

Tree and Shrub Replacement Plan

Ashtabula III Wind Energy Center

Prepared for:

NEXTERA ENERGY RESOURCES
Ashtabula Wind III, LLC
ND PSC Case Number: PU-10-147 (Wind Farm)

Prepared by:

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On Behalf of:

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March 2011

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A North Dakota Public Service Commission Findings of Fact, Conclusion of Law, and Order

1.0 Introduction & Regulatory Background

The Ashtabula III Wind Energy Center (Project) was completed in 2010 in Barnes County, North Dakota, within portions of Township 143N, Range 57W, Township 143N, Range 56W, Township 142N, Range 58W, Township 142N, Range 57W, and Township 141N, Range 58W (**Figure 1**). The Project is operated by Ashtabula Wind III, LLC (Ashtabula Wind III), a subsidiary of NextEra Energy Resources, LLC. Ashtabula III comprises a 69-megawatt (MW) wind generation plant. The Project is under the jurisdiction of the North Dakota Public Service Commission (PSC). Its construction required the removal of trees and shrubs within Project rights-of-way.

Projects under the jurisdiction of the PSC that require the removal of trees or shrubs in the course of Project construction must replace them, following PSC replacement requirements (**Appendix A, Findings of Fact, Conclusions of Law and Order**, see attached *Tree and Shrub Mitigation Specifications*, Case No. PU-10-147). The PSC requires approval of a Tree and Shrub Mitigation Plan/Replacement Plan before trees or shrubs are planted. Paragraphs 10-15 of the *Tree and Shrub Mitigation Specifications* outline the specific requirements for replacement, as follows:

10) Prior to replacement, documentation identifying the number and variety of trees removed as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings shall be filed with the Commission for approval.

11) Tree replacement shall be on a 2 to 1 basis with 2-year-old saplings. Shrub replacement shall be on a 2 to 1 basis with stem cuttings.

12) Trees and shrubs shall be replaced by the same species or similar species, except in the case of invasive species or noxious weeds, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

13) Landowners shall be given the option of having replacement trees or shrubs planted off the right-of-way on the landowner's property or waiving that requirement in writing and allowing those replacement trees or shrubs to be planted at alternative locations.

14) At the conclusion of the project, documentation identifying the actual number, variety, type, location, and date of the replacement plantings shall be filed with the Commission.

15) Tree and shrub replacements shall be inspected once a year for three years, on about the anniversary of the plantings, and on or shortly before October 1 of each year, a report shall be submitted to the Commission documenting the condition of replacement planting and any woodlands work completed. If after three years from the anniversary of the plantings the survival rate is less than 75%, the Commission may order additional planting(s).

Ashtabula Wind III retained Tetra Tech EC, Inc. (Tetra Tech) and Wenck Associates, Inc. (Wenck) to assist in the preparation of a tree and shrub mitigation plan for the Project and to assist in contacting landowners to determine their tree replacement preferences.

2.0 Inventory of Trees and Shrubs in Project Area

Ashtabula Wind III documented the number, type/species, and location of trees and shrubs removed during construction of the Project (**Table 1**). Ashtabula Wind III surveyed windbreaks, shelterbelts, other planted areas, and native growth areas that were cleared during construction. Counts were completed by direct stem count. Trees were removed from land owned by three landowners (**Figure 2**). A total of 28 trees and shrubs were removed from within Project rights-of-way (**Table 1**). The total number of trees/shrubs to be replaced based on this inventory is 56, assuming a 2:1 replacement ratio.

Table 1. Location and Number of Trees Removed within Project Area

Location			Location Description	Number of Trees Removed	Type of Tree	Landowner
Township	Range	Section				
143N	57W	9	T 246	10	Cottonwood	Rodd & Deborah Svenningsen
143N	57W	9	T 251	3	Cottonwood	Mark & Jody Svenningsen
142N	58W	26	T 275	15	Cottonwood	Dawn Ihry
TOTAL				28		

3.0 Landowner Consultation

Each of the three affected landowners was contacted via telephone. Landowners were asked whether they preferred trees to be replaced on their property off the Project right-of-way, or whether they preferred not to have trees replaced on their property and instead have them planted at an alternative location. If landowners wanted replacement on their property, they were asked which tree/shrub species they would prefer for replacement and the number of each if more than one species.

All three landowners requested replacement on their property. Tree and shrub choices were coordinated with the Barnes County Soil Conservation District (**Table 2**). Since all replacements will be individually hand-planted, no planting plans were developed. Trees will be planted in separate locations according to the landowner's requests.

The landowner preferences are listed in **Table 2**. The appropriateness of these requests was reviewed by Wenck, Tetra Tech, and the Barnes County Soil Conservation District. Requested species were suitable to North Dakota growing conditions and are commonly recommended for tree plantings by the North Dakota Forest Service (<http://www.ndsu.edu/ndfs/>) and the Barnes County Soil Conservation District (<http://barnes.nd.nacdnet.org/>). Though the type of replacement trees were not a direct replacement of the type of tree removed, the replacement choices were considered appropriate because the purpose of the replacement plantings differed from the purpose of the original plantings where trees were removed.

Table 2. Landowner Preferences for Tree Replacement

Landowner	Number of Trees Removed (Actual Count)	Number of Replacement Trees	Tree/Shrub Species Requested	Comments
Rodd & Deborah Svenningsen	10	2	Oak	No planting plan. Will have saplings hand-planted in various locations.
		14	Poplar	
		2	Pear	
		2	Apple	
Mark & Jody Svenningsen	3	6	Hackberry	No planting plan. Will have saplings hand-planted in various locations.
Dawn Ihry	15	7	Black Hills Spruce	No planting plan. Will have saplings hand-planted in various locations.
		4	Ponderosa Pine	
		12	Lilac	
		1	Bur Oak	
		2	Ohio Buckeye	
		2	Apricot	
TOTAL	28	56		

4.0 Planting Schedules

Spring 2011

The plantings for the Rodd & Deborah Svenningsen, Mark & Jody Svenningsen, and Dawn Ihry will be installed in the spring or early summer of 2011. These plantings will be in Section 17, Township 143N, Range 57W and Section 27, Township 142N, Range 58W. Landowners will be responsible for cultivating the area and preparing the soil for planting.

The Barnes County Soil Conservation District will plant replacement trees and install weed barrier fabric if desired by the landowner. Trees will be 2-year-old saplings and shrubs will be stem cuttings.

5.0 Follow-up Documentation and Monitoring

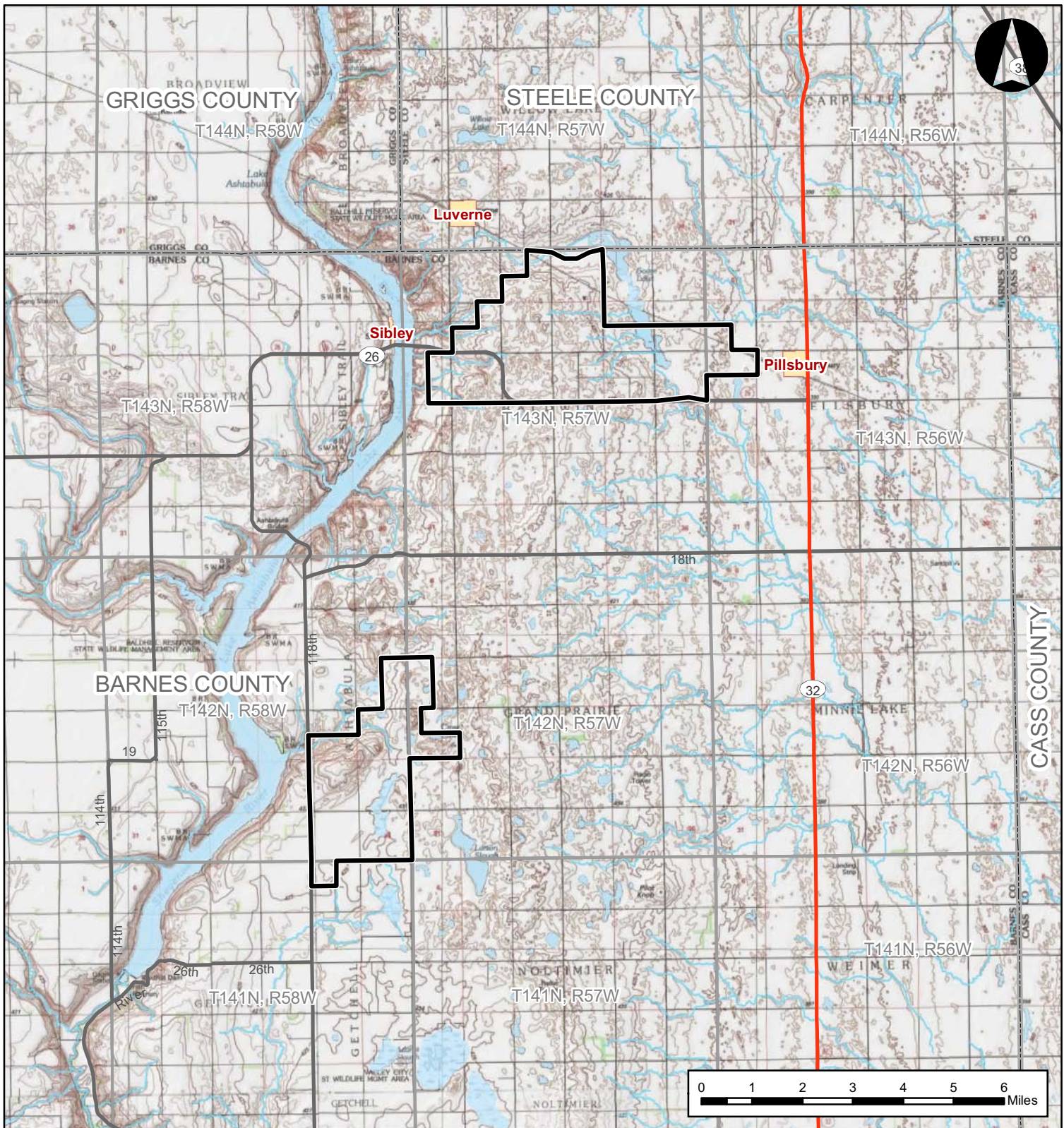
After tree plantings are installed, the number, species, location, and date of planting will be documented and filed with the PSC.

Replacement plantings will be inspected each year for three years in 2012, 2013, and 2014 near the anniversary planting date. The number and type of each surviving tree or shrub will be recorded. Notes on the condition of the saplings will be taken. Survival rates will be calculated and a report will be submitted to the PSC before October 1 of each fall documenting this information. If the survival rate after three years is less than 75 percent, additional plantings may be ordered based on consideration by the PSC.

Figures

Project Location Map

Site Plan



ASHTABULA WIND III, LLC

**Ashtabula III
Wind Energy Center**
BARNES COUNTY, ND

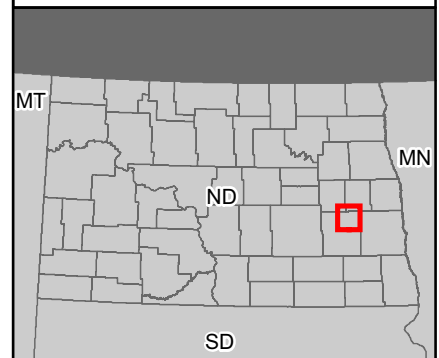
Figure 1. Project Location

MAY 2010



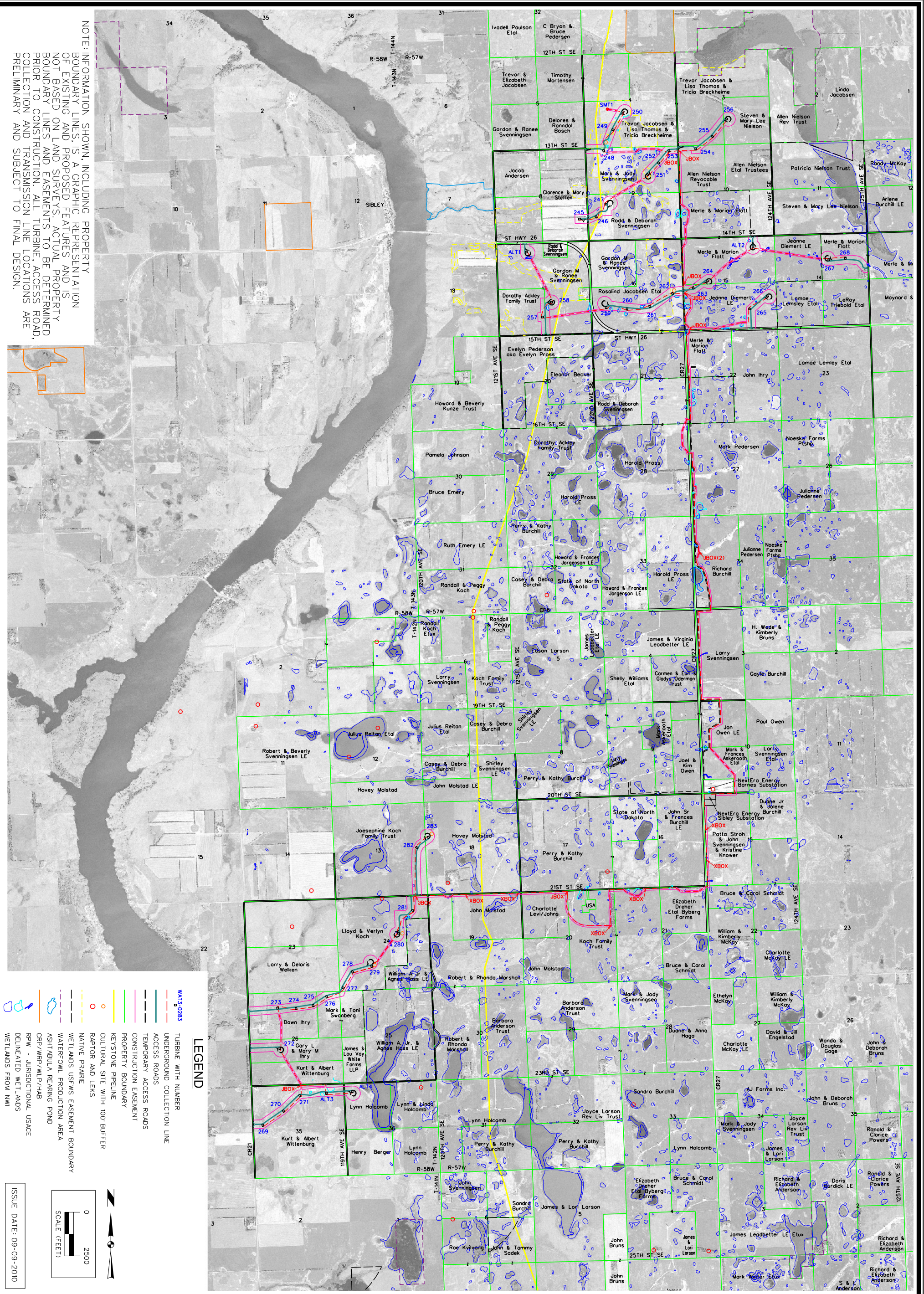
- Project Area (3/3/10)
- Stream or River
- Waterbody
- Highway
- Major Road
- Populated Place
- Township Boundary
- County Boundary

OVERVIEW MAP



Source: ESRI 2009.

NOTE: INFORMATION SHOWN, INCLUDING PROPERTY BOUNDARY LINES, IS A GRAPHIC REPRESENTATION OF EXISTING AND PROPOSED FEATURES AND IS NOT BASED ON LAND SURVEYS. ACTUAL PROPERTY BOUNDARY LINES AND EASEMENTS TO BE DETERMINED PRIOR TO CONSTRUCTION. ALL TURBINE, ACCESS ROAD, COLLECTION AND TRANSMISSION LINE LOCATIONS ARE PRELIMINARY AND SUBJECT TO FINAL DESIGN.



LEGEND

- TURBINE WITH NUMBER
- UNDERGROUND COLLECTION LINE
- ACCESS ROADS
- TEMPORARY ACCESS ROADS
- CONSTRUCTION EASEMENT
- PROPERTY BOUNDARY
- KEYSTONE PIPELINE
- CULTURAL SITE WITH 100' BUFFER
- RAPTOR AND LEKS
- NATIVE PRAIRIE
- WETLANDS USFWS EASEMENT BOUNDARY
- WATERFOWL PRODUCTION AREA
- ASHTABULA REARING POND
- CRP/WRP/WLP/HAB
- RPW - JURISDICTIONAL USACE
- DELIMITED WETLANDS
- WETLANDS FROM NWI

SCALE (FEET): 0 to 2500

ISSUE DATE: 09-09-2010

NEXTERA ENERGY - ASHTABULA WIND III, LLC

OVERALL SITE PLAN

BARNES COUNTY, NORTH DAKOTA

SNYDER & ASSOCIATES

1751 MADISON AVENUE
COUNCIL BLUFFS, IOWA 51503
712-322-3202

ATLANTIC, IA 712-243-8505
CEDAR RAPIDS, IA 319-362-9394

ANKENY, IA 515-964-2020

MARYVILLE, MO 660-682-8888
ST. JOSEPH, MO 816-364-3222

16	ADDED SCADA MET TOWER 1 IN SW 1/4 04-143-57	9/9/10	DW
15	UPDATED COLLECTION P&E 8-26-10 & LABELED SUBSTATIONS	8/27/10	DW
14	RENUMBERED ARRAY	8/20/10	DW
13	CHANGED COLLECTION TO AVOID USA RESTRICTIVE EASEMENT NW 27-143-57	8/19/10	DW
MARK REVISION		DATE	BY
Engineer:	JWK	Checked By:	MGG
Scale:	1"=	Date:	03-25-10
Field Bk:		Pg:	
Project No:	1090092	Sheet 1 of 1	
File No:			

1090092

Sheet 1 of 1

Appendix A

North Dakota Public Service Commission Findings of Fact, Conclusion of Law, and Order

Case No. PU-10-147

MOTION

August 4, 2010

**Ashtabula Wind III, LLC
Ashtabula III Wind Energy Center – Barnes Cty
Siting Application**

Case No. PU-10-147

I move the Commission adopt the Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility for Energy Conversion Facility No. 17 to Ashtabula Wind III, LLC authorizing construction of its proposed 69 MW wind energy conversion facility in Barnes County, North Dakota, Case No. PU-10-147,

JRL

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Ashtabula Wind III, LLC
Ashtabula III Wind Energy Center - Barnes County
Siting Application**

Case No. PU-10-147

**FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER
AUGUST 4, 2010**

Appearances:

Commissioners Kevin Cramer, Tony Clark and Brian P. Kalk.

Brian R. Bjella and Wade C. Mann, Attorneys at Law, Crowley Fleck, PLLP, 400 East Broadway, Suite 600, Bismarck, North Dakota 58501, on behalf of the Applicant, Baldwin Wind, LLC.

Annette Bendish, Legal Counsel, Public Service Commission, State Capitol, Bismarck, North Dakota 58505, on behalf of the Public Service Commission.

Al Wahl, Administrative Law Judge, Office of Administrative Hearings, 1701 North Ninth Street, Bismarck, North Dakota 58501-1882, as Procedural Hearing Officer.

Preliminary Statement

On May 5, 2010, Ashtabula Wind III, LLC (Ashtabula III) filed with the Public Service Commission ("Commission") a Letter of Intent (LOI) to submit an application for a Certificate of Site Compatibility for a wind energy conversion facility in Barnes County, North Dakota known as the Ashtabula III Wind Energy Center. Ashtabula III requested that the Commission shorten the one-year waiting period between the filing of the LOI and the filing of an application.

On May 12, 2010, the Commission acknowledged the Letter of Intent and shortened the one-year waiting period between the filing of the Letter of Intent and the application to one week, and assessed a filing fee of \$70,000.00.

On May 13, 2010, Ashtabula filed its Application for a Certificate of Site Compatibility authorizing construction of the Ashtabula III Wind Energy Center consisting of up to 43 1.6 MW wind turbine generators and associated facilities in Barnes County, North Dakota (Application).

On June 2, 2010, the Commission deemed the Application complete and issued a Notice of Filing and Notice of Hearing scheduling a public hearing to begin July 13, 2010, at 9:00 a.m. CDT, at the Barnes County Court House, 230 4th St. NW, Valley City, North Dakota, 58072. The notice identified the following Issues to be considered:

1. Will the location, construction 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 July 8, 2010, Ashtabula III filed an executed Certification Relating to Order Provisions -- Wind Energy Conversion Facility Siting.

On July 13, 2010, the 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 the following:

Findings of Fact

1. Ashtabula Wind III, LLC is a Delaware Limited Liability Company headquartered in Juno Beach, Florida. Ashtabula Wind III, LLC is a subsidiary of NextEra Energy Resources, LLC, also of Juno Beach, Florida.
2. Ashtabula Wind III, LLC is authorized to transact business in the State of North Dakota as evidenced by a Certificate of Good Standing issued by the North Dakota Secretary of State on October 22, 2009.
3. Ashtabula III proposes to construct a wind energy facility (Ashtabula III Wind Energy Center) to be located in Barnes County, North Dakota, approximately eight miles north of Valley City, and adjacent to the existing Ashtabula Wind I Energy Center. The project area consists of approximately 12,194 acres (19 square miles). The wind turbines and associated facilities will be placed throughout the project site with the total permanent project occupying approximately 206 acres, or 1.7% of the total project site.
4. Associated facilities to be constructed within the project area include access roads, underground electrical and feeder lines, and an electrical substation.
5. North Dakota Century Code § 49-22-16 provides that no energy conversion facility site shall be designated if it violates any county or city land use, zoning, building rules, regulations or ordinances.

Project Design

6. The project will have a name plate (gross) generating capacity of approximately 69 MW, consisting of up to 43 1.6 MW wind turbines and associated facilities. Assuming net capacity factors of 44%, the projected average annual output is estimated

Findings of Fact, Conclusions of Law and Order

Case No. PU-10-147

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at 265,183 MW hours per year.

7. Ashtabula III plans to use General Electric XLE 1.6 MW turbines. These utility-grade wind turbines will have a 262 foot (80 meter) hub height and a 271 foot (82.5 meter) rotor diameter. The turbines begin operation at wind speeds of 7.8 miles per hour (3.5 meters per second) and reach their rated capacity at a wind speed of 28 miles per hour (12.5 meters per second). The turbines are designed to operate in wind speeds of up to 45 miles per hour (20 meters per second).

8. Each turbine will be secured by a concrete foundation that can vary in design depending upon soil conditions. A typical foundation extends seven to ten feet below grade where it spreads to a final diameter of 40 to 60 feet at the base. Turbine lighting is limited to warning lights required by the Federal Aviation Administration (FAA). A control panel inside the base of each turbine tower houses communication and electronic circuitry. Each turbine is equipped with a wind speed and direction sensor that communicates with the turbine's control system to signal when sufficient winds are present for operation. Electricity generated by each turbine is brought to a pad-mounted transformer where the voltage is stepped up to a power collection line voltage of 34.5 kV. Electricity is collected by a series of underground collection lines.

9. The underground collection line feeder system will deliver the electricity to the project substation. At the substation the voltage will be stepped up to 230 kV for transmission via an existing 230 kV transmission line.

10. The site for the wind energy facility was selected based primarily upon its wind resource, accessibility to the existing electric grid, and operational history from the Ashtabula I and Ashtabula II Wind Energy Centers. Ashtabula III utilized wind data from meteorological towers located on the project site. The data indicates that this site is well suited for a wind farm.

11. Construction of the Ashtabula III Wind Energy Center is expected to take approximately five months, at a total estimated cost of \$140,000,000.00.

12. Ashtabula III anticipates commencing construction in mid August 2010. Testing and operations are to begin in late fall or early winter of 2010, and commercial operations are anticipated to begin in December 2010.

13. An Engineering, Procurement, and Construction (EPC) contractor will be retained for construction management of the project. The EPC contractor will use services of local contractors, where possible, to assist in project construction.

14. Safety factors will be incorporated into the wind turbines. Each turbine will be equipped with Supervisory Control and Data Acquisitions (SCADA) communication technology to control and monitor the turbines. In addition, each turbine is also equipped with a lightning protection system and is grounded and shielded to protect against lightning.

15. Ashtabula III states that construction and operation of the Ashtabula III Energy Center will conform to the requirements of the National Electric Safety Code.

Siting Criteria

16. 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 the certificate of site compatibility. The criteria set forth in North Dakota Administrative Code § 69-06-08-01 is classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria. With the exception of prime and unique farm land, an energy conversion facility must not be sited within an Exclusion Area. The exception for prime and unique farm land is if the Commission finds that the prime farm and unique farm land that will be removed from use for the life of the facility is of such small acreage as to be of negligible impact on agricultural production, then such exclusion shall not apply. 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 alternate sites. In accordance with the Commission's Selection Criteria, an energy conversion facility shall be approved only if it is demonstrated that no significant adverse impacts will result from the location, construction, and operation of the facility. In accordance with the Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits of the energy conversion facility.

17. The Project Layout indicates up to 96 acres of project infrastructure in prime farmland, not including the collection lines that will be buried and would be a temporary disturbance of soil. Unique and prime farmland to be disturbed by this energy conversion facility is of such small acreage as to be of negligible impact on agricultural production.

18. Approximately 137 acres of cropland and 40 acres of pasture/hay land will be impacted due to turbine placement, associated access roads, and project substation. Wind turbine configuration will not result in significant impacts to agricultural production. No impacts on the agricultural quality of the crop land are anticipated. If compaction of soils occurs during construction, Ashtabula III will work with landowners to alleviate the compaction.

19. Ashtabula III submitted evidence to demonstrate that the proposed energy conversion facility will not have a significant impact on the Selection Criteria set forth in North Dakota Administrative Code § 69-06-08-01(3).

20. Ashtabula III submitted evidence to demonstrate its commitment to maximize the benefits of the proposed energy conversion facility as far as is possible so as to meet the Policy Criteria set forth in North Dakota Administrative Code § 69-06-08-01(4).

Findings of Fact, Conclusions of Law and Order

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21. No significant adverse impact is foreseen on the ability of the affected area to provide community services, such as housing, health care, schools, police and fire protection, water and sewer, solid waste management, transportation or public safety. The proposed project is expected to be of economic benefit to the affected area.

22. Avoidance Areas identified in the project area are historical resources that are not designated as exclusion areas, woodlands and wetlands. The historical resources identified by project archeologists will be avoided. Woodland impacts are not anticipated. Wetlands will be avoided. As a result, it is not anticipated that Ashtabula III will need to obtain permits from the U.S. Army Corps of Engineers with respect to jurisdictional wetlands.

Cultural Resources

23. Several sites that are potentially eligible for the National Register of Historic Places (NRHP) are contained within the project area. Ashtabula III will avoid construction at all such sites.

24. With respect to historical resources that are not designated as Exclusion Areas, Ashtabula III has consulted with the North Dakota State Historic Preservation Office (SHPO). Class I and Class III Cultural Resource Inventories, including review of SHPO's site manuscript files and a field pedestrian survey, were conducted by archeologists for the project area. During the course of the inventory, 1 standing structure site, 3 Native American stone cairns, 1 stone circle and 1 historic burial site were identified within the project area. None of these sites will be impacted by the project, as they will be avoided by project construction. The recommendations of the archeologists will be forwarded to SHPO for review and concurrence.

Wetlands and Wildlife

25. A desktop wetland analysis identified lands within the project area identified as National Wetlands Inventory wetlands and lands within U.S. Fish and Wildlife Service ("USFWS") wetland easements. The Ashtabula III Wind Energy Center will be constructed in a manner that will avoid all impacts on wetlands managed by the USFWS.

26. Tetra Tech biologists performed wetland delineations in spring 2010 to determine the presence of and potential impacts on jurisdictional areas. As a general rule, Ashtabula Wind III aims to avoid wetland resources, either by modifying the layout within the 250-foot wide area of investigation or by using alternate construction methods (i.e., horizontal directional drilling [HDD]). As currently designed with using certain construction techniques including horizontal directional drilling, there would be no permanent impacts expected from construction of the Ashtabula III Wind Energy Center to federally jurisdictional waters. Ashtabula III reports that, based on current federal guidance, notification of the proposed project to the US Army Corps of Engineers is not required.

27. Avian use surveys were conducted in the spring of 2010 covering the northern portion of the project area. Avian use surveys for the southern portion of the project area were conducted in the fall of 2007 and spring of 2008 in conjunction with siting the Ashtabula Wind Energy Center (Case No. PU-08-32). No federally listed threatened or endangered species were observed. Based upon the low magnitude of potential habitat loss, the low probability of site usage and the avoidance and minimization measures being implemented by Ashtabula III, the potential for adverse effects on waterfowl and other species is not anticipated to be significant.

28. The project area is located outside and to the east of a 200-mile wide whooping crane migration corridor within which 94% of all whooping crane observations in North Dakota have occurred. Tetra Tech conducted a desktop likelihood assessment study and concluded the likelihood of project area use by whooping cranes is low because of its location outside the migration corridor and because the project area contains a similar amount of wetlands compared to a 10-mile buffer area.

29. Ashtabula III will implement its Wildlife Response Reporting System when turbine construction is completed. The reporting system includes protocols for field technicians during routine maintenance and operations to report and document any avian impacts.

Sound and Flicker Studies

30. An acoustic assessment was conducted in July 2010 to address sound levels resulting from wind turbine operations, as well as a consideration of sound from the electrical substation and sound generated during construction and maintenance activities. The results of the acoustic modeling were compared to the U.S. Environmental Protection Agency (EPA) environmental noise guidelines, and the Occupational Safety and Health Administration (OSHA) regulatory limits for worker exposure and public safety. In addition, the existing wind energy conversion facilities were included in the analysis.

31. The acoustic assessment illustrated the worst case scenario (downwind, full rotational speed, high air density, low background sound levels). The analysis indicates that with respect to occupied residences within or adjacent to the wind farm that the average sound levels will be within EPA guidelines. Although turbines may be periodically audible, the sound will be in compliance with acoustic design goals set by EPA guidelines, which have been developed to protect both health and human welfare. The modeling results, incorporating existing wind energy conversion facilities, indicate the potential for a slight exceedance of the noise guidelines at one of the occupied residences during anomalous meteorological conditions. The affected land owner has entered into a waiver agreement regarding the potential noise exceedance with Ashtabula III.

32. Ashtabula III completed a Shadow Flicker Impact Analysis for the Ashtabula III Wind Energy Center. The analysis included the existing Ashtabula Wind Energy Center turbines located adjacent to the proposed project area to account for cumulative effects. The analysis was performed to determine potential impacts on occupied residences located in or near the project. Although there are not requirements or actual standards, the siting recommendation of the American Wind Energy Association is 30 – 40 hours per year.

33. None of the modeled occupied residences are anticipated to have more than 30 hours of shadow flicker per year. The highest modeled impact was 28 hours for an occupied residence, and the highest anticipated impact overall was 36 hours, 43 minutes per year, which was for an unoccupied receptor (a farm out building). Should shadow flicker occur and result in complaints from occupants of residences, Ashtabula III, at its expense, will work with the owner to promptly undertake measures, such as tree planting or installation of awnings, in order to mitigate shadow flicker.

Further Mitigative Measures

34. No turbines will be placed within 1,400 feet of an occupied residence.

35. Ashtabula III has proposed setbacks of 440 feet (1.1 x turbine height) from existing transmission lines, roads, railroads and property boundaries.

36. Ashtabula III will maintain ground water protection and soil conservation practices to protect topsoil and adjacent resources, and to minimize soil erosion during construction and operation of the project. Best Management Practices (BMPs) for erosion and sediment control will be used to minimize wind and water erosion in the project area during and after construction. Only land needed for the facility will be impacted. Temporarily disturbed areas will be restored.

37. No new transmission lines, overhead collection lines or operation and maintenance facility will be constructed for the project.

38. Ashtabula III has developed a management plan to protect against the spread of noxious weeds throughout the project area or adjacent areas during construction and ongoing operations.

39. Ashtabula III has a legal obligation to decommission the wind energy facilities.

40. The proposed project minimizes 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.

41. The proposed project is of such length, design, location and purpose that it will produce minimal adverse effects, such that procedures and time schedules may be waived.

42. Ashtabula III made other representations and covenants as contained in the Certification Relating to Order Provisions—Wind Energy Conversion Facility Siting executed by Ashtabula III and filed with the Commission on July 8, 2010, which is incorporated into these Findings of Fact.

From the foregoing Findings of Facts, 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 energy conversion facility proposed by Ashtabula III is an energy conversion facility as defined in North Dakota Century Code § 49-22-03(11).
3. The application submitted by Ashtabula III 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 only 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 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 National Electric Safety Code standards in the construction and operation of the proposed energy conversion facility.
8. The proposed project is of such design, location, and purpose that it will produce minimal adverse effects.

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

Order

The Commission orders:

1. Certificate of Site Compatibility for an Energy Conversion Facility No. ___ is issued to Ashtabula III for the construction, operation and maintenance of a wind energy facility known as the Ashtabula III Energy Center.
2. The site as designated in the application is located in Barnes County approximately 8 miles north of Valley City, North Dakota, and is designated as the site for construction of the wind energy facility.

3. Within the permitted area, Ashtabula III is authorized to site and construct up to 69 MW of capacity, consisting of up to 43 1.6 MW of wind turbines in proposed and alternate locations, along with electric collection and communication lines, a project substation, access roads, and other associated facilities as identified in the application and at the hearing.
4. Ashtabula III shall comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed project, including all city, township and county zoning regulations.
5. Ashtabula III shall obtain all other necessary approvals and permits, including concurrence from the State Historic Preservation Office, and provide copies to the Commission prior to any construction activity associated with the wind energy facility that requires said concurrence, license, or permit.
6. Ashtabula III shall conduct a pre-construction conference prior to the commencement of any construction, and must include an Ashtabula III representative, its construction supervisor, and a representative of the Commission staff to ensure that Ashtabula III fully understands the conditions set forth in this Order.
7. Ashtabula III shall inform the Commission of its intent to start construction on the energy conversion facility prior to the commencement of construction, and while construction is underway, Ashtabula III shall keep the Commission updated of construction activities on a weekly basis.
8. Ashtabula III shall construct and operate the energy conversion facility in the manner described in this application, at the hearing, in late filed exhibits, and in accordance with all applicable safety requirements.
9. Ashtabula III shall construct the energy conversion facility in compliance with the National Electric Safety Code.
10. Ashtabula III shall report to the Commission the presence in the permit area of any critical habitat of threatened or endangered species, or a bald or golden eagle that Ashtabula III becomes aware of and were not previously reported to the Commission.
11. If any cultural resources, paleontological resources, archeological site, historical resource, or grave site is discovered during construction of the facility, earth disturbing activities in the immediate vicinity of this discovery must be halted. The resource must be marked, preserved, and protected from any further disturbance until a professional examination can be made in consultation with the SHPO. A report of such examination must be filed with the Commission, and clearance to proceed must be given by the SHPO and the Commission.
12. All pre-existing township and county roads and lanes used during construction must be restored to a condition that will accommodate their previous use, and areas used as temporary roads during construction must be restored to their original condition.

13. Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage, unless adequate protection measures approved by the Commission are taken.
14. Reclamation, fertilization and reseeded will be completed by Ashtabula III according to the Natural Resource Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.
15. Ashtabula III's obligations for reclamation and maintenance of the site shall continue throughout the life of the energy conversion facility.
16. When the energy conversion facility is retired, structures and other facilities must be removed to a depth of at least four feet, or in accordance with applicable rules, and the areas restored to as near as original condition as is practicable.
17. Ashtabula III shall comply with the Commission's Tree and Shrub Mitigation Specifications attached to this Order.
18. Ashtabula III shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the proposed energy conversion facility.
19. Ashtabula III shall repair or replace all drainage tile, broken or damaged, during all phases of construction and operation of the proposed energy conversion facility.
20. Staging areas or equipment shall not be located on cultivated land unless otherwise negotiated with landowners.
21. Ashtabula III 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.
22. Ashtabula III shall, as soon as practicable, upon the completion of the construction of each wind turbine, restore the area affected by the construction to the condition as it existed prior to the beginning of construction as near as is practicable.
23. Ashtabula III shall provide, if requested, educational material for landowners within the site boundaries about the proposed energy conversion facility, and any restriction of possible danger concerning the proposed energy conversion facility.
24. Ashtabula III shall provide any necessary safety measures for traffic control or to restrict public access to the energy conversion facility.
25. Ashtabula III shall advise the Commission of any extraordinary events which take place at the site of the energy conversion facility, such as tower collapse, extensive turbine failure, injured worker or private individual, mortality events of any threatened or endangered species or the discovery of a large number of dead birds or bats on the site within five business days of such event.

26. Ashtabula III shall implement a procedure for how complaints concerning the proposed energy conversion facility will be handled by Ashtabula III.
27. All underground electric line crossing of graded roads shall be bored unless the responsible governing agency permits Ashtabula III to open cut the road.
28. Where available, at least 12 inches of topsoil over and along open cut areas, roadways, tower locations, and locations of associated facilities must be stripped and segregated from the subsoil and be replaced only after the subsoil is replaced.
29. Ashtabula III shall bury all underground collection and feeder lines to a depth of at least 48 inches to the top of the lines.
30. Ashtabula III shall work with landowners and residents in the area to mitigate any increase in television and residential radio interference that results from the construction of the energy conversion facility.
31. Ashtabula III shall provide the Commission with as-built engineering design drawings and an electronic version of the as-built drawings that can be imported into ESRI GIS mapping software within six months after construction of the energy conversion facility is complete.
32. 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 each Certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.
33. Ashtabula III shall maintain records demonstrating that it has complied with the requirements of this Order and the Certificate of Site Compatibility, and shall preserve these records for Commission inspection at any reasonable time upon reasonable notice.
34. Ashtabula III shall inform the Commission of any plans to add additional turbines to the energy conversion facility or of any plans to modify the site plan for the energy conversion facility. Any additions or modifications to the site plan for the energy conversion facility must be approved in writing by the Commission or Commission staff.
35. When the facility is at the end of its useful life Ashtabula III shall remove turbine structures and decommission the project area in accordance with all decommissioning rules adopted by the Commission and as delineated under North Dakota Century Code section 49-02-27.

36. The authorizations granted by the Certificate of Site Compatibility for this energy conversion facility are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

PUBLIC SERVICE COMMISSION

**Tony Clark
Commissioner**

**Kevin Cramer
Chairman**

**Brian P. Kalk
Commissioner**

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Ashtabula Wind III, LLC
Ashtabula III Wind Energy Center - Barnes County
Siting Application

Case No. PU-10-147

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*), shall be inventoried before cutting. The inventory shall 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, shall 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 shall be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way shall be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs shall 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 shall be preserved and replaced after construction. Shrubs shall 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 shall be inventoried for replacement.
6. In native growth areas, trees and shrubs may be inventoried by actual count or by 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 shall define the sampling method to be used for trees, for tall shrubs and for low shrubs. The data from the sample plots shall 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 shall be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 50 feet or less 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 shall be noted on the inventory.

Replacement

10. Prior to replacement, documentation identifying the number and variety of trees removed as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings shall be filed with the Commission for approval.
11. Tree replacement shall be on a 2 to 1 basis with 2-year-old saplings. Shrub replacement shall be on a 2 to 1 basis with stem cuttings.
12. Trees and shrubs shall be replaced by the same species or similar species, except in the case of invasive species or noxious weeds, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.
13. Landowners shall be given the option of having replacement trees or shrubs planted off the right-of-way on the landowner's property or waiving that requirement in writing and allowing those replacement trees or shrubs to be planted at alternative locations.
14. At the conclusion of the project, documentation identifying the actual number, variety, type, location, and date of the replacement plantings shall be filed with the Commission.
15. Tree and shrub replacements shall be inspected once a year for three years, on about the anniversary of the plantings, and, on or shortly before October 1 of each year, a report shall be submitted to the Commission documenting the condition of replacement planting and any woodlands work completed. If after three years from the anniversary of the plantings the survival rate is less than 75%, the Commission may order additional planting(s).

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility for Energy Conversion Facility

Certificate Number 17

This is to certify that the Commission has designated an energy conversion facility site for Ashtabula Wind III, LLC's Ashtabula III Wind Energy Center consisting of up to 43 1.6 MW wind turbines and associated facilities in Barnes 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-10-147 dated August 4, 2010 and is subject to the conditions and limitations noted in that order.

Bismarck, North Dakota, August 4, 2010.

ATTEST:

PUBLIC SERVICE COMMISSION

Executive Secretary

Commissioner