

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

**Montana-Dakota Utilities Co., a Division  
of MDU Resources Group, Inc.  
Thunder Spirit Wind Project  
Siting Application**

**Case No. PU-17-192**

**AFFIDAVIT OF SERVICE BY CERTIFIED AND REGULAR MAIL**

STATE OF NORTH DAKOTA  
COUNTY OF BURLEIGH

**Geralyn R. Schmaltz** deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **17<sup>th</sup> day of August, 2017**, she deposited in the United States Mail, at Bismarck, North Dakota, **one** envelope with certified postage, return receipt requested, fully prepaid, securely sealed and containing a photocopy of:

- **Order**

And Original Of:

- **First Reissued Second Amended Certificate of Site Compatibility No. 35**

The envelope was addressed as follows:

**Karl Liepitz  
Assistant General Counsel  
MDU Resources Group, Inc.  
PO Box 5650  
Bismarck, ND 58506-5650  
Cert. No. 7015 0640 0006 6993 9393**

**Geralyn R. Schmaltz** further deposes and says that on the **17th day of August, 2017**, she deposited in the United States Mail, Bismarck, North Dakota, **one** envelope by regular mail, with postage fully prepaid, securely sealed, each containing a photocopy of the same.

Case No. PU-17-192  
Affidavit of Service  
Page 1 of 2  
Aug. 17, 2017

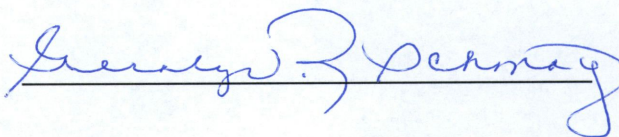
**18** **PU-17-192** Filed: 8/17/2017 Pages: 6  
**Affidavit of Service, Cert. & Reg. Mail - Order**


The envelope was addressed as follows:

Tamie Aberle  
Director of Regulatory Affairs  
Montana-Dakota Utilities Co., Inc.  
400 North Fourth Street  
Bismarck, ND 58501

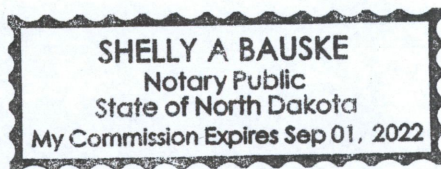
Each address shown is the respective addressee's last reasonably ascertainable post office address.

Subscribed and sworn to before me  
this **17th day of August, 2017.**



  
\_\_\_\_\_  
Notary Public

SEAL



**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**Montana-Dakota Utilities Co., a Division of MDU  
Resources Group, Inc.  
Thunder Spirit Wind Project  
Siting Application**

**Case No. PU-17-192**

**ORDER**

**August 16, 2017**

On October 9, 2013, in Case No. PU-11-601, the Commission issued its Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility No. 35 to Thunder Spirit Wind, LLC authorizing construction of an up to 150 MW Thunder Spirit Wind Project in Adams County, North Dakota.

On August 14, 2014, in Case No. PU-11-601, the Commission issued its Supplemental Order issuing First Amended Certificate of Site Compatibility Number 35 to Thunder Spirit Wind, LLC. The Supplemental Order authorized construction of 2.5 MW wind turbines in 43 proposed locations with an additional 31 previously-approved locations reserved for possible future installation.

On December 16, 2015, in Case No. PU-15-592, the Commission granted the joint application of Montana-Dakota Utilities Co.(MDU), a Division of MDU Resources Group, Inc., and Thunder Spirit Wind, LLC for transfer of site certificate and reissued First Amended Certificate of Site Compatibility Number 35 to MDU.

On December 31, 2015, the first phase of the project consisting of 43 Nordex N100/2500 IEC II 2.5 MW turbines totaling 107.5 MW of name plate capacity was placed into service.

On May 10, 2017, in Case No. PU-17-192, MDU filed an application for a second amendment to First Reissued First Amended Certificate of Site Compatibility Number 35. MDU proposes an amendment to increase total authorized project generating capacity from 150 MW to 155.5 MW in order to install up to 16 additional 3.0 MW wind turbines in previously approved locations.

On May 18, 2017, MDU submitted updated drawings to exclude a quarter section of property that is outside the eastern edge of the Thunder Spirit Project Area.

On May 31, 2017 the Commission deemed the application for a second amendment complete and issued a Notice of Filing and Notice of Opportunity for Hearing. The notice provided until July 5, 2017 for receiving written comments and requests for hearing. No requests for hearing were received. The notice identified the following issues to be considered in Case No. PU-17-192:

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 June 15, 2017 the North Dakota Department of Health filed written comments. The Department believes environmental impacts from construction will be minor and can be controlled by proper construction methods.

On June 26, 2017 the North Dakota Geological Survey filed written comments noting small localized areas of landslides in or near the project area.

MDU proposes to install up to 16 Nordex N117/3000 3.0MW wind turbines, resulting in an increase in overall total name-plate generating capacity to 155.5 MW. The turbines are to be installed in previously approved turbine locations and there will be no changes to the project roads from previously approved design. The final turbine layout design includes 16 proposed plus 3 alternate sites for the additional turbines. The remaining previously approved sites will no longer be needed.

The Thunder Spirit interconnection agreement allows delivery of 150 MW of power into the regional transmission grid. MDU explained that increasing the name-plate generating capability to 155.5 MW will offset system losses to enable delivery of the full 150 MW interconnection entitlement.

The Nordex N117/3000 3.0MW wind turbines have a 91 meter hub height and a 116.8 meter rotor diameter, which corresponds to the upper range of turbine configurations (hub height ranging from 80 to 92 meters and rotor diameter ranging from 100 to 116 meters) evaluated in the original application. MDU provided updated sound assessments (Application Exhibit C) and shadow flicker analysis (Application Exhibit D), which indicate no additional impacts from previous sound and shadow flicker studies.

MDU has contracted with Thunder Spirit Wind, LLC, a subsidiary of Allete Clean Energy (Allete), the original developer of the Thunder Spirit Wind project, to construct the second phase of the project. Work to install the additional 16 Nordex N117/3000 3.0MW wind turbines is expected to be completed by the end of 2018.

Allete will construct the Thunder Spirit Wind expansion project under a Development Rights Agreement (DRA) with MDU. Under the DRA, MDU will make available to Allete certain project permits and agreements, including the Certificate, to permit Allete to construct the Thunder Spirit Wind expansion project on behalf of MDU. MDU will ultimately be responsible for all agreement obligations and permit rights and requirements with sufficient representations, indemnities, and warranties regarding Allete's work under the DRA. If Allete is the ultimate owner of the Thunder Spirit Wind expansion project, then on a trigger event under the DRA, MDU will dually transfer, or share through separate agreements, sufficient agreements and permits necessary for Allete to own and operate the Thunder Spirit Wind expansion project.

The application submitted by Thunder Spirit meets the site evaluation criteria required under 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

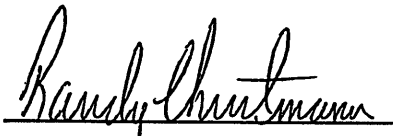
The Commission Orders:

1. First Reissued Second Amended Certificate of Site Compatibility No. 35 is issued to MDU authorizing construction of its proposed Thunder Spirit Wind Project expansion.
2. MDU is authorized to site and construct 16 additional 3.0 MW wind turbines, in previously approved locations, increasing the total authorized project generating capacity from 150 MW to 155.5 MW.
3. All provisions and requirements in the Commission's October 9, 2013 Findings of Fact, Conclusions of Law and Order and its August 14, 2014 Supplemental Order in Case No. PU-11-601 continue to apply except where altered by this Order.

### PUBLIC SERVICE COMMISSION



**Brian Kroshus**  
Commissioner



**Randy Christmann**  
Chairman



**Julie Fedorchak**  
Commissioner

**PUBLIC SERVICE COMMISSION  
STATE OF NORTH DAKOTA**

**First Reissued Second Amended  
Certificate of Site Compatibility Number 35**

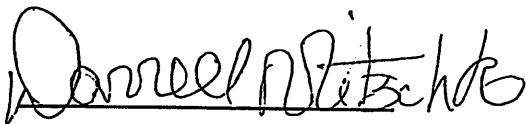
*This is to certify that the Commission has designated an energy conversion facility site for Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., for its Thunder Spirit Wind Energy Project consisting of up to 59 wind turbines and associated facilities totaling up to 155.5 MW of generating capacity in Adams 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 dated October 9, 2013 and the Supplemental Order dated August 14, 2014 in Case No. PU-11-601, and the Order of the Commission dated August 16, 2017 in Case No. PU-17-192 and is subject to the conditions and limitations noted in those orders.*

*Bismarck, North Dakota, August 16, 2017.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**



**Executive Secretary**



**Commissioner**