

**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**Sequoia Energy US Inc.  
150MW Border Winds Energy Project – Rolette County  
Siting Application**

**Case No. PU-08-797**

**Sequoia Energy US Inc. / Border Winds Energy, LLC  
Transfer of Site Certificate  
Siting Application**

**Case No. PU-14-31**

**ORDER REISSUING AND AMENDING CERTIFICATE**

**April 9, 2014**

On May 5, 2011, in Case No. PU-08-797, the Commission adopted Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility Number 21 (Site Certificate No. 21) to Sequoia Energy US, Inc. (Sequoia) authorizing construction of a 150 MW Border Winds Energy Project in Rolette County, North Dakota.

On January 8, 2014, in Case No. PU-14-31, Sequoia and Border Winds Energy, LLC (Border Winds Energy) filed a joint application to transfer Site Certificate No. 21 to Border Winds Energy. Border Winds Energy would purchase the project from Sequoia, develop it, and then transfer ownership under a purchase and sale agreement with Northern States Power Company d/b/a Xcel Energy.

Also on January 8, 2014, Border Winds Energy filed a petition to amend the May 5, 2011 Findings of Fact, Conclusions of Law and Order to authorize changes to the previously approved Site Certificate No. 21 wind turbine site plan. Border Winds Energy proposes a smaller sized turbine model resulting in changes to previously authorized turbine locations and the addition of several new turbine locations within boundaries of the previously approved project area.

On February 14, 2014, the Commission issued a Notice of Intent to Amend Order, Notice of Opportunity for Hearing and Notice of Informal Hearing (Notice) that provided until March 28, 2014 for receiving written comments or hearing requests and scheduling an informal hearing for March 25, 2014. No response was received.

The Notice identified the issues to be considered in Case No. PU-14-31 as whether Border Winds Energy agrees and is able to comply with the terms and conditions of Site Certificate No. 21 and whether the requested transfer is compatible with the public interest.

The Notice identified the issues to be considered in Case No. PU-08-797:

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 March 25, 2014 the Commission discussed this matter with the applicants and Commission staff during the scheduled informal hearing.

Border Winds Energy is a wholly owned subsidiary of Renewable Energy Systems Americas, Inc. (RES Americas), which has developed 5,200 MW of wind energy across the United States and Canada over the last 25 years. Border Winds Energy was formed to design, install construct, own and operate the Border Winds Energy Project.

The Affidavit of Thomas Hiester, Border Winds Energy Senior Vice President Development, affirms that Border Winds Energy agrees to assume the rights and obligations of Site Certificate No. 21, including the certifications agreed to and incorporated by reference in the Commission's Order issuing the certificate.

Border Winds Energy agrees and is able to comply with the terms and conditions of Site Certificate No. 21 and the requested transfer is compatible with the public interest.

Site Certificate No. 21 authorized construction of up to 66 Siemens 2.3 MW wind turbine generators with a site plan that included 66 turbine locations and ten alternate turbine locations within a designated project site. Border Winds Energy plans to use Vestas V100 2.0 MW turbines. These are utility grade wind turbines with a nominal nameplate rating of 2000 kW. Each turbine will have a 95 meter (311.7 foot) hub height and a 100 meter (328.1 foot) rotor diameter. The turbines begin operations at wind speeds of 3.0 meters per second (6.7 miles per hour) and reach a rated capacity of 2.0 MW at a wind speed of 16 meters per second (36 miles per hour). Each turbine is designed to operate at wind speeds of up to 20 meters per second (44.7 miles per hour) and can withstand wind speeds of over 55 meters per second (123.0 miles per hour).

Border Winds Energy's proposal to use the smaller Vestas turbines results in changes to the previously authorized turbine site plan. Of the 66 original turbine locations, 62 have been preserved and four (original turbines M1, J3, J4, and J5) were abandoned to further increase the buffer from the Rolla Airport.

Of the original ten alternate locations, Border Winds Energy proposes to retain four as alternates and proposes to abandon five (ALT-S5, ALT-N1 thru ALT-N-4) to further increase the buffer from the Rolla Airport. One original alternate turbine location (previously ALT-B8) is now a proposed Vestas turbine location (T11).

Twelve new turbine locations (A1 – A5, T21, T42, T53, T59, T64, T68, and T78) and one alternate turbine location (T2) are proposed to be added to the Vestas turbine layout for a total of 75 proposed Vestas turbine locations and five alternate Vestas locations. Generally, these new turbine locations are proposed to be added to previously reviewed strings of turbines to maintain a compact layout and to avoid



additional project impacts. All proposed and alternate turbine locations are located entirely within the Project boundary previously designated by the Commission.

Revised shadow flicker and noise modeling studies have been performed. Under worst-case modeling assumptions, the highest sound level expected at any receptor is 42.2 dBA. The highest shadow flicker worst-case exposure is expected to be 47 hours per year for a participating residence and 23 hours per year for a non-participating residence.

A class III supplemental cultural resource survey was completed by Border Winds Energy and the State Historical Society of North Dakota concurred with the resulting recommendation of "No Significant Sites Affected".

Border Winds Energy, LLC filed a certification under N.D.C.C. section 49-22-03(3)(A)(3) that the construction will not affect any known exclusion or avoidance areas except as provided in and approved in the Commission's May 5, 2011 Findings of Fact, Conclusions of Law and Order.

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.

### Order

The Commission Orders:

1. The joint application of Sequoia Energy US, Inc. and Border Winds Energy, LLC for transfer of Site Certificate No. 21 to Border Winds Energy, LLC is granted.
2. Border Wind Energy, LLC's use of Vestas turbines and the resulting site plan and turbine layout revisions are approved.
3. First Reissued and First Amended Certificate of Site Compatibility No. 21 is issued to Border Winds Energy, LLC.

### PUBLIC SERVICE COMMISSION

  
Randy Christmann  
Commissioner

  
Brian P. Kalk  
Chairman

  
Julie Fedorchak  
Commissioner

**PUBLIC SERVICE COMMISSION**

**STATE OF NORTH DAKOTA**

**First Reissued and First Amended  
Certificate of Site Compatibility Number 21**

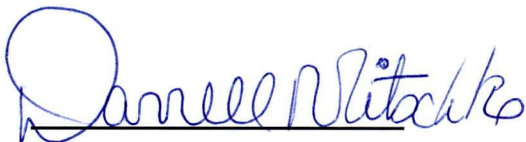
*This is to certify that the Commission has designated an energy conversion facility site for Sequoia Energy US Inc.'s Border Winds Energy Project consisting of approximately 150 MW of total wind turbine generating capacity and associated facilities in Rolette County, North Dakota.*

*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-08-797 dated May 5, 2011 and the Order of the Commission in Case Nos. PU-08-797 and PU-14-31 dated April 9, 2014 and is subject to the conditions and limitations noted in those orders.*

*Bismarck, North Dakota, April 9, 2014.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**



**Executive Secretary**



**Commissioner**