

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

**Sunflower Wind Project, LLC**  
**Wind Energy Conversion Facility – Stark & Morton**  
**Siting Application**

**Case No. PU-14-105**

**SUPPLEMENTAL ORDER**  
**January 7, 2015**

On June 25, 2014 the Commission issued Certificate of Site Compatibility No. 39 to Sunflower Wind Project, LLC authorizing construction of a 110 MW Sunflower Wind Energy Project, LLC using either of two site plans consisting of up to 55 Vestas V-110 2.0 MW turbines or 59 General Electric 1.85-87 turbines and associated facilities in Stark and Morton Counties of North Dakota.

On October 16, 2014, Sunflower Wind Project, LLC filed an application for a third site plan option consisting of up to 55 Vestas V-100 2.0 MW turbines and associated facilities in revised locations within the previously-designated project area.

On November 6, 2014 the Commission deemed the application complete and issued a Notice of Filing, Notice of Informal Hearing and Notice of Opportunity for Hearing, which provided until December 18, 2014 for receiving written comments and requests for hearing. 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 December 16, 2014 the Commission discussed this matter with Commission staff and the Applicant at an informal hearing as noticed.

Sunflower Wind requests approval of a third site plan option with turbine locations shifted slightly to optimize the layout for the Vestas V-100 turbines. The Vestas V-100 turbines have a name plate generating capacity of 2.0 MW, a hub height of 80 meters (262.5 feet) and a rotor diameter of 100 meters (328 feet) equating to a total turbine height of 130 meters (426.5 feet), which is within the range of turbine heights evaluated for the originally-approved site plans.

No impact is anticipated on any exclusion or avoidance areas identified within the project area. Sunflower Wind is performing a Class III historical resource survey of all locations not previously surveyed and will provide the results to the State Historical

Society of North Dakota (SHPO) for concurrence. Sunflower Wind will avoid all sensitive sites that are identified.

Sunflower Wind performed updated acoustic noise and shadow flicker studies for the proposed Vestas V-100 layout with turbines modeled in all proposed and alternate locations though not all locations would be constructed. The acoustic studies indicated that worst-case noise levels at all residential receptors are expected to be below the Commission's avoidance area threshold of 50 dBA at a distance of 100 feet from residences. The shadow flicker studies indicated a worst-case shadow flicker impact of 30.75 hours per year, which was modelled at a project participant residence.

The application submitted by Sunflower Wind meets the site evaluation criteria required by North Dakota Century Code Chapter 49-22.

The location, construction, and operation of the proposed facilities will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

The proposed facilities are compatible with the environmental preservation and the efficient use of resources.

The proposed facility locations 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.

The proposed project is of such design, location, and purpose that it will produce minimal adverse effects.

### Order

The Commission Orders:

1. First Amended Certificate of Site Compatibility No. 39 is issued to Sunflower Wind Project, LLC authorizing construction of a third option site plan as proposed using Vestas V-100 turbines.
2. Sunflower Wind shall complete historical resource surveys and file a concurrence from SHPO prior to beginning construction in any areas where SHPO has not previously concurred.
3. All provisions and requirements in the Commission's June 25, 2014 Findings of Fact, Conclusions of Law and Order continue to apply except where altered by this Order.

### PUBLIC SERVICE COMMISSION

 _____ <b>Randy Christmann</b> Commissioner	 _____ <b>Julie Fedorchak</b> Chairman	 _____ <b>Brian P. Kalk</b> Commissioner
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# **PUBLIC SERVICE COMMISSION**

## **STATE OF NORTH DAKOTA**

### **First Amended Certificate of Site Compatibility Number 39**

*This is to certify that the Commission has designated an energy conversion facility site for Sunflower Wind Project, LLC's Sunflower Wind Energy Project consisting of up to 110 MW of total wind turbine generating capacity and associated facilities in Stark and Morton 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-14-105 dated June 25, 2014 and the Supplemental Order of the Commission in Case No. PU-14-105 dated January 7, 2015 and is subject to the conditions and limitations noted in those orders.*

*Bismarck, North Dakota, January 7, 2015.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**

  
**Executive Secretary**

  
**Commissioner**