



January 19, 2021

VIA E-FILING

Will Seuffert
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 Rider
for Boswell Energy Center Unit 4 Emission
Reduction (BEC4 Rider) and 2021 Factor
Docket No. E015/M-20-825**

Dear Mr. Seuffert:

Minnesota Power (or "the Company") submits its Petition to the Minnesota Public Utilities Commission ("Commission") pursuant to Minn. Stat. § 216B.1692 seeking Commission approval to update cost recovery of investments, expenditures and costs related to the Boswell Energy Center Unit 4 ("BEC4") mercury emission reduction project through Minnesota Power's Commission-approved Rider for Boswell Unit 4 Emission Reduction ("BEC4 Rider"). The Company has determined that the BEC4 Trackers for the "All Other" and "Large Power" customer groups will each reach zero in 2021, although at different times; therefore, the approvals requested are for the purpose of closing out the BEC4 Rider and removing it from customer bills.

On November 12, 2020, Minnesota Power submitted a letter seeking provisional approval by the Commission to end the credit on customer bills for the "All Other" customer group effective December 1, 2020, as the BEC4 Tracker is near zero. Additionally, Minnesota Power requested the Commission approve a variance to Minn. Rule 7825.3200, which would require the Company to provide the Commission notice 90 days prior to the proposed effective date of the modified rates being implemented. The Commission approved Minnesota Power's request in an order dated December 23, 2020. The Company ended the credit on customer bills for the "All Other" customer group effective January 1, 2021. In the November 12, 2020 letter, Minnesota Power stated the Company was in the process of drafting a detailed petition, similar to previously submitted BEC4 Factor petitions, which Minnesota Power is now submitting.

In summary, Minnesota Power is seeking Commission approval to: formally end the credit on customer bills, first for the "All Other" customer group and then the "Large Power" customer group; zero out each BEC4 Tracker by applying the appropriate one-time charge or partial credit; utilize supplemental filings to this Docket for the purpose of providing the pertinent details to zero out each of the BEC4 Trackers; and reverse the

Mr. Seuffert
January 19, 2021
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amount in that is in the BEC4 Tracker related to the Ash Pond project that has been determined to no longer be recoverable in the BEC4 Rider.

Minnesota Power has included a Summary with this filing. As reflected in the Affidavit of Service, the Summary has been filed on the general service list utilized by Minnesota Power.

Please contact me at (218) 355-3601 or lhoyum@mnpower.com if you have any questions regarding this filing.

Yours truly,

A handwritten signature in cursive script that reads "Lori Hoyum".

Lori Hoyum
Regulatory Compliance Administrator

LMH:th
Attach.

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

In the Matter of Minnesota Power's Rider
for Boswell Energy Center Unit 4 Emission
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SUMMARY OF FILING

Minnesota Power (or "the Company") submits its Petition to the Minnesota Public Utilities Commission ("Commission") pursuant to Minn. Stat. § 216B.1692 seeking Commission approval to update cost recovery of investments, expenditures and costs related to the Boswell Energy Center Unit 4 ("BEC4") mercury emission reduction project through Minnesota Power's Commission-approved Rider for Boswell Unit 4 Emission Reduction ("BEC4 Rider"). The Company has determined that the BEC4 Trackers for the "All Other" and "Large Power" customer groups will each reach zero in 2021, although at different times; therefore, the approvals requested are for the purpose of closing out the BEC4 Rider and removing it from customer bills.

Specifically, the Company is requesting Commission approval to:

- Formally end the credit on customer bills, that was provisionally approved by the Commission in an Order dated December 23, 2020, for the "All Other" customer group effective January 1, 2021;
- Zero out the tracker for the for the "All Other" customer group by applying a one-time per kilowatt hour ("kWh") bill charge to these customers based on actual kWh usage;
- End the credit on customer bills for the "Large Power" customer group once the credit remaining in the tracker is smaller than would be provided in a typical month by applying a one-time partial credit based on actual billing units;

- Utilize supplemental filings to this Docket to provide the pertinent details to zero out the tracker, first for the “All Other” customer group, and then the “Large Power” customer group later in 2021; and
- Reverse the amount that is in the tracker related the Ash Pond project that has been determined to no longer be recoverable in the BEC4 Rider.

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**STATE OF MINNESOTA
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In the Matter of Minnesota Power’s Rider
for Boswell Energy Center Unit 4 Emission
Reduction (BEC4 Rider) and 2021 Factor

Docket No. E015/M-20-825

I. INTRODUCTION

Minnesota Power (or “the Company”) submits its Petition to the Minnesota Public Utilities Commission (“Commission”) pursuant to Minn. Stat. § 216B.1692 seeking Commission approval to update cost recovery of investments, expenditures and costs related to the Boswell Energy Center Unit 4 (“BEC4”) mercury emission reduction project (“BEC4 Project”) through Minnesota Power’s Commission-approved Rider for Boswell Unit 4 Emission Reduction (“BEC4 Rider”). The Company has determined that the BEC4 Trackers for the “All Other” and “Large Power” customer groups will each reach zero in 2021, although at different times; therefore, the approvals requested are for the purpose of closing out the BEC4 Rider and removing it from customer bills.

Specifically, the Company is requesting Commission approval to:

- Formally end the credit on customer bills, that was provisionally approved by the Commission in an Order dated December 23, 2020, for the “All Other” customer group effective January 1, 2021;
- Zero out the tracker for the for the “All Other” customer group by applying a one-time per kilowatt hour (“kWh”) bill charge to these customers based on actual kWh usage;
- End the credit on customer bills for the “Large Power” customer group once the credit remaining in the tracker is smaller than would be provided in a typical month by applying a one-time partial credit based on actual billing units;

- Utilize supplemental filings to this Docket to provide the pertinent details to zero out the tracker, first for the “All Other” customer group, and then the “Large Power” customer group later in 2021; and
- Reverse the amount that is in the tracker related the Ash Pond project that has been determined to no longer be recoverable in the BEC4 Rider.

On November 12, 2020, Minnesota Power submitted a letter seeking provisional approval by the Commission to end the credit on customer bills for the “All Other” customer group effective December 1, 2020, as the BEC4 Tracker is near zero. Additionally, Minnesota Power requested the Commission approve a variance to Minn. Rule 7825.3200, which would require the Company to provide the Commission notice 90 days prior to the proposed effective date of the modified rates being implemented. The Commission approved Minnesota Power’s request in an order dated December 23, 2020. The Company ended the credit on customer bills for the “All Other” customer group effective January 1, 2021.

In early 2021, Minnesota Power will have actuals for the final amount that will need to be charged to the “All Other” customer group in the BEC4 Tracker to zero out the Tracker. At that time, the Company will supplement this Docket with the specific details of its proposed plan to zero out the “All Other” customer group portion of the BEC4 Tracker which will include a one-time per kWh bill charge to these customers based on actual kWh usage. The one-time per kWh bill charge would occur once a Commission order is issued approving the bill charge.

Minnesota Power is not seeking immediate action specific to the “Large Power” customer group portion of the BEC4 Tracker. Rather, the Company is seeking approval to end the bill credit for the “Large Power” customer group once the credit remaining in the BEC4 Tracker is smaller than what would be credited to customers in a typical month. The last full month of the credit is projected to be June 2021. A one-time partial credit would be determined using Large Power July 2021 billing units, and applied to the “Large Power” customer group bills in August 2021. The exact timing and months assume that actual billing units do not vary significantly from the 2021 budgeted level.

In order to provide regulators and stakeholders detailed information in order to close out the BEC4 Trackers on a timely basis, Minnesota Power proposes to submit supplemental filings specific to the amounts to be charged to the “All Other” customer group and the final bill credit to the “Large Power” customer group. The Company estimates these supplemental filings to be submitted as follows:

- **April 2021:** Supplemental filing providing the calculation details for determining the final one-time per kWh bill charge to the “All Other” customer group based on actual kWh usage.
- **August 2021:** Supplemental filing providing the calculation details for determining the final one-time partial credit to the “Large Power” customer group using July 2021 billing units.

Minnesota Power also anticipates that the Company will be required to submit a final compliance filing showing the BEC4 Rider is no longer on customer bills as part of the Commission’s order in this Docket.

Included in the 2018 BEC4 Factor which is currently in place are the 2017 ending tracker, the remaining Ash Pond project, and Basin Power Electric Cooperative’s (“Basin”) revenue credit. Since implementation of the 2018 BEC4 Factor on December 1, 2018, the Basin revenue credit ended in April 2020, and the Company determined that the scope of the remaining Ash Pond project have evolved from solely being attributed to the BEC4 Project to addressing federal regulation specific to the Coal Combustion Residuals (“CCR”) Rule. Mitigation costs associated with the CCR Rule are not rider recoverable under Minn. Stat. § 216B.1692. As a result of the change in focus of the Ash Pond project to mitigation of the CCR Rule, Minnesota Power has removed all revenue requirements for the Ash Pond project, approximately \$421,000,¹ from the BEC4 Tracker.

¹ See Exhibit B-1, page 2 (on a MN Jurisdictional basis).

Background of the BEC4 Rider

On August 31, 2012, Minnesota Power submitted its Boswell Energy Center Unit 4 mercury emission reduction plan petition (“BEC4 Plan”) in compliance with Minn. Stat. § 216B.6851 to the Commission and Minnesota Pollution Control Agency (“MPCA”). The BEC4 Plan is a multi-pollutant solution for reducing mercury, particulate matter (“PM”), sulfur dioxide (“SO₂”), and other hazardous air pollutants being addressed by United States Environmental Protection Agency (“EPA”) regulations while also reducing plant wastewater. As part of the BEC4 Plan, the Company installed a semi-dry flue gas desulfurization system, fabric filter and powder activated carbon (“PAC”) injection system to help achieve compliance with the Minnesota Mercury Emissions Reduction Act (“MERA”), the EPA Mercury and Air Toxics Rule (“MATS”), and other enacted or pending federal and state environmental rulemakings regulating air and water emissions and solid byproducts from coal-fired power plants. Through multi-pollutant control technology, Minnesota Power will cost-effectively achieve the mercury reduction goals under MERA while ensuring compliance with other regulatory programs over the long term.

On March 7, 2013, Minnesota Power submitted its Petition seeking Commission approval pursuant to Minn. Stat. §§ 216B.683, subd. 1; 216B.686, subd. 2; and 216B.1692, subd. 3 to recover investments and expenditures associated with the BEC4 Project through the BEC4 Rider. On November 5, 2013, the Commission approved Minnesota Power’s BEC4 Project and established the BEC4 Rider through an order approving recovery of investments and expenditures for the BEC4 Project in Docket No. E015/M-12-920.

Table 1 shows the commission-approved adjustments to the BEC4 Factor since the BEC4 Rider was established in November 2013.

Table 1 - Commission-approved Adjustments to the BEC4 Factor

Factor Year / Docket No.	Date Petition was Submitted	Date Approved
2014 Factor E015/M-13-1166	Dec. 20, 2013	July 2, 2014
2015 Factor E015/M-14-990	Nov. 26, 2014	Aug. 24, 2015
2016 Factor ² E015/M-15-876	Sept. 30, 2015	Dec. 21, 2016
2017 Factor E015/M-18-264	Apr. 9, 2018	Nov. 19, 2018
2021 Factor E015/M-20-825 <i>*Provisional approval to end "All Other" customer group bill credit</i>	Nov. 12, 2020	Dec. 23, 2020

² On January 12, 2017, the Company submitted a letter to the Commission indicating the 2016 factors would not be implemented to avoid over-collection in 2017 and to not further complicate the 2016 general rate case (Docket No. E015/GR-16-664). The Commission approved the Company's request in an order dated March 22, 2017.

II. PROCEDURAL MATTERS

Pursuant to Minn. Stat. §§ 216B.683; 216B.1692; 216B.6851, 216B.686; and 216B.16, subd. 1, and Minn. Rule 7829.1300, Minnesota Power provides the following required general filing information.

1. Summary of Filing (Minn. Rule 7829.1300, subp. 1)

A one-paragraph summary accompanies this petition.

2. Service on Other Parties (Minn. Rule 7829.1300, subp. 2)

Pursuant to Minn. Stat. § 216.17, subd. 3 and Minn. Rules 7829.1300, subp. 2, Minnesota Power eFiles a copy of this Petition on the Department of Commerce - Division of Energy Resources, and the Minnesota Office of the Attorney General – Antitrust and Utilities Division. A summary of the filing prepared in accordance with Minn. Rules 7829.1300, subp. 1 is being served on Minnesota Power’s general service list.

3. Name, Address and Telephone Number of Utility (Minn. Rule 7829.1300, subp. 4(A))

Minnesota Power
30 West Superior
Street Duluth, MN
55802 (218) 722-2641

4. Name, Address and Telephone Number of Utility Attorney (Minn. Rule 7829.1300, subp. 4(B))

David R. Moeller
Senior Attorney and Director of Regulatory Compliance
Minnesota Power
30 West Superior Street
Duluth, MN 55802
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dmoeller@allete.com

5. Date of Filing and Date Proposed Rate Takes Effect (Minn. Rule 7829.1300, subp. 4(C))

This Petition is being filed on January 19, 2021. The Company is proposing to implement the actions outlined as one-time charges or credits as necessary to close out the BEC4 Rider in 2021, and to end the credit being provided when the tracker balance is near

zero, based on actual billing units.

6. Statute Controlling Schedule for Processing the Filing (Minn. Rule 7829.1300, subp. 4(D))

This Petition is made pursuant to Minn. Stat. §§ 216B.683, 216B.1692, 216B.6851, 216B.686 and 216B.16. Minn. Stat. § 216B.1692 allows Minnesota Power to recover the costs of the BEC4 Plan through the Commission-approved BEC4 Rider. Minn. Stat. § 216B.16, subd. 1 requires a 60 day notice to the Commission of a proposed rate change, after which time the proposed rate change takes effect unless suspended.

This Petition falls within the definition of a “Miscellaneous Tariff Filing” under Minn. Rule 7829.0100, subp. 11 since no determination of Minnesota Power’s general revenue requirement is necessary. Minn. Rule 7829.1400, subp. 1 and 4 respectively, permit comments in response to a miscellaneous filing to be filed within 30 days, and reply comments to be filed 10 days thereafter.

7. Utility Employee Responsible for Filing (Minn. Rule 7829.1300, subp. 4(E))

Lori Hoyum
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8. Impact on Rates and Services (Minn. Rule 7829.1300, subp. 4(F))

The Boswell 4 Plan Adjustment will have no effect on Minnesota Power’s base rates. The impact of the Boswell 4 Plan Adjustment miscellaneous rate change on customer rates is described in section V.C., pages 18-20.

9. Service List (Minn. Rule 7829.0700)

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10. Modified Rates (Minn. Rule 7825.3600)

Minn. Rule 7825.3600 requires all proposed changes in rates be shown by filing revised or new pages to the rate book and by identifying those pages which were not changed. See Exhibit A for redlined and clean versions of the tariff page showing the proposed revised Boswell 4 Plan Adjustment factors. Please note, that the revised tariffs provided convey the change to the tariff only for All Other Classes at this time. Minnesota Power will file an additional revised tariff when the Large Power rate needs to be zeroed out as well. No other rate book pages are changing as a result of this filing. Upon approval of the requested rate adjustment, Minnesota Power will submit a compliance filing containing the required tariff-related documents to formally close out the BEC4 Rider.

III. EMISSIONS-REDUCTION RIDER AUTHORIZATION

Minn. Stat. § 216B.1692, subd. 5(b) allows the Commission to approve an emissions-reduction rider to recover the costs of a qualifying emissions-reduction project outside of a general rate case proceeding under Minn. Stat. § 216B.16. The Commission may approve a rider that:

- (1) allows the utility to recover costs of qualifying emissions-reduction projects net of revenues attributable to the project;
- (2) allows an appropriate return on investment associated with qualifying emissions-reduction projects at the level established in the public utility's last general rate case;
- (3) allocates project costs appropriately between wholesale and retail customers;
- (4) provides a mechanism for recovery above cost, if necessary to improve the overall economics of the qualifying projects to ensure implementation;
- (5) recovers costs from retail customer classes in proportion to class energy consumption; and
- (6) terminates recovery once the costs of qualifying projects have been fully recovered.

The term of the rider shall extend for the period approved by the commission regardless of any subsequent state or federal requirement affecting any pollutant addressed by the approved emissions-reduction project and regardless of the sunset date in Minn. Stat. § 216B.1692, subd. 8.

IV. PROJECT STATUS AND REQUIRED UPDATES

A. Project Update

Minnesota Power installed Alstom's circulating dry scrubber ("CDS") technology,³ referred to as the NID system ("NID"), for the removal of PM, SO₂, acid gases including hydrochloric acid and trace metals, and other hazardous air pollutants being addressed by EPA regulations, while also reducing plant wastewater. In addition to the NID system, Minnesota Power installed a PAC system to capture flue gas mercury, in combination with the fabric filter integral to the NID to control PM. The PAC system and fabric filter are key components to achieving compliance with MERA, MATS, and other enacted or pending federal and state environmental rulemakings regulating air and water emissions and solid byproducts from coal-fired power plants. Through multi-pollutant control technology, Minnesota Power cost effectively achieved the mercury reduction required by MERA while also ensuring compliance with other regulatory programs over the long term.

Construction activities are complete and the NID began operation on October 27, 2015; and was formally declared to be in service on December 22, 2015.

B. Project Schedule

The BEC4 Project effectively achieved substantial completion when it was declared in service on December 22, 2015, ahead of the scheduled substantial completion of December 31, 2015. Actual substantial completion was delayed due to the random, unplanned failure of one of the ID (induced draft) fan variable-frequency drive transformers. This delayed the NID performance testing.

C. Cost Containment Measures and Budget Estimate Update

The BEC4 Project was a complex multi-year project. A rigorous technology evaluation, as well as a feasibility study, was conducted over an approximate five-year period to determine the most cost-effective path forward for retrofitting BEC4. To ensure the lowest overall cost for the BEC4 Project, Minnesota Power used best practices in industry supply

³ See <https://www.alstom.com/press-releases-news/2013/8/alstom-emission-control-system-to-cut-environmental-footprint-of-minnesota-powers-largest-power-plant>.

chain management. The Company used its purchasing procedures to obtain competitive bids for as many purchases as possible, including equipment and labor packages, and awarded contracts to bidder(s) based on the best overall economic value for its customers. The Company also included an appropriate contingency amount to cover costs of direct project related items such as bids coming in higher than estimated, change orders for items not included in the specifications, and scope items added to the project that weren't considered during the initial concept. As reported in Minnesota Power's April 9, 2018 Petition seeking Commission approval of the 2018 BEC4 Factor and Compliance Filing,⁴ the BEC4 Project was completed well under budget at a total project cost of \$240 million, or \$110 million below the total original estimate of \$350 million. The total project cost reflects Minnesota Power's 80 percent⁵ ownership interest in the equipment and facilities that comprise the BEC4 Project. The reasons for the decrease in total project cost for the BEC4 Project were provided in the 2015⁶ and 2018 BEC4 Factor and Compliance Filings.⁷

⁴ Docket No. E015/M-18-264.

⁵ BEC4 is jointly owned by Minnesota Power and WPPI Energy. As a co-owner of BEC4, WPPI Energy will pay a proportionate share of the required capital and O&M (operations & maintenance) associated with the BEC4 Project. Amounts reflected are net of WPPI's 20% ownership interest in BEC4. Amounts include approximately \$3.6 million of AFUDC (Allowance for Funds Used During Construction) net of contra.

⁶ Docket No. E015/M-14-990.

⁷ Docket No. E015/M-18-264.

V. COST RECOVERY

Almost all of the BEC4 Project costs were rolled into base rates in the Company's 2016 rate case. The only items included in the 2018 BEC4 Rider revenue requirements are the 2017 ending tracker, the remaining Ash Pond project and Basin's revenue credit. Minnesota Power provides an explanation of the changes below. The Company also provides its proposed plan for ending the BEC4 Rider, by first ending the BEC4 Tracker for the "All Other" customer group, and then ending the BEC4 Tracker for the "Large Power" customer group, as each Tracker balance nears zero.

A. Basin Credit and Remaining BEC4 Ash Project

As part of a power sales agreement to Basin, Minnesota Power was allowed to collect costs associated with new emission control additions to BEC4 over a specified period from Basin. Minnesota Power passed the benefits of this agreement directly to customers through crediting the revenue requirements by Basin's specified share of the costs for a portion of the contract. The Basin contract, and therefore the credit to customers, ended in April 2020 and is no longer included in the BEC4 Tracker.

The BEC4 Plan included an Ash Pond project to be undertaken in the future that was deemed to be appropriately recovered in the BEC4 Rider; however Minnesota Power has determined that the scope and components of the Ash Pond project have evolved from solely being attributed to the BEC4 Project to addressing federal regulation specific to the CCR Rule. Mitigation costs associated with the CCR Rule are not rider recoverable under Minn. Stat. § 216B.1692. Therefore, the Company removed the ash pond project revenue requirements from the BEC4 Rider tracker. Refer to Exhibit B-1, page 2 for details on the removal of \$421,195 from the tracker (on a MN Jurisdictional basis). Please note that this also led to a decrease in previously filed 2017 year-end tracker balance as shown in Exhibit B-1, page 1. However, the contract with Basin was not impacted by the decision to remove the ash pond project from the rider. Thus, the customers continued to receive the Basin credit for the Ash Pond project, even though it has been removed from their revenue requirements, as shown in Exhibit B-2, pages 10 and 11, line C11.

In order to zero out the tracker and end the BEC4 Rider for all classes except Large Power, Minnesota Power is proposing to collect the remaining balance, which it now expects to be around \$300,000, from “All Other” classes through a one-time surcharge. Minnesota Power has determined the amount would have been closer to zero, had the credit been stopped on December 1, 2020 as originally requested, but recognizes that the timing of the Company’s request and number of dockets before the regulators made ending the credit on that date challenging. The final balance to be collected from “All Other” classes will be known after January and February billing has been completed (January bills contain the majority of December billing, and February bills include a small amount). Once a final amount is known, Minnesota Power proposes to use actual March energy billing units after the March billing is complete to determine a rate that could be applied to actual March usage (in kWh) to collect the one-time charge that would be added to customer bills as line item during a subsequent billing month. Due to the timing of final testing and implementation of significant upgrades to the Company’s billing system, Minnesota Power asks for flexibility when the collection is applied. This flexibility will align with best practices to avoid any configuration changes in the one-month window before and after a system implementation and to allow for a stabilization period.

For the Large Power class, Minnesota Power is seeking approval to end the credit on customer bills once the credit remaining in the tracker is smaller than would be provided in a typical month. Assuming that is approved as filed, the last full month of the credit is projected to be June 2021. Then a remaining one-time partial credit could be determined using Large Power July 2021 billing units, and applied to Large Power bills in August (based on July billing). Minnesota Power would then remove the BEC4 Rider line item from customer bills and close out the Rider with a compliance filing.

B. BEC4 Rider - Revenue Requirements

As previously mentioned, almost all of the BEC4 Project costs were rolled into base rates in the Company’s 2016 rate case. The only items included in the 2018 BEC4 revenue requirements are the 2017 ending tracker, the remaining Ash Pond project and Basin’s revenue credit. With the removal of the Ash Pond project, and the end of the Basin credit in April 2020, the only thing remaining is the collection of the tracker balance (or refund

of the over-collection). The exhibits shown here include the detailed tracker information (Exhibit B-1, pages 3-6) in order to close out the BEC4 tracker, and substantiate the amounts collected from Basin through April 2020 (Exhibit B-2), as there are no project revenue requirements outside of base rates now that the Ash Pond project has been removed.

As part of the power sales agreement with Basin, Minnesota Power was allowed to collect costs (including internal costs) associated with new emission control additions to BEC4 over a specified period from Basin. Minnesota Power passed the benefits of this agreement directly to customers through crediting the revenue requirements by Basin's specified share of the costs for a portion of the contract. Refer to Exhibit B-1, pages 3-5, row A2 for the amount of the credit related to Basin's share that is being passed back to customers.

Previously, Minnesota Power indicated that it planned to update the jurisdictional allocation factors on December 1, 2018, coincident with final rates in Minnesota Power's 2016 rate case. However, this issue was raised in other dockets, and Minnesota Power instead revised revenue requirements to reflect the lower ROE (return on equity) and updated Minnesota jurisdictional allocation factors beginning January 1, 2017, coincident with the beginning of Minnesota Power's test year in the 2016 rate case. As a result, in order to be consistent with that determination, Minnesota Power has implemented the higher Minnesota jurisdictional allocator beginning January 1, 2017, resulting in a larger credit to customers for Basin's share of the project. The impact to the previously reported 2017 year-end tracker balance is shown in Exhibit B-1, page 1.

1. Jurisdictional and Class Allocation

The jurisdictional and class allocations of revenue requirements for the BEC4 Project have been calculated based on the methodology detailed in Minnesota Power's original

BEC4 Rider Petition⁸ and the subsequent Order.⁹ As noted above, Minnesota Power implemented the lower ROE and higher Minnesota jurisdictional allocation factor on January 1, 2017 (rather than on December 1, 2018), resulting in lower costs to customers. Prior to January 1, 2017, the revenue requirements were allocated between jurisdictions using the Power Supply Production Demand (D-01) allocators as approved in Minnesota Power's 2009 rate case (Docket No. E015/GR-09-1151). Once revenue requirements are brought to jurisdiction, Minnesota Power utilized the Power Supply Production Demand (Peak & Average D-01) allocators, also approved in Minnesota Power's 2009 rate case (Docket No. E015/GR-09-1151), to allocate the revenue requirements to class.

With the Ash Pond project being removed from the BEC4 Rider, all of the BEC4 Project costs were rolled into base rates in the Company's 2016 rate case. As a result, only updating the jurisdictional allocation factor on January 1, 2017 for the 2016 rate case outcome has an impact on the customer bills, by increasing the jurisdictional amount of the credit for Basin's portion of the project.

2. Rate Design

Consistent with Minnesota Power's previous BEC4 filing, the Company plans to leave the current credit structure in place for the Large Power ("LP") class until the tracker nears zero. Specifically for the current factors, the LP revenue requirements are split between demand and energy based on LP's 2017 test year base rate demand and energy revenue split of approximately 56 percent demand and 44 percent energy from the Company's 2016 rate case (Docket No. E015/GR-16-664). For the remaining classes the energy-based (kWh) credit was zeroed out as of January 1, 2021, consistent with the Commission's December 23, 2020 Order in this Docket.

⁸ Minnesota Power's March 7, 2013 filing, *In the Matter of Minnesota Power's Petition for Approval of the Rider for Boswell Energy Center Unit 4 Emission Reduction*, Docket No. E015/M-12-920, pages 23-24.

⁹ Commission's November 5, 2013 ORDER APPROVING BOSWELL ENERGY CENTER UNIT 4 RETROFIT PROJECT AND AUTHORIZING RIDER RECOVERY, Order Point 3 approving the use of the peak and average method for allocating the revenue requirement to the customer classes.

C. Customer Impact

Table 2 on page 20 summarizes the estimate rate impacts by customer class for the impact that ending the BEC4 Rider credit will have on customer rates. As a result, the impact for the LP customers shown is projected to occur in mid-2021, while the rate impact shown to the remaining customer classes occurs January 1, 2021.

With the ending of the BEC4 Rider credit in January 2021, the rate impact for the average residential customer will be an increase of approximately \$0.79 per month or a 0.98 percent increase.

Similarly for Large Power customers, assuming the BEC4 Rider credit is zeroed out in mid-2021, the rate impact will be approximately a 0.79 percent increase.

Table 2 – Estimated Customer Impact

Proposed Change Effective	1/1/2021	8/1/2021
Rate Class Impacts 1/		
Residential		
Average Current Rate (¢/kWh)	11.162	
Increase (¢/kWh)	0.109	
Increase (%)	0.98	
Average Impact (\$/month)	0.79	
General Service		
Average Current Rate (¢/kWh)	11.109	
Increase (¢/kWh)	0.109	
Increase (%)	0.98	
Average Impact (\$/month)	2.99	
Large Light & Power		
Average Current Rate (¢/kWh)	8.476	
Increase (¢/kWh)	0.109	
Increase (%)	1.29	
Average Impact (\$/month)	269.68	
Large Power		
Average Current Rate (¢/kWh)		6.633
Increase (demand + energy combined) (¢/kWh)		0.53
Increase (%)		0.79
Average Impact (\$/month)		25,757
Lighting		
Average Current Rate (¢/kWh)	18.122	
Increase (¢/kWh)	0.109	
Increase (%)	0.60	
Average Impact (\$/month)	0.37	

Notes:

1/ Average current rates are 2020 estimated rates based on 2019 Rate Case resolution (Docket E-015/GR-19-442) without riders adjusted to include current rider rates. Current rider rates included Renewable Resources Rider rates, Transmission Cost Recovery Rider rates, Boswell 4 Emission Reduction rates, Conservation Program Adjustment rates, and estimated 2020 Fuel and Purchased Energy. Average \$/month impact based on 2020 budgeted billing units.

VI. CONCLUSION

Minnesota Power respectfully requests that the Commission approve Minnesota Power's rate adjustment under its Rider for Boswell Unit 4 Emission Reduction. Approval would allow the Company to formally end the credit on customer bills for the "All Other" customer group effective January 1, 2021; and allow a true-up of costs by applying a one-time per kWh bill charge to these customers based on actual kWh usage. Minnesota Power would also implement the plan outlined in this Petition for the Large Power customer group in mid-2021, which would include a supplemental filing with the specific details of the final bill credit to be provided to these customers.

Dated: January 19, 2021

Respectfully submitted,



Lori Hoyum
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RIDER FOR BOSWELL UNIT 4 EMISSION REDUCTION

Applicable to electric service under all Company's Retail Rate Schedules except Competitive Rate Schedules - Rate Codes 73 and 79. In addition, this Rider is applicable to service under Company's Rider for Large Power Interruptible Service and Rider for Large Power Incremental Production Service.

The following charges are applicable in addition to all charges for service being taken under Company's standard rate schedules:

Rate Class	Boswell 4 Plan Adjustment
Large Power	\$-0.22 per kW-month of Billing Demand and -0.024¢/kWh
All other applicable Retail Rate Customers	0.000¢/kWh

Filing Date _____ MPUC Docket No. _____
Effective Date _____ Order Date _____

Approved by: David R. Moeller
David R. Moeller
Senior Attorney & Director of Regulatory Compliance

RIDER FOR BOSWELL UNIT 4 EMISSION REDUCTION

Applicable to electric service under all Company's Retail Rate Schedules except Competitive Rate Schedules - Rate Codes 73 and 79. In addition, this Rider is applicable to service under Company's Rider for Large Power Interruptible Service and Rider for Large Power Incremental Production Service.

The following charges are applicable in addition to all charges for service being taken under Company's standard rate schedules:

Rate Class	Boswell 4 Plan Adjustment
Large Power	\$-0.22 per kW-month of Billing Demand and -0.024¢/kWh
All other applicable Retail Rate Customers	-0.109000¢/kWh

Filing Date <u>April 9, 2018</u>	MPUC Docket No. <u>E015/M-18-264</u>
Effective Date <u>December 1, 2018</u>	Order Date <u>November 19, 2018</u>

Approved by: ~~Marcia A. Podratz~~ David R. Moeller
~~Marcia A. Podratz~~ David R. Moeller
~~Director - Rates~~ Senior Attorney & Director of Regulatory Compliance

Minnesota Power
BEC4 Rider: 2020 Factor Filing
Tracker Summary

<u>2017 Ending Tracker (Over)/Under Collection 1/</u>		
MN Jurisdictional & Class Tracker		\$ (1,590,932)
Large Power		\$ 21,147
All Other Retail Classes		\$ (1,612,079)
<u>Adjustments to 2017 Year-End Tracker Balance</u>		
<u>Updated MN Jurisdictional Allocation Factors/ROE 2/</u>		
Total		\$ (106,341)
Large Power		\$ (21,641)
All Other Retail Classes		\$ (84,699)
<u>Removal of 2013-2017 Ash Pond Revenue Requirements 3/</u>		
Total		\$ (263,037)
Large Power		\$ (163,148)
All Other Retail Classes		\$ (99,889)
<u>2017 Revised Ending Tracker Balance (Over)/Under Collection</u>		
MN Jurisdictional Tracker		\$ (1,960,310)
Large Power		\$ (163,642)
All Other Retail Classes		\$ (1,796,668)
<u>2018 Net Revenue Requirements 4/</u>		
	Allocators 5/	
MN Jurisdictional & Class Revenue Requirements	100.00%	(4,844,574)
Large Power	61.68%	(2,987,947)
All Other Retail Classes	38.32%	(1,856,627)
<u>2018 Cash Collections</u>		
Total		\$ (1,067,470)
Large Power		\$ (579,065)
All Other Retail Classes		\$ (488,406)
<u>2019 Net Revenue Requirements 6/</u>		
	Allocators 5/	
MN Jurisdictional & Class Revenue Requirements	100.00%	(4,176,954)
Large Power	61.68%	(2,576,185)
All Other Retail Classes	38.32%	(1,600,770)
<u>2019 Cash Collections</u>		
Total		\$ 6,287,430
Large Power		\$ 2,987,913
All Other Retail Classes		\$ 3,299,517
<u>2020 Net Revenue Requirements 7/</u>		
	Allocators 5/	
MN Jurisdictional & Class Revenue Requirements	100.00%	(1,347,219)
Large Power	61.68%	(830,913)
All Other Retail Classes	38.32%	(516,306)
<u>Projected 2020 Cash Collections</u>		
Total		\$ 5,785,256
Large Power		\$ 2,619,637
All Other Retail Classes		\$ 3,165,619
<u>Projected 2020 Ending Tracker (Over)/Under Collection</u>		
MN Jurisdictional & Class Tracker		\$ (1,323,841)
Large Power		\$ (1,530,201)
All Other Retail Classes		\$ 206,360

1/ BEC4 2018 Factor Filing, Docket E015/M-18-264, Exhibit B-1, page 2.

2/ By making the allocation factors from Minnesota Power's 2016 rate case (Docket E015/GR-16-664) effective at the beginning of the test year (1/1/2017), customers received more credit for the Basin revenue.

3/ Refer to Exhibit B-1, page 2

4/ Refer to Exhibit B-1, page 3, lines A5-A7.

5/ Minnesota Jurisdictional allocation factors from Minnesota Power's 2016 rate case (Docket E015/GR-16-664).

6/ Refer to Exhibit B-1, page 4, lines A5-A7.

7/ Refer to Exhibit B-1, page 5, lines A5-A7.

Minnesota Power
BEC4 Rider: 2020 Factor Filing
Ash Pond Project Removal

Summary of Revenue Requirement Impact for the Removal of the Ash Pond Project

	<u>Total Company</u>	<u>Allocation Factor</u>	<u>MN Jurisdiction</u>	<u>LP Factor</u>	<u>LP</u>	<u>All Other Factor</u>	<u>All Other</u>
2013	(226)	0.82017	(186)	0.62510	(116)	0.37490	(70)
2014	(2,225)	0.83043	(1,848)	0.62510	(1,155)	0.37490	(693)
2015	(30,213)	0.83043	(25,090)	0.62510	(15,684)	0.37490	(9,406)
2016	(99,753)	0.83043	(82,838)	0.62510	(51,782)	0.37490	(31,056)
2017	(181,456)	0.84360	(153,076)	0.61676	(94,411)	0.38324	(58,665)
2018	(150,824)	0.84360	(127,236)	0.61676	(78,474)	0.38324	(48,762)
2019	(36,655)	0.84360	(30,922)	0.61676	(19,071)	0.38324	(11,850)
2020	<u>(0)</u>	0.84360	<u>(0)</u>	0.61676	<u>(0)</u>	0.38324	<u>(0)</u>
Total	(501,352)		(421,195)		(260,693)		(160,501)

2018 Revenue Requirements

Section	Line	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Total Year
A	Summary: Revenue Requirements														
	1 BEC4 Project Revenue Requirement		-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Revenue Credit for Basin's Share 1/		(500,534)	(475,992)	(503,840)	(469,192)	(483,443)	(477,520)	(492,748)	(486,218)	(474,954)	(463,761)	(468,647)	(445,889)	(5,742,738)
	3 Total Net Revenue Requirements		(500,534)	(475,992)	(503,840)	(469,192)	(483,443)	(477,520)	(492,748)	(486,218)	(474,954)	(463,761)	(468,647)	(445,889)	(5,742,738)
	4 MN Jurisdictional Allocator 2/		0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436
	5 MN Jurisdictional Revenue Requirement		(422,250)	(401,547)	(425,039)	(395,811)	(407,833)	(402,836)	(415,682)	(410,173)	(400,671)	(391,229)	(395,351)	(376,152)	(4,844,574)
	6 LP Rev Req (61.68%)		(260,428)	(247,658)	(262,148)	(244,121)	(251,535)	(248,454)	(256,377)	(252,979)	(247,119)	(241,295)	(243,837)	(231,996)	(2,987,947)
	7 All Other Rev Req (38.32%)		(161,823)	(153,888)	(162,891)	(151,690)	(156,297)	(154,382)	(159,305)	(157,194)	(153,553)	(149,934)	(151,514)	(144,156)	(1,856,627)
	8 LP Cash 3/		(142,241)	(137,306)	(143,494)	(135,054)	(137,931)	(138,141)	-	-	-	-	-	255,102	(579,065)
	9 All Other Cash 3/		(104,650)	(104,242)	(94,593)	(90,864)	(84,310)	(80,129)	(48,992)	(1,997)	(7)	(34)	(52)	121,463	(488,406)
	10 (Over)/Under LP	(163,642)	(566,311)	(951,275)	(1,356,918)	(1,736,092)	(2,125,558)	(2,512,153)	(2,768,529)	(3,021,509)	(3,268,627)	(3,509,922)	(3,753,759)	(3,730,653)	(3,730,653)
	11 (Over)/Under All Other	(1,796,668)	(2,063,140)	(2,321,271)	(2,578,755)	(2,821,309)	(3,061,916)	(3,296,427)	(3,504,724)	(3,663,916)	(3,817,475)	(3,967,442)	(4,119,007)	(4,141,701)	(4,141,701)

1/ Refer to Exhibit B-2, sum lines C11 on pages 1, 4, 7, and 10.

2/ Refer to Exhibit B-5, page 1, line 11.

3/ Per MPUC June 20, 2018 Order in Docket E015/M-18-264, rider factors were zeroed out effective July 1, 2018 to prevent further overcollection.

2019 Revenue Requirements

Section	Line	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total Year
A	Summary: Revenue Requirements														
	1 BEC4 Project Revenue Requirement		-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Revenue Credit for Basin's Share 1/		(417,383)	(400,984)	(393,936)	(433,820)	(422,009)	(405,351)	(420,388)	(416,356)	(414,135)	(397,528)	(425,291)	(404,166)	(4,951,345)
	3 Total Net Revenue Requirements		(417,383)	(400,984)	(393,936)	(433,820)	(422,009)	(405,351)	(420,388)	(416,356)	(414,135)	(397,528)	(425,291)	(404,166)	(4,951,345)
	4 MN Jurisdictional Allocator 2/		0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	
	5 MN Jurisdictional Revenue Requirement		(352,104)	(338,270)	(332,324)	(365,970)	(356,007)	(341,954)	(354,639)	(351,238)	(349,364)	(335,355)	(358,775)	(340,955)	(4,176,954)
	6 LP Rev Req (61.68%)		(217,164)	(208,632)	(204,965)	(225,716)	(219,571)	(210,904)	(218,728)	(216,630)	(215,474)	(206,834)	(221,279)	(210,288)	(2,576,185)
	7 All Other Rev Req (38.32%)		(134,940)	(129,638)	(127,360)	(140,254)	(136,436)	(131,050)	(135,911)	(134,608)	(133,890)	(128,521)	(137,496)	(130,667)	(1,600,770)
	8 LP Cash		258,889	240,492	254,574	243,065	246,189	249,072	248,253	248,835	244,679	251,356	254,338	248,171	2,987,913
	9 All Other Cash		303,620	328,164	303,143	278,849	252,743	242,417	255,344	280,651	254,078	246,233	266,752	287,524	3,299,517
	10 (Over)/Under LP	(3,730,653)	(3,688,929)	(3,657,068)	(3,607,460)	(3,590,111)	(3,563,493)	(3,525,325)	(3,495,800)	(3,463,595)	(3,434,390)	(3,389,868)	(3,356,808)	(3,318,925)	(3,318,925)
	11 (Over)/Under All Other	(4,141,701)	(3,973,020)	(3,774,494)	(3,598,711)	(3,460,116)	(3,343,808)	(3,232,441)	(3,113,008)	(2,966,965)	(2,846,778)	(2,729,066)	(2,599,810)	(2,442,953)	(2,442,953)

1/ Refer to Exhibit B-2, sum lines C11 on pages 2, 5, 8, and 11.

2/ Refer to Exhibit B-5, page 1, line 11.

2020 Revenue Requirements

Section	Line	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total Year
A	Summary: Revenue Requirements													
	1 BEC4 Project Revenue Requirement	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Revenue Credit for Basin's Share 1/	(423,223)	(401,796)	(401,123)	(370,847)	-	-	-	-	-	-	-	-	(1,596,988)
	3 Total Net Revenue Requirements	(423,223)	(401,796)	(401,123)	(370,847)	-	-	-	-	-	-	-	-	(1,596,988)
	4 MN Jurisdictional Allocator 2/	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	0.8436	
	5 MN Jurisdictional Revenue Requirement	(357,031)	(338,955)	(338,387)	(312,847)	-	-	-	-	-	-	-	-	(1,347,219)
	6 LP Rev Req (61.68%)	(220,203)	(209,054)	(208,704)	(192,952)	-	-	-	-	-	-	-	-	(830,913)
	7 All Other Rev Req (38.32%)	(136,828)	(129,901)	(129,683)	(119,895)	-	-	-	-	-	-	-	-	(516,306)
	8 LP Cash 3/	248,536	244,009	252,432	218,107	193,511	196,624	196,528	230,411	204,683	207,315	209,480	218,000	2,619,637
	9 All Other Cash 3/	312,963	310,302	290,739	256,412	225,838	228,938	260,879	271,807	253,557	236,758	253,425	264,000	3,165,619
	10 (Over)/Under LP	(3,318,925)	(3,290,591)	(3,255,636)	(3,211,908)	(3,186,753)	(2,993,242)	(2,796,618)	(2,600,089)	(2,369,679)	(2,164,996)	(1,957,681)	(1,748,201)	(1,530,201)
	11 (Over)/Under All Other	(2,442,953)	(2,266,818)	(2,086,416)	(1,925,360)	(1,788,843)	(1,563,004)	(1,334,066)	(1,073,187)	(801,381)	(547,824)	(311,066)	(57,640)	206,360

1/ Refer to Exhibit B-2, sum lines C11 on pages 3, 6, 9, and 12.

2/ Refer to Exhibit B-5, page 1, line 11.

3/ December estimated as the average of the previous 11 months.

2021 Close-Out of BEC4 Rider

Section	Line	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total Year
A	Summary: Projected Cash Collections & Tracker Balance														
	1 LP Cash 1/		238,695	227,572	233,735	222,364	236,035	232,742	139,057	-	-	-	-	-	1,530,201
	2 All Other Cash 2/		100,000	-	-	(306,360)	-	-	-	-	-	-	-	-	(206,360)
	3 (Over)/Under LP	(1,530,201)	(1,291,506)	(1,063,934)	(830,199)	(607,835)	(371,800)	(139,057)	-	-	-	-	-	-	-
	4 (Over)/Under All Other	206,360	306,360	306,360	306,360	-	-	-	-	-	-	-	-	-	-

1/ Estimate of LP credit amounts based on 2021 budgeted billing units; July credit of 139,057 will be based on prorated factors to credit final amount from tracker.

2/ Estimate of residual December credit that will hit January 2021 accounting, assuming the credit ends 1/1/2021; January ending balance will then be collected through a one-time bill charge to close of the "All Other" customer group in April.

Minnesota Power
BEC 4 Rider
Basin's Revenue Requirements: Boswell 4 Environmental Retrofit

Exhibit B-2
Page 1 of 12

BEC 4 Environmental Retrofit: Basin
Project ID # 103698
In Service 12/31/2015

Section	Line	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Total Accumulated Depreciation	23,647,107	24,578,056	25,509,005	26,439,955	27,370,904	28,301,854	29,232,803	30,163,753	31,094,702	32,025,651	32,956,601	33,887,550
	3 Net Plant	199,780,756	198,849,807	197,918,858	196,987,908	196,056,959	195,126,009	194,195,060	193,264,110	192,333,161	191,402,212	190,471,262	189,540,313
	4 Total Depreciation	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Accumulated Depreciation	139,393,213	140,428,114	141,463,015	142,497,916	143,532,817	144,567,718	145,602,619	146,637,520	147,672,421	148,707,322	149,742,223	150,777,124
	3 Net Plant	84,034,650	82,999,749	81,964,848	80,929,947	79,895,046	78,860,145	77,825,244	76,790,343	75,755,442	74,720,541	73,685,640	72,650,739
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) /2	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901	1,034,901
	6 Tax Book Difference	115,746,106	115,850,058	115,954,009	116,057,961	116,161,912	116,265,864	116,369,816	116,473,767	116,577,719	116,681,670	116,785,622	116,889,574
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	33,267,746	33,297,624	33,327,501	33,357,379	33,387,257	33,417,135	33,447,012	33,476,890	33,506,768	33,536,646	33,566,523	33,596,401
	9 Excess Deferred Income Tax Liability	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	47,871,037	47,900,915	47,930,793	47,960,670	47,990,548	48,020,426	48,050,304	48,080,181	48,110,059	48,139,937	48,169,815	48,199,693
	12 Deferred Tax Expense debit / (Credit)	29,878	29,878	29,878	29,878	29,878	29,878	29,878	29,878	29,878	29,878	29,878	29,878
C	Revenue Requirements - Basin												
	1 Net Plant	199,780,756	198,849,807	197,918,858	196,987,908	196,056,959	195,126,009	194,195,060	193,264,110	192,333,161	191,402,212	190,471,262	189,540,313
	2 Less: ADITL - Def Taxes	(47,871,037)	(47,900,915)	(47,930,793)	(47,960,670)	(47,990,548)	(48,020,426)	(48,050,304)	(48,080,181)	(48,110,059)	(48,139,937)	(48,169,815)	(48,199,693)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	151,909,719	150,948,892	149,988,065	149,027,238	148,066,411	147,105,583	146,144,756	145,183,929	144,223,102	143,262,275	142,301,447	141,340,620
	4 Average Rate Base	152,390,133	151,429,306	150,468,478	149,507,651	148,546,824	147,585,997	146,625,170	145,664,343	144,703,515	143,742,688	142,781,861	141,821,034
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	256,810	255,191	253,572	251,953	250,333	248,714	247,095	245,476	243,857	242,237	240,618	200,379
	7 Operation & Maintenance Expense	54,568	31,690	61,202	28,220	44,136	39,960	56,935	52,069	42,470	32,941	39,492	58,572
	8 Depreciation Expense	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	485,372	460,875	488,769	454,167	468,464	462,669	478,024	471,540	460,321	449,173	454,104	432,946
	11 Revenue Credit for Basin's Share	(485,372)	(460,875)	(488,769)	(454,167)	(468,464)	(462,669)	(478,024)	(471,540)	(460,321)	(449,173)	(454,104)	(432,946)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6 for tax depreciation rates.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 12/31/17, then at 10.82% to reflect tax reform, and then at 9.0716% starting 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC 4 Rider
Basin's Revenue Requirements: Boswell 4 Environmental Retrofit

BEC 4 Environmental Retrofit: Basin
Project ID # 103698
In Service 12/31/2015

Section	Line	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Total Accumulated Depreciation	34,818,500	35,749,449	36,680,399	37,611,348	38,542,297	39,473,247	40,404,196	41,335,146	42,266,095	43,197,045	44,127,994	45,058,943
	3 Net Plant	188,609,363	187,678,414	186,747,464	185,816,515	184,885,566	183,954,616	183,023,667	182,092,717	181,161,768	180,230,818	179,299,869	178,368,920
	4 Total Depreciation	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Accumulated Depreciation	151,794,246	152,811,369	153,828,491	154,845,614	155,862,736	156,879,859	157,896,981	158,914,104	159,931,226	160,948,349	161,965,471	162,982,594
	3 Net Plant	71,633,617	70,616,494	69,599,372	68,582,249	67,565,127	66,548,004	65,530,882	64,513,759	63,496,637	62,479,514	61,462,392	60,445,269
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) /2	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123	1,017,123
	6 Tax Book Difference	116,975,747	117,061,920	117,148,093	117,234,266	117,320,439	117,406,612	117,492,785	117,578,958	117,665,131	117,751,304	117,837,477	117,923,650
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	33,621,169	33,645,937	33,670,705	33,695,473	33,720,241	33,745,008	33,769,776	33,794,544	33,819,312	33,844,080	33,868,848	33,893,616
	9 Excess Deferred Income Tax Liability	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	48,224,460	48,249,228	48,273,996	48,298,764	48,323,532	48,348,300	48,373,068	48,397,835	48,422,603	48,447,371	48,472,139	48,496,907
	12 Deferred Tax Expense debit / (Credit)	24,768	24,768	24,768	24,768	24,768	24,768	24,768	24,768	24,768	24,768	24,768	24,768
C	Revenue Requirements - Basin												
	1 Net Plant	188,609,363	187,678,414	186,747,464	185,816,515	184,885,566	183,954,616	183,023,667	182,092,717	181,161,768	180,230,818	179,299,869	178,368,920
	2 Less: ADITL - Def Taxes	(48,224,460)	(48,249,228)	(48,273,996)	(48,298,764)	(48,323,532)	(48,348,300)	(48,373,068)	(48,397,835)	(48,422,603)	(48,447,371)	(48,472,139)	(48,496,907)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	140,384,903	139,429,186	138,473,468	137,517,751	136,562,034	135,606,316	134,650,599	133,694,882	132,739,165	131,783,447	130,827,730	129,872,013
	4 Average Rate Base	140,862,761	139,907,044	138,951,327	137,995,610	137,039,892	136,084,175	135,128,458	134,172,740	133,217,023	132,261,306	131,305,589	130,349,871
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	199,025	197,675	196,325	194,974	193,624	192,274	190,923	189,573	188,223	186,872	185,522	184,172
	7 Operation & Maintenance Expense	31,458	16,446	10,786	54,367	43,945	28,675	45,099	42,455	41,622	26,403	55,554	35,818
	8 Depreciation Expense	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	404,477	388,115	381,105	423,336	411,563	394,943	410,017	406,023	403,839	387,270	415,070	393,984
	11 Revenue Credit for Basin's Share	(404,477)	(388,115)	(381,105)	(423,336)	(411,563)	(394,943)	(410,017)	(406,023)	(403,839)	(387,270)	(415,070)	(393,984)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6 for tax depreciation rates.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 12/31/17, then at 10.82% to reflect tax reform, and then at 9.0716% starting 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC 4 Rider
Basin's Revenue Requirements: Boswell 4 Environmental Retrofit

Exhibit B-2
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BEC 4 Environmental Retrofit: Basin
Project ID # 103698
In Service 12/31/2015

Section	Line	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Total Accumulated Depreciation	45,989,893	46,920,842	47,851,792	48,782,741	49,713,691	50,644,640	51,575,589	52,506,539	53,437,488	54,368,438	55,299,387	56,230,337
	3 Net Plant	177,437,970	176,507,021	175,576,071	174,645,122	173,714,172	172,783,223	171,852,274	170,921,324	169,990,375	169,059,425	168,128,476	167,197,526
	4 Total Depreciation	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949	930,949
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863	223,427,863
	2 Accumulated Depreciation	163,983,278	164,983,963	165,984,648	166,985,332	167,986,017	168,986,701	169,987,386	170,988,070	171,988,755	172,989,440	173,990,124	174,990,718
	3 Net Plant	59,444,584	58,443,900	57,443,215	56,442,531	55,441,846	54,441,162	53,440,477	52,439,792	51,439,108	50,438,423	49,437,739	48,437,145
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) /2	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,685	1,000,594
	6 Tax Book Difference	117,993,386	118,063,121	118,132,856	118,202,591	118,272,326	118,342,061	118,411,796	118,481,532	118,551,267	118,621,002	118,690,737	118,760,382
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	33,913,659	33,933,702	33,953,745	33,973,789	33,993,832	34,013,875	34,033,919	34,053,962	34,074,005	34,094,048	34,114,092	34,134,109
	9 Excess Deferred Income Tax Liability	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291	14,603,291
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	48,516,950	48,536,993	48,557,037	48,577,080	48,597,123	48,617,167	48,637,210	48,657,253	48,677,296	48,697,340	48,717,383	48,737,400
	12 Deferred Tax Expense debit / (Credit)	20,043	20,043	20,043	20,043	20,043	20,043	20,043	20,043	20,043	20,043	20,043	20,017
C	Revenue Requirements - Basin												
	1 Net Plant	177,437,970	176,507,021	175,576,071	174,645,122	173,714,172	172,783,223	171,852,274	170,921,324	169,990,375	169,059,425	168,128,476	167,197,526
	2 Less: ADITL - Def Taxes	(48,516,950)	(48,536,993)	(48,557,037)	(48,577,080)	(48,597,123)	(48,617,167)	(48,637,210)	(48,657,253)	(48,677,296)	(48,697,340)	(48,717,383)	(48,737,400)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	128,921,020	127,970,027	127,019,035	126,068,042	125,117,049	124,166,056	123,215,064	122,264,071	121,313,078	120,362,086	119,411,093	118,460,126
	4 Average Rate Base	129,396,516	128,445,524	127,494,531	126,543,538	125,592,545	124,641,553	123,690,560	122,739,567	121,788,575	120,837,582	119,886,589	118,935,610
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	182,825	181,481	180,137	178,794	177,450	176,106	174,763	173,419	172,075	170,732	169,388	168,044
	7 Operation & Maintenance Expense	56,258	36,212	36,921	8,026	5,334	30,139	30,139	30,139	30,139	30,139	30,139	30,139
	8 Depreciation Expense	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994	173,994
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	413,077	391,688	391,052	360,814	356,778	380,239	378,896	377,552	376,208	374,865	373,521	372,178
	11 Revenue Credit for Basin's Share	(413,077)	(391,688)	(391,052)	(360,814)	-	-	-	-	-	-	-	-

end contract

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6 for tax depreciation rates.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 12/31/17, then at 10.82% to reflect tax reform, and then at 9.0716% starting 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider

Boswell Storm Water Project: Basin
Project ID # 107641
In Service 11/1/2016

Basin Revenue Requirements: Boswell Storm Water Project

Section Line	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
A Book Basis of Property												
0 CWIP 1/												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Total Accumulated Depreciation	251,253	268,584	285,914	303,244	320,575	337,905	355,236	372,566	389,896	407,227	424,557	441,887
3 Net Plant	3,700,074	3,682,743	3,665,413	3,648,083	3,630,752	3,613,422	3,596,091	3,578,761	3,561,431	3,544,100	3,526,770	3,509,440
4 Total Depreciation	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330
5 Book Depreciation Rate (Life to 2035)	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
B Tax Basis of Property												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Accumulated Depreciation	2,306,596	2,325,105	2,343,614	2,362,123	2,380,633	2,399,142	2,417,651	2,436,160	2,454,669	2,473,178	2,491,687	2,510,196
3 Net Plant	1,644,731	1,626,222	1,607,713	1,589,204	1,570,694	1,552,185	1,533,676	1,515,167	1,496,658	1,478,149	1,459,640	1,441,131
4 Bonus Depreciation (50%)												
5 Total Tax Depreciation (including bonus) /2	18,509	18,509	18,509	18,509	18,509	18,509	18,509	18,509	18,509	18,509	18,509	18,509
6 Tax Book Difference	2,055,343	2,056,521	2,057,700	2,058,879	2,060,058	2,061,236	2,062,415	2,063,594	2,064,773	2,065,951	2,067,130	2,068,309
7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
8 Accumulated Deferred Income Tax Liability	590,747	591,085	591,424	591,763	592,102	592,441	592,779	593,118	593,457	593,796	594,135	594,473
9 Excess Deferred Income Tax Liability	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400
10 Excess Deferred Income Tax Liability Amort												
11 Adjusted Accum Deferred Income Tax Liability	850,146	850,485	850,824	851,163	851,502	851,840	852,179	852,518	852,857	853,196	853,534	853,873
12 Deferred Tax Expense debit / (Credit)	339	339	339	339	339	339	339	339	339	339	339	339
C Revenue Requirements - Basin												
1 Net Plant	3,700,074	3,682,743	3,665,413	3,648,083	3,630,752	3,613,422	3,596,091	3,578,761	3,561,431	3,544,100	3,526,770	3,509,440
2 Less: ADITL - Def Taxes	(850,146)	(850,485)	(850,824)	(851,163)	(851,502)	(851,840)	(852,179)	(852,518)	(852,857)	(853,196)	(853,534)	(853,873)
3 Rate Base	2,849,927	2,832,258	2,814,589	2,796,920	2,779,251	2,761,581	2,743,912	2,726,243	2,708,574	2,690,905	2,673,236	2,655,566
4 Average Rate Base	2,858,762	2,841,093	2,823,424	2,805,754	2,788,085	2,770,416	2,752,747	2,735,078	2,717,408	2,699,739	2,682,070	2,664,401
5 Current Return on CWIP 4/												
6 Return on Average Rate Base 4/	4,818	4,788	4,758	4,728	4,699	4,669	4,639	4,609	4,579	4,550	4,520	3,765
7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
8 Depreciation Expense	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239
9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
10 Revenue Requirements - Basin	8,057	8,027	7,997	7,967	7,938	7,908	7,878	7,848	7,818	7,789	7,759	7,004
11 Revenue Credit for Basin's Share	(8,057)	(8,027)	(7,997)	(7,967)	(7,938)	(7,908)	(7,878)	(7,848)	(7,818)	(7,789)	(7,759)	(7,004)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations. The revenue credit for Basin's share also includes all other revenue requirement costs.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider

Boswell Storm Water Project: Basin
Project ID # 107641
In Service 11/1/2016

Basin Revenue Requirements: Boswell Storm Water Project

Section Line	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
A Book Basis of Property												
0 CWIP 1/												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Total Accumulated Depreciation	459,218	476,548	493,879	511,209	528,539	545,870	563,200	580,531	597,861	615,191	632,522	649,852
3 Net Plant	3,492,109	3,474,779	3,457,448	3,440,118	3,422,788	3,405,457	3,388,127	3,370,796	3,353,466	3,336,136	3,318,805	3,301,475
4 Total Depreciation	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330
5 Book Depreciation Rate (Life to 2035)	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
B Tax Basis of Property												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Accumulated Depreciation	2,528,376	2,546,556	2,564,736	2,582,916	2,601,096	2,619,276	2,637,455	2,655,635	2,673,815	2,691,995	2,710,175	2,728,355
3 Net Plant	1,422,951	1,404,771	1,386,591	1,368,411	1,350,231	1,332,051	1,313,872	1,295,692	1,277,512	1,259,332	1,241,152	1,222,972
4 Bonus Depreciation (50%)												
5 Total Tax Depreciation (including bonus) /2	18,180	18,180	18,180	18,180	18,180	18,180	18,180	18,180	18,180	18,180	18,180	18,180
6 Tax Book Difference	2,069,158	2,070,008	2,070,857	2,071,707	2,072,556	2,073,406	2,074,255	2,075,105	2,075,954	2,076,804	2,077,653	2,078,503
7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
8 Accumulated Deferred Income Tax Liability	594,718	594,962	595,206	595,450	595,694	595,938	596,182	596,427	596,671	596,915	597,159	597,403
9 Excess Deferred Income Tax Liability	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400
10 Excess Deferred Income Tax Liability Amort												
11 Adjusted Accum Deferred Income Tax Liability	854,117	854,361	854,606	854,850	855,094	855,338	855,582	855,826	856,071	856,315	856,559	856,803
12 Deferred Tax Expense debit / (Credit)	244	244	244	244	244	244	244	244	244	244	244	244
C Revenue Requirements - Basin												
1 Net Plant	3,492,109	3,474,779	3,457,448	3,440,118	3,422,788	3,405,457	3,388,127	3,370,796	3,353,466	3,336,136	3,318,805	3,301,475
2 Less: ADITL - Def Taxes	(854,117)	(854,361)	(854,606)	(854,850)	(855,094)	(855,338)	(855,582)	(855,826)	(856,071)	(856,315)	(856,559)	(856,803)
3 Rate Base	2,637,992	2,620,417	2,602,843	2,585,268	2,567,694	2,550,119	2,532,545	2,514,970	2,497,396	2,479,821	2,462,246	2,444,672
4 Average Rate Base	2,646,779	2,629,205	2,611,630	2,594,055	2,576,481	2,558,906	2,541,332	2,523,757	2,506,183	2,488,608	2,471,034	2,453,459
5 Current Return on CWIP 4/												
6 Return on Average Rate Base 4/	3,740	3,715	3,690	3,665	3,640	3,615	3,591	3,566	3,541	3,516	3,491	3,466
7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
8 Depreciation Expense	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239
9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
10 Revenue Requirements - Basin	6,979	6,954	6,929	6,904	6,879	6,855	6,830	6,805	6,780	6,755	6,730	6,706
11 Revenue Credit for Basin's Share	(6,979)	(6,954)	(6,929)	(6,904)	(6,879)	(6,855)	(6,830)	(6,805)	(6,780)	(6,755)	(6,730)	(6,706)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations. The revenue credit for Basin's share also includes all other revenue requirement costs.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider

Boswell Storm Water Project: Basin
Project ID # 107641
In Service 11/1/2016

Basin Revenue Requirements: Boswell Storm Water Project

Section Line	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
A Book Basis of Property												
0 CWIP 1/												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Total Accumulated Depreciation	667,182	684,513	701,843	719,174	736,504	753,834	771,165	788,495	805,825	823,156	840,486	857,817
3 Net Plant	3,284,145	3,266,814	3,249,484	3,232,153	3,214,823	3,197,493	3,180,162	3,162,832	3,145,502	3,128,171	3,110,841	3,093,510
4 Total Depreciation	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330	17,330
5 Book Depreciation Rate (Life to 2035)	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
B Tax Basis of Property												
1 Plant in Service	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327	3,951,327
2 Accumulated Depreciation	2,746,229	2,764,103	2,781,977	2,799,852	2,817,726	2,835,600	2,853,475	2,871,349	2,889,223	2,907,097	2,924,972	2,942,846
3 Net Plant	1,205,098	1,187,224	1,169,350	1,151,475	1,133,601	1,115,727	1,097,852	1,079,978	1,062,104	1,044,230	1,026,355	1,008,481
4 Bonus Depreciation (50%)												
5 Total Tax Depreciation (including bonus) /2	17,874	17,874	17,874	17,874	17,874	17,874	17,874	17,874	17,874	17,874	17,874	17,874
6 Tax Book Difference	2,079,046	2,079,590	2,080,134	2,080,678	2,081,222	2,081,766	2,082,310	2,082,854	2,083,398	2,083,941	2,084,485	2,085,029
7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
8 Accumulated Deferred Income Tax Liability	597,560	597,716	597,872	598,029	598,185	598,341	598,497	598,654	598,810	598,966	599,123	599,279
9 Excess Deferred Income Tax Liability	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400	259,400
10 Excess Deferred Income Tax Liability Amort												
11 Adjusted Accum Deferred Income Tax Liability	856,959	857,116	857,272	857,428	857,585	857,741	857,897	858,054	858,210	858,366	858,523	858,679
12 Deferred Tax Expense debit / (Credit)	156	156	156	156	156	156	156	156	156	156	156	156
C Revenue Requirements - Basin												
1 Net Plant	3,284,145	3,266,814	3,249,484	3,232,153	3,214,823	3,197,493	3,180,162	3,162,832	3,145,502	3,128,171	3,110,841	3,093,510
2 Less: ADITL - Def Taxes	(856,959)	(857,116)	(857,272)	(857,428)	(857,585)	(857,741)	(857,897)	(858,054)	(858,210)	(858,366)	(858,523)	(858,679)
3 Rate Base	2,427,185	2,409,698	2,392,212	2,374,725	2,357,238	2,339,752	2,322,265	2,304,778	2,287,292	2,269,805	2,252,318	2,234,831
4 Average Rate Base	2,435,929	2,418,442	2,400,955	2,383,468	2,365,982	2,348,495	2,331,008	2,313,522	2,296,035	2,278,548	2,261,061	2,243,575
5 Current Return on CWIP 4/												
6 Return on Average Rate Base 4/	3,442	3,417	3,392	3,368	3,343	3,318	3,293	3,269	3,244	3,219	3,195	3,170
7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
8 Depreciation Expense	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239	3,239
9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
10 Revenue Requirements - Basin	6,681	6,656	6,631	6,607	6,582	6,557	6,533	6,508	6,483	6,458	6,434	6,409
11 Revenue Credit for Basin's Share	(6,681)	(6,656)	(6,631)	(6,607)	-	-	-	-	-	-	-	-

end contract

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

The revenue credit for Basin's share also includes all other revenue requirement costs.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC 4 Rider
Basin's Revenue Requirements: Ash Haul Route Improvement and Equipment

BEC4 Ash Haul Route Improvement and Equipment: Basin
Project ID # 107825
In Service 8/31/2016

Section	Line	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Total Accumulated Depreciation	153,603	162,367	171,130	179,894	188,657	197,421	206,184	214,948	223,711	232,475	241,238	250,002
	3 Net Plant	1,949,642	1,940,879	1,932,115	1,923,352	1,914,588	1,905,825	1,897,061	1,888,298	1,879,534	1,870,770	1,862,007	1,853,243
	4 Total Depreciation	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Accumulated Depreciation	1,227,801	1,237,653	1,247,505	1,257,358	1,267,210	1,277,062	1,286,914	1,296,766	1,306,618	1,316,471	1,326,323	1,336,175
	3 Net Plant	875,444	865,592	855,740	845,888	836,035	826,183	816,331	806,479	796,627	786,775	776,922	767,070
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) 2/	9,852	9,852	9,852	9,852	9,852	9,852	9,852	9,852	9,852	9,852	9,852	9,852
	6 Tax Book Difference	1,074,198	1,075,287	1,076,375	1,077,464	1,078,553	1,079,641	1,080,730	1,081,819	1,082,907	1,083,996	1,085,084	1,086,173
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	308,746	309,059	309,372	309,685	309,998	310,311	310,623	310,936	311,249	311,562	311,875	312,188
	9 Excess Deferred Income Tax Liability	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	444,258	444,571	444,884	445,197	445,510	445,823	446,136	446,449	446,761	447,074	447,387	447,700
	12 Deferred Tax Expense debit / (Credit)	313	313	313	313	313	313	313	313	313	313	313	313
C	Revenue Requirements - Basin 4/												
	1 Net Plant	1,949,642	1,940,879	1,932,115	1,923,352	1,914,588	1,905,825	1,897,061	1,888,298	1,879,534	1,870,770	1,862,007	1,853,243
	2 Less: ADITL - Def Taxes	(444,258)	(444,571)	(444,884)	(445,197)	(445,510)	(445,823)	(446,136)	(446,449)	(446,761)	(447,074)	(447,387)	(447,700)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	1,505,384	1,496,307	1,487,231	1,478,155	1,469,078	1,460,002	1,450,925	1,441,849	1,432,773	1,423,696	1,414,620	1,405,543
	4 Average Rate Base	1,509,922	1,500,846	1,491,769	1,482,693	1,473,616	1,464,540	1,455,464	1,446,387	1,437,311	1,428,234	1,419,158	1,410,081
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	2,545	2,529	2,514	2,499	2,483	2,468	2,453	2,437	2,422	2,407	2,392	1,992
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	4,182	4,167	4,152	4,137	4,121	4,106	4,091	4,075	4,060	4,045	4,029	3,630
	11 Revenue Credit for Basin's Share	(4,182)	(4,167)	(4,152)	(4,137)	(4,121)	(4,106)	(4,091)	(4,075)	(4,060)	(4,045)	(4,029)	(3,630)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power

BEC 4 Rider

BEC4 Ash Haul Route Improvement and Equipment: Basin
 Project ID # 107825
 In Service 8/31/2016

Basin's Revenue Requirements: Ash Haul Route Improvement and Equipment

Section	Line	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Total Accumulated Depreciation	258,765	267,529	276,292	285,056	293,819	302,583	311,346	320,110	328,873	337,637	346,400	355,164
	3 Net Plant	1,844,480	1,835,716	1,826,953	1,818,189	1,809,426	1,800,662	1,791,899	1,783,135	1,774,372	1,765,608	1,756,845	1,748,081
	4 Total Depreciation	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Accumulated Depreciation	1,345,852	1,355,529	1,365,205	1,374,882	1,384,559	1,394,236	1,403,913	1,413,590	1,423,267	1,432,944	1,442,621	1,452,297
	3 Net Plant	757,393	747,717	738,040	728,363	718,686	709,009	699,332	689,655	679,978	670,302	660,625	650,948
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) 2/	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677
	6 Tax Book Difference	1,087,086	1,088,000	1,088,913	1,089,827	1,090,740	1,091,653	1,092,567	1,093,480	1,094,393	1,095,307	1,096,220	1,097,133
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	312,450	312,713	312,975	313,238	313,500	313,763	314,025	314,288	314,551	314,813	315,076	315,338
	9 Excess Deferred Income Tax Liability	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	447,963	448,225	448,488	448,750	449,013	449,275	449,538	449,800	450,063	450,325	450,588	450,850
	12 Deferred Tax Expense debit / (Credit)	263	263	263	263	263	263	263	263	263	263	263	263
C	Revenue Requirements - Basin 4/												
	1 Net Plant	1,844,480	1,835,716	1,826,953	1,818,189	1,809,426	1,800,662	1,791,899	1,783,135	1,774,372	1,765,608	1,756,845	1,748,081
	2 Less: ADITL - Def Taxes	(447,963)	(448,225)	(448,488)	(448,750)	(449,013)	(449,275)	(449,538)	(449,800)	(450,063)	(450,325)	(450,588)	(450,850)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	1,396,517	1,387,491	1,378,465	1,369,439	1,360,413	1,351,387	1,342,361	1,333,335	1,324,309	1,315,283	1,306,257	1,297,231
	4 Average Rate Base	1,401,030	1,392,004	1,382,978	1,373,952	1,364,926	1,355,900	1,346,874	1,337,848	1,328,822	1,319,796	1,310,770	1,301,744
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	1,980	1,967	1,954	1,941	1,929	1,916	1,903	1,890	1,877	1,865	1,852	1,839
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	3,617	3,605	3,592	3,579	3,566	3,554	3,541	3,528	3,515	3,503	3,490	3,477
	11 Revenue Credit for Basin's Share	(3,617)	(3,605)	(3,592)	(3,579)	(3,566)	(3,554)	(3,541)	(3,528)	(3,515)	(3,503)	(3,490)	(3,477)

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power

BEC 4 Rider

BEC4 Ash Haul Route Improvement and Equipment: Basin
 Project ID # 107825
 In Service 8/31/2016

Basin's Revenue Requirements: Ash Haul Route Improvement and Equipment

Section	Line	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Total Accumulated Depreciation	363,928	372,691	381,455	390,218	398,982	407,745	416,509	425,272	434,036	442,799	451,563	460,326
	3 Net Plant	1,739,318	1,730,554	1,721,791	1,713,027	1,704,264	1,695,500	1,686,737	1,677,973	1,669,209	1,660,446	1,651,682	1,642,919
	4 Total Depreciation	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764	8,764
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245	2,103,245
	2 Accumulated Depreciation	1,461,812	1,471,326	1,480,840	1,490,354	1,499,869	1,509,383	1,518,897	1,528,411	1,537,925	1,547,440	1,556,954	1,566,468
	3 Net Plant	641,434	631,919	622,405	612,891	603,377	593,862	584,348	574,834	565,320	555,805	546,291	536,777
	4 Bonus Depreciation (50%)												
	5 Total Tax Depreciation (including bonus) 2/	9,514	9,514	9,514	9,514	9,514	9,514	9,514	9,514	9,514	9,514	9,514	9,514
	6 Tax Book Difference	1,097,884	1,098,635	1,099,386	1,100,136	1,100,887	1,101,638	1,102,388	1,103,139	1,103,890	1,104,640	1,105,391	1,106,142
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	315,554	315,770	315,985	316,201	316,417	316,633	316,848	317,064	317,280	317,496	317,712	317,927
	9 Excess Deferred Income Tax Liability	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512	135,512
	10 Excess Deferred Income Tax Liability Amort												
	11 Adjusted Accum Deferred Income Tax Liability	451,066	451,282	451,498	451,713	451,929	452,145	452,361	452,577	452,792	453,008	453,224	453,440
	12 Deferred Tax Expense debit / (Credit)	216	216	216	216	216	216	216	216	216	216	216	216
C	Revenue Requirements - Basin 4/												
	1 Net Plant	1,739,318	1,730,554	1,721,791	1,713,027	1,704,264	1,695,500	1,686,737	1,677,973	1,669,209	1,660,446	1,651,682	1,642,919
	2 Less: ADITL - Def Taxes	(451,066)	(451,282)	(451,498)	(451,713)	(451,929)	(452,145)	(452,361)	(452,577)	(452,792)	(453,008)	(453,224)	(453,440)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	1,288,252	1,279,272	1,270,293	1,261,314	1,252,334	1,243,355	1,234,376	1,225,396	1,216,417	1,207,438	1,198,459	1,189,479
	4 Average Rate Base	1,292,741	1,283,762	1,274,783	1,265,803	1,256,824	1,247,845	1,238,865	1,229,886	1,220,907	1,211,928	1,202,948	1,193,969
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	1,827	1,814	1,801	1,788	1,776	1,763	1,750	1,738	1,725	1,712	1,700	1,687
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	3,464	3,452	3,439	3,426	3,414	3,401	3,388	3,376	3,363	3,350	3,338	3,325
	11 Revenue Credit for Basin's Share	(3,464)	(3,452)	(3,439)	(3,426)	-	-	-	-	-	-	-	-

end contract

1/ Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider
Basin Revenue Requirements: Boswell Ash Pond Phase 1

Boswell Ash Pond Phase 1: Basin
Project ID # 106072
In Service 12/31/2019

Section	Line	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
A	Book Basis of Property												
	0 CWIP 1/	1,734,023	1,734,023	1,734,023	1,732,890	1,732,890	1,634,674	1,634,674	1,634,674	1,634,674	1,634,674	1,634,674	1,634,674
	1 Plant in Service												
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	5 Book Depreciation Rate (Life to 2035)												
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	-
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Bonus Depreciation (30%)												
	5 Total Tax Depreciation (including bonus) 2/	-	-	-	-	-	-	-	-	-	-	-	-
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	-
	7 Income Tax Rate 3/												
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-
C	Revenue Requirements - Basin												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP 4/	2,922	2,922	2,922	2,921	2,920	2,838	2,755	2,755	2,755	2,755	2,755	2,310
	6 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	2,922	2,922	2,922	2,921	2,920	2,838	2,755	2,755	2,755	2,755	2,755	2,310
	11 Revenue Credit for Basin's Share	(2,922)	(2,922)	(2,922)	(2,921)	(2,920)	(2,838)	(2,755)	(2,755)	(2,755)	(2,755)	(2,755)	(2,310)

Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider
Basin Revenue Requirements: Boswell Ash Pond Phase 1

Boswell Ash Pond Phase 1: Basin
Project ID # 106072
In Service 12/31/2019

Section	Line	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
A	Book Basis of Property												
	0 CWIP 1/	1,634,674	1,634,674	1,634,674	0	0	0	0	0	0	0	0	0
	1 Plant in Service												0
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	0
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	0
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	0
	5 Book Depreciation Rate (Life to 2035)												0.42%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	0
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	0
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	0
	4 Bonus Depreciation (30%)												0
	5 Total Tax Depreciation (including bonus) 2/	-	-	-	-	-	-	-	-	-	-	-	0
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	0
	7 Income Tax Rate 3/												28.742%
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	0
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	0
C	Revenue Requirements - Basin												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	0
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(0)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	0
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	0
	5 Current Return on CWIP 4/	2,310	2,310	2,310	-	-	-	-	-	-	-	-	-
	6 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	0
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	0
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	0
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	2,310	2,310	2,310	-	-	-	-	-	-	-	-	0
	11 Revenue Credit for Basin's Share	(2,310)	(2,310)	(2,310)	-	-	-	-	-	-	-	-	(0)

Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider
Basin Revenue Requirements: Boswell Ash Pond Phase 1

Boswell Ash Pond Phase 1: Basin
Project ID # 106072
In Service 12/31/2019

Section	Line	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	0	0	0	0	0	0	0	0	0	0	0	0
	2 Total Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0
	3 Net Plant	0	0	0	0	0	0	0	0	0	0	0	0
	4 Total Depreciation	0	0	0	0	0	0	0	0	0	0	0	0
	5 Book Depreciation Rate (Life to 2035)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	0	0	0	0	0	0	0	0	0	0	0	0
	2 Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0
	3 Net Plant	0	0	0	0	0	0	0	0	0	0	0	0
	4 Bonus Depreciation (30%)												
	5 Total Tax Depreciation (including bonus) 2/	0	0	0	0	0	0	0	0	0	0	0	0
	6 Tax Book Difference	0	0	0	0	0	0	0	0	0	0	0	0
	7 Income Tax Rate 3/	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%	28.742%
	8 Accumulated Deferred Income Tax Liability	0	0	0	0	0	0	0	0	0	0	0	0
	9 Deferred Tax Expense debit / (Credit)	0	0	0	0	0	0	0	0	0	0	0	0
C	Revenue Requirements - Basin												
	1 Net Plant	0	0	0	0	0	0	0	0	0	0	0	0
	2 Less: ADITL - Def Taxes	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	0	0	0	0	0	0	0	0	0	0	0	0
	4 Average Rate Base	0	0	0	0	0	0	0	0	0	0	0	0
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	0	0	0	0	0	0	0	0	0	0	0	0
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	0	0	0	0	0	0	0	0	0	0	0	0
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	0	0	0	0	0	0	0	0	0	0	0	0
	11 Revenue Credit for Basin's Share	(0)	(0)	(0)	(0)	-	-	-	-	-	-	-	-

end contract

Refer to Exhibit B-3, pages 1-6.

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET BEGINS 18.69% TRADE SECRET ENDS] share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/31/18, and then at 10.82% to reflect tax reform, and then at 9.0719% on 12/1/18 to reflect rate case ROR and tax reform. Refer to Exhibit B-3 for CWIP calculations.

5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider
Plant Additions, AFUDC and Return on CWIP for Basin's Share

	Total Project	to date Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14
BEC 4 Environmental Retrofit In Service 12/31/2015	223,427,863														
BOM		0	22,080,404	24,650,462	27,389,835	31,514,963	34,759,576	36,011,448	38,344,703	42,437,297	46,108,367	50,684,738	55,419,850	61,190,666	63,015,477
CapEx	219,220,355	20,189,572	2,439,150	2,594,454	3,961,992	3,061,934	1,052,045	2,124,604	3,867,255	3,425,444	4,561,805	4,719,711	5,753,924	1,807,357	6,752,543
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	4,207,508	1,890,832	130,908	144,919	163,136	182,679	199,828	208,650	225,340	245,626	14,567	15,400	16,892	17,454	18,124
EOM		22,080,404	24,650,462	27,389,835	31,514,963	34,759,576	36,011,448	38,344,703	42,437,297	46,108,367	50,684,738	55,419,850	61,190,666	63,015,477	69,786,144
Basin's Return on CWIP															
BEC 4 Storm Water In Service 11/1/2016	3,951,327														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	3,940,234	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	11,093	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															
BEC 4 Ash Haul Improve In Service 8/31/2016	2,103,245														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,098,287														
Less Internal Cost 1/	0														
AFUDC	4,958														
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															
BEC 4 Ash Phase 1 In Service 12/31/2019	0														
BOM		0	0	423	426	428	430	3,708	3,728	4,086	4,108	4,669	8,105	15,099	15,099
CapEx	0	0	422	0	0	0	3,266	0	336	0	560	3,436	6,994	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	0	0	1	2	2	2	11	20	21	22	0	0	0	0	0
EOM		0	423	426	428	430	3,708	3,728	4,086	4,108	4,669	8,105	15,099	15,099	15,100
Basin's Return on CWIP															
BEC 4 Ash Phase 2 In Service 12/31/2019	0														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
1/ Internal costs and AFUC on internal costs are not excluded for Basin calculations.

Minnesota Power
BEC4 Rider
Plant Additions, AFUDC and Return on CWIP for Basin's Share

	Total Project	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
BEC 4 Environmental Retrofit In Service 12/31/2015	223,427,863														
BOM		69,786,144	77,001,143	86,764,321	94,630,686	102,255,547	107,979,920	113,935,881	119,649,494	129,069,043	135,252,975	144,780,353	149,112,919	153,823,217	162,345,682
CapEx	219,220,355	7,196,027	9,743,271	7,845,283	7,601,922	5,701,139	5,931,783	5,688,464	9,393,184	6,156,489	9,497,882	4,303,519	4,679,957	8,491,083	7,328,323
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	4,207,508	18,972	19,907	21,082	22,939	23,234	24,178	25,149	26,365	27,442	29,496	29,047	30,341	31,382	32,751
EOM		77,001,143	86,764,321	94,630,686	102,255,547	107,979,920	113,935,881	119,649,494	129,069,043	135,252,975	144,780,353	149,112,919	153,823,217	162,345,682	169,706,756
Basin's Return on CWIP															
BEC 4 Storm Water In Service 11/1/2016	3,951,327														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	3,940,234	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	11,093	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															
BEC 4 Ash Haul Improve In Service 8/31/2016	2,103,245														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,098,287											0	0	0	0
Less Internal Cost 1/	0											0	0	0	0
AFUDC	4,958											0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															
BEC 4 Ash Phase 1 In Service 12/31/2019	0														
BOM		15,100	16,328	16,641	16,644	16,646	16,649	17,178	17,726	19,103	27,382	42,049	45,605	48,479	104,003
CapEx	0	1,228	312	0	0	0	527	545	1,373	8,275	14,663	3,551	2,867	55,515	80,872
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	0	0	1	3	3	3	3	3	3	4	5	5	6	9	11
EOM		16,328	16,641	16,644	16,646	16,649	17,178	17,726	19,103	27,382	42,049	45,605	48,479	104,003	184,886
Basin's Return on CWIP															
BEC 4 Ash Phase 2 In Service 12/31/2019	0														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															
BEC 4 Ash Phase 2 In Service 12/31/2019	0														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP															

Basin's ROR until 1/1/18
Rate of Return / Cost of Capital Summary
(Based on 2008 Rate Case ROR)

	<u>% of Total</u>	<u>Component Cost</u>	<u>Weighted Cost</u>	<u>Pre-tax Rate</u>	<u>After-Tax Rate</u>
Long Term Debt	45.21%	5.68%	2.570%	2.6%	1.5%
Common Equity	54.79%	10.74%	5.880%	10.0%	5.9%
	<u>100.00%</u>		<u>8.450%</u>	<u>12.6%</u>	<u>7.4%</u>
				Federal & State Income Tax Rate	41.37%
				Pretax "Gross-up" Factor	1.70560
				After Tax Return on Equity	5.9% ^{1/}
				Income Tax Component	4.1% ^{2/}
				Interest Expense Component	2.6%
				Pre-tax Return	<u>12.6%</u>

1/ Rounding forced to equity.

2/ Shown here as a component of the pretax rate of return. Can also be computed as 70.56% gross up on After Tax Return on Equity.

Basin's Adjusted Pre-tax Return to Reflect 2017 Federal Tax Act
Use 1/1/18 to 11/30/18

	<u>% of Total</u>	<u>Component Cost</u>	<u>Weighted Cost</u>	<u>Pre-tax Rate</u>	<u>After-Tax Rate</u>
Long Term Debt	45.21%	5.68%	2.57%	2.57%	1.83%
Common Equity	54.79%	10.74%	5.88%	8.25%	5.88%
	<u>100.00%</u>		<u>8.45%</u>	<u>10.82%</u>	<u>7.71%</u>
				Federal & State Income Tax Rate	28.74%
				Pretax "Gross-up" Factor	1.40335
				After Tax Return on Equity	5.88% ^{1/}
				Income Tax Component	2.37% ^{2/}
				Interest Expense Component	2.57%
				Pre-tax Return	<u>10.82%</u>

1/ Rounding forced to equity.

2/ Shown here as a component of the pretax rate of return. Can also be computed as 40.335% gross up on After Tax Return on Equity.

MPUC Docket E015/GR-16-664
2017 Test Year Rate of Return / Cost of Capital Summary
(thousands of dollars)
Commission Decision (1/18/2018) ^{3/}
Used Starting 12/1/2018 coincident with implementation of Final Rates

Average for 13 months Ended 12/31/17						
	<u>Amount</u>	<u>% of Total</u>	<u>Component Cost</u>	<u>Weighted Cost</u>	<u>Pre-tax Rate</u>	<u>After-Tax Rate</u>
Long Term Debt	\$ 1,229	46.189%	4.5170%	2.0864%	2.0864%	1.490%
Common Equity	\$ 1,431	53.811%	9.2500%	4.9775%	6.9852%	4.978%
	<u>\$ 2,660</u>	<u>100.00%</u>		<u>7.0639%</u>	<u>9.0716%</u>	<u>6.468%</u>
					Federal & State Income Tax Rate	28.742%
					Pretax "Gross-up" Factor	1.40340
					After Tax Return on Equity	4.9775% ^{1/}
					Income Tax Component	2.0077% ^{2/}
					Interest Expense Component	2.0864%
					Pre-tax Return	<u>9.0716%</u>

1/ Rounding forced to equity.

2/ Shown here as a component of the pretax rate of return. Can also be computed as 40.335% gross up on After Tax Return on Equity.

3/ MPUC Decision Options 2012, 2015 and 9.25% ROE motion by Sieben.

Minnesota Power
 BEC4 Environmental Rider
 Allete, Inc., d/b/a Minnesota Power
 Docket No. E-015/GR-16-664

Demand Responsibility of Power Supply Cost Based on Peak & Average Methodology: D-01 & D-02
2017 Test Year 2/28/2017 Supplemental Filing
Volume V - Supplement Direct, AF-1, page 21 of 37, Docket E-015/GR-16-664

	<u>Total Retail</u>	<u>Residential</u>	<u>General Service</u>	<u>Large Light & Power</u>	<u>Large Power</u>	<u>Municipal Pumping</u>	<u>Lighting</u>
1 Annual Energy (E-01 with losses, excl. dual fuel)	8,795,413	1,048,806	682,004	1,544,886	5,477,638	18,171	23,907
2 Average Demand	1,004,043	119,727	77,854	176,357	625,301	2,074	2,729
3 Percent	100.000	11.924	7.754	17.565	62.278	0.207	0.272
4 Annual CP Demand (loss adjusted)	1,142,421	203,013	97,884	176,764	654,612	4,413	5,734
5 Percent	100.000	17.770	8.568	15.473	57.300	0.386	0.502
6 Annual Load Factor (Line 2 / Line 4)	0.87887						
7 1.0 - Load Factor	0.12113						
8 Average Factor (Line 3 x Line 6 total)	87.887	10.479	6.815	15.437	54.735	0.182	0.239
9 Peak Factor (Line 5 x Line 7 total)	12.113	2.152	1.038	1.874	6.941	0.047	0.061
10 Composite Factor - D-01 (Line 8 + Line 9)	100.000	12.631	7.853	17.311	61.676	0.229	0.300
11 Power Supply Production - D-01 Adjusted for Jurisdictional Split (Line 10 x .84360)	84.360	10.655	6.625	14.604	52.030	0.193	0.253
12 Power Supply Transmission - D-02 Adjusted for Jurisdictional Split (Line 10 x .82713)	82.713	10.449	6.495	14.318	51.014	0.189	0.248

Notes:

Residential, General Service, Large Light and Power and Municipal Pumping CP demands per customer from load research multiplied by number of customers and adjusted for losses. Large Power CP demand estimated based on 2017 budgeted average demand and the ratio of Large Power CP demand to Large Power average demand from 2012 -2015. Lighting CP is average load based on 2017 Test Year energy and 4,200 burning hours and adjusted for losses.

Minnesota Power
BEC 4 Environmental Rider: 2020 Factor Filing
Allocation Factors for Use Starting 1/1/2017

	D-01 /1	Normalized
MN Jurisdiction	84.360	1.0000
Residential	10.655	0.1263
General Service	6.625	0.0785
Large Light & Power	14.604	0.1731
Large Power	52.030	0.6168
Municipal Pumping	0.193	0.0023
Lighting	0.253	0.0030

1/ Refer to Exhibit B-5, page 1, line 11.

Because the revenue tracker amounts are 100% MN Jurisdictional, the factor are normalized to obtain class allocations.

2015 BEC4 Environmental Retrofit and Ash Haul Project

	20 yr PUP 40%	Pollution Control 60%	Weighted Average
	<u>Weighting</u> 1/	<u>Weighting</u> 2/	
Year 1	0.938%	1.1905%	1.0895%
Year 2	7.430%	14.2857%	11.5434%
Year 3	6.872%	14.2857%	11.3202%
Year 4	6.357%	14.2857%	11.1142%
Year 5	5.880%	14.2857%	10.9234%
Year 6	5.439%	14.2857%	10.7470%
Year 7	5.031%	14.2857%	10.5838%
Year 8	4.654%	13.095%	9.7187%
Year 9	4.458%	0.000%	1.7832%
Year 10	4.458%	0.000%	1.7832%
Year 11	4.458%	0.000%	1.7832%
Year 12	4.458%	0.000%	1.7832%
Year 13	4.458%	0.000%	1.7832%
Year 14	4.458%	0.000%	1.7832%
Year 15	4.458%	0.000%	1.7832%
Year 16	4.458%	0.000%	1.7832%
Year 17	4.458%	0.000%	1.7832%
Year 18	4.459%	0.000%	1.7836%
Year 19	4.458%	0.000%	1.7832%
Year 20	4.459%	0.000%	1.7836%
Year 21	3.901%	0.000%	1.5604%
	<u>100.000%</u>	<u>100.000%</u>	<u>100.000%</u>

BEC4 2016 Costs and Boswell Ash Pond Projects

	20 yr PUP 40%	Pollution Control 60%	Weighted Average
	<u>Weighting</u> 3/	<u>Weighting</u> 4/	
Year 1	3.750%	14.2857%	10.071%
Year 2	7.219%	14.2857%	11.459%
Year 3	6.677%	14.2857%	11.242%
Year 4	6.177%	14.2857%	11.042%
Year 5	5.713%	14.2857%	10.857%
Year 6	5.285%	14.2857%	10.685%
Year 7	4.888%	14.2857%	10.527%
Year 8	4.522%	0.000%	1.809%
Year 9	4.462%	0.000%	1.785%
Year 10	4.461%	0.000%	1.784%
Year 11	4.462%	0.000%	1.785%
Year 12	4.461%	0.000%	1.784%
Year 13	4.462%	0.000%	1.785%
Year 14	4.461%	0.000%	1.784%
Year 15	4.462%	0.000%	1.785%
Year 16	4.461%	0.000%	1.784%
Year 17	4.462%	0.000%	1.785%
Year 18	4.461%	0.000%	1.784%
Year 19	4.462%	0.000%	1.785%
Year 20	4.461%	0.000%	1.784%
Year 21	2.231%	0.000%	0.892%
	<u>100.000%</u>	<u>100.000%</u>	<u>100.000%</u>

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

1/ 40% weighting is 20 year PUP tax table, mid 4th quarter

2/ 60% weighting of pollution control portion is 84 month straight line.

Plant in-service in December, so one month depreciation taken in first year and eleven months taken in final year.

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

3/ 40% weighting is 20 year PUP tax table, half-year

4/ 60% weighting of pollution control portion is 84 month straight line.

Assuming plant in-service in January. For plant in-service in other months, straight line is prorated in years 1 and 8.

Boswell Storm Water Project

	20 yr PUP 40%	Pollution Control 60%	Weighted Average
	<u>Weighting</u> 5/	<u>Weighting</u> 6/	
Year 1	3.750%	4.7619%	4.3571%
Year 2	7.219%	14.2857%	11.4590%
Year 3	6.677%	14.2857%	11.2422%
Year 4	6.177%	14.2857%	11.0422%
Year 5	5.713%	14.2857%	10.8566%
Year 6	5.285%	14.2857%	10.6854%
Year 7	4.888%	14.2857%	10.5266%
Year 8	4.522%	9.524%	7.5231%
Year 9	4.462%	0.000%	1.7848%
Year 10	4.461%	0.000%	1.7844%
Year 11	4.462%	0.000%	1.7848%
Year 12	4.461%	0.000%	1.7844%
Year 13	4.462%	0.000%	1.7848%
Year 14	4.461%	0.000%	1.7844%
Year 15	4.462%	0.000%	1.7848%
Year 16	4.461%	0.000%	1.7844%
Year 17	4.462%	0.000%	1.7848%
Year 18	4.461%	0.000%	1.7844%
Year 19	4.462%	0.000%	1.7848%
Year 20	4.461%	0.000%	1.7844%
Year 21	2.231%	0.000%	0.8924%
	<u>100.000%</u>	<u>100.000%</u>	<u>100.000%</u>

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

5/ 40% weighting is 20 year PUP tax table, half-year

6/ 60% weighting of pollution control portion is 84 month straight line.

Plant in-service in September, so four month depreciation taken in first year and eight months taken in final year.

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

AFFIDAVIT OF SERVICE VIA
ELECTRONIC FILING

Tiana Heger of the City of Duluth, County of St. Louis, State of Minnesota, says that on the 19th day of January, 2021, she served Minnesota Power's Petition in **Docket No. E015/M-20-825** on the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce via electronic filing. The persons on E-Docket's Official Service List for this Docket were served as requested.



Tiana Heger