

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Emmons-Logan Wind, LLC
Emmons-Logan Wind Energy Center - Emmons & Logan Counties
Siting Application**

Case No. PU-18-280

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

February 6, 2019

Appearances

Commissioners Brian Kroshus, Julie Fedorchak, and Randy Christmann.

Casey A. Furey and Wade C. Mann, Attorneys at Law, Crowley Fleck PLLP, 100 West Broadway, Suite 250, Bismarck North Dakota 58502 on behalf of the Applicant, Emmons-Logan Wind, LLC.

Zachary Pelham, Attorney at Law, Pearce Durick PLLC, 314 E. Thayer Ave., Bismarck, North Dakota 58502, Special Assistant Attorney General on behalf of the North Dakota Public Service Commission.

Patrick J. Ward, Administrative Law Judge, Office of Administrative Hearings, P.O. Box 1695, Bismarck, North Dakota 58502, as Procedural Hearing Officer.

Preliminary Statement

On July 19, 2018, in Case No. PU-18-280, Emmons-Logan Wind, LLC (Emmons-Logan Wind) filed an Application for a Certificate of Site Compatibility (Application) for a 298.1 MW wind energy conversion facility known as the Emmons-Logan Wind Energy Center (Project), to be located in Emmons and Logan Counties, North Dakota.

Also on July 19, 2018, in Case No. PU-18-281, Emmons-Logan Wind filed an application for a Certificate of Corridor Compatibility and Route Permit concerning a 6.85 mile-long 230 kV electric transmission line and associated facilities to be located in Emmons County, North Dakota.

On October 10, 2018, the Commission consolidated Case Nos. PU-18-280 and PU-18-281 for public hearing under North Dakota Administrative Code § 69-02-04-04, and deemed the applications complete conditioned upon filing thirty days prior to the public hearing: 1) Sound and shadow flicker analyses with detail on residence locations and participating and nonparticipating landowners; 2) Class III Cultural Resource Survey reports; and, 3) Wetland delineation reports.

Also on October 10, 2018, the Commission issued a Notice of Filings and Consolidated Hearing, scheduling a public hearing for December 7, 2018 at 10:00 a.m. CST, at the Emmons County Courthouse Auditorium, 100 4th Street NW, Linton, North Dakota 58552.

The Notice of Filings and Consolidated Hearing 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 November 7, 2018, Emmons-Logan Wind filed acoustic and shadow flicker analyses, a Class III Cultural Resource Survey summary report, and a wetland delineation report.

On December 7, 2018, a consolidated public hearing was held as scheduled.

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. Emmons-Logan Wind, LLC is a Delaware limited liability company and is a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC.
2. Emmons-Logan Wind is authorized to transact business in the State of North Dakota, as evidenced by the corporate papers filed with the Commission in Case No. PU-18-293.
3. The Project will be owned and operated by Emmons-Logan Wind.

Size, Type and Preferred Location of Facility

4. The Project will consist of a wind energy conversion facility within a Project area of approximately 28,097 acres of land, as depicted in Late-Filed Exhibit 2 (Project Area), in Emmons and Logan Counties, North Dakota. The Project will consist of up to 123 turbines and have a name-plate capacity of up to 298.1 megawatts ("MW").
5. Emmons-Logan Wind expects to use both General Electric (GE) 2.5 MW and 1.715 MW wind turbine generators. The GE 2.5 MW wind turbines will have a 295-foot hub height and measure 485.5 feet from the base of the tower to the tip of the upright blade. The GE 1.715 MW wind turbines will have a 262-foot hub height and will measure 431.5 feet from the base of the tower to the tip of the upright blade. The portion of the foundation that is above ground will be 16 to 18 feet wide at the base of the tower. Each turbine will be grounded and shielded to prevent against lightning strike.
6. A transformer at each turbine will step up the voltage to 34.5 kV. The power from these transformers will be transmitted through an underground collection system to the collector substation where the voltage will be stepped up from 34.5 kV to 230 kV transmission line voltage for interconnection to the transmission grid.
7. The wind turbines will have Supervisory Control and Data Acquisition (SCADA) communications technology to allow control and monitoring of the wind facility. The SCADA communications systems permits automatic, independent operation and remote supervision allowing simultaneous control of turbines.
8. Additional facilities associated with the Project include access roads, underground electrical collection systems, collection substations, an operation and maintenance building, and meteorological evaluation towers.
9. The Project will be constructed in compliance with National Electrical Safety Code requirements.
10. An Aircraft Detection Lighting System will be installed in compliance with Federal Aviation Administration requirements and North Dakota Century Code § 49-22-16.4.
11. Emmons-Logan Wind has executed a 25-year power purchase agreement with Great River Energy for the full output of energy produced by the Project.
12. All easement agreements and options necessary for the siting and construction of the Project and associated facilities have been obtained.
13. Emmons-Logan Wind intends a December 2019 in-service date for the Project.

Study of Preferred Location

14. Emmons-Logan Wind coordinated with and received feedback from the following federal and state departments, agencies, and entities:
 - a. Federal: United States Fish and Wildlife Service (USFWS); United States Department of Commerce; National Telecommunications and Information Administration; and, Federal Aviation Administration.
 - b. State: North Dakota Geological Survey; North Dakota Department of Health; North Dakota Game and Fish Department (NDGFD); North Dakota Department of Trust Lands; North Dakota State Water Commission; North Dakota Department of Transportation; and, State Historical Society of North Dakota (SHPO).
 - c. Other: City of Linton Industrial Development Corporation.
15. Agency consultations and comments are noted in the Application as well as in exhibits and testimony presented at the public hearing. No state or federal agency or local government entity has indicated that it opposes the Project.
16. Emmons-Logan Wind performed a desktop evaluation of the Project Area for soils, land use, wetlands and waterbodies, trees and shrubs, and protected species and critical habitats.
17. Emmons-Logan Wind conducted a Class I Literature Search to identify previously recorded archaeological sites and historic architecture within the Project Area and a one-mile study area surrounding the Project Area.
18. Emmons-Logan Wind conducted a Class II Architectural Survey of the Project Area and submitted the report to the State Historic Preservation Office (SHPO). Emmons-Logan Wind filed a copy of the SHPO's concurrence letter with the Commission indicating there has been a good faith effort to identify and avoid impacts to significant sites.
19. Emmons-Logan Wind conducted a Class III Cultural Resource Inventory for archaeological resources and submitted the report to SHPO. Emmons-Logan Wind filed a copy of the SHPO's concurrence letter with the Commission indicating a no significant sites affected determination.
20. Emmons-Logan Wind undertook an outreach and consultation with Native American Tribes to address potential cultural concerns and avoid potential impacts to resources of tribal or cultural significance.
21. Emmons-Logan Wind conducted natural resource field surveys within the Project Area. The field surveys gathered information on soils, land use and vegetation, wetlands and waterbodies, trees and shrubs, and wildlife, including protected species and critical habitats.

22. Emmons-Logan Wind conducted large bird point count surveys, grassland breeding bird surveys, grouse lek aerial surveys, aerial and ground-based raptor nest surveys, a bat habitat study, a grasslands analysis, and an analysis of potential whooping crane habitat in the area of the Project. No confirmed whooping crane sightings have been documented and the likelihood of whooping cranes is low. The studies demonstrated that no federally endangered, threatened, or candidate species were recorded, and no significant impacts to wildlife are anticipated.

Siting Criteria

23. The Commission has established criteria pursuant to North Dakota Century Code § 49-22-05.1 to guide the Commission in evaluating the suitability of granting a Certificate of Site Compatibility. The criteria, as set forth in North Dakota Administrative Code § 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.

24. Emmons-Logan Wind evaluated the Project with respect to the Exclusion, Avoidance, Selection, and Policy Criteria of the Commission.

25. With the exception of prime and unique farmland, an energy conversion facility must not be sited within an Exclusion Area.

26. If the Commission finds that the prime and unique farmland that will be removed from use for the life of a facility is of such small acreage as to be of negligible impact on agricultural production, then the Exclusion Area shall not apply.

27. Prime farmland has been avoided to the extent practical. Permanent impacts to prime farmland are less than one percent of the Project Area. The Commission finds that the amount of prime farmland that may be disturbed by the Project is of such small acreage to be of negligible impact on agricultural production.

28. With respect to Exclusion Areas, designated and registered archaeological and historical sites are located within the Project Area however; the Project will avoid impacts to these sites.

29. No additional Exclusion Areas are located within the Project Area.

30. 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.

31. With respect to Avoidance Areas, historical resources are present within the Project Area however; the Project will avoid impacts to historical resources.

32. Wetlands are designated as an Avoidance Area. Wetland delineations were completed on all aspects of the Project. The Project minimizes permanent wetland impacts to the extent practicable, and 0.21-acres of wetlands are anticipated to be permanently impacted. Two access roads sited within existing county road right-of-ways will result in impacts to wetlands. Only minor impacts are anticipated and are expected to qualify under the Clean Water Act for coverage under the nationwide permits programs. The Commission finds that due to the specific location and limits of the county right-of-way, there is no reasonable alternative to avoid impacts to wetlands in these areas.

33. Trees and shrubs are sparsely located within the Project Area. The Project is not being sited in woodlands and impacts to trees will be avoided to the extent practicable. Tree or shrub removal and replacement will be coordinated with landowners and conducted in accordance with the Commission's Tree and Shrub Mitigation Specifications.

34. Emmons-Logan Wind conducted an acoustic analysis to assess whether sound levels from the Project will exceed the Commission's maximum 50 decibels within 100 feet of an inhabited residence or community building. Emmons-Logan Wind committed to meet the Commission's sound level requirement at all inhabited residences and community buildings.

35. No additional Avoidance Areas are located within the Project Area.

36. Emmons-Logan Wind submitted evidence that the proposed Project will not have a significant adverse impact on the Selection Criteria set forth in North Dakota Administrative Code § 69-06-08-01(5). Emmons-Logan Wind committed to maximizing the benefits of the Project so far as possible to meet the Policy Criteria set forth in North Dakota Administrative Code § 69-06-08-01(6).

37. A shadow flicker analysis was conducted for the Project on existing residences, using realistic modeling assumptions. Based on the shadow flicker analysis, potential shadow flicker levels are expected to be below 30 hours per year at all non-participating residences, and at all but seven participating landowner residences. The seven participating residences with potential 30-hour per year exceedances have executed written waivers, copies of which have been filed with the Commission.

38. The Project and associated facilities are expected to result in permanent disturbance and occupation of up to 86.7 acres of land. No landowners will be displaced. Emmons-Logan Wind will continue to work with landowners to minimize land use disruptions from the Project. No impacts to irrigation or quality of agricultural land are anticipated.

39. During construction, the Project may 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 area. No adverse effects to transportation facilities or networks are anticipated.

40. No significant adverse impacts are foreseen to community services. The Project is expected to be of economic benefit to the affected area through the creation of construction, operation and maintenance jobs, easements payments to landowners, state and local tax revenue, and local expenditures.

41. No impacts to any radio signals, television signals, satellite or phone signals, GPS signals, air defense radar, homeland security radar, or other weather surveillance radar are anticipated.

Measures to Minimize Impacts

42. Emmons-Logan Wind has agreed to certain steps to mitigate the impact of the Project as indicated in the December 5, 2018 Certification Relating to Order Provisions with accompanying Tree and Shrub Mitigation Specifications, which has been filed with the Commission.

43. Emmons-Logan Wind will use best management practices to minimize impacts on ground and surface water, and to prevent soil erosion. Erosion control measures required under the National Pollution Discharge Elimination System permit and the associated Storm water Pollution Prevention Plan will be implemented. Construction of the Project is not anticipated to have a significant adverse impact on surface or ground water resources or soils. Temporarily disturbed areas will be restored and reseeded.

44. Emmons-Logan Wind has applied a turbine setback of 1,400 feet from inhabited residences. The closest turbine to a non-participating residence is 2,011 feet from the residence.

45. During construction, road speed within the Project will be limited to 25 miles per hour to minimize wildlife collisions.

46. Permanent impacts to native prairie are less than one acre of the Project's proposed 86.7-acre permanent impact.

47. Emmons-Logan Wind will follow Avian Power Line Interaction Committee suggested practices to avoid and minimize the potential for avian mortality, and will bury electric collection lines and use un-guyed permanent meteorological evaluation towers.

48. Throughout operations, Emmons-Logan Wind will implement a Whooping Crane Identification Training and Curtailment Procedure to shut-down turbines when whooping cranes are found to be within two miles of turbines.

49. Emmons-Logan Wind will complete one-year of post-construction mortality monitoring for birds and bats.
50. Emmons-Logan Wind will file a decommissioning plan and decommissioning financial assurance in compliance with North Dakota Administrative Code Chapter 69-09-09.
51. Emmons-Logan Wind will participate in North Dakota One-Call Excavation Notice System.

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

Conclusions of Law

1. The Commission has jurisdiction over this matter under North Dakota Century Code Chapter 49-22.
2. Emmons-Logan Wind is a utility as defined in North Dakota Century Code § 49-22-03(14).
3. The wind energy conversion facility proposed by Emmons-Logan Wind is an electric energy conversion facility as defined in North Dakota Century Code § 49-22-03(5).
4. The Application submitted by Emmons-Logan Wind meets the site evaluation criteria required by North Dakota Century Code Chapter 49-22.
5. The location, construction, and operation of the Project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
6. The Project 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 location, construction, and operation of the Project are compatible with environmental preservation and the efficient use of resources.
8. The Commission has jurisdiction to ensure compliance with the National Electrical Safety Code standards in the construction and operation of the Project.

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

Order

The Commission orders:

1. Emmons-Logan Wind shall construct and operate the facility in accordance with the Commission's findings of fact.
2. Certificate of Site Compatibility for an Energy Conversion Facility No. 57 is issued to Emmons-Logan Wind, LLC for the construction, operation, and maintenance of a wind energy conversion facility known as the Emmons-Logan Wind Energy Center corresponding to the revised Project Area depicted on Late-Filed Exhibit 2.
3. Within the permitted site, Emmons-Logan Wind is authorized to site and construct up to 123 wind turbines in proposed and alternative locations, as identified in Late-Filed Exhibit 2, along with electric collection and communication lines, a substation, access roads, an operations and maintenance building, and other associated facilities as identified in the Application and at the public hearing.
4. The Certification Relating to Order Provisions with accompanying Tree and Shrub Mitigation Specifications filed with the Commission on December 5, 2018 is incorporated by reference and attached to this Order. The December 5, 2018 Tree and Shrub Mitigation Specifications may be modified upon the mutual agreement of the Commission and Emmons-Logan Wind.
5. To the extent there are any conflicts or inconsistencies between Emmons-Logan Wind's Application and the Certification, the Certification provisions control.
6. If modifications are made to the Project layout, Emmons-Logan Wind shall 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 SHPO guidance, and shall submit cultural resource finds to SHPO for review, and file a copy of SHPO's response with the Commission prior to beginning construction in said areas.
7. If modifications are made to the Project layout, Emmons-Logan Wind shall complete a wetland determination of any previously un-surveyed areas affected by Project-related activities, as necessary, and file the report with the Commission.
8. If modifications are made to the Project layout that are not covered by the current acoustic analysis, Emmons-Logan Wind shall conduct an acoustic analysis and file a report with the Commission to ensure the Project complies with the Commission's

Avoidance Area sound requirement at all occupied residences, unless otherwise agreed to by the landowner.

9. If modifications are made to the Project layout that are not covered by the current shadow flicker analysis, Emmons-Logan Wind shall conduct a shadow flicker analysis, and file a report with the Commission to ensure the Project meets the Commission recognized shadow flicker 30 hours per year industry standard or less at all occupied residences, unless otherwise agreed to by the landowner.

PUBLIC SERVICE COMMISSION


Julie Fedorchak
Commissioner


Brian Kroshus
Chairman


Randy Christmann
Commissioner

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility Number 57

This is to certify that the Commission has designated an energy conversion facility site for Emmons-Logan Wind, LLC, for the construction and operation of a wind energy facility and associated facilities in Emmons and Logan Counties of 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-18-280 dated February 6, 2019 and is subject to the conditions and limitations noted in the order.

Bismarck, North Dakota, February 6, 2019.

ATTEST:

PUBLIC SERVICE COMMISSION



Interim Executive Secretary



Commissioner

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Emmons-Logan Wind, LLC
Emmons-Logan Wind Energy Center – Emmons & Logan
Siting Application

Case No. PU-18-280

**CERTIFICATION RELATING TO ORDER PROVISIONS
WIND ENERGY CONVERSION FACILITY SITING**

I am John DiDonato, a representative of Emmons-Logan Wind, 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, 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 has authority to stop Project construction activities 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

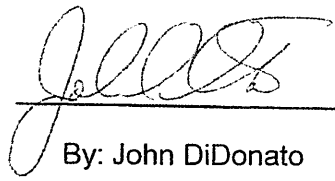
Modification of Energy Conversion Facility or Energy Conversion Site Plan:

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 3 day of December, 2018.

Emmons-Logan Wind, LLC



By: John DiDonato
Its: Vice President

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Emmons-Logan Wind, LLC
Emmons-Logan Wind Energy Center – Emmons & Logan
Siting Application

Case No. PU-18-280

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).