

October 5, 2020

Executive Secretary
North Dakota Public Service Commission
State Capitol Building
600 E. Boulevard Ave. #308
Bismarck, ND 58505-0480

Re: Application to Request Extension of Time for Wind Energy Conversion Facility Lighting Mitigation - Thunder Spirit Case No. PU-15-592

Montana-Dakota Utilities Co. (Montana-Dakota) herewith electronically submits for Commission approval the Company's Application to Request Extension of Time (Application) to install light mitigating technology for its Thunder Spirit wind energy conversion facility pursuant to North Dakota Administrative Rules 69-06-11-02.2.

Montana-Dakota's Thunder Spirit wind energy conversion facility (Thunder Spirit) is located near Hettinger, North Dakota and is subject to the North Dakota wind energy conversion facility lighting mitigation requirements set forth within NDCC §49-22-16.4 and the North Dakota Administrative Rules Chapter 69-06-11-02. On August 14, 2014 in Case No. PU-11-601 the North Dakota Public Service Commission (Commission) issued the First Amended Certificate of Site Compatibility Number 35 to Thunder Spirit Wind, LLC authorizing construction of a 150 MW Thunder Spirit Wind Energy Project in Adams County, North Dakota. On December 16, 2015 the Commission issued First Reissued First Amended Site Certificate Number 35 effective upon Montana-Dakota closing on the purchase of Thunder Spirit from Thunder Spirit Wind, LLC.

Pursuant to the North Dakota Administrative Rules Chapter 69-06-11-02, Thunder Spirit is categorized as a "facility for which the commission issued a certificate of site compatibility before June 5, 2016". Consequently, absent an extension of time being granted by the Commission Thunder Spirit must be equipped with a functioning light-mitigating technology system by December 31, 2021.

The Company has received bids for Light Intensity Dimming Solution (LIDS) technology that is substantially lower in cost and operating expenses than the alternative lighting-mitigation technology; however, the LIDS technology is currently under review and has not yet been approved by the Federal Aviation Administration (FAA).

Montana-Dakota respectfully requests that the Commission expeditiously approve this Application requesting an extension of time to install the LIDS light-mitigating technology

at Thunder Spirit until the earlier of: (i) one year following the FAA's decision to approve or deny LIDS, or (ii) December 31, 2022.

It is in Montana-Dakota's customers' best interest to delay the installation of currently approved light-mitigation technology given the higher costs and operating expenses when compared to LIDS. However, Montana-Dakota had initially expected FAA's decision in August 2020 and recognizes that at some point the FAA may continue to delay or otherwise not approve LIDS in which case it would be necessary to proceed with installation of currently approved light-mitigation technology.

If the Commission does not approve the extension of time necessary to install the LIDS technology as described above, Montana-Dakota will proceed with installation of light-mitigating technology that is currently approved by the FAA and respectfully requests an extension of time to install such light-mitigating technology to June 30, 2022.

Please refer all inquiries regarding this filing to:

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Also, please send copies of all written inquiries, correspondence, and pleadings to:

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Karl.Liepitz@MDUResources.com

Sincerely,

/s/ **Travis R. Jacobson**

Travis R. Jacobson

Director of Regulatory Affairs

Attachments

cc: Karl Liepitz
Joseph Geiger
Darrin Holzer

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

In the Matter of the Application of)
MONTANA-DAKOTA UTILITIES CO. to)
Request Extension of Time for Wind Energy) Case No. PU-15-592
Conversion Facility Lighting Mitigation –)
Thunder Spirit Wind)

I. Summary of Application

Montana-Dakota Utilities Co. (Montana-Dakota) herewith electronically submits this Application to Request Extension of Time for Wind Energy Conversion Facility Lighting Mitigation (Application) at the Thunder Spirit wind facility (Thunder Spirit) until the earlier of one year following the Federal Aviation Administration’s (FAA) decision to approve or deny Light Intensity Dimming Solution (LIDS) technology or December 31, 2022 due to economic and technical considerations. If the Commission does not approve the extension of time necessary to install the LIDS technology as described above, Montana-Dakota will proceed with installation of light-mitigating technology that is currently approved by the FAA and respectfully requests an extension of time to install such light-mitigating technology to June 30, 2022.

II. Description of Applicant

Montana-Dakota is 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 NDCC Title 49. Montana-Dakota's Certificate of Incorporation and amendments thereto have been previously filed with the Commission and such Certificate and Amendments are hereby incorporated by reference as though fully set forth herein. Montana-Dakota provides electric service to approximately 93,400 customers in North Dakota as of August 31, 2020.

III. Background

Montana-Dakota owns three wind energy conversion facilities, two of which are subject to the North Dakota wind energy conversion facility lighting-mitigation requirements set forth within NDCC §49-22-16.4. The two affected facilities owned by MDU are Cedar Hills, located near Rhame, ND and Thunder Spirit, located near Hettinger, ND.

Pursuant to the North Dakota Administrative Rules Chapter 69-06-11-02, both Cedar Hills and Thunder Spirit are categorized as a "facility for which the commission issued a certificate of site compatibility before June 5, 2016". Absent an extension of time these facilities must be equipped with a functioning light-mitigating technology system by December 31, 2021.

IV. Status of Available Equipment

North Dakota Administrative Rules §69-06-11-01 identifies two types of "Light-mitigating technology system[s]". The equipment is identified as Aircraft Detection Lighting Systems (ADLS), which uses land-based radar to detect aircraft within a

designated area and Light Intensity Dimming Solution (LIDS) technology that uses sensory information obtained by scanning the sky to control light intensity.

To conform to standards set forth within North Dakota Administrative Rules §69-06-11-01, Montana-Dakota requested bids for both types of light-mitigation technology options from a variety of vendors. The Company received two equipment quotes for ADLS and one quote for LIDS.

The ADLS option has been approved by the FAA and quotes received by the Company ranged from approximately \$3.0 to \$3.3 million to purchase and install the ADLS technology at Thunder Spirit. The bids also require an annual maintenance service agreement of approximately \$29,000 to \$58,000 due to the extensive nature of the additional equipment and expertise required to operate and maintain that equipment. In addition, the ADLS employs radar units that will require an additional land lease for each unit. For Thunder Spirit, two additional land leases are expected with an annual cost of \$1,500 per unit, or \$3,000 of additional operating expenses.

LIDS technology is not currently approved for use within the United States. However, the technology is being reviewed for approval by the FAA and Montana-Dakota had expected the FAA's decision in August 2020. While that decision has been delayed, Transport Canada has approved LIDS technology for the deployment on wind turbines in Canada on June 1, 2020. Montana-Dakota received one bid for approximately \$672,000 to purchase and install the LIDS technology at Thunder Spirit. No annual service agreement is necessary as the equipment will be maintained by existing staff with very limited incremental operating expenses.

V. Request for Extension

Montana-Dakota hereby requests an extension of time to install the LIDS light-mitigating technology at Thunder Spirit until the earlier of: (a) one year following the FAA's decision to approve or deny LIDS, or (b) December 31, 2022. Montana-Dakota's extension request is due to technical and economic feasibility considerations pursuant to North Dakota Administrative Rules §69-06-11-02.2 which states "the commission may grant an extension of time based on technical or economic feasibility considerations."

Montana-Dakota makes this request given the substantial cost and operating expense difference between the ADLS systems and the LIDS technology. It is in the best interest of Montana-Dakota's customers to provide the opportunity to utilize the more economic technology awaiting FAA approval.

Montana-Dakota respectfully requests the Commission expedite its decision. In the event the Commission does not approve the Company's Application to provide the opportunity to utilize the more economic LIDS technology at Thunder Spirit, the Company will proceed with installation of light-mitigating technology that is currently approved by the FAA. In that event, Montana-Dakota respectfully requests an extension to June 30, 2022 to allow adequate time to retrofit the Thunder Spirit Facility and implement the ADLS technology.

VI. Conclusion

Montana-Dakota respectfully requests an extension of time to install the LIDS light-mitigating technology at Thunder Spirit until the earlier of: (a) one year following

the FAA's decision to approve or deny LIDS, or (b) December 31, 2022 due to the economic and technical considerations set forth in this Application. In the event the Commission does not approve the extension of time necessary to install the LIDS technology, the Company will proceed with installation of ADLS or other light-mitigating technology that is currently approved by the FAA and respectfully requests an extension to June 30, 2022 to allow adequate time to retrofit Thunder Spirit.

Dated this 25th day of September 2020

/s/ Travis R. Jacobson

Travis R. Jacobson

Director of Regulatory Affairs

Of Counsel:

Karl Liepitz

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