

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Aurora Wind Project, LLC
Aurora Wind Project – Williams County
Siting Application

Case No. PU-18-352

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

May 7, 2019

Appearances

Commissioners Brian Kroshus, Julie Fedorchak, and Randy Christmann.

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

Zachary Pelham, Special Assistant Attorney General, North Dakota Public Service Commission.

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 September 28, 2018, Aurora Wind Project, LLC (Aurora Wind) filed an Application for a Certificate of Site Compatibility (Application) for a proposed wind energy conversion facility (Project) to be located in Williams County, North Dakota.

Also on September 28, 2018, in Case No. PU-18-351, Aurora Wind filed combined applications for a Corridor Certificate and Route Permit to construct a 345 kV electric transmission line from the proposed Project to Basin Electric's Tande Substation in Mountrail County, North Dakota.

On January 9, 2019, the North Dakota Public Service Commission (Commission) consolidated the applications for hearing; deemed both Applications complete conditioned upon receipt within 30 days of the hearing of (1) Maps showing final site plan with turbines, access roads, collector lines, transmission line structures, and all residential receptor points labeled; (2) Class III cultural resource survey reports or summaries showing areas surveyed and State Historical Society of North Dakota (SHSND) cultural site numbers recommended for avoidance; and (3) Wetland delineation reports; and issued a Notice of Filings and Notice of Consolidated Hearing, scheduling a public hearing for February 25, 2019, at 9:00 a.m. at Naset Consulting Service, 6844 State Hwy 40, Tioga, ND 58852. The Notice identified the following issues to be considered:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility locations 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 January 24 and 25, 2019, Aurora Wind filed (1) a residence setback waiver; (2) Mountrail County Conditional Use Permit (Transmission Line); (3) Sound and Shadow Flicker Summary with updated receptor maps; (4) Archaeological Summary Report; (5) Letter to SHSND; (6) Unanticipated Discovery Plan; (7) Historic-Age Non-Archaeological Resource Summary Report; (8) Wetlands and Waterbodies Technical Memorandum; (9) Avian Use Study Report: August 2017 – July 2018; (10) 2018 Acoustic Bat Monitoring Survey Summary; (11) Dakota Skipper Habitat Evaluation Report; (12) Correspondence with U.S. Fish and Wildlife Service (USFWS); (13) updated Table 4-1 – Representative Turbine Type Characteristics; and (14) Shadow Flicker Acknowledgement.

On February 22, 2019, Aurora Wind filed (1) Signed Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications; (2) additional SHSND correspondence; (3) additional North Dakota Game and Fish Department (NDGF) correspondence and meeting notes; (4) North Dakota Department of Trust Lands (NDDTL) correspondence; (5) correspondence from Senator Rust; and (6) a sound analysis report.

On February 25, 2019, the public hearing was held.

On March 1, 2019, the Commission filed late-filed Exhibit 33, a letter report by David Hessler regarding his review of Aurora Wind's sound analysis report and Epsilon Associates' external review.

On March 15, 2019, Aurora Wind filed late-filed Exhibit 32, a map showing occupancy status of residences in and around the Project Area.

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. Aurora Wind is a Delaware limited liability company and is wholly-owned by Tradewind Energy, Inc.
2. Aurora 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 October 1, 2018 (Case No. PU-18-354).
3. The Project will be owned and operated by Aurora Wind.

Size, Type, and Preferred Location of Facility

4. Aurora Wind proposes to construct the Project within approximately 44,000 acres of land in Williams County, North Dakota, approximately five miles northwest of the City of Tioga (Project Area). Aurora Wind requests that the Project Area, as depicted in Hearing Exhibit No. 3, be designated as the site for the Project. The Project will consist of up to 121 wind turbines and have a nameplate capacity of up to 300 megawatts (MW).
5. Aurora Wind has not yet selected a specific turbine model for the Project. Hearing Exhibit No. 5 describes the characteristics of modern turbine types that are typical of those under consideration. The turbine output possibilities range from 2.0 MW to 4.2 MW. The planned Project layout is designed to accommodate any of the turbine models under consideration.
6. In addition to turbines, associated Project facilities constructed within the Project Area will include access roads and improvements to existing roads, underground electrical collection and communication lines with above ground junction boxes, up to six permanent meteorological towers, aircraft detection lighting system (ADLS) components, an operations and maintenance (O&M) building, and a 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.
7. Foundation size and design will be finalized based on the results of the geotechnical analyses conducted once the turbine model(s) is selected.
8. Each turbine will communicate directly with the Supervisory Control and Data Acquisition (SCADA) system for remote performance monitoring, energy reporting, and troubleshooting.
9. Construction of the Project is anticipated to begin as early as the Second Quarter of 2019. Commercial testing is anticipated to take place after construction is complete, with commercial operations beginning no later than the end of 2020.
10. The estimated cost for construction of the Project is \$385 million.

Study of Preferred Location

11. Aurora Wind performed a desktop evaluation of the Project Area for soils, land use, wetlands and waterbodies, trees and shrubs, protected species, and critical habitats.
12. Woodlands comprise less than one percent of the total Project Area. If trees or shrubs are impacted by the Project, Aurora Wind will comply with the Commission's tree and shrub mitigation specifications.
13. A wetland delineation was completed for the Project. In the event the Project layout changes, Aurora Wind will complete a wetland delineation of any previously un-surveyed areas, as necessary. Aurora Wind has designed the Project to avoid wetland impacts to the extent possible, and has avoided all USFWS wetland easement basins. Wetland impacts are anticipated to fall under the threshold for a United States Department of the Army Corps of Engineers (USACE) Nationwide Permit.
14. Aurora Wind conducted environmental studies of the Project Area. Among the studies conducted were:
 - A. A two-year raptor nest field survey of the Project Area, as well as a Stage I Eagle Assessment. No bald or golden eagle nests were identified within ten miles of the Project Area.
 - B. A Whooping Crane Habitat Analysis. The analysis found potential whooping crane habitat and migration areas within the Project Area and adjacent areas.
 - C. A Sharp-Tailed Grouse Lek Survey. In the final Project design, all turbines are placed at least one mile from confirmed leks.
 - D. Two years of Acoustic Bat Monitoring. The monitoring found that bat activity in the Project Area is lower than expected in the Great Plains region.
15. Aurora Wind will prepare a Bird and Bat Conservation Strategy prior to operation of the Project, which will outline specific conservation and minimization measures.
16. Aurora Wind completed a Class I literature search for the Study Area, as well as a Class III intensive cultural resources pedestrian survey of all previously un-surveyed areas that might be directly impacted by the Project. Two sites that remain unevaluated for inclusion in the National Register of Historic Places were identified; Project facilities will avoid these sites, with a 50-foot buffer. SHSND has concurred in the results of the Class III report.
17. Aurora Wind completed a Class II architectural history reconnaissance survey for structures 50 years of age or older within a two-mile visual of the Project's turbine array. SHSND provided a letter on February 5, 2019, indicating that they reached a

determination of "Significant Sites Affected" for nine resources within the APE for Aurora Wind. In that letter, SHSND proposed a journal-length article as mitigation for visual impacts to certain identified resources. In further communications, SHSND indicated that they would be open to any viable and well-articulated proposal from Aurora Wind, would be willing to review the proposal and coordinate with Aurora Wind to develop an appropriate scope, and that the proposed mitigation need not be completed prior to Project construction. Aurora Wind has committed to notifying the Commission when a final mitigation proposal is developed and when such mitigation is complete.

18. In the event that the Project layout changes from the layout provided in Hearing Exhibit No. 3, Aurora Wind will complete Class III cultural resource survey work for any previously un-surveyed areas, per SHSND's guidance; will submit the findings to SHSND for review; and will obtain and file with the Commission a copy of SHSND's response prior to beginning construction in those areas.

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

20. 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 the Air Force – Minot Air Force Base North Dakota; USACE, North Dakota Regulatory Office; Federal Aviation Administration (FAA); United States Department of Commerce – National Telecommunications and Information Administration; USFWS.

b. State – North Dakota Aeronautics Commission (NDAC); North Dakota Department of Health; North Dakota Department of Trust Lands (NDDTL); NDGF; North Dakota State Water Commission; North Dakota Industrial Commission – Oil and Gas Division; North Dakota Department of Transportation; North Dakota Geological Survey; SHSND; and

c. Local – Mountrail County; Williams County; City of Tioga, North Dakota.

21. The FAA issued Determinations of No Hazard for all of the Project turbine locations.

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

23. 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. Aurora Wind has obtained a conditional use

permit for the Project and Transmission Line from Williams County, and a conditional use permit for the Transmission Line from Mountrail County. Aurora Wind will comply with applicable county zoning ordinance requirements.

24. Aurora Wind currently holds all necessary wind energy lease and easement agreements with all participating landowners except NDDTL. Aurora Wind has submitted an application to NDDTL for wind energy lease and easement agreements. NDDTL has authorized inclusion of the school trust lands within permitting applications, but will wait to process Aurora Wind's application until the Certificate of Site Compatibility is issued.

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

Siting Criteria

26. North Dakota Administrative Code Chapter 69-06-08 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 North Dakota Administrative Code Sections 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria.

27. With the exception of prime farmland and unique farmland, an energy conversion facility shall not be sited within an Exclusion Area. If the Commission finds the prime and unique farm land that will be removed from use is of such small acreage as to be of negligible impact on agricultural production, then such exclusion shall not apply.

28. There are areas of prime farmland and farmland of statewide importance within the Project Area. Less than one percent of the prime farmland or farmland of statewide importance within the Project Area will be impacted during the life of the Project. The Commission finds that the prime farmland which may be disturbed by this energy conversion facility is of such small acreage as to be of negligible impact on agricultural production.

29. Four 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 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 turbine height from a 115 kV or higher transmission line; and (d) areas less than 1.1 times the turbine height from the property line of a non-

participating landowner. All Project facilities have been sited to avoid these Exclusion Areas.

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

31. 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.

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

33. Wetlands are present within the Project Area. The Project has been sited to avoid wetlands except where there is no reasonable alternative and then to minimize permanent impacts to the extent practicable.

34. Minimal trees and shrubs are located within the Project Area. The Project has been sited to avoid shelterbelts and other areas where trees are located. Any tree and shrub removal and replacement will be conducted in accordance with the Commission's tree and shrub mitigation specifications.

35. 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 N.D. Admin. Code § 69-06-08-01(6).

36. The Project is anticipated to permanently occupy and disturb up to approximately 99 acres of land, or up to approximately 0.002% percent of the total Project Area, during the life of the Project. Aurora Wind will continue to work with landowners to minimize land use disruptions from the siting of the facilities. No impacts to irrigation or the quality of the agricultural land are anticipated.

37. Aurora Wind submitted evidence to demonstrate that any significant adverse effects resulting from the location, construction, and operation of the Project as they relate to the Selection Criteria set forth in Sections 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.

38. 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 and road use and maintenance agreements will be negotiated with Williams County and applicable Townships, if needed. County and Township roads will be restored in accordance with the Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting (dated February 19, 2019). During operation, no adverse effects to transportation facilities or networks are anticipated.

39. 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.

40. 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.

41. Aurora Wind submitted evidence to demonstrate its commitment to maximize the benefits of the Project as far as possible to meet the Policy Criteria set forth in Section 69-06-08-01(6) of the North Dakota Administrative Code.

42. Aurora Wind coordinated with USFWS and NDGF with respect to the Project. Both agencies expressed concern with disturbance of native unbroken prairie grasslands habitat. Aurora Wind provided a map indicating that approximately six percent of the project area is grassland with the remaining portion being cultivated land. Six turbines are sited on grasslands, all on NDDTL tracts and sited near the edge of the grasslands to minimize potential fragmentation impacts. NDDTL supports this placement of the turbines on Trust lands. No turbines have been sited in wetland basins, USFWS wetland easement basins, USFWS grassland easements or waterfowl production areas. While the Commission finds conflicting evidence regarding environmental impacts, the Commission does not find the evidence in totality to be sufficient to deny the certificate.

43. A sound analysis was conducted for the Project. The analysis demonstrates that sound levels for the Project will comply with the Commission's Avoidance Area requirement that sound levels within 100 feet of an inhabited residence or community building not exceed 50 dBA unless a waiver is obtained.

44. A detailed shadow flicker analysis was conducted for the Project, using realistic modeling assumptions. Based on the shadow flicker analysis, potential shadow flicker levels will be below 30 hours per year at all but two residences – one participating and one non-participating. Aurora Wind will conduct additional shadow flicker modeling when a final turbine model(s) is selected for the Project. In the event results still show levels above 30 hours per year, Aurora has obtained a shadow flicker acknowledgment from the

participating residence owner, and will take steps to ensure the shadow flicker level does not exceed 30 hours per year at the residence owned by a non-participating landowner.

Measures to Minimize Impacts

45. Aurora Wind has agreed to the measures to mitigate Project impacts, as indicated by the attached Certification Relating to Order Provisions – Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (dated February 19, 2019).

46. Based on the current Project layout, as depicted in Hearing Exhibit No. 3, all Project turbines are located at least 2,044 feet from currently occupied residences of nonparticipating landowners.

47. All Project infrastructure will be set back at least two miles from the Fuller Waterfowl Production Area.

48. Subject to FAA approval, Aurora Wind will install an Aircraft Detection and Lighting System or other technology suitable to the Commission on the Project prior to operation.

49. Aurora Wind will use best management practices (BMPs) to minimize impacts on ground and surface water, and to prevent soil erosion. Aurora Wind will implement the erosion control measures required under the National Pollution Discharge Elimination System (NPDES) permit and the associated 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.

50. Aurora Wind will participate in the North Dakota One-Call Excavation Notice System.

51. Aurora Wind will coordinate with local authorities and first responders regarding emergency response measures as part of the Project commissioning activities.

52. Lightning and grounding protection for all wind farm equipment is designed and constructed to be compliant with all applicable National Electrical Code (NEC) and NESC requirements.

53. Aurora 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 North Dakota Century Code Chapter 49-22.
2. The Project is an energy conversion facility as defined in North Dakota Century Code Section 49-22-03(5).
3. The Application submitted by Aurora Wind meets the site evaluation criteria required by North Dakota Century Code Chapter 49-22.
4. The location, construction, and operation of the proposed energy conversion facility will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
5. The proposed energy conversion facility is compatible with environmental preservation and the efficient use of resources.
6. The proposed 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. 59 for an Energy Conversion Facility is issued to Aurora Wind Project, LLC, designating a site for a wind energy conversion facility that corresponds to the Project Area depicted in Hearing Exhibit No. 3.
2. That within the designated site, as depicted in Hearing Exhibit No. 3, Aurora Wind is authorized to site, construct, operate, and maintain wind turbines and associated equipment, access roads, an O&M building, a substation, permanent meteorological towers, and a system of underground collection lines and communication cables, as well as any other associated facilities identified in the Application, at the hearing and in any supplemental filings.
3. If modifications are made to the Project layout, Aurora Wind will complete a Class III cultural resource survey for any previously un-surveyed portions of the designated site affected by Project-related construction activities, in accordance with SHSND guidance;

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, Aurora Wind will complete a wetland delineation of any previously un-surveyed areas affected by Project-related activities, as necessary.

5. Aurora 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, Aurora Wind will conduct a sound analysis to ensure that the Project complies with the Commission's Avoidance Area Sound Requirement.

6. Aurora 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, Aurora Wind shall conduct further shadow flicker analysis to ensure this requirement is met.

7. Inclusion of the currently unleased NDDTL parcels in the Project Area as part of the site designated for the Project is conditioned upon Aurora Wind obtaining the requisite wind lease and/or easement agreements with the owners of said parcels.

8. The February 19, 2019 Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (Hearing Exhibit No. 12) is incorporated by reference and attached to this Order.

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

PUBLIC SERVICE COMMISSION

		
Julie Fedorchak Commissioner	Brian Kroshus Chairman	Randy Christmann Commissioner

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility Number 59

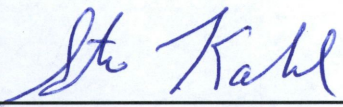
This is to certify that the Commission has designated an energy conversion facility site for Aurora Wind Project, LLC, for the construction and operation of a wind energy facility and associated facilities in Williams, County, North Dakota.

The facility may be sited in this designated location in compliance with the energy conversion facility siting criteria. This certificate is issued in accordance with the Finding of Fact, Conclusion of Law and Order of the Commission in Case No. PU-18-352 dated May 7, 2019 and is subject to the conditions and limitations noted in the order.


Bismarck, North Dakota, May 7, 2019.

ATTEST:

PUBLIC SERVICE COMMISSION



Interim Executive Secretary



Commissioner

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Aurora Wind Project, LLC
Aurora Wind Project – Williams County
Siting Application

Case No. PU-18-352

CERTIFICATION RELATING TO ORDER PROVISIONS
WIND ENERGY CONVERSION FACILITY SITING

I am Matthew F. Gilhousen, a representative of Aurora Wind Project, LLC (“Company”) with authority to bind the Company to requirements to be set forth by the Commission in its Order and I certify the following:

1. Company understands and agrees that the Certificate of Site Compatibility will be issued by the Commission subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.
2. Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed energy conversion facility including all city, township, and county zoning regulations.
3. Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the energy conversion facility that requires said license or permit.
4. Company understands and agrees that the Certificate of Site Compatibility is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission’s order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.
5. Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission’s order and the Certificate of Site Compatibility, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.
6. Company understands and agrees that the authorizations granted by the Certificate of Site Compatibility for the energy conversion facility are subject to modification by

order of the Commission if deemed necessary to protect further the public or the environment.

7. Company is aware that under North Dakota Century Code section 49-02-27 the Commission has rules for decommissioning of wind energy conversion facilities. Company agrees to comply with all decommissioning rules adopted by the Commission.

Construction:

8. Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order.
9. Company understands and agrees that all cultural resource mitigation plans must be approved by the North Dakota State Historic Preservation Office prior to the start of any fieldwork and construction activity in the affected area.
10. Company understands and agrees that topsoil removal will begin when the Commission's third party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference.
11. Company agrees to inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the energy conversion facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated of construction activities on a monthly basis.
12. Company is aware that North Dakota law requires that all companies that own or operate electric generation of any size for the primary purpose of resale must comply with the standards of the National Electrical Safety Code in effect at the time of construction of the generation facility, and agrees to comply with that requirement.
13. Company agrees to construct and operate the energy conversion facility in accordance with all applicable safety requirements.
14. Company understands and agrees that it shall bury all underground collection and feeder lines to a depth of at least 48 inches to the top of the lines.

15. Company understands and agrees that topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas, roadways, tower locations, and locations of associated facilities must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must first be stripped of topsoil. The stripped topsoil must not be stockpiled in natural drainages, and must be protected from water erosion. Care must be taken to protect topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall/ early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.
16. Company understands and agrees that all buried facility crossings of graded roads shall be bored unless the responsible governing agency specifically permits Company to open cut the road.
17. Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.
18. Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made by the State Historical Society, and a report of such examination is filed with the Commission.
19. Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company.
20. Company understands and agrees that the Commission's third-party construction inspector will be allowed ~~has authority~~ to stop Project construction activities to prevent an imminent hazard from occurring before the Commission could take formal action with respect to said activities. For purposes of this provision, "imminent hazard" means a condition that presents a substantial likelihood of death, serious illness, severe personal injury, or a substantial endangerment to health, property, or the environment. Other Project construction activities would be allowed to continue in the event of a probable violation of the siting laws, siting rules, or applicable Commission Orders if, in the opinion of the Commission, construction activities are likely to result in irreparable or significant harm.

Restoration and Maintenance:

21. Company agrees that it shall, as soon as practicable upon the completion of the construction of the energy conversion facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.
22. Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the energy conversion facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.
23. Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.
24. Company will fulfil its obligation for reclamation and maintenance of the approved site continuing throughout the life of the energy conversion facility.
25. Company will repair all fences and gates removed or damaged during all phases of construction and operation of the proposed energy conversion facility.
26. Company will repair or replace all drainage tile broken or damaged as a result of construction and operation of the proposed energy conversion facility.
27. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.
28. Company understands and agrees that it shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the construction of the energy conversion facility.
29. Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.
30. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the energy conversion facility.

Communication with Landowners and PSC:

31. Company agrees to provide the Commission with engineering design drawings showing surveyed structure and collection substation locations prior to construction.
32. Company understands and agrees that it shall advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the energy conversion facility, including injuries to any person, a tower collapse, or a catastrophic turbine failure.
33. Company agrees to report to the Commission, as soon as reasonably possible, the presence in or near the approved site of any critical habitat of threatened or endangered species that Company becomes aware of and which were not previously reported to the Commission.
34. Company agrees to provide the Commission with both an electronic and a paper copy of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility showing the location of the energy conversion facility as built and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility showing the location of the energy conversion facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.
35. Company shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined.
36. Company agrees that it shall provide, if requested, educational material for landowners within the site boundaries about the proposed energy conversion facility and any restriction or danger concerning the proposed energy conversion facility.

37. Company understands and agrees that it shall implement a procedure for how complaints concerning the proposed energy conversion facility will be handled by Company

Modification of Energy Conversion Facility or Energy Conversion Site Plan:

38. Before conducting any construction activities for any modification within the designated site, the Company will file the name and contact information for a key contact person for the purposes of notice and communication during the site modification application and will use the following procedures:
- A. Before conducting any construction activities for any modification within the designated site, and such **construction activities will not affect any known exclusion or avoidance areas** within the designated site, the Company will file certification and supporting documentation:
1. Affirming that construction activities will not affect any known exclusion or avoidance areas within the designated site;
 2. Including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying the designated site and site modification(s); and
 3. Affirming that Company will comply with the Commission's order, law and rules designating the site.
- B. Before conducting any construction activities for any modification within the designated site, and such construction activities will not affect any known exclusion but **may affect an avoidance area** within the designated site, the Company will file:
1. A specific description of the avoidance area expected to be impacted, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying:
 - a. the designated site and the site modification;
 - b. all exclusion and avoidance areas within the portion of the designated site containing the site modification.
 2. Certification and supporting documentation affirming that construction activities will not affect any known exclusion area.
 3. All field studies performed on the portion of the designated site containing the site modification;
 4. Specific information about any mitigation measures Company will take within the modification area;
 5. Certification that each owner of real property on which the modification is to be located and any applicable governmental entity with an interest in the same modification area do not oppose the modification;
 6. Certification that unless the Commission previously authorized the impact to the same avoidance area, that the utility has good cause and a

specific reason to impact the avoidance area and a reasonable alternative does not exist;

7. Certification that Company will comply with the Commission's order, law and rules designating the site.

39. Company acknowledges and agrees that written authorization from the Commission for impacting the avoidance area is necessary prior to commencement of construction activity.

Dated this 19th day of February, 2019.

Aurora Wind Project, LLC

By: 

Matthew F. Gilhousen

Its: Vice President

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Aurora Wind Project, LLC
Aurora Wind Project – Williams County
Siting Application

Case No. PU-18-352

Tree and Shrub Mitigation Specifications

Inventory

1. Trees and shrubs anticipated to be cleared, including those that are considered invasive species or noxious weeds (*e.g.*, *Caragana arborescens*, *Elaeagnus angustifolia*, *Rhamnus cathartica*, *Tamarix chinensis*, *T. parviflora*, *T. ramosissima*, *Ulmus pumila*), must be inventoried before cutting. The inventory must record the location, number, and species of trees and shrubs.
2. In windbreaks, shelterbelts and other planted areas, trees or shrubs anticipated to be cleared, regardless of size, must be inventoried for replacement.
3. In native growth areas, trees anticipated to be cleared that are 1 inch diameter at breast height (dbh) or greater must be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way must be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs must be cut flush with the surface of the ground, taking care to leave the naturally occurring seed bank and root stock intact. If soil disturbance is necessary, the native topsoil must be preserved and replaced after construction. Shrubs must be allowed to regenerate naturally where native topsoil is preserved and replaced. Where native topsoil is not preserved and replaced, shrubs anticipated to be cleared must be inventoried for replacement.
6. In native growth areas, trees and shrubs may be inventoried by actual count or by a sampling method that will properly represent the woody vegetation

population. A sampling plan developed by the company, filed with the North Dakota Public Service Commission (Commission) and approved prior to the start of construction must define the sampling method to be used for trees, for tall shrubs and for low shrubs. The data from the sample plots must be extrapolated to the total acreage of the wooded area to be cleared to determine the species and quantity of trees and shrubs to be replaced.

Clearing for Construction

7. Trees and shrubs must be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The maximum width of clear cuts through windbreaks, shelterbelts and all other wooded areas is 50 feet, unless otherwise approved by the Commission.
9. If the area of trees or shrubs actually cleared differs from the area inventoried, the difference in number of trees and shrubs to be replaced must be noted on the inventory.

Replacement

10. Prior to tree and shrub replacement, documentation identifying the number and variety of trees and shrubs removed, as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings, must be filed with and approved by the Commission.
11. Two 2-year-old saplings must be planted for every one tree removed. Two shrubs (stem cuttings) must be planted for every one shrub removed.
12. Except in the case of invasive or noxious species, trees and shrubs must be replaced by the same species or similar species, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service. Invasive or noxious species must be replaced by similar non-invasive or non-

noxious species suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

13. Tree and shrub replacement must not be conducted within a 20 to 30 foot wide path over the pipeline to facilitate visual inspections of the right-of-way in accordance with U.S. Department of Transportation safety regulations.
14. Landowners must be given the option of having replacement trees and shrubs planted on the landowner's property, either on or off the right-of-way. The landowner must also be given the opportunity to waive those options in writing in order to have replacement trees and shrubs planted off the landowner's property.
15. At the conclusion of the project, documentation identifying the actual number, variety, type, location and date of the replacement plantings must be filed with the Commission.
16. Tree and shrub replacements must be inspected annually, in September, for three years. The first annual inspection must be at least one year from the anniversary date of the original plantings. A report of each annual inspection must be submitted to the Commission by October 1 of each year, documenting the condition of plantings and any woodlands work completed as of September of each year. If after the third annual report the survival rate is less than 75%, the Commission may order additional planting(s).