



AN ALLETE COMPANY

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May 15, 2017

VIA ELECTRONIC FILING

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

**RE: In the Matter of Minnesota Power's Renewable Resources Rider and
2017 Renewable Factor
Docket No. E015/M-16-776**

Dear Mr. Wolf:

Minnesota Power hereby electronically submits its Reply Comments in the above-referenced Docket. An Affidavit of Service is included.

Please contact me at the number above if you have any questions about this filing.

Yours truly,

A handwritten signature in black ink, appearing to read "Susan Ludwig".

Susan Ludwig

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

In the Matter of Minnesota Power’s Renewable Resources Rider and 2017 Renewable Factor
Docket No. E015/M-16-776
REPLY COMMENTS

I. INTRODUCTION

On November 2, 2016, Minnesota Power (“the Company”) filed a Petition with the Minnesota Public Utilities Commission (“Commission”) seeking approval to update cost recovery of incurred investments, expenditures and costs of renewable projects through the Company’s Commission-approved Rider for Renewable Resources (“Renewable Resources Rider” or “RRR”). On December 21, 2016, the Commission approved the Company’s request to implement its 2017 renewable factors on a provisional basis, beginning January 1, 2017.

Minnesota Power provides these Reply Comments in response to the Department of Commerce – Division of Energy Resources (“Department”) Comments in this Docket filed May 5, 2017.

The Department concluded that many aspects of the Company’s Petition are reasonable, recommended that the Commission approve Minnesota Power’s proposal to true-up to actual production tax credits (“PTCs”), and made recommendations regarding rate of return, jurisdictional allocators, and rate design allocations. The Department also requested that the Company provide additional information regarding a cost recovery sub-part for the Bison 4 Wind Project (“Bison 4”), confirmation regarding certain tax issues, and an explanation regarding under-performance in production of the Bison facilities.

II. DEPARTMENT RECOMMENDATIONS

Minnesota Power appreciates the Department’s thorough review of the Renewable Resources Rider and the agreement on many issues in this Docket. The following discussion addresses the Department’s recommendations.

A. Bison 4 Cost Recovery Sub-part

The Department recommended that the Minnesota Power explain why it is adding a new cost recovery sub-part for Bison 4 and why it is reasonable to include these costs for recovery in the current Petition.

As noted by the Department, Minnesota Power itemized “V-Mode Software” costs in its current Petition for Bison 4 which was not itemized in previous filings. These costs amount to \$70,055 in 2017 annual revenue requirements. As described below, this upgrade to the wind turbine control software was needed to improve power control and prevent high voltage events after Bison 4 was placed in service. The software upgrade is an integral component of Bison 4 and the associated costs were included as a separate sub-part in order to properly demonstrate the associated depreciation and tax impacts. Consistent with Minnesota Power’s capitalization policy, purchased software with an installed cost of \$100,000 or more is capitalized. In the Company’s view, the software upgrade at Bison does not constitute a new cost recovery component of the Bison 4 project, but has been separated into a sub-part for the purpose of transparency of revenue requirement calculations. The following section discusses the reasons the software upgrade was needed and why it is reasonable to include these costs for recovery.

Why was the V-Mode Software Needed?

Energy from the Bison wind turbines is carried by buried collector cables to the Bison and Tri-County Substations. The conductors of a collector cable run parallel to each other over long distances within the trench and act as a capacitor, creating reactive power. The wind turbines at Bison can regulate reactive power when the rotor is spinning and active power is being generated. However they were not configured to provide reactive power control when standing still and not generating active power, such as during no-wind and icing conditions. Increasing reactive power causes the voltage to rise.

The Bison 4 project increased Bison’s overall capacity from 291.8 MW to 496.6 MW, and added 53 miles of collector cable. The additional collector cable increased the amount of reactive power produced by the Bison facility when no active power was being generated. After the Bison 4 project came online, the 230 kV transmission line at the Bison facility experienced a

number of high voltage events associated with high reactive power levels during no-wind or icing conditions.

In 2015, Siemens (the wind turbine manufacturer) developed the V-mode upgrade to the wind turbine control software that enables the wind turbines to absorb reactive power and control voltage at times when no active power is being produced. The V-mode software upgrade was installed to improve the reactive power control at the Bison wind facility and prevent high voltage events.

The high voltage events during no-wind and icing conditions were the result of adding the Bison 4 project and the V-mode software upgrade allows the wind turbines to absorb reactive power under no-wind and icing conditions to mitigate the problem. Since the software upgrade is an integral component of the Bison 4 project and is not a new cost recovery component, Minnesota Power believes it is reasonable to include these costs for recovery in the current Petition.

B. Production Tax Credits

The Department recommended that the Commission approve Minnesota Power's proposal to true-up to actual PTCs. Minnesota Power appreciates the Department's agreement in this matter. Both Minnesota Power's 2017 RRR and current rate case¹ include an assumption for PTCs generated in 2017 and the corresponding deferred tax assets ("DTAs") for PTCs are built into the rate base calculation. As discussed in the Direct Testimony of Company witness Ms. Jamie Jago, page 17, Minnesota Power has significant DTAs for both net operating losses ("NOLs") and PTCs built into rate base. Both of these are estimates based upon test year amounts. Inevitably, these amounts will not agree to actual results for 2017, and Minnesota Power will not know the final Minnesota Power federal NOL for 2017 until the fall of 2018, when the 2017 tax returns are complete. Therefore, as stated in the rate case testimony, Minnesota Power believes the rate base impact of these items over time does not change materially and no special provisions for these expected changes would need to be considered for adjusting rates after the test year period.

¹ Docket No. E015/GR-16-664.

C. NOLs and DTAs

The Department requested that Minnesota Power confirm in reply comments that it will not be seeking any accumulated deferred income tax asset (“ADITA”) for NOLs in future cost recovery riders, including the RRR. The Company confirms this to be correct.

The Department also requested that Minnesota Power explain why it continues to show a DTA for NOLs in the 2017 RRR as of December 31, 2017, in response to the Department’s Information Request No. 1141, Attachment 1141.04 in the Company’s 2016 rate case. As described below, the DTA for NOLs shown in response to the indicated Information Request represents the NOL DTA balance included in the RRR *prior* to projects being transferred into base rates. Once eligible projects have moved into base rates, there is no balance of DTAs for NOLs remaining in the 2017 RRR as of December 31, 2017.

In Minnesota Power’s current rate case, the Direct Testimony of Mr. Herbert G. Minke, III, Section II, Cost Recovery Riders, explains how the riders are rolled into the rate case. The Company initially calculated the 2017 RRR revenue requirements and factors as though no rate case was being filed. The methodology follows that all projects in the RRR that were placed in service prior to January 1, 2017, be rolled into base rates and removed from the RRR. To accomplish this, the Company developed sub-factors to separate the projects that will stay in the RRR from the projects that will move to base rates. Mr. Minke’s Direct Schedule 3 shows the development of sub-factors for the RRR and shows that the 2017 revenue requirements related to the Bison project are moving into base rates. The Company’s response to the Department’s Information Request No. 1141, Attachment 1141.04 in the Company’s 2016 rate case referred to the ADITA NOL amount that was included in the initial calculation of the 2017 RRR revenue requirements as though no rate case was being filed.

Since the entire DTA for the PTCs and the DTA for the NOLs were all associated with Bison projects moving to base rates, the final revenue requirement and associated RRR factors requested in the 2017 RRR, do not include the Bison project costs or the DTAs for the PTCs or NOLs.

D. Federal Investment Tax Credits (“ITCs”) for Thomson Hydro Project

The Department requested that Minnesota Power provide the total value of federal ITCs claimed on its 2015 federal tax return for the Thomson Hydro project. In Direct Testimony in the current rate case, Company Witness Jamie Jago states on page 18 that the rebuild project qualified for \$24 million of ITCs. This is the amount claimed on the Company’s 2015 federal tax return for the Thomson Hydro project. Although some portions of the Thomson Hydro project are moving into base rates as part of the Company’s rate case, two projects which were not placed in service by January 1, 2017, will remain in the 2017 RRR. Once Minnesota Power is able to utilize the federal ITCs, the credits will be amortized to the benefit of customers, either through the RRR or through base rates, as appropriate.

E. Requirements Related to Outcome of 2016 Rate Case

The Department recommended that Minnesota Power be required to use the actual rate of return, jurisdictional allocators, and rate design allocations approved by the Commission in its 2016 rate case to recalculate its 2017 annual revenue requirements, true-up, and remaining tracker balance to be charged or returned to ratepayers coincident with the implementation of final rates in its next RRR filing. The Company agrees with this recommendation for all projects remaining in the RRR. Projects moving into base rates, however, will be treated in accordance with other projects included in base rates.

F. Performance of Production at Bison Facilities

The Department requested that Minnesota Power explain in reply comments the reasons for continuing under-performance in production of the Bison facilities. As the Department noted, Bison production has been lower than estimated, even after Bison 4 became operational at the end of 2014.

When Bison 4 became operational, it encountered start-up issues which caused considerable under-performance in its first year of operation. Additionally, an unusually high number of heavy repairs were required on the Bison turbines in 2015. The associated out-of-service time contributed to under-performance in 2015.

In 2016, generation from the Bison facilities was reduced by more than 57,000 MWhs due to weather events and transmission curtailments. The weather events included icing conditions in the first quarter and December of 2016. Not included in this lost generation estimate is the lost generation from maintenance delays due to heavy snowfall (45 inches) in December 2016. The heavy snowfall and subsequent drifting prevented timely access to the wind turbines, increasing the out-of-service time before the turbines could be repaired.

III. CONCLUSION

Minnesota Power appreciates the Department's thorough review of the Renewable Resources Rider and has provided the requested information.

Dated: May 15, 2017

Yours Truly,



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STATE OF MINNESOTA)
) ss
COUNTY OF ST. LOUIS)

AFFIDAVIT OF SERVICE

JODI NASH of the City of Duluth, County of St. Louis, State of Minnesota, says that on the 15th day of May, 2017, she served Minnesota Power's Reply Comments in Docket No. E015/M-16-776 on the Minnesota Public Utilities Commission and the Minnesota Department of Commerce via electronic filing. Parties on the attached service list were served as noted.



Jodi Nash

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