

**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

In the Matter of the Application of )  
MONTANA-DAKOTA UTILITIES CO., a )  
Division of MDU Resources Group, Inc. )  
for an Advance Determination of ) Case No. PU-14-\_\_\_\_  
Prudence for the Thunder Spirit Wind )  
Project )

In the Matter of the Application of )  
MONTANA-DAKOTA UTILITIES CO., a )  
Division of MDU Resources Group, Inc. )  
for a Certificate of Public Convenience ) Case No. PU-14-\_\_\_\_  
and Necessity for the Thunder Spirit )  
Wind Project )  
)

**I. Summary of Application**

Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc.,  
(Montana-Dakota or Company) makes this Application pursuant to N.D.C.C. §49-05-16  
for an Advance Determination of Prudence to own and operate the Thunder Spirit Wind  
Project (Thunder Spirit or Project), a 107.5 megawatt (MW) wind facility to be located in  
Adams County, North Dakota.

The Company also requests through this Application that the Commission grant a  
Certificate of Public Convenience and Necessity (CPCN) for the Project pursuant to  
N.D.C.C. Chapter 49-03.

This Application and the supporting exhibits demonstrate that the ownership of  
this Project is prudent to provide a cost effective generation resource for Montana-  
Dakota's North Dakota electric customers and that the Project meets the requirements  
for a CPCN. Under N.D.C.C. 49-05-16(7), a rebuttable presumption exists that the  
Project, which is located in North Dakota, is prudent.

In support of this application, Montana-Dakota provides the Direct Testimony and Exhibits of Darcy J. Neigum.

## **II. Description of Applicant**

Montana-Dakota is a Division of MDU Resources Group, Inc., a Delaware corporation duly authorized to do business in the State of North Dakota as a foreign corporation, and doing business in the State of North Dakota as a public utility subject to the jurisdiction of and regulation by the North Dakota Public Service Commission (Commission) under Title 49, N.D.C.C., as amended. Montana-Dakota's Certificate of Incorporation and amendments thereto have been previously filed with the Commission under Case No. PU-08-710. Such Certificate and Amendments are hereby incorporated by reference as though fully set forth herein and Montana-Dakota requests the Commission to take official notice of them. Montana-Dakota provides electric service to approximately 138,000 customers with approximately 89,000 of those customers located in North Dakota.

## **III. Description of the Project**

Thunder Spirit is a 107.5 MW wind project currently under construction in Adams County, North Dakota northeast of the city of Hettinger. The Project will be comprised of 43 Nordex N100/2500 (2.5 MW) wind turbines erected on 80 meter towers and is expected to have a net capacity factor of 45.2 percent and be online by the end of 2015. At a capacity factor of 45.2 percent, the projected average annual output is estimated at approximately 426,000 megawatt-hours per year. A detailed description of the Project is provided in the testimony of Mr. Neigum.

The Project will interconnect with Montana-Dakota's Hettinger 230 kV Junction Substation. The network upgrades are expected to be less than \$1.5 million and include the addition of a 230 kV breaker bay, isolation switches, and necessary protective relaying. As part of a MISO transmission service request for firm point-to-point transmission service under the PPA, Montana-Dakota also needs to reconductor five miles of Montana-Dakota's 115kV line between the Coyote and Beulah Junction Substations to increase its facility rating to accommodate the transmission service request. No other wind projects are currently located in the Hettinger area and the likelihood for project curtailments is small compared to other project opportunities that Montana-Dakota reviewed in other parts of the state which have potential significant curtailment impacts.

The Company originally entered into a Power Purchase Agreement (PPA) to buy the output from the Project in October 2013 following a review of responses to a request for proposal (RFP) process utilized by Montana-Dakota to solicit offers for additional generation in accordance with its 2013 Integrated Resource Plan (IRP). The Project was to be completed by December 31, 2015 in order to qualify for Federal Production Tax Credits (PTCs) and Montana-Dakota's obligations under the PPA were conditioned on Thunder Spirit Wind, LLC (TSW) obtaining financing by February 28, 2014. Despite extensions to the financing deadline granted by Montana-Dakota and interest in the Project shown by several investors, it became apparent TSW could not obtain Project financing without price increases and other significant amendments to the PPA. With the uncertainty of TSW's ability to timely obtain financing even with increased PPA prices and other concessions requested by TWS, Montana-Dakota determined it was

advantageous and in the best interest of its customers to consider ownership of the Project as an alternative to the PPA arrangement.

In September 2014, Montana-Dakota contacted Allete Clean Energy (ACE), a subsidiary of Allete, Inc., which has developed other wind projects in North Dakota, to determine if ACE would consider acquiring the TSW Project, completing its development, and selling the completed Project to Montana-Dakota. ACE reviewed the Project and determined that it was willing to develop the Project and either sell the output or the completed Project to Montana-Dakota. ACE acquired TSW from the developers and contemporaneously TSW and Montana-Dakota entered into both an amended PPA and a conditional-asset purchase agreement for the Project. Pursuant to the agreements, Montana-Dakota agreed to purchase the completed Project conditioned upon approval by the Commission of a Certificate of Public Convenience and Necessity and an Advance Determination of Prudence for the purchase. Alternatively, Montana-Dakota will purchase the Project output under the amended PPA.

#### **IV. Need and Justification for the Project**

The need for additional energy was identified in the Company's five year plan provided in the 2013 IRP (Case No. PU-13-510) and included the recommendation to purchase 50 to 100 MW of wind energy by 2015. The IRP forecasts an increase in total net energy requirements of nearly 1 million MWh between 2012 and 2020 and more than 100 MW in peak demand over the same period. This Project will be used to meet a portion of the energy need identified in the IRP. The Project is scheduled to be completed by the end of 2015 and will provide a low cost energy resource that will serve

to offset purchases from the Midcontinent Independent System Operator energy market that currently represent approximately 20 percent of the energy supplied by Montana-Dakota with projections for the purchases to increase absent the addition of incremental energy on the system.

The levelized cost of Montana-Dakota's ownership of the Project over a 20-year period is \$31.96 per MWh as compared to a cost of [TRADE SECRET DATA BEGINS  
TRADE SECRET DATA ENDS] per MWh under the terms of the amended PPA. As described in the testimony of Mr. Neigum, Montana-Dakota updated the IRP modeling utilizing the modeling assumptions underlying the 2013 IRP along with the prices under the amended PPA. The updated modeling selected the full 107.5 MW Project as a cost effective resource and the addition of the Project does not affect the remainder of the Future Resource Plan. Ownership of the Project makes it an even more cost effective resource as Project ownership is projected to save customers nearly \$30 million on a net present value basis over 20 years.

## V. Cost Estimates

The purchase price of the Project from ACE is [TRADE SECRET DATA BEGINS  
TRADE SECRET DATA ENDS] million. In addition, Montana-Dakota will incur financing and owner's costs to result in a total estimated project cost of between [TRADE SECRET DATA BEGINS  
TRADE SECRET DATA ENDS] million (2014 dollars). North Dakota's share of the costs are approximately 71 percent or approximately [TRADE SECRET DATA BEGINS  
TRADE SECRET DATA ENDS] million.

## VI. Project Timeline

The Project will be comprised of 43 Nordex N100/2500 (2.5 MW) wind turbines erected on 80 meter towers. Nordex is scheduled to begin delivery of Project equipment to the site with padmount transformers and foundation inserts in June of 2015. Turbine equipment is scheduled to begin arriving on-site in July of 2015 and be completed in October. The electrical interconnection is scheduled to be complete by the end of September with turbine commissioning beginning in early October and continuing through the end of November assuming no delays or issues with the construction schedule or equipment deliveries occur. The Project is anticipated to be in-service by the end of 2015.

## VII. Standard for Advance Determination of Prudence

Montana-Dakota requests an Advance Determination of Prudence for its acquisition of the Project. A determination that the Project acquisition and associate investment is prudent and recoverable through future rates is necessary to facilitate the estimated **[TRADE SECRET DATA BEGINS                      TRADE SECRET DATA ENDS]** million investment associated with this resource addition. As provided in N.D.C.C. §49-05-16, the Commission may issue an order approving the prudence of an electric resource addition if the following conditions are met:

- a. The public utility files with its application a projection of costs to the date of the anticipated commercial operation of the resource addition;
- b. The public utility files with its application a fee in the amount of one hundred seventy-five thousand dollars with provision for an increase or waiver of the fee
- c. The commission provides notice and holds a hearing, if appropriate, in accordance with section 49-02-02; and
- d. The commission determines that the resource addition is prudent. For facilities located or to be located in this state the commission, in determining whether the resource addition is prudent, shall consider the benefits of having the resource addition located in this state.

N.D.C.C. §49-05-16(7) further provides: “There is a rebuttable presumption that a resource addition located in the state is prudent.” A prudence review considers whether a company’s investment, based upon what was known or should have been known at the time of the investment, is reasonable and prudent in light of the circumstances existing at the time.<sup>1</sup> Montana-Dakota has a demonstrated need for additional generation resources and a wind resource at the size of the Project was identified as a part of a cost effective generation portfolio to meet that need. Project ownership provides the opportunity for lower costs in comparison to PPA prices over the term of the PPA with the further opportunity for realization of additional generation beyond the term of the PPA. In general, Company owned resources can continue to provide low cost energy to customers over a longer period than a PPA. Through ownership of the Project, Montana-Dakota is able to manage the uncertainty of inflation and future maintenance costs. The Company can only recover actual maintenance costs from customers. With a PPA, the maintenance costs will be conservatively estimated and will increase the PPA prices in later years. While maintenance costs may increase as the Project ages, the Project will become more fully depreciated and more than offset any increases to maintenance costs.

Ownership of the Project also provides Montana-Dakota with the ability to expand the site in the future, if needed, to meet its customers’ energy requirements while capturing the economies of scale offered by a larger project site.

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<sup>1</sup> Re Western Massachusetts Electric Co., 80 PUR 4th 479, 520 (Massachusetts 1986).

Montana-Dakota has met the conditions required for an Advance Determination of Prudence and requests that the Project be deemed a prudent investment for Montana-Dakota's North Dakota electric customers.

### **VIII. Standard for Certificate of Public Convenience and Necessity**

N.D.C.C. § 49-03-01 provides that:

An electric public utility may not begin construction or operation of a public utility plant or system, or of an extension of a plant or system without first obtaining from the commission a certificate that public convenience and necessity require or will require such construction and operation.

Before the Commission may issue a CPCN, the electric public utility must file a certified copy of its articles of incorporation, and submit evidence that it has obtained, or will make application to obtain, the consent of any other public authority whose consent is required (N.D.C.C. § 49-03-02). After notice and hearing, the Commission may: (i) issue the certificate; (ii) refuse to issue the certificate; (iii) issue the certificate for only portions of the proposed facilities; or (iv) issue the certificate subject to such terms and conditions the Commission determines the public convenience and necessity requires. The Company believes this filing meets the required standards.

### **IX. Conclusion**

Applicant respectfully requests that the Commission:

1. Give Notice of Opportunity to request a hearing to interested parties and, if no hearing is requested within twenty days, to waive the hearing in accordance with §49-02-02, N.D.C.C.;
2. Enter an Order making a determination that the Project is prudent pursuant to the provisions of N.D.C.C. §49-05-16;

3. Enter an Order and issue a Certificate of Public Convenience and Necessity authorizing the Applicant to own and operate Thunder Spirit in Adams County, North Dakota; and

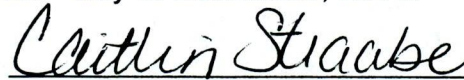
4. Grant such other relief as the Commission shall deem appropriate.

Dated this 22<sup>nd</sup> day of December, 2014.

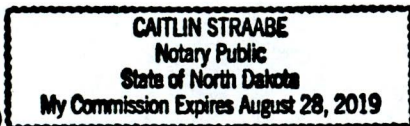


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Garret Senger  
Vice President Regulatory Affairs &  
Chief Accounting Officer

Subscribed and sworn to before me this 22<sup>nd</sup> day of December, 2014.



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Caitlin Straabe, Notary Public  
Burleigh County, North Dakota  
My Commission Expires: 08/28/2019



(S E A L)

Of Counsel:

Daniel S. Kuntz  
Associate General Counsel  
MDU Resources Group, Inc.  
P.O. Box 5650  
Bismarck, ND 58506-5650