BBCS to include a specific offset commitment (see BW Exhibit No. 28), and testified that it would comply with USFWS's request for further BBCS offset updates when available. Badger Wind will continue to coordinate with NDGF and USFWS throughout Project development, construction, and operation.

51. Based on the totality of the evidence presented, the Commission finds Badger Wind has sited the Project to minimize potential impacts to wildlife.

52. Badger Wind conducted sound analyses for the Project. Seven inhabited residences were modeled above 45 dBA within 100 feet of the receptor. However, Badger Wind has secured wind energy lease agreements and easements, which include waivers of the sound requirement, from the owners of six of these residences. Badger Wind has also secured a good neighbor agreement, which includes a waiver of the sound requirement, from the owner of the remaining inhabited residence. All other receptors, both participating and non-participating, are modeled below 45 dBA within 100 feet of the receptor. Accordingly, sound levels within 100 feet of an inhabited residence or community building will not exceed 45 dBA, unless waived in writing by the owner of such residence or building.

53. Badger Wind conducted shadow flicker analyses for the Project. Based on the shadow flicker analysis, one inhabited residence is modeled at 38 hours per year of shadow flicker. However, Badger Wind has secured a wind energy lease agreement and easement, which include a shadow flicker waiver, from the owner of that residence. All other inhabited residences, both participating and non-participating, are modeled below 30 hours per year or less of shadow flicker. Accordingly, the Project will comply with Badger Wind's voluntary commitment of 30 hours per year or less of shadow flicker at all residences, absent a waiver.

Measures to Minimize Impacts

54. Badger Wind has agreed to the measures to mitigate Project impacts, as indicated by the attached Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (dated June 7, 2022). Badger Wind is authorized to clear areas in the Project Area up to 100 feet in order to collocate collection lines, access roads, and/or crane walks.

55. Based on the current Project layout, as depicted in Hearing Exhibit No. 2, all Project turbines are located at least 1,653.6 feet (three times maximum turbine tip height) from currently occupied residences of nonparticipating landowners.

56. Subject to FAA approval, Badger Wind will install and operate an ADLS or other technology suitable to the Commission on the Project in accordance with Section 49-22-16.4 of the North Dakota Century Code.

57. Badger Wind will use best management practices (BMPs) to minimize impacts on ground and surface water, and to prevent soil erosion. Badger Wind will implement appropriate erosion control measures. Badger Wind will obtain coverage under the North Dakota Pollutant Discharge Elimination System (NDPDES) General Construction Permit and develop a Storm Water Pollution Prevention Plan. Construction of the Project is not anticipated to have a significant adverse impact on surface or ground water resources or soils.

58. Badger Wind will participate in the North Dakota One-Call Excavation Notice System.

59. Badger Wind will coordinate with local authorities and emergency service providers to determine appropriate safety precautions and standards. Badger Wind has developed an initial Emergency Response Plan (Hearing Exhibit No. 16), which will be finalized in coordination with emergency service providers to implement these precautions and standards.

60. Lightning and grounding protection for all wind farm equipment is designed and constructed to be compliant with all applicable NEC and NESC requirements.

61. Badger Wind will comply with the Commission's decommissioning rules, including filing a decommissioning plan with the Commission prior to the commencement of operation of the Project, and performing decommissioning in accordance with all applicable rules and regulations.

From the foregoing Findings of Fact, the Commission now makes its:

Conclusions of Law

1. The Commission has jurisdiction over this proceeding under Chapter 49-22 of the North Dakota Century Code.

2. The Project is an electric energy conversion facility as defined in Section 49-22-03(5) of the North Dakota Century Code.

3. The Application submitted by Badger Wind meets the site evaluation criteria required by Chapter 49-22 of the North Dakota Century Code.

4. The location, construction, and operation of the proposed electric energy conversion facility will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
5. The proposed electric energy conversion facility is compatible with environmental preservation and the efficient use of resources.
6. The proposed electric energy conversion facility location will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.
7. The Commission has jurisdiction to ensure compliance with NESC standards in the construction and operation of the Project.

From the foregoing Findings of Fact and Conclusions of Law, the Commission now makes its:

Order

The Commission orders:

1. Certificate of Site Compatibility No. ___ for an Energy Conversion Facility is issued to Badger Wind, LLC, designating a site for a wind energy conversion facility that corresponds to the Project Area depicted in Hearing Exhibit No. 2.
2. That within the designated site, as depicted in Hearing Exhibit No. 2, Badger Wind is authorized to site, construct, operate, and maintain wind turbines and associated equipment, access roads and improvements to existing roads, an O&M facility, a substation, up to three permanent meteorological towers, light-mitigating technology components, and an underground electrical collection and communication system with aboveground junction boxes and/or underground splices, as well as any other associated facilities identified in the Application, at the hearing and in any supplemental filings.
3. Badger Wind will complete a wetland delineation on the collection line re-route and will file the results with the Commission prior to beginning construction in the area (see Finding No. 16). Badger Wind will obtain and file a copy of SHSND's concurrence on its Class III cultural resource survey report for the collection line re-route prior to beginning construction in said area (see Finding No. 25).
4. If modifications are made to the Project layout, Badger Wind will complete a Class III cultural resource survey for any previously unsurveyed portions of the designated site affected by Project-related construction activities; will submit cultural resource findings to SHSND for review; and will obtain and file a copy of SHSND's response with the Commission prior to beginning construction in those areas.

5. If modifications are made to the Project layout, Badger Wind will complete a wetland delineation of any previously unsurveyed areas affected by Project-related activities, as necessary.

6. Badger Wind shall comply with the Commission's Avoidance Area sound requirement. In the event Project modifications occur that are not covered by its current sound analysis, Badger Wind will conduct a sound analysis to ensure that the Project complies with the Commission's Avoidance Area sound requirement.

7. Badger Wind shall site Project turbines so as to meet a shadow flicker goal of 30 hours per year or less at each currently inhabited residence, considering site-specific conditions, unless otherwise agreed to by the landowner. When final turbine selections are completed, or in the event Project modifications occur that are not covered by its current shadow flicker analysis, Badger Wind shall conduct further shadow flicker analysis to ensure this requirement is met.

8. The June 7, 2022 Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (Hearing Exhibit No. 27) is incorporated by reference and attached to this Order. Badger Wind is authorized to clear areas in the Project Area up to 100 feet in order to collocate collection lines, access roads, and/or crane walks.

9. Prior to commencing construction of any portion of the Project, Badger Wind shall obtain all other necessary licenses and permits for the construction of such portion and provide copies to the Commission.

PUBLIC SERVICE COMMISSION

Randy Christmann
Commissioner

Julie Fedorchak
Chair

Sheri Haugen-Hoffart
Commissioner