

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Bowman Wind, LLC
Bowman Wind Project – Bowman County
Siting Application

Case No. PU-21-121

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

_____, 2022

Appearances

Commissioners Julie Fedorchak and Randy Christmann.

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

Brian Johnson, 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).

Timothy J. Dawson, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street – Suite 303, Bismarck, ND 58503, as Procedural Hearing Officer.

Preliminary Statement

On March 30, 2021, Bowman Wind, LLC (Bowman Wind) filed an Application for a Certificate of Site Compatibility (Application) for a proposed wind energy conversion facility known as the Bowman Wind Project (Project) to be located in Bowman County, North Dakota.

On May 5, 2021, the North Dakota Public Service Commission (Commission) deemed the Application complete, conditioned on receipt at least 30 days prior to the hearing of the final site layout plan, including updated Figures 1 through 10 of the Application with the associated GIS shapefiles, and all updated studies, including updated sound, shadow flicker, and telecommunications studies. The Commission also issued a Notice of Filing and Notice of Hearing, scheduling a public hearing for June 24, 2021, at 9:00 a.m. Central Time (8:00 a.m. Mountain Time) at Bowman Lodge & Convention Center, 207 West Highway 12, Bowman, ND 58623.

On May 14, 2021, the North Dakota Geological Survey (NDGS) filed comments on the Project.

On May 20, 2021, North Dakota Department of Game and Fish (NDGF) filed comments on the Project.

On May 24, 2021, Bowman Wind filed a letter requesting the public hearing be postponed and rescheduled in order to give Bowman Wind time to address a neighboring landowner's concerns prior to submitting its final Project layout.

On June 9, 2021, the Commission issued a Notice of Postponement and Continuance continuing the matter pending rescheduling at an appropriate date and time.

On June 11, 2021, the United States Department of the Interior, Bureau of Land Management (BLM) filed comments on the Project.

On June 22, 2021, Commission Staff filed requests for additional information.

On June 23, 2021, the Commission deemed the Application complete, conditioned on receipt at least 60 days prior to the hearing of the final site layout plan and the wetland delineation report, and receipt at least 30 days prior to the hearing of updated Figures 1 through 10 of the Application with the associated GIS shapefiles and all updated studies, including updated sound, shadow flicker, and telecommunications studies. The Commission also issued a Notice of Rescheduled Hearing, rescheduling the public hearing for August 24, 2021, at 9:00 a.m. Central time (8:00 a.m. Mountain Time) at Four Seasons Pavilion West Wing, 12 Hwy 12 East, Bowman, ND 58623. 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 June 25, 2021, Bowman Wind filed: (1) a final layout plan; (2) wetland delineation report; and (3) an updated publication map.

On July 6, 2021, LIUNA filed a Petition to Intervene.

On July 13, 2021, Bowman Wind filed responses to Commission Staff's requests for information.

On July 16, 2021, ALJ Dawson issued an Order granting LIUNA's Petition to Intervene.

On July 23, 2021, Bowman Wind filed: (1) updated Figures 1 through 12 in support of the Application; (2) a Comparison Figure (comparing the initial Project layout with the current Project layout); (3) an updated Sound Modeling Report; (4) an updated Shadow Flicker Report; (5) a U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA) review response letter; (6) a Receptor Chart; (7) updated Application Table 7.0-1 (Potential Permits and Approvals); (8) a Weed Management Plan; (9) an Emergency Response Plan; (10) a Grassland Assessment; (11) an updated Bird and Bat Conservation Strategy (BBCS); and (12) a summary of Project changes.

On August 4, 2021, Bowman Wind filed the following Hearing Exhibit Nos. 2-24, and 26-28: (2) Summary of Project Adjustments; (3) updated Figures 1 through 12 in support of the Application; (4) Comparison Figure (comparing the initial Project layout with the current Project layout); (5) Updated Project Receptor Chart; (6) Emergency Response Plan; (7) Noxious Weed Management and Control Plan; (8) Updated Sound Modeling Report; (9) Updated Shadow Flicker Report; (10) BLM Letter, dated June 8, 2021; (11) NDGS Letter, dated May 12, 2021; (12) NTIA Review Response, dated April 5, 2021; (13) Bowman Wind Response to June 22, 2021 Request for Information; (14) Updated Application Table 7.0-1 (Potential Permits and Approvals); (15) Updated Cultural Resources Report, dated July 2021 [Confidential]; (16) Wetland Delineation Report (titled Jurisdictional Determination Report); (17) Grassland Assessment; (18) updated BBCS; (19) Additional NDGF Correspondence; (20) Summary of Avoidance, Minimization, and Mitigation Measures; (21) Prefiled Testimony of Brie Anderson; (21-A) Resume of Brie Anderson; (22) Prefiled Testimony of Scott Jansen; (22-A) Resume of Scott Jansen; (23) Prefiled Testimony of Ryan Henning; (23-A) Resume of Ryan Henning; (24) Prefiled Testimony of Sandeep Nimmagadda; (24-A) Resume of Sandeep Nimmagadda; (26) Bowman County Airport Authority Letter, dated July 2, 2021; (27) Additional U.S. Fish and Wildlife Service (USFWS) Correspondence; and (28) Battery Storage Facility Illustration.

Also on August 4, 2021, Bowman Wind filed a response to the July 22, 2021 letter from NDGF.

On August 6, 2021, LIUNA filed: (1) Prefiled Testimony of Kevin Pranis; and (2) Prefiled Testimony of Steve Cortina.

On August 20, 2021, USFWS filed comments on the Project.

On August 24, 2021, the public hearing was held. At the public hearing, Bowman Wind submitted the following Hearing Exhibit Nos. 25, supplement to 27, and 29-32: (25) Signed Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications; (27) additional

USFWS correspondence; (29) Figure 1.4 from BBCS – Original Assessment Area and Project boundaries for the Bowman Wind Project, Bowman County, North Dakota; (30) NDGF Project Layout Discussion Figure; (31) Pending Participation Chart; and (32) Unbroken Grassland Turbine Figures.

On November 12, 2021, Bowman Wind filed Late-Filed Hearing Exhibit Nos. 33-36: (33) Bowman County Weed Board Correspondence; (34) Battery Storage Facility Emergency Response Plan; (35) Television Reception Mitigation; and (36) Addendum to Cultural Resource Report [Confidential] and State Historical Society of North Dakota (SHSND) Correspondence.

On May 27, 2022, Bowman Wind filed a letter providing an update on the status of Bowman Wind's Bowman County conditional use permit application.

On July 15, 2022, Bowman Wind filed a motion to consider post-hearing filings along with the following Late-Filed Exhibit Nos. 37-41: (37) an update regarding the Bowman County conditional use permit; (37(a)) a copy of the conditional use permit approved by Bowman County on July 7, 2022 for the Project; (38) an update regarding a waiver of the avoidance area sound requirement; (38(a)) a copy of a good neighbor agreement that contains a waiver of the avoidance area sound level requirement, signed by the owners of the one residence with sound levels modeled above 45 A-weighted decibels (dBA); (39) an update regarding the current Project Area and layout; (39(a)) an updated figure showing the current Project layout and Project Area; (39(b)) an updated comparison figure; (40) a statement that Bowman Wind is removing battery storage from its Application; and (41) an update regarding the specifications of the turbines under consideration.

Also on July 15, 2022, Bowman Wind filed proposed findings of fact, conclusions of law, and order.

On July ___, 2022, the Commission granted Bowman Wind's motion to consider post-hearing filings.

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. Bowman Wind is a Delaware limited liability company and is a subsidiary of Apex Clean Energy Holdings, LLC.
2. Bowman 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 28, 2021 (Case No. PU-21-122).

3. The Project will be owned and operated by Bowman Wind.

Size, Type, and Preferred Location of Facility

4. Bowman Wind proposes to construct the Project within approximately 40,948 acres of land in Bowman County, North Dakota (Project Area). Bowman Wind requests that the Project Area, as depicted in Late-Filed Exhibit No. 39, be designated as the site for the Project. The Project will consist of up to 74 wind turbines and have a nameplate capacity of up to 208.7 megawatts (MW), with up to 200.1 MW delivered to the grid.
5. Bowman Wind has not yet selected a specific turbine model for the Project.
6. The proposed Project layout is designed to accommodate any of the turbine models under consideration at most turbine locations. However, there are a few locations that will only work for certain turbine models.
7. For 78 of the 84 proposed turbine locations, Bowman Wind sited the locations to comply with applicable setbacks for a turbine up to 107.5 meters (353 feet) in hub height, with an up to 158-meter (519 feet) rotor diameter, and with a total tip height of 186.5 meters (612 feet). The remaining six proposed turbine locations (T1, T6, T17, T9, T14, and S1) are currently designed to use the GE-127 2.82 MW turbine or a turbine with similar (or shorter) specifications. Turbine model specifications for the GE-127 2.82 are provided in Section 4.1.1 of the Application (Hearing Exhibit No. 1).
8. In addition to turbines, associated Project facilities constructed within the Project Area will include access roads and improvements to existing roads (as needed), underground electrical collection and communication lines with above-ground junction boxes, up to two permanent meteorological towers, light-mitigating technology components (currently anticipate use of an Aircraft Detection Lighting System (ADLS)), an operations and maintenance (O&M) facility, and a Project substation. Other temporary facilities required for the Project's construction phase include a concrete batch plant, laydown areas for an equipment and construction management facility, intersection improvements, crane pads and working pads, and staging areas.
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 performance monitoring, energy reporting, and troubleshooting.
11. Construction of the Project is anticipated to begin as early as the Fourth Quarter of 2023. Commercial testing is anticipated to take place after construction is complete, with commercial operations beginning as early as Third Quarter 2024.
12. The estimated cost for construction of the Project is approximately \$300 million.

13. The Project will interconnect to the grid at the Basin Electric Power Cooperative Rhame 230 kilovolt (kV) substation, located in Bowman County, North Dakota. To interconnect the Project to the grid, Bowman Wind will construct a 230 kV generation interconnection line between the Project substation and the Rhame 230 kV Substation. The generation interconnection 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. Bowman 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, Bowman Wind will coordinate with landowners regarding tree removal and replacement and comply with the Commission’s tree and shrub mitigation specifications.

16. A wetland delineation was completed for the Project. In the event the Project layout changes from what is depicted in Late-Filed Exhibit No. 39, Bowman Wind will complete a wetland delineation of any previously unsurveyed areas, as necessary. Bowman Wind has designed the Project to avoid permanent impacts to delineated wetlands. Wetland impacts are anticipated to fall under the threshold for a U.S. Department of the Army Corps of Engineers (USACE) Clean Water Act Nationwide Permit.

17. No USFWS grassland or wetland easements or USFWS Waterfowl Production Areas (WPAs) are present in the Project Area.

18. Bowman 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. Bowman Wind conducted baseline general avian use surveys, fixed-point avian use surveys, raptor and eagle aerial nest surveys, and additional ground-based raptor and eagle nest surveys at specific locations. The surveys identified avian species and raptor nests within and eagle nests near the Project Area. No known, active bald or golden eagle nests were identified within the Project Area. In addition, per recommendations from the NDGF and USFWS, Bowman Wind also conducted surveys for black-tailed prairie dogs, which are a known potential prey source for eagles, and incorporated the information into Project design.

B. Greater Sage-Grouse Lek Surveys. The surveys indicate there are no known, active greater sage-grouse leks within the Project Area. The closest greater sage-grouse lek is approximately 0.8 miles west of the Project Area. Bowman Wind sited turbines two or more miles from the closest active greater sage-grouse lek and all turbines within four miles of an active greater sage-grouse

lek are sited in previously disturbed areas, which minimizes the potential for impacts to greater sage grouse.

C. Sharp-Tailed Grouse Lek Survey. The surveys indicate there are no known sharp-tailed grouse leks within the Project Area. The closest turbine to a sharp-tailed grouse lek is 0.6 miles; but this lek was unoccupied in both years of lek surveys. Based on historic lek data, no active sharp-tailed grouse leks are located within two miles of any proposed turbine locations.

D. Acoustic Bat Monitoring and Northern Long-Eared Bat (NLEB) Desktop Habitat Assessment. Bat activity in the Project Area is relatively low compared to other projects in the Midwest. Potential NLEB calls were recorded on three of the 216 detector-nights; however, qualitative identification of these calls, conducted by a qualified bat biologist, determined that the calls were not produced by the NLEB. The NLEB Desktop Habitat Assessment found no potentially suitable summer NLEB habitat exists within the Project Area.

E. Grassland Assessment. Bowman Wind conducted an unbroken grassland desktop and field assessment for the Project. Only five of the 84 proposed turbine locations are located, in whole or in part, on unbroken grassland. Although five turbines are located on unbroken grasslands, they impact only 0.12 acres of unbroken grasslands. Additionally, the turbines located on unbroken grassland are sited in fragmented areas and in areas designated as unsuitable grassland habitat per the C. Loesch USFWS grassland breeding bird habitat dataset.

19. Bowman Wind has prepared a BBCS (Hearing Exhibit No. 18), which outlines specific avoidance, minimization, and mitigation measures.

20. Bowman Wind completed a Class I Literature Review of a larger potential Project Area plus a two-mile buffer from Project facilities and a Class III Intensive Cultural Resources Pedestrian Survey of all areas that might be impacted by construction of the Project.

21. The Class III inventory identified 30 archaeological sites that are unevaluated for listing in the National Register of Historic Places (NRHP), and all of these sites will be avoided. Bowman Wind incorporated the SHSND's comments and recommendations into the Class III reports, and the SHSND concurred with the Class III reports.

22. In the event the Project layout changes from the layout provided in Late-Filed Exhibit No. 39, Bowman 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.

23. Bowman Wind completed a Class II Architectural History Survey for structures 45 years of age or older within a two-mile visual area of potential effect of the Project's

proposed turbine array. The Class II Survey identified two historic architectural sites within two miles of the Project layout, both of which are recommended as potentially eligible for listing in the NRHP. Bowman Wind will comply with SHSND's recommendations for mitigating minor indirect (visual) impacts to these two architectural history resources.

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

25. 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 – United States Department of Defense (DOD) and Ellsworth Air Force Base; USACE, North Dakota Regulatory Office; NTIA; USFWS; Federal Aviation Administration (FAA); and BLM.

b. State – North Dakota Parks & Recreation; NDGF; North Dakota State Water Commission; SHSND; and NDGS.

c. Local – Bowman County Airport Authority; Bowman County Weed Board; and Bowman County Planning and Zoning and Board of County Commissioners.

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

27. Bowman Wind entered into an agreement with the DOD and the U.S. Air Force to mitigate potential effects of Project turbines on airborne doppler radar and training routes.

28. 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. Bowman Wind obtained a CUP for the Project from Bowman County on July 7, 2022. Bowman Wind will comply with applicable county zoning ordinance requirements.

29. Bowman Wind currently holds wind energy lease and easement agreements covering all land that is needed to construct the Project.

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

Siting Criteria

31. 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.

32. 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 road; (c) areas less than 1.1 times the height of the turbine from the nearest edge of railroad right-of-way; (d) areas less than 1.1 times the height of the turbine from the nearest edge of a 115 kV or higher transmission line right-of-way; and (e) areas less than 1.1 times the height of the turbine from the property line of a non-participating landowner and three times the height of the turbine from an inhabited rural residence of a nonparticipating landowner, unless a variance has been granted. No turbines will be located within these exclusion areas.

33. All setbacks are measured from the closest edge of the base of the turbine to the closest part of the applicable feature.

34. 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.

35. 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 Discoveries Plan has been developed and was reviewed by the SHSND.

36. Wetlands are present within the Project Area, but the Project has been sited to avoid all permanent impacts to wetlands. The Project has been designed to avoid and/or minimize temporary impacts to wetlands. Where collection lines would intersect a wetland, impacts will be avoided by boring beneath the wetland.

37. Trees and shrubs are sparsely located throughout the Project Area. The Project has been designed to minimize tree removal to the extent possible and removal would be limited to locations where impacts are unavoidable, such as where a linear facility must cross a tree row. Bowman 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. Bowman Wind may need to clear areas wider

than 50 feet in order to construct collection lines, access roads, and/or crane walks for the Project. Bowman Wind requested Commission approval to remove trees and/or shrubs from an area wider than 50 feet in these locations.

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

39. With all 84 proposed turbine locations, the Project would occupy approximately 90 acres of land, or approximately 0.22 percent of the total Project Area, during the life of the Project. However, since Bowman Wind plans to construct up to 74 of the 84 proposed locations, actual impacts will be less. Bowman 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.

40. Bowman Wind submitted evidence demonstrating any significant adverse effects resulting from the location, construction, and operation of the Project, as related 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.

41. 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 disrupt residents or travel in the Project Area. Haul road permits will be obtained from Bowman County, applicable townships, and the North Dakota Department of Transportation (NDDOT), if needed. Road use and maintenance agreements will be negotiated with Bowman County and applicable townships, if needed. County and township roads will be restored in accordance with the Signed Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting (dated August 20, 2021). During operation, no adverse effects to transportation facilities or networks are anticipated.

42. 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.

43. 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.

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

45. Bowman Wind coordinated with USFWS and NDGF with respect to the Project. From 2017 through to the present, Bowman Wind has engaged in extensive coordination with USFWS and NDGF on survey protocols, Project site selection, turbine placement, avoidance and minimization measures, and voluntary offsets. Both agencies recommended avoidance of unbroken grassland impacts, and both agencies acknowledged the changes Bowman Wind made to reduce Project impacts. Only five of the 84 proposed turbine locations are located, in whole or in part, on unbroken grasslands. These turbines impact only 0.12 acres of unbroken grasslands. Additionally, the turbines are sited in fragmented areas and in areas designated as unsuitable grassland habitat per the C. Loesch USFWS grassland breeding bird habitat dataset.

46. Bowman Wind plans to acquire voluntary unbroken grassland conservation agreements for the life of the Project as a voluntary offset for potential grassland breeding bird displacement impacts.

47. NDGF raised concerns regarding placement of two turbines within the broader area NDGF has defined as greater sage-grouse Priority Conservation Areas (PCA). Bowman Wind conducted site-specific surveys and presented evidence demonstrating that the areas in which the two turbines are located do not meet the definition of a PCA. Per the North Dakota Sage-Grouse Conservation Plan, PCA are defined as areas with high nesting potential (less proportion of agriculture and higher proportion of grass cover and sagebrush) and low oil and gas well density (<1.5 wells per square mile). The two turbines are located in areas currently in agricultural production with oil and gas development above the 1.5 wells per square mile threshold. As such, the turbines are located in areas unlikely to be used by greater sage grouse.

48. NDGF raised concerns regarding placement of turbines within four miles of a greater sage-grouse lek. Bowman Wind presented expert testimony that, based on the expert's personal experience conducting grouse surveys and his knowledge of other grouse surveys conducted, the proposed placement of turbines at least two miles from greater sage-grouse leks in agricultural areas avoids potential impacts to greater sage grouse.

49. Based on the totality of the evidence presented, the Commission finds Bowman Wind has sited the Project to minimize potential impacts to wildlife, including sharp-tailed grouse and greater sage grouse.

50. Bowman Wind conducted sound analyses for the Project. One pending participation residence is modeled at 47 dBA within 100 feet of the receptor. However, Bowman Wind has secured a good neighbor agreement, which includes a waiver of the sound requirement, from the owner of that 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.

51. Bowman Wind conducted shadow flicker analyses for the Project. Based on the shadow flicker analysis, modeled shadow flicker levels will be below 30 hours per year at all residences.

Measures to Minimize Impacts

52. Bowman 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 August 20, 2021).

53. Based on the current Project layout, as depicted in Late-Filed Exhibit No. 39, all Project turbines are located at least 2,640 feet from occupied dwellings, commercial buildings, and publicly used facilities, unless a variance is granted.

54. Subject to FAA approval, Bowman 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.

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

56. Bowman Wind will participate in the North Dakota One-Call Excavation Notice System.

57. Bowman Wind has and will continue to coordinate with emergency services providers to determine appropriate safety precautions and standards. Bowman Wind has developed an Emergency Response Plan (Hearing Exhibit No. 6) to implement these precautions and standards.

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

59. Bowman 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 Bowman 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 Bowman Wind, LLC, designating a site for a wind energy conversion facility that corresponds to the Project Area depicted in Late-Filed Exhibit No. 39.
2. That within the designated site, as depicted in Late-Filed Exhibit No. 39, Bowman 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 two permanent meteorological towers, a system of underground electrical collection lines and communication cables with above-ground junction boxes,

and ADLS equipment and components, as well as any other associated facilities identified in the Application, at the hearing, or in any supplemental filings.

3. If modifications are made to the Project layout, Bowman 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 said areas.

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

5. Bowman 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, Bowman Wind will conduct a sound analysis to ensure the Project complies with the Commission's Avoidance Area sound requirement.

6. Bowman Wind shall site Project turbines so as to meet a shadow flicker goal of 30 hours per year or less at each currently occupied 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, Bowman Wind shall conduct further shadow flicker analysis to ensure this requirement is met.

7. The August 20, 2021 Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (Hearing Exhibit No. 25) is incorporated by reference and attached to this Order. Bowman Wind is authorized to clear areas in the Project Area wider than 50 feet in order to construct collection lines, access roads, and/or crane walks.

8. Prior to commencing construction of any portion of the Project, Bowman 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