

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Courtenay Wind Farm, LLC
Courtenay Wind Project – Stutsman County
Siting Application

Case No. PU-13-64

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

November ____, 2013

Appearances

Commissioners Brian P. Kalk, Julie Fedorchak, Randy Christmann.

Mollie M. Smith, Fredrikson & Byron, P.A., 200 North 3rd Street, Suite 150, Bismarck, North Dakota 58501-3879, on behalf of the Applicant, Courtenay Wind Farm, LLC.

Mitchell D. Armstrong, Special Assistant Attorney General, Legal Counsel for the North Dakota Public Service Commission.

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

Preliminary Statement

On February 1, 2013, Courtenay Wind Farm, LLC (Courtenay) filed a Letter of Intent (LOI) to submit an application for a Certificate of Site Compatibility to develop a wind energy conversion facility, referred to by Courtenay as the Courtenay Wind Farm (Project), in Stutsman County, North Dakota. In its LOI, Courtenay requested a shortening of the prescribed one-year notice period between when the LOI is filed and when the application for a Certificate of Site Compatibility is filed.

On February 13, 2013, the Commission acknowledged the LOI, shortened the one year notice period to thirty days, and assessed a filing fee of \$85,000 due upon the filing of the application.

On April 12, 2013, Courtenay filed its Application for Certificate of Site Compatibility for the Courtenay Wind Farm in Stutsman County, North Dakota, Case No. PU-13-64 (Application), requesting authority to construct an up to 200.5 MW gross wind energy conversion facility.

On May 22, 2013, the Commission deemed the Application complete and issued a Notice of Filing and Notice of Hearing, scheduling a public hearing for July 12, 2013 at 10:00 a.m. at the Stutsman County Court House Law Enforcement Center, 205 6th St. SE, Jamestown, North Dakota. 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 3, 2013, Courtenay filed a number of proposed hearing exhibits, including a map of the final Project layout and a map of the turbine setbacks from residences.

On July 12, 2013, the public hearing was held as scheduled.

On July 22 and 24, 2013, four letters were filed with the Commission: (1) a letter from Kyle C. Wanner, North Dakota Aeronautics Commission (NDAC), dated July 23, 2013 (NDAC letter); (2) a letter from Robert and Julie Sprague, dated July 18, 2013 (Sprague letter); (3) a letter from James and Sharon Hastings, dated July 18, 2013 (Hastings letter), which was submitted with the Sprague letter; and (4) a letter from Grant Baumgartner, dated July 22, 2013 (Baumgartner letter).

On August 5, 2013, the Commission notified Courtenay of the post-hearing submissions.

On August 13, 2013, Courtenay filed a letter with the Commission opposing consideration of the post-hearing submissions.

On August 21, 2013, the Commission issued a Notice of Intent to Consider Additional Information Not Presented At a Hearing, indicating that the Commission intended to consider the NDAC letter, the Sprague letter, the Hastings letter and the Baumgartner letter (Notice Information).

On August 29, 2013, Courtenay filed with the Commission a written request to examine and present its own information and evidence in response to the Notice Information.

On October 25, 2013, Courtenay filed with the Commission responses to the Notice Information (Response to Notice Information).

On October 25, 2013, Courtenay filed with the Commission late-filed Exhibit 15 (Updated Technical Memorandum – Cultural Resources Investigation), late-filed Exhibit 16 (Updated Technical Memorandum – Class II Architectural History Investigation, with SHPO concurrence letter), late-filed Exhibit 17 (Wetlands and Waters Survey Report, with accompanying Project layout maps and information), late-filed Exhibit 18 (Update Regarding Correspondence with the United States Fish and Wildlife Service (USFWS), Migratory Bird Office), and late-filed Exhibit 19 (Information Regarding Participating and Non-Participating Landowners in Project Area).

On November 4, 2013, Courtenay filed with the Commission a copy of the SHPO's concurrence letter regarding Courtenay's cultural resource inventory report.

On November 5, 2013, Courtenay filed a letter with the Commission withdrawing its request to permit Turbine Nos. 1, 2, 3, 10, 11, 12, 13, 21, and 22, and permanent Met Tower B. Courtenay also provided a map depicting the revised final Project layout.

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. Courtenay is a North Dakota limited liability company with its principal office in Bismarck, North Dakota.
2. Courtenay has been authorized to do business in the State of North Dakota since April 1, 2009, as evidenced by the Certificate of Good Standing issued by the North Dakota Secretary of State on August 22, 2012. See Case No. PU-13-065.
3. Courtenay proposes to construct and operate a wind energy conversion facility known as the Courtenay Wind Farm to be located within an area comprised of approximately 21,000 acres of privately-owned land in Stutsman County, North Dakota, north of Jamestown and southwest of the city of Courtenay.
4. Courtenay selected the proposed site for the Project based on a number of factors, including: the excellent wind resource, landowner interest and support, suitable transmission interconnection capability, avoidance of environmental issues, compliance with the Commission's siting criteria, compliance with Stutsman County's

setback requirements, construction and other site-specific limitations, and economic considerations.

5. 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 which were consulted and provided comment are as follows:

a. Federal – Federal Aviation Administration (FAA); United States Army Corps of Engineers Omaha District, North Dakota Regulatory Office (USACE); USFWS, North Dakota Field Office; USFWS, Migratory Bird Office; United States Air Force, Minot Air Force Base; United States Department of Defense (DOD); National Telecommunications and Information Administration;

b. State – SHPO; North Dakota Parks and Recreation Department; North Dakota Game and Fish Department; North Dakota Department of Health; NDAC;

c. Local – Stutsman County; Courtenay Township; Durham Township.

6. Agency consultations and comments are noted in Appendices G and H of the Application, in the exhibits and the testimony presented at the public hearing, in the Notice Information, and in Courtenay's Response to the Notice Information. In the NDAC letter, the NDAC noted potential safety concerns regarding a private runway owned by the Spragues. The NDAC letter is discussed further in Paragraph 49 of these Findings of Fact. No other objections to the proposed Project were raised by any state or federal agencies or any local governmental entities.

7. 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. At the hearing, Courtenay testified that it will obtain a conditional use permit for the Project from Stutsman County and Ashland Township, and will comply with county and township zoning ordinance requirements for wind energy conversion facilities.

Project Design

8. The Project will have a nameplate (gross) capacity of approximately 200.5 MW, with a projected average annual output of up to 825,546 megawatt hours (MWh) per year, assuming net capacity factors of between 43 and 47 percent.

9. The final Project layout proposed by Courtenay consists of 127 potential turbine locations, which includes two alternate sites, as well as two permanent meteorological tower locations.

10. Courtenay is considering the following four turbine models, or a turbine model similar to these turbine models: the Goldwind GW-87; GE 1.6-87; Vestas V100; and Gamesa G97. The turbine selected will be between 1.5 and 2.0 MW in size, and will have a hub height of between 78 and 85 meters and a rotor diameter of up to 100 meters.

11. If the Goldwind GW-87 turbine model is selected there will be up to 127 turbines used, if the GE 1.6-87 turbine model is selected there will be up to 123 turbines used, if the Vestas V100 turbine model is selected there will be up to 110 turbines used, and if the Gamesa G97 turbine model is selected there will be up to 100 turbines used. Except for reducing the number of turbine locations utilized, the turbine locations identified in the final Project layout submitted by Courtenay will remain the same regardless of which of the proposed turbine models Courtenay ultimately selects.

12. The turbines will have a Supervisory Control and Data Acquisition (SCADA) system, which will allow for local and remote control monitoring of all turbines, and will have lightning protection in accordance with the manufacturer's specifications. The type of foundation that will be used for the turbines will be dependent upon soil conditions at the site. Courtenay will develop a lighting and marking plan for the turbines and meteorological towers in accordance with FAA requirements.

13. In addition to turbines, associated facilities that would be constructed within the Project Area include: access roads, a Project collector substation, an operations and maintenance (O&M) building, permanent meteorological towers, pad-mounted transformers, and a system of underground electrical collection lines and communication cables.

14. Courtenay will construct and operate the Project in compliance with the National Electric Safety Code.

15. Construction of the proposed Project may begin as soon as the fourth quarter of 2013 and is anticipated to be completed by the fourth quarter of 2014. Courtenay anticipates that the Project will be operational in the fourth quarter of 2014.

16. The estimated life of the Project is over 30 years. In accordance with the Commission's rules, Courtenay will file a decommissioning plan with the Commission prior to the Project commencing operations, and decommissioning will be performed in accordance with all applicable rules and regulations.

17. The total cost for construction of Courtenay's proposed Project is estimated to be approximately \$350 million.

18. Courtenay has executed a Power Purchase Agreement with Northern States Power Company d/b/a Xcel Energy for the output of the Project.

Siting Criteria

19. 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 Section 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria. With the exception of prime farmland and unique farmland, an energy conversion facility shall not be sited within an Exclusion Area. The exception for prime and unique farmland is if the Commission finds the prime farmland and unique farmland 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 alternative sites. In accordance with the Commission's Section Criteria, a site shall 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.

20. With respect to general Exclusion Areas, prime farmland and farmland of statewide importance are present within the Project Area. However, prime farmland and farmland of statewide importance have been avoided to the maximum extent practicable and less than one percent of the prime farmland and farmland of statewide importance within the Project Area are expected to be permanently impacted; thus, the proposed Project will have a negligible impact on agricultural productions.

21. With respect to Exclusion Areas specific to wind energy conversion facilities, areas less than one and one-tenth times the height of the turbine plus seventy-five feet from the centerline of county or maintained township roadway, areas less than one and one-tenth times the height of the turbine from any railroad right of way, and areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner are present within the Project Area. However, all Project turbines have been sited outside of these areas.

22. With respect to general Avoidance Areas, (1) cultural resources are present within the Project Area, but there will be no direct impacts to such resources; (2) a small portion of the undeveloped land of the city of Courtenay is located within the Project Area, but no Project facilities will be located within the city limits; (3) some trees

and shrubs are present, and Courtenay will comply with the Commission's tree and shrub mitigation specifications with respect to any tree or shrub removal; (4) wetlands are present within the Project Area, but impacts have been minimized to the extent practicable.

23. No Avoidance Areas specific to wind energy conversion facilities are present within the Project Area.

24. The proposed Project and its associated facilities will occupy and disturb up to approximately 50 acres of land, or approximately 0.2 percent of the total Project Area, during the life of the Project. Courtenay will continue to work closely with landowners during the development phase of the Project to minimize land use disruptions from the siting of the facilities. No impacts to irrigation or the quality of the agricultural land are anticipated.

25. Courtenay 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 Section 69-06-08-01(5) of the North Dakota Administrative Code will be at an acceptable minimum or managed and maintained at an acceptable minimum.

26. Courtenay submitted evidence to demonstrate its commitment to maximize the benefits of the proposed energy conversion facility as far as is possible to meet the Policy Criteria set forth in Section 69-06-08-01(6) of the North Dakota Administrative Code.

27. During construction, the Project will likely result in a temporary increase in traffic on local county and township roads; however, based on the existing traffic use and the rural nature of the area, the impacts from the additional construction-related traffic are expected to be minimal. Any impacts on county roads and their restoration will be addressed in accordance with the road use and maintenance agreements between the county/townships and Courtenay. During operation, no adverse effects to transportation facilities or networks are anticipated.

28. The Project will benefit the local economy through the construction, operation and maintenance jobs created by the Project, as well as the state and local tax revenue generated.

29. The proposed Project is not anticipated to have significant adverse economic or social consequences. It is not expected to cause significant adverse impacts 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 and traffic safety. The proposed Project is expected to have an economic benefit on the affected area.

Cultural Resources

30. Courtenay conducted a Class I literature search, a Class II architectural history investigation, and a Class III cultural resource investigation for the Project Area.

31. With respect to architectural properties, Courtenay identified three properties that are eligible for listing on the National Register of Historic Places (NRHP). By letter dated August 22, 2013, the SHPO determined that, although eligible for listing on the NRHP, the Project will not adversely affect the three properties.

32. With respect to the cultural resource investigation, ten cultural resource sites and four site leads were identified within the surveyed areas. Courtenay's environmental consultant recommended avoidance of two of the sites and, by letter dated October 25, 2013, the SHPO concurred with that recommendation. Courtenay relocated two portions of the collector line system to other surveyed areas to avoid the cultural resource sites. Thus, no cultural resources will be impacted by the Project.

Wetlands, Woodlands, and Wildlife

33. The woodlands present in the Project Area generally consist of shelterbelts and windbreaks. If trees or shrubs are impacted by the Project, Courtenay will comply with the Commission's tree and shrub mitigation specifications.

34. A wetland delineation was conducted for the Project and the results were provided in the Wetlands and Waters Survey Report. The Project layout has avoided wetlands to the extent practicable. Courtenay will obtain any permits required from the USACE.

35. Courtenay coordinated with the USFWS with respect to the location of Project facilities on USFWS wetland easements. The Project has avoided permanent impacts to all wetland basins subject to USFWS wetland easements. In order to do so, Courtenay had to adjust the location of certain access roads and collector lines (see Exhibit B to late-filed Exhibit 17). All new access road and collector line locations are within the Project's wetland and cultural resource survey corridors, and are addressed in late-filed Exhibits 15 and 17. Courtenay will obtain a Special Use Permit from the USFWS for any temporary impacts to wetland basins subject to USFWS wetland easements.

36. Courtenay conducted environmental studies of the Project Area, including a Whooping Crane Likelihood of Occurrence Survey, a 2012 Fall Avian and Crane Survey, and a 2013 Spring Avian Survey. No adverse impacts to federally-listed threatened or endangered species are anticipated. An eagle nest was identified within the Project Area, and Courtenay is coordinating with USFWS on next steps concerning the nest. Courtenay will prepare a Bird and Bat Conservation Strategies, which will address avian and bat-related mitigation measures.

Sound and Shadow Flicker Analyses

37. An acoustic modeling analysis was performed 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.

38. A shadow flicker analysis was conducted for the Project. The analysis shows no occupied residences are anticipated to have shadow flicker levels of over 30 hours a year. In the event that flicker mitigation is necessary, Courtenay will work with individual landowners to address issues, and the mitigation measures employed may include adding vegetative screening or installing curtains or blinds on the windows facing the turbine casting shadows.

Additional Mitigative Measures

39. In addition to mitigative measures previously noted, Courtenay has agreed to a number of steps to mitigate any potential Project impacts, as indicated by the Certification Relating to Order Provisions – Transmission Facility Siting, with accompanying Tree and Shrub Mitigation Specifications, dated July 3, 2013, which is attached hereto.

40. No wind turbine will be placed within 1,400 feet of any occupied residence, measured from the center of the base of the turbine tower to the closest part of the residence.

41. The Project will comply with Stutsman County and Ashland Township zoning regulations.

42. Courtenay will utilize best management practices (BMPs) to minimize impacts on ground and surface water, and to prevent soil erosion. Courtenay will implement the erosion control measures required under the National Pollution Discharge Elimination System (NPDES) permit and the associated Stormwater Pollution Prevention Plan. Construction of the Project is not anticipated to have a significant adverse impact on surface or ground water resources or soils.

43. All electrical equipment associated with the turbines, with the exception of pad-mounted transformers, will be contained within the solid steel enclosed tubular towers on which the turbines are mounted. Access to the towers will be restricted to a single solid steel door that will be locked when not in use. The Project substation will be fenced and locked, and will have applicable warning signs.

44. Courtenay will participate in the North Dakota One-Call Excavation Notice System.

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

Other Issues

46. During the public hearing, Rod Roaldson testified regarding his concerns with respect to proposed Turbine Nos. 119 and 128, to be located near his residence in the NW/4 of Section 11, Township 143 North, Range 63 West, Stutsman County, North Dakota. After the hearing, Courtenay analyzed Project data and concluded that Turbine Nos. 119 and 128 could be designated as alternative turbine locations. Based on a joint letter submitted by Roaldsons and Courtenay, designation of Turbine Nos. 119 and 128 as alternate turbine locations addresses the Roaldsons' concerns (see Exhibit A to late-filed Exhibit 19).

47. In the Baumgartner letter, Grant Baumgartner noted concerns regarding the location of the Project substation and the density of wind turbines within one mile of a residence owned by Mr. Baumgartner. As a result of discussions between Courtenay and Mr. Baumgartner, Courtenay agreed to implement the following measures: (1) minimize the Project substation footprint to the extent commercially reasonable; (2) place the Project substation as far north on the substation parcel as is commercially reasonable; and (3) plant trees between the proposed Project substation location and Mr. Baumgartner's residence so as to screen the Project substation from Mr. Baumgartner's view. Based on a joint letter submitted by Mr. Baumgartner and Courtenay (see Exhibit A to Courtenay's Response to Notice Information and Exhibit B to late-filed Exhibit 19), these measures reasonably address Mr. Baumgartner's concerns, and the Commission will make compliance with these measures a condition of the Order.

48. In the Hastings letter, the Hastings noted various concerns, including concerns regarding noise, flashing lights, and lost property value. In response to the Hastings letter, Courtenay provided the following information and evidence:

- a. The Hastings executed a lease agreement with Courtenay for the Project and will be compensated for any Project impacts pursuant to that agreement. Courtenay showed a map of the Project layout to the Hastings before the Hastings executed the lease agreement.
- b. No Project facilities will be located on the Hastings property.
- c. The closest proposed turbine location is approximately 1821 feet away from the Hastings' residence, which complies with the Commission's 1,400 foot setback requirement.

- d. Sound levels at the Hastings' home will comply with the Commission's avoidance area requirements and Stutsman County zoning requirements.
- e. Based on conservative shadow flicker modeling, shadow flicker will be far below the 30 hour per year goal established by Courtenay and utilized in past North Dakota wind energy conversion siting cases.

See Courtenay's Response to Notice Information. Based on the evidence presented, the Commission finds that the concerns noted in the Hastings letter have been adequately addressed or are not supported by the evidence.

49. In the NDAC letter, the NDAC noted potential safety concerns regarding the proximity of Turbine Nos. 1, 2, 3, 10, 11, 12, 13, 21, and 22, and permanent Met Tower B, to an airstrip owned by Robert Sprague utilized for an agricultural spraying operation. In the Sprague letter, the Spragues noted a number of concerns, including potential safety concerns regarding the proximity of Turbine Nos. 1, 2, 3, 10, 11, 12, 13, 21, and 22, and permanent Met Tower B, to their private runway. By letter dated November 5, 2013, Courtenay withdrew its request for the Commission to permit Turbine Nos. 1, 2, 3, 10, 11, 12, 13, 21, and 22, and permanent Met Tower B. As such, the issues raised in the NDAC letter and the Sprague letter are moot.

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 wind energy conversion facility proposed by Courtenay is an energy conversion facility as defined in North Dakota Century Code Section 49-22-03(5).
3. The Application submitted by Courtenay 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 the 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 National Electric Safety Code standards in the construction and operation of the proposed energy conversion facility.

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

Order

The Commission orders:

1. Certificate of Site Compatibility No. ____ for an Energy Conversion Facility is issued to Courtenay Wind Farm, LLC, for the construction, operation and maintenance of a wind energy facility known as the Courtenay Wind Farm.

2. That the site described in the Application, located just north of Jamestown, North Dakota, and southwest of the city of Courtenay, North Dakota, is designated as the site for construction of the Courtenay Wind Farm, and is as follows:

Township 142 North, Range 62 West, Stutsman County, ND
Sections 4-8, 17

Township 142 North, Range 63 West, Stutsman County, ND
Sections 1-4, 11-12, 14

Township 143 North, Range 62 West, Stutsman County, ND
Sections 6-8, 17-21, 28-33

Township 143 North, Range 63 West, Stutsman County, ND
Sections 1-3, 9-15, 22-26, 35-36

Township 144 North, Range 63 West, Stutsman County, ND
Sections 26-27, 34-36

3. Within the permitted area, Courtenay is authorized to site and construct up to 200.5 MW of wind turbines, electrical collection and communication lines, access roads, an operation and maintenance building, a Project substation, meteorological towers, and other associated facilities identified in the Application, at the hearing, in any supplemental filings and in any late-filed exhibits. The approved Project layout, which excludes Turbine Nos. 1, 2, 3, 10, 11, 12, 13, 21, and 22, and permanent Met Tower B, is identified in the map Courtenay filed with the Commission on November 5, 2013.

4. Prior to construction, Courtenay shall file a final turbine layout with the turbine model identified and approved turbine locations that it intends to use labeled.

5. Courtenay shall implement the following agreed-upon mitigation measures: (1) minimize the Project substation footprint to the extent commercially reasonable; (2) place the Project substation as far north on the substation parcel as is commercially reasonable; and (3) plant trees between the proposed Project substation location and Grant Baumgartner's residence so as to screen the Project substation from Mr. Baumgartner's view.

6. Turbine Nos. 119 and 128 are designated as alternative turbine locations.

7. The July 3, 2013 Certification Relating to Order Provisions – Transmission Facility Siting are incorporated by reference and attached to the Order issued by the Commission.

PUBLIC SERVICE COMMISSION

Randy Christmann
Commissioner

Brian P. Kalk
Chairman

Julie Fedorchak
Commissioner