

**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**EDF Renewable Development, Inc.  
Merricourt Wind Power Project  
Siting Application**

**Case No. PU-08-932**

**AMENDED FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER**

**May 27, 2015**

**Appearances**

Commissioners Brian P. Kalk and Randy Christmann.

Sara Bergan, Attorney-at-Law appearing Pro Hac Vice, Stoel Rives LLP, 33 South Sixth Street, Suite 4200, Minneapolis, Minnesota 55402; on behalf of the Applicant, EDF Renewable Development, Inc., formerly enXco Development Corporation.

Mitchell D. Armstrong, PO Box 460, Bismarck, North Dakota 58502-0460, Special Assistant Attorney General on behalf of the Public Service Commission.

Wade C. Mann, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58503.

**Preliminary Statement**

On June 8, 2011, the North Dakota Public Service Commission (Commission) adopted Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility No. 23, designating an energy conversion facility site for enXco Development Corporation's Merricourt Wind Energy Project (Project) consisting of up to approximately 150 MW of total wind turbine generating capacity and associated facilities in Dickey and McIntosh Counties of North Dakota.

On October 10, 2014, EDF Renewable Development, Inc. (EDF), formerly enXco Development Corporation, filed with the Commission an Application for an Amendment of the Certificate of Site Compatibility for the Project (Application). The GE 1.5 MW turbines originally proposed for the Project are no longer readily available. As a result, EDF proposes to install Vestas V100 2.0 MW turbines, resulting in fewer turbines required and a need to revise turbine locations.

On November 6, 2014, the Commission deemed the Application complete, and issued a Notice of Filing and Notice of Hearing, scheduling a public hearing for 10:00 A.M. on December 22, 2014 in Ashley, North Dakota.

On November 13, 2014, EDF filed a request with the Commission to issue an amended Certificate in the company's current name, EDF Renewable Development, Inc.

Inclement weather forced postponement of the hearing and on December 22, 2014, the Commission issued a Notice of Continued Hearing rescheduling the hearing for 10:00 A.M. on January 22, 2015 in Ashley, North Dakota.

On January 16, 2015, EDF filed updated analysis for turbine locations, exclusion and avoidance areas, noise and shadow flicker, and wetland delineation.

Inclement weather again forced postponement of the hearing and on January 22, 2015 the Commission issued a Notice of Continued Hearing rescheduling the hearing for 11:00 A.M. on March 19, 2015 at City Hall in Ashley, North Dakota.

The Notices identified the following issues:

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 efficient use of resources?
3. Will the proposed facility locations minimize adverse human and environmental impacts while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On February 19, 2015, EDF filed with the Commission a Certification of Continuing Site Suitability for the Merricourt Wind Power Project in accordance with North Dakota Century Code section 49-22-17 and section 69-06-09-01 of the North Dakota Administrative Code.

On March 19, 2015, a public hearing was held as scheduled in Ashley, North Dakota.

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. Certificate of Site Compatibility for an Energy Conversion Facility No. 23 was issued to enXco Development Corporation on June 8, 2011.

2. enXco Development Corporation has changed its name to EDF Renewable Development, Inc.
3. EDF desires to commence construction of the Project by the end of 2016.

#### Size, Type and Preferred Location of Facility

4. EDF proposed Project now consists of up to 75 Vestas V100 2.0 MW turbines with 75 primary or preferred and eight alternative locations.
5. The proposed Project site is the same as the site designated in the Commission's June 8, 2011 Order, encompassing approximately 12,000 acres over several sections of German, Rosenthal, Antelope, Iowa and Beresina Townships between the communities of Merricourt, Kulm, Fredonia, Ellendale, Forbes and Ashley in Dickey and McIntosh Counties of North Dakota.

#### Project Design

6. The Project will continue to have a nameplate generating capacity of up to 150 MW. With the proposed turbine locations, 75 Vestas V100 2.0 MW turbines are expected to yield an annual energy output of just over 600 GW hours.
7. The Vestas V100 2.0 MW turbines have an 80-meter hub height with a 100-meter rotor diameter. The maximum height from tower base to the fully extended blade tip would be 427 feet. The 13.5-foot-diameter wind turbine towers would be mounted on concrete foundations approximately 25 feet in diameter and would each occupy an approximately 116-foot-diameter graveled pad.

#### Study of Preferred Location

8. EDF has completed a Class III cultural resources survey for the project that is currently under review by the U.S. Fish and Wildlife Service and North Dakota State Historic Preservation Office (SHPO). Any sites with potential cultural significance have been avoided. SHPO concurrence that no historic properties are affected by the turbine location changes is anticipated in May 2015.
9. EDF completed an updated Wetland Delineation report in January 2015, updating three previous wetland delineation reports for the Project and to account for the changes to the site plan. The updated analysis, which is included as Exhibit 20, identified six wetlands totaling approximately 1.65 acres located within the study area. Permanent wetland impacts will be avoided during construction and the need to bore under wetland easements is no longer anticipated.
10. In coordination with the US Fish and Wildlife Service (USFWS), EDF is pursuing an Incidental Take Permit under Section 10 of the Endangered Species Act, which includes conducting a site-specific Habitat Conservation Plan (HCP) and initiates the National Environmental Policy Act (NEPA). An Environmental

Assessment is being prepared with USFWS acting as the lead federal agency. Additionally, EDF is participating in the Great Plains Wind Energy Habitat Conservation Plan, which is a regional, voluntary HCP to address potential wind energy development impacts to listed or sensitive species.

#### Siting Criteria

11. In general, the larger turbine model reduces the number of turbines in the Project and thereby reduces the impact of the Project from 31 acres to 1.3 acres of prime farmland and from 15 acres to 7.2 acres of farmland of statewide importance.

12. With the proposed turbine locations, the distance from nearest critical habitat for piping plover is increased from approximately 1.2 miles to 2.0 miles southwest of the nearest turbine.

13. Noise impact was modeled at a distance of 100 feet from each residential structure. The analysis included modeled the sound power levels at occupied residences at 4 meters above ground level and added a 2 dBA buffer to each octave band to take into account the uncertainty within the noise model and any future noise monitoring. A noise study with turbines operating at every preferred and alternate location indicated a highest expected noise level of 45.73 dBA at a distance of 100 feet from any residence.

#### Measures to Minimize Impact

14. The distance from the closest residence to a turbine under the proposed site plan is increased from approximately 1,646 feet to 1,930 feet.

15. EDF stated it will maintain minimum distances from turbines to churches and cemeteries of 800 feet, overhead utilities of 500 feet and gravel pits of 700 feet.

16. A shadow flicker study modelled with turbines operating at every preferred and alternate location indicates not more than 26 hours per year of shadow flicker expected to be visible at any residence.

17. In order to accommodate a non-participating landowner surrounded by the Project site, EDF offered to removed alternate locations 41A and 45A from the Project.

Based on the foregoing Findings of Fact, the Commission 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 EDF is an energy conversion facility as defined in North Dakota Century Code section 49-22-03(11).
3. The proposed project is of such design, location and purpose that it will produce minimal adverse effects.
4. The application submitted by EDF meets the site evaluation criteria required by North Dakota Century Code Chapter 49-22.
5. 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.
6. The proposed energy conversion facility is compatible with environmental preservation and the efficient use of resources.
7. The proposed energy conversion facility will minimize adverse human and environmental impact, while ensuring continued system reliability and integrity, and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.
8. 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. EDF's request for amendment to Certificate of Site Compatibility for an Energy Conversion Facility, Certificate No. 23 (Certificate No. 23) is granted; and EDF is issued First Amended Certificate of Site Compatibility for Energy Conversion Facility, Certificate No. 23 for the construction, operation and maintenance of the Merricourt Wind Power Project.
2. The authorizations granted by First Amended Certificate of Site Compatibility for Energy Conversion Facility, Certificate No. 23 are contingent upon receipt of SHPO concurrence that no historic properties are affected by the turbine location changes. Prior to construction EDF shall file copies of the SHPO's concurrence with the Commission.
3. The authorizations granted by First Amended Certificate of Site Compatibility for Energy Conversion Facility, Certificate No. 23 are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

4. EDF is authorized to site and construct the wind turbines according to the revised site plan filed as Hearing Exhibit 14, with the removal of alternate locations 45A and 41A.

5. Under North Dakota Century Code section 49-22-17, if construction of the Project commences more than four years after this Order then, prior to construction, EDF must certify to the Commission that the Project site continues to meet the conditions upon which the certificate of site compatibility was issued.



6. All provisions and requirements in the Commission's June 8, 2011 Findings of Fact, Conclusions of Law and Order continue to apply except where altered by this Order.

**PUBLIC SERVICE COMMISSION**

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**Randy Christmann  
Commissioner**



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**Julie Fedorchak  
Chairman**

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**Brian P. Kalk  
Commissioner**

**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**EDF Renewable Development, Inc.  
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**Dissenting Opinion  
Commissioner Randy Christmann**

**May 27, 2015**

I appreciate when developers work with neighboring landowners, especially those living in the area, to help mitigate what those neighbors perceive as adverse impacts. This proposed project footprint includes large amounts of undeveloped acreage, in easily identifiable tracts, beyond what the developer's own power project layout requires. There is no evidence that these tracts are included to mitigate impacts to neighboring residences or businesses, nor is there evidence that these tracts are useful for the construction or operation of the facility.

Including significant amounts of land into a permit area without justification is not orderly development. This application should be rejected.

  
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Randy Christmann, Commissioner

**PUBLIC SERVICE COMMISSION**

**STATE OF NORTH DAKOTA**

**Certificate of Site Compatibility for Energy Conversion Facility**

**First Amended Certificate Number 23**

*This is to certify that the Commission has designated an energy conversion facility site for EDF Renewable Development, Inc.'s wind energy project consisting of up to approximately 150 MW of total wind turbine generating capacity and associated facilities in Dickey and McIntosh 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 Findings of Fact, Conclusions of Law and Order of the Commission in Case No. PU-08-932 dated June 8, 2011 and the Amended Findings of Fact, Conclusions of Law and Order issued May 27, 2015 and is subject to the conditions and limitations noted in those orders.*

*Bismarck, North Dakota, May 27, 2015.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**



**Executive Secretary**



**Commissioner**