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PUBLIC DOCUMENT TRADE SECRET DATA EXCISED

April 9, 2018

VIA E-FILING

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

Re: In the Matter of Minnesota Power's Rider

for Boswell Unit 4 Emission Reduction

(BEC4 Rider) and 2018 Factor **Docket No. E015/M-18-**

Dear Mr. Wolf:

Minnesota Power hereby electronically submits the attached Petition seeking Minnesota Public Utilities Commission approval of its 2018 Boswell Unit 4 Emission Reduction Factor. This Petition is filed pursuant to Minn. Stat. § 216B.1692 for cost recovery of investments, expenditures and costs related to the Boswell Energy Center Unit 4 mercury emission reduction project through Minnesota Power's Rider for Boswell Unit 4 Emission Reduction.

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

Please contact me at (218) 355-3601 or <u>lhoyum@mnpower.com</u> with any questions related to this matter.

Yours truly,

Lori Hoyum Policy Manager

Gori Hoyum

LH:sr Enc.

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STATEMENT REGARDING JUSTIFICATION FOR EXCISING TRADE SECRET INFORMATION

Pursuant to the Commission's revised Procedures for Handling Trade Secret and Privileged Data in furtherance of the intent of Minn. Stat. § 13.37 and Minn. Rule 7829.0500, Minnesota Power has designated footnote 4 on Exhibit B-2 as Trade Secret. Minnesota Power has removed certain information from the footnote to prevent disclosure of cost data related to the power sale agreement with Basin Power Electric Cooperative.

The disclosure of this information would be materially harmful to Minnesota Power because it provides confidential business information to competitors and potential power sale counterparties to the detriment of customers. This is highly confidential information; Minnesota Power's competitors, as well as its potential suppliers, would gain a commercial advantage over Minnesota Power if this information were publicly available. Minnesota Power follows strict internal procedures to maintain the secrecy of this information in order to capitalize on the economic value of the information for Minnesota Power's customers. Public availability of this information could economically harm Minnesota Power and its customers in terms of energy supply provision or acquisition. Minnesota Power and its customers would suffer in providing resources to its retail load.

Minnesota Power respectfully requests the opportunity to provide additional justification in the event of a challenge to the trade secret designation provided herein.

STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Minnesota Power's Rider for Boswell Unit 4 Emission Reduction (BEC4 Rider) and 2018 Factor

Docket No. E015/M-18

SUMMARY OF FILING

Minnesota Power submits this 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 mercury emission reduction project through Minnesota Power's Commission-approved Rider for Boswell Unit 4 Emission Reduction.

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STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Minnesota Power's Rider for Boswell Energy Center Unit 4 Emission Reduction (BEC4 Rider) and 2018 Factor

Docket No.	E015/M-18-	

I. INTRODUCTION

Minnesota Power (or "the Company") submits this 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"). Specifically, the Company is requesting:

- Commission approval to implement the updated BEC4 Rider factor shown in Exhibit A-1 coincident with the implementation of final rates in Minnesota Power's current general rate review case.¹
- Commission provisional approval to zero out the rider sub-factor effective June 1, 2018.

On November 2, 2016, Minnesota Power filed a request with the Commission to increase its rates for electric utility service. For the general rate case, most of the BEC4 Project costs were rolled into base rates. Also, the Company split the current 2015 BEC4 Rider bill factor into two subfactors: a base rate sub-factor and a rider sub-factor. The split in the bill factor was based on the originally-designed rate and the original revenue requirements as shown in Exhibit A-2, page 1. This allowed the base rate sub-factor revenue to largely offset the BEC4 costs rolled into base rates, while at the same time it allowed the rider sub-factor revenue to be treated as continuing rider revenue to credit the continuing rider revenue requirements and tracker balance.²

¹ Docket No. E015/GR-16-664. In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Utility Service in Minnesota. Implementation of final rates is expected in fourth quarter 2018.

² The rider sub-factor is not subject to an interim and general rate increase. Refer to MP Exhibit 040 Herbert G. Minke Direct Testimony filed on November 2, 2016.

As shown in Exhibit B-1, page 2, by the end of 2017, the Company collected its 2014 to 2017 rider revenue requirements and tracker balances and now is slightly over collecting. The large credit to revenue requirements associated with Basin Electric Power Cooperative's ("Basin") share of the BEC4 project costs results in an overall negative net revenue requirement from 2017 until the end of Basin's contract in April 2020. Because of this, the BEC4 Factor will be a negative factor through this time period. To avoid over-collection and minimize the buildup of the negative revenue requirement while waiting for the implementation of final rates, the Company believes it is appropriate to zero out the rider sub-factor to provide all customers with a modest rate decrease. Then, coincident with the implementation of final rates, the newly proposed 2018 BEC4 Rider Factor would be implemented and result in a rate reduction for all customers. This rate reduction will offset about half of the simultaneous general rate increase for residential customers and it will largely offset the increase for Large Power customers.

In order to provide timely rate relief for all customers as well as avoiding over-collection while waiting for implementation of final rates, Minnesota Power requests that the Commission waive the requirements of Minn. Rule 7825.3200, which requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. The Company is requesting that the Commission waive the 90 day requirement and grant provisional approval of its request in this petition to zero out the rider sub-factor effective June 1, 2018. Because this will result in a decrease in customer bills and avoid over-collection, the Company believes it is appropriate to grant provisional approval, with the understanding that a final decision would be made subsequent to a comment period in which parties may conduct a thorough review of the petition. Under Minn. Rule 7829.3200, the Commission shall grant a variance to its rules when it determines that the following requirements are met:

- a. enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
- b. granting the variance would not adversely affect the public interest; and
- c. granting the variance would not conflict with standards imposed by law.

In this instance, enforcement of the rule would obviate Minnesota Power's desire to achieve the lower rates for customers as of June 1, 2018, on a provisional basis and subject to full Commission review and approval. Enforcement of the Rule requiring 90-day notice would impose

an excessive burden, considering that Minnesota Power can true-up any differences in approved rates under the 2018 BEC4 Factor. Minnesota Power is not aware of any reason why granting the variance in this instance would adversely affect the public interest and would directly benefit customers. Granting of the variance would also not conflict with standards imposed by law or rules governing the Commission's actions and is consistent with prior Commission decisions on Minnesota Power's electric service agreements.

A similar provisional approval was granted in Minnesota Power's petition for approval of its 2017 Renewable Resource Rider (Docket No. E015/M-16-776), as well as Otter Tail Power Company's petition for approval of its environmental upgrades cost recovery rider (Docket No. E017/M-16-373) and transmission cost recovery rider annual adjustment (Docket No. E017/M-16-374). In these petitions, Minnesota Power and Otter Tail Power Company requested cost recovery factors which would decrease rates for customers. In response to Minnesota Power's request, the Minnesota Department of Commerce Division of Energy Resources ("Department") proposed that the Commission grant provisional approval stating, "[t]he DOC generally does not support the implementation of new rider rates on a provisional basis. However, given the overlap between riders and base rates (including interim rates), and the interconnection between this petition and MP's recently filed a rate case, the DOC supports MP's request to implement its 2017 Renewable Factors on a provisional basis beginning January 1, 2017"." In response to Otter Tail Power's request, the Department proposed that the Commission grant provisional approval in order to provide rate reductions to customers at a time when extensive workload and resource constraints were presenting a significant barrier to the Department's ability to thoroughly review the petitions.⁴

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

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³ Page 2 of the Department's Letter dated November 22, 2016, in Docket No. E015/M-16-776.

⁴ If provisional approval is not granted to zero out the rider sub-factor on June 1, 2018, the Company estimates it will over collect an additional \$1.9 million, assuming the new 2018 billing factors will be implemented on December 1, 2018. The additional \$1.9 million in over collection would go to the tracker balance and would not be returned to customers until the subsequent 2019 billing factors are implemented.

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.

On December 20, 2013, Minnesota Power filed a Petition with the Commission requesting approval of its proposed rates for the BEC4 Rider.⁵ On July 2, 2014, the Commission issued an order approving Minnesota Power's proposed rates through the BEC4 Rider. On August 1, 2014, Minnesota Power began implementing Boswell 4 Plan Adjustment factors and recovering costs on customers' bills.

On November 26, 2014, Minnesota Power filed a Petition with the Commission requesting approval of its 2015 Boswell 4 Plan Adjustment factors.⁶ On August 24, 2015, the Commission issued an order approving Minnesota Power's 2015 Boswell 4 Plan Adjustment factors. The approved factor was applied to customer bills effective September 1, 2015.

On September 30, 2015, Minnesota Power filed a Petition with the Commission requesting approval of its 2016 Boswell 4 Plan Adjustment factors.⁷ On December 21, 2016, the Commission issued an order approving Minnesota Power's 2016 Boswell 4 Plan Adjustment factors; however, 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

⁵ See Docket No. E015/M-13-1166.

⁶ See Docket No. E015/M-14-990.

⁷ See Docket No. E015/M-15-876.

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 Moeller Senior Attorney Minnesota Power 30 West Superior Street Duluth, MN 55802 (218) 723-3963 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 April 9, 2018. The proposed effective date of the BEC4 Plan Adjustment is December 1, 2018, or coincident with implementation of final rates in the Company's current rate review; however, the Company also proposed a provisional effective date of June 1, 2018, to zero out the rider sub-factor.

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))

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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. 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 final approved tariff page.

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, 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.

The NID exceeded the guaranteed emission compliance guarantees during the performance tests. Emission for SO₂, mercury ("Hg"), hydrochloric acid, hydrofluoric acid, lead, filterable particulate matter and total particulate matter ranged from 53 percent to more than 93 percent below the guaranteed values. Sulfuric mist was below detectable levels or basically 100 percent below the guaranteed value of 1 part per million. Process performance was also very good. Carbon consumption for Hg control was 40 percent below the guarantee value, lime consumption was 22 percent below, water consumption was 6 percent below and differential pressure across the NID was 12 percent below the guaranteed values.

B. Project Schedule

The BEC4 Project effectively achieved substantial completion when it was declared in service on Dec 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

⁸ See http://www.alstom.com/Global/Power/Resources/Documents/Brochures/circulating-fluidised-bed-boiler-technology-coal-oil-power.pdf for information on NID system.

(induced draft) fan variable-frequency drive transformers. This delayed the NID performance testing. Table 1 presents the projected schedules for implementation activities and status for activities to date.

Table 1 - Project Implementation Activity Update

Activity – Project Implementation	Timeline
Phase 1 – Conceptual Engineering	
Target Procurement Activities – Environmental	Apr 2012 – Dec 2012
Equipment *Completed	
Phase 2 – Final Design & Procurement	
Fabricate/Deliver – Fabric Filter/CDS *Completed	Jul 2012 – May 2015
Phase 3 – Construction	
Site Preparation *Completed	Apr 2013 – Jul 2013
Pile construction *Completed	Jul 2013 – Nov 2013
Construction – Civil & Foundations *Completed	Apr 2013 – Sep 2014
Construction – CDS/Fabric Filter and Ash Silo *Completed	Apr 2014 – Jul 2015
Construction – Electrical and Controls *Completed	Nov 2014 – Oct 2015
Phase 4 – Start-Up	
Checkout & Commission for Tuning *Completed	Apr 2015 – Oct 2015
Final Plant Start-Up and Tuning *Completed	Oct 2015 – Jan 2016

Air and wetland/water permits from federal, state and local agencies, identified in Tables 3 and 4 on page 30 of the BEC4 Plan Petition, were required to begin construction of the BEC4 Project. Minnesota Power received all necessary permits.

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 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. Minnesota Power is pleased to report that 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 percent⁹ 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, as provided in the 2015 BEC4 Factor and Compliance Filing, are discussed below.

First, the initial Project cost estimates from April 2012 were based upon the design and footprint for a recent installation of a specific CDS technology at another utility's facility similar to BEC4. Through the request for proposal process that took place in the first half of 2012, it was determined that Alstom's NID layout fit the BEC4 site much better, with the constraints created by the location of Blackwater Lake, than the CDS technology used in the initial estimate. The NID layout offered many advantages including:

- Reducing the impact to wetlands by approximately 50 percent from the initial estimate;
- Reducing the amount of steel and erection costs due to the smaller footprint; and
- Creating additional engineering opportunities to reduce other costs.

These advantages led to Alstom being awarded the contract in August 2012.

Second, since 2012 Minnesota Power was able to refine its engineering of the project as the Company progressed from the initial design stage through the planning, procurement and initial construction stages. Over the course of the project, Minnesota Power put out for bid 43 contracts associated with the BEC4 Project. Similar to the CDS technology, as the other contracts were either awarded or were in a bid evaluation process, the Company acquired the detailed knowledge and specifications needed to refine its engineering. As the percentage of engineering completed increased, the project cost values became more certain. Many of the awarded contracts were less

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.

⁹ BEC4 is jointly owned by Minnesota Power and WPPI Energy. As a co-owner of BEC4, WPPI Energy will pay a

than the estimated amounts. Moreover, the due diligence performed by the project team helped to minimize the incidents where the contractor hadn't included all of the necessary scope prior to awarding the bid.

Finally, the BEC4 Project cost updates the Company provided since submitting its March 7, 2013 Petition seeking Commission approval to establish the BEC4 Rider each reflected a gradual decrease in the amount of contingency on the Project. Through the diligent efforts of Minnesota Power, and those working on behalf of Minnesota Power, the Company was successful in achieving the lowest overall cost for the BEC4 Project on behalf of its customers.

D. Notice of Violation Update

Minnesota Power provides the following project update in compliance with Order Point 1.b. of the Commission's November 5, 2013 Order in Docket No. E015/M-12-920 that requires Minnesota Power to "include in its annual rate factor adjustment filing an update on its discussions with the EPA to resolve the notice of violation and shall identify and explain any costs related to the notice of violation included in its rate factor adjustment filings or other rate proceeding." On July 16, 2014, Minnesota Power reached a settlement agreement with the EPA and the MPCA related to alleged violations of the New Source Review requirements of the Clean Air Act at the Boswell Energy Center. The settlement is compatible with Minnesota Power's long term *EnergyForward* strategy to reduce emissions, diversify its energy mix and advance renewables; however, it does not include any admission of wrongdoing on the part of the company. The settlement agreement was approved by the U.S. District Court for the District of Minnesota and became effective September 29, 2014.

The BEC4 Project, as approved by the Commission in an Order dated November 5, 2013, complies with the terms of the settlement, including the permissible level of SO₂ emissions at the completion of the BEC4 Project. The equipment requirements to meet the SO₂ emission limits specified in the settlement are the same as those required to meet the SO₂ emission limits under MATS and other enacted or pending federal and state air regulations; therefore, there are no incremental capital costs associated with settlement compliance. The Company estimated than an increased amount of lime would be needed in order to achieve compliance with the settlement terms for SO₂ emissions. The original estimated cost differential of \$150,000 was based on the

pre-project baseline emission reduction level identified in the BEC4 Plan Petition for wet scrubber technology rather than the circulating dry scrubber technology of the NID system. As a result, the cost differential for the additional lime usage for the NID was increased to approximately \$246,000 annually. Additionally, the original and revised cost estimates were based on a lower dollar per ton cost for the lime than the cost for lime in 2017 and to-date. The Company is pleased to report that the NID is achieving better than expected efficiency and emission removal resulting in lower than anticipated annual lime costs for BEC4 of approximately \$637,000.10 Reduction of SO2 emissions to a level lower than what is required under other enacted or pending federal and state air regulations delivers further environmental value to Minnesota Power customers and other residents in northeastern Minnesota at less additional cost to customers than was originally anticipated.

 $^{^{10}}$ Cost comparison is based on 2017 actuals to design lime usage to achieve 0.05lb/mmbtu emission. The 2017 actual costs are "all-in costs" including freight and tax.

V. COST RECOVERY

A. BEC4 Rider - Revenue Requirements

As previously mentioned, almost all of the BEC4 Project costs were rolled into base rates in the Company's 2017 rate review 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. Once Basin's contract ends in April 2020, the associated revenue credit will end, and this will allow the Company to roll the remaining Ash Pond project into base rates in a subsequent rate case and close out the BEC4 Rider.

The revenue requirements have been calculated according to the cost recovery terms detailed in Minnesota Power's Petition as approved by the November 5, 2013 Order. Subsequent to the November 5, 2013 Order, the Commission approved Minnesota Power's 2013 Renewable Resources Rider Adjustment Factors in Docket No. E015/M-13-410. In its Order dated December 3, 2013, the Commission, "Directed the Company for all future Renewable Resources Rider and other rider recovery filings, to remove capitalized internal costs when calculating the amount of AFUDC (allowance for funds used during construction) included in the rate base for rider recovery purposes, consistent with the terms of its prior rider filings." Consistent with this directive, Minnesota Power has excluded internal capitalized labor and the AFUDC on internal capitalized labor from the project costs and overall revenue requirements calculations for the BEC4 Project. Refer to Exhibit B-3 for these specific deductions from the project costs.

As part of a power sales agreement to Basin, Minnesota Power is allowed to collect costs associated with new emission control additions to BEC4 over a specified period from Basin. Minnesota Power is passing 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, page 8, row D2 for Basin's 2018 share.

Assuming final rates in the Company's current rate review will be implemented on December 1, 2018, the rider revenue requirements utilize the rate of return from the Commission's

¹¹ A description of the revenue requirement components is provided on pages 19 – 23 of Minnesota Power's March 7, 2013 Petition seeking Commission approval to establish the BEC4 Rider (see Docket No. E015/M-12-920).

March 12, 2018, rate review Findings of Fact, Conclusions, and Order starting December 1, 2018. Refer to Exhibit B-4.

The 2018 revenue requirements do not reflect any changes due to the 2017 Federal Tax Act. Once the details of implementing the needed changes for the Company are resolved in the related docket (Docket No. E, G-999/CI-17-895), the Company will update the BEC4 tracker and incorporate the impacts in the subsequent factor filing. In addition, as the 2018 revenue requirements do not include any plant in service projects with deferred income taxes being computed on a future test year, no pro-rata deferred tax calculation is necessary.

Although the Company currently requests to zero out the rider sub-factor, Minnesota Power will continue to bill customers using the base rate sub-factor and credit that revenue to base rate revenue until implementation of final rates in the rate review case. With the implementation of final rates, the base rate sub-factor will be zeroed out. In its general rate case, the Company included an estimated budget of \$94.9 million in base rate rider cash collections in the 2017 test year for three current cost recovery riders: BEC4 Environmental Rider, Renewable Resources Rider, and Transmission Cost Recovery Rider. As shown in Exhibit A-2, page 2, the actual cash collection for all three riders for 2017 was \$90.9 million. As summarized in the rate review Staff Briefing Papers, Volume 1, page 259, the under or over collection in actual base rate cash collection will be addressed in each rider after final rates are implemented and the final base rate cash collections are known (Docket No. E015/GR-16-664).

Minnesota Power proposes to include -\$6.5 million in jurisdictional revenue requirements in the BEC4 Rider Adjustment Factors. The total revenue requirements for the BEC4 Rider Adjustment Factors consist of the 2017 year-end Tracker Balance of -\$1.6 million and 2018 revenue requirements of -\$4.9 million. As discussed below, the BEC4 Rider Adjustment Factors are calculated to recover the revenue requirements over a twelve-month period. Refer to Exhibit B-1 for a summary of the revenue requirements, cost allocation and rate design, and to Exhibit B-2 for the detailed revenue requirement calculations.

B. Cost Allocation and Rate Design

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 Petition and the subsequent Order. Specifically, until December 1, 2018, the revenue requirements have been 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.

Order Point 4 of the November 5, 2013 Order requires Minnesota Power to make annual rate factor adjustment filings, including adjusted retail allocation factors if any Large Power or wholesale customer's load changes by 10 megawatts or more. Consistent with the Commission's orders approving the 2015 and 2016 Boswell 4 Plan Adjustment Factors, the Company has continued to use revised jurisdictional allocation factors to reflect the loss of a wholesale customer, Dahlberg Light & Power, effective January 1, 2014.

Because almost all of the BEC4 Project costs were rolled into base rates in the Company's 2017 rate review case, the Company is proposing to use the approved allocation factors from the rate case rather than using the old 2009 allocation factors further revised to reflect changes in load since the Commission's December 21, 2016 approval of the 2016 Boswell 4 Plan Adjustment Factors. Assuming final rates in the Company's current rate review will be implemented on December 1, 2018, the monthly rider revenue requirements are calculated utilizing the updated jurisdictional allocation factors from the Company's current rate review starting December 1, 2018. The overall revenue requirements are also allocated to class utilizing the updated class allocation factors. See Exhibit B-5 for further detail on these allocators.

2. Rate Design

Consistent with the terms of the BEC4 Rider, the Large Power ("LP") rate design for the Boswell 4 Plan Adjustment incorporates demand (\$/kW-month) and energy (¢/kWh) adders that recover the costs in a manner that preserves LP base rate design. Specifically, the LP revenue requirements are split between demand and energy based on LP's 2017 base rate demand and energy revenue split of approximately 56 percent demand and 44 percent energy as currently drafted for the Company's Compliance Filing in its current rate case (Docket No. E015/GR-16-664). The LP demand rate adder is calculated as 56 percent of the projected LP revenue requirement divided by the LP class Billing Demand (kW-month) from the 2018 budget. The LP energy rate adder is calculated as 44 percent of the projected LP revenue requirement divided by the annual LP energy sales (kWh) from the 2018 budget. See Exhibit B-1, page 1 of 8, for further detail.

Also consistent with the terms of the BEC4 Rider, the rate design for the Boswell 4 Plan Adjustment for the remaining retail rate classes (non-LP) is an average energy-based (kWh) rate adder. This energy adder is calculated as an average energy (¢/kWh) charge consisting of the projected non-LP revenue requirements divided by the annual non-LP energy (kWh) sales from the 2018 budget. See Exhibit B-1, page 1 of 8, for further detail. Also, refer to Exhibit A-1 for the proposed Rider for Boswell Unit 4 Emission Reduction tariff page.

C. Customer Impact

Table 2 summarizes the estimate rate impacts by customer class assuming the current rider sub-factors are zeroed out on June 1, 2018 and then the new 2018 Boswell 4 Plan Adjustment Factors are implemented coincident with final rates in the Company's rate review on December 1, 2018.

Assuming the rider sub-factors are zeroed out on June 1, 2018, the rate impact for the average residential customer will be a decrease of approximately \$0.26 per month or a 0.33 percent decrease. Assuming the new 2018 Boswell 4 Plan Adjustment Factors are implemented coincident with final rates in the Company's rate review, the rate impact for the average residential customer will be a decrease of approximately \$1.06 per month or a 1.35 percent decrease compared to current rates.

Similarly for Large Power customers, assuming the rider sub-factors are zeroed out on June 1, 2018, the rate impact will be approximately a 0.45 percent decrease. Assuming the new 2018 Boswell 4 Plan Adjustment Factors are implemented coincident with final rates in the Company's rate review, the rate impact for Large Power customer will be approximately a 1.26 percent decrease compared to current rates.

Table 2--Estimated Customer Impact

Proposed Change Effective	6/1/2018	12/1/2018
	_	
	Zero Out	2018 BEC4
	Sub-Factor	Factor
Rate Class Impacts 1/		
Residential		
Average Current Rate (¢/kWh)	10.697	10.697
Decrease (¢/kWh)	-0.035	-0.144
Decrease (%)	-0.33	-1.35
Average Impact (\$/month)	-0.26	-1.06
General Service		
Average Current Rate (¢/kWh)	10.609	10.609
Decrease (¢/kWh)	-0.035	-0.144
Decrease (%)	-0.33	-1.36
Average Impact (\$/month)	-0.95	-3.90
Large Light & Power		
Average Current Rate (¢/kWh)	8.117	8.117
Decrease (¢/kWh)	-0.035	-0.144
Decrease (%)	-0.43	-1.77
Average Impact (\$/month)	-90.90	-373.99
Large Power		
Average Current Rate (¢/kWh)	6.759	6.759
Decrease (demand + energy combined) (¢/kWh)	-0.030	-0.085
Decrease (%)	-0.45	-1.26
Average Impact (\$/month)	-19,044	-53,409
Municipal Pumping		
Average Current Rate (¢/kWh)	10.290	10.290
Decrease (¢/kWh)	-0.035	-0.144
Decrease (%)	34	-1.40
Average Impact (\$/month)	-1.84	-7.59
Lighting		
Average Current Rate (¢/kWh)	16.226	16.226
Decrease (¢/kWh)	-0.035	-0.144
Decrease (%)	-0.22	-0.89
Average Impact (\$/month)	-0.13	-0.51

Notes:

1/ Average current rates are 2017 rates based on 2017 TY Present Rates in 2017 Rate Case (E015/GR-16-664) including rider rates. Rates do not include interim or final rate increase. Current rider rates include Renewable Resources Rider rates, Transmission Cost Recovery Rider rates, BEC4 Rider rates, Conservation Program Adjustment, and estimated 2017 Fuel and Purchased Energy Adjustment. Average \$/month impact based on 2018 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. The Company further requests that the Commission waive the 90 day requirement under Minn. Rule 7825.3200 and grant provisional approval to zero out the rider sub-factors beginning June 1, 2018, with the understanding that a final decision will be made subsequent to a comment period in which parties may conduct a thorough review of the petition.

Dated: April 9, 2018 Respectfully submitted,

Lori Hoyum

Policy Manager Minnesota Power

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MINNESOTA POWER ELECTRIC RATE BOOK - VOLUME I

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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	-\$0.221.00 per kW-month of Billing Demand
	and
	<u>-0.024</u> 0.095¢/kWh
All other applicable Retail Rate Customers	-0 109 <u>0 265</u> ¢/kWh

Filing Date	November 26, 2014	MPUC Docket No	E015/M-14-990
Effective Date	September 1, 2015	Order Date	August 24, 2015

Approved by: Marcia A. Podratz

Marcia A. Podratz Director - Rates

MINNESOTA POWER	
FLECTRIC RATE BOOK - VOLU	MF I

SECTION _	V	PAGE NO.	93.0	
REVISION		2		

RIDER FOR BOSWELL UNIT 4 EMISSION REDUCTION

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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	-0.109¢/kWh	
Filing Date	MPUC Docket No	
Filing Date	Order Date	

Approved by: Marcia A. Podratz

Marcia A. Podratz Director - Rates

REPRODUCED FROM:
MP Exhibit ____(HGM)
Docket No. E015/GR-16-664
Schedule 6
Page 1 of 2

Minnesota Power BEC4 Rider Development of Sub-Factors

		М	N Jurisdictional Amounts Total /1	_	BEC4 Su Base Rates	b-Fa	actors Rider
Projected Year End 2014 Tracker Balance /2		\$	5,790,370	_		\$	5,790,370
2015 Net Revenue Requirements /3		\$	17,120,777	\$	19,950,669	\$	(2,829,892)
Total 2015 Factor Revenue Requirements		\$	22,911,148	\$	19,950,669	\$	2,960,478
	Allocators						
MN Jurisdictional & Class Revenue Requirements	100.00%	\$	22,911,148	\$	19,950,669	\$	2,960,478
Large Power	62.51%	\$	14,321,709	\$	12,471,120	\$	1,850,589
All Other Retail Classes	37.49%	\$	8,589,439	\$	7,479,549	\$	1,109,890
Billing Units /4							
Large Power	kW - month		716,608		716,608		716,608
	kWh		6,037,136,000	6	,037,136,000	6.	037,136,000
All Other Retail Classes	kWh		3,245,508,000		,245,508,000		245,508,000
			Effective		BEC4 Su	b-Fa	actors
Billing Factors /5			9/1/2015	_	Base Rates		Rider
Large Power			1.00		0.87	_	0.13
Large I Ower	\$/kW - month ¢/kWh		0.095		0.083		0.13
All Other Petail Classes	¢/kWh						
All Other Retail Classes		0.265		0.230		0.035	

Notes:

- 1/2015 Boswell Unit 4 Factor Filing, 3-16-2015 Reply Comments, Exhibit B-1, page 1. Docket E015/M-14-990.
- 2/ Tracker balance to continue in rider
- 3/ Ash Management project and Basin revenue credit are staying in rider. See MP Exhibt___(HGM), Schedule 6, page 2 of 2 for details. 4/ 2015 budget.
- 5/ The LP rate design is a demand rate adder (\$/kW-month) and an energy adder (¢/kWh). The LP allocated costs are to be split between demand and energy on the 2010 base rate demand and energy revenue split of approximately 60% demand and 40% energy per results of MP's most recent MPUC rate case (Docket No. E015/GR-09-1151). All other retail classes will have an energy adder (¢/kWh).

Minnesota Power BEC4 Rider Base Rate Rider Cash Collections

	2017	2017	Over / (Under)
	Test Year Budget	Actual	Collection
BEC4 Environmental Rider	18,951,906 1/	18,060,619	(891,287)
Renewable Resources Rider	63,805,127 2/	61,205,036	(2,600,091)
Transmission Rider	12,174,515 3/	11,600,892	(573,624)
Total	94,931,548	90,866,546	(4,065,002)

^{1/} MP Exhibit 019 (MAP) Supplemental Direct, Schedule E-2, page 83 of 104 (Docket E015/GR-16-664).

^{2/} MP Exhibit 019 (MAP) Supplemental Direct, Schedule E-2, page 71 of 104 (Docket E015/GR-16-664).

^{3/} MP Exhibit 019 (MAP) Supplemental Direct, Schedule E-2, page 77 of 104 (Docket E015/GR-16-664).

Minnesota Power BEC4 Rider: 2018 Factor Filing Summary: Revenue Requirements, Cost Allocation and Rate Design

				M	N Jurisdictional	
					Amounts	
2017 Ending Tracker Ba	alance (Over) / U	Inder Collection 1/			Total	
MN Jurisdictional & Cla	ss Tracker			\$	(1,590,932)	
Large Power				\$	21,147	
All Other Retail Classes	S			\$	(1,612,079)	
2018 Net Revenue Req	uirements 2/		Allocators 3/			
MN Jurisdictional & Cla		guirements	100.00%	\$	(4,892,054)	
Large Power		44	61.68%	\$	(3,017,231)	
All Other Retail Classes	S		38.32%	\$	(1,874,824)	
Total 2018 BEC4 Facto	r Povonuo Pogu	iromonts				
MN Jurisdictional & Cla		•		\$	(6,482,986)	
Large Power	ioo revende rec	quirements		\$	(2,996,083)	
All Other Retail Classes	S			\$	(3,486,903)	
				,	(=, ==,==,	
Billing Units 4/						
Large Power			kW - month		647,437	
· ·			kWh		5,465,342,000	
All Other Retail Classes	S		kWh		3,189,902,000	
					Proposed	
Billing Factors 5/					12/1/2018	
Large Power			\$/kW - month		(0.22)	
All Od - D - II O			¢/kWh		(0.024)	
All Other Retail Classes	S		¢/kWh		(0.109)	
			Current Rider			
			Sub-Factor 6/		Proposed	Decrease
La	rge Power	(\$/kW - month)	0.13		(0.22)	(0.350)
		(¢/kWh)	0.012		(0.024)	(0.036)
All	Other Classes	(¢/kWh)	0.035		(0.109)	(0.144)

Notes:

^{1/} Refer to Exhibit B-1, page 2 of 8.

^{2/} Refer to Exhibit B-1, page 8 of 8, row D5.

^{3/} Refer to Exhibit B-5, page 4.

^{4/ 2018} Budget.

^{5/} The LP rate design is a demand rate adder (\$/kW-month) and an energy adder (¢/kWh). The LP allocated costs are to be split between demand and energy on the 2017 base rate demand and energy revenue split of approximately 56% demand and 44% energy per results of MP's 2017 MPUC rate case (Docket No. E015/GR-16-664). All other retail classes will have an energy adder (¢/kWh).

^{6/} Refer to Exhibit A-2, page 1 of 2.

Minnesota Power BEC4 Rider: 2018 Factor Filing Tracker Summary

2014 Ending Tracker (Over)/Under Collection 1/			
MN Jurisdictional & Class Tracker	•	\$	5,680,981
Large Power		\$	3,317,221
All Other Retail Classes		\$	2,363,760
2015 Net Revenue Requirements 2/	Allocators 3/		
MN Jurisdictional & Class Revenue Requirements	100.00%	\$	14,982,282
Large Power	62.51%	\$	9,365,456
All Other Retail Classes	37.49%	\$	5,616,826
2015 Cash Collections	_		
Total	-	\$	(15,232,730)
Large Power		\$	(9,352,183)
All Other Retail Classes		\$	(5,880,547)
2016 Net Revenue Requirements 4/	Allocators 3/		
MN Jurisdictional & Class Revenue Requirements	100.00%		21,106,241
Large Power	62.51%	\$	13,193,556
All Other Retail Classes	37.49%	\$	7,912,685
2016 Cash Collections	_		
Total		\$	(19,675,035)
Large Power		\$	(11,513,728)
All Other Retail Classes		\$	(8,161,307)
2017 Continuing Rider Net Revenue Requirements 5/	Allocators 3/		(5.000.045)
MN Jurisdictional & Class Revenue Requirements	100.00%	Φ	(5,268,845)
Large Power All Other Retail Classes	62.51% 37.49%	\$ \$	(3,293,566) (1,975,279)
All Other Retail Classes	37.49%	Ф	(1,975,279)
2017 Continuing Rider Cash Collections	-		
Total		\$	(3,183,826)
Large Power		\$	(1,695,608)
All Other Retail Classes		\$	(1,488,218)
2017 Continuing Rider Ending Tracker (Over)/Under Colle	ection		
MN Jurisdictional Tracker		\$	(1,590,932)
Large Power		\$	21,147
All Other Retail Classes		\$	(1,612,079)

^{1/} BEC4 2016 Factor Filing, Docket E015/M-15-876, Exhibit B-1, page 2, 2013 plus 2014 under collection.

^{2/} Refer to Exhibit B-1, page 4, line E8.

^{3/} Refer to Exhibit B-5, page 1.

^{4/} Refer to Exhibit B-1, page 6, line E8.

^{5/} Refer to Exhibit B-1, page 7, line D5.

Minnesota Power BEC4 Rider 2015 Revenue Requirements: Total Sum All Projects

2015 Revenue Requirements

Total Sum: All Projects

Section	Line	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Total Year Dec-15
Α	Book Basis of Property													
	0 CWIP (net of contra AFDC & internal costs)	144,944,406	149,505,044	157,912,668	165,117,529	172,095,114	178,943,683	185,806,724	192,158,769	201,158,418	205,502,288	209,192,849	2,301,781	2,301,78
	1 Plant in Service (net of contra AFDC & Interr	-	-	-	-	-	-	-	-	-	-	-	210,919,585	210,919,585
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	439,416	439,416
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	210,480,169	210,480,169
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	439,416	439,41
В	Tax Basis of Property													
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	210,919,585	210,919,585
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	106,608,762	106,608,762
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	104,310,823	104,310,823
	4 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	105,459,792	105,459,792
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	106,608,762	106,608,762
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	106,169,346	106,169,346
	7 Income Tax Rate	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.379
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	43,922,258	43,922,258
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	43,922,258	43,922,258
C-1	Revenue Requirements - Consolidated NOL													
C-1	1 Net Plant												210,480,169	210,480,169
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(43,922,258)	(43,922,258
	3 Plus: ADITA - NOL					_	_				_	_	(43,322,230)	(43,322,230
	4 Rate Base	-	_	_	_	_	_	_	_	_	_	_	166,557,911	166,557,91
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	83,278,955	83,278,955
	6 Current Return on CWIP	1,446,781	1,490,650	1,556,302	1,635,340	1,707,139	1,777,134	1,846,549	1,913,450	1,991,168	2,058,720	2,099,394	1,070,692	20,593,320
	7 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	391,018	391,018
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	275,907	275,907
	10 Interest Expense Component	<u> </u>	<u>-</u>			<u> </u>	<u> </u>	<u>-</u>			<u> </u>		176,274	176,274
	11 Total Return on Average Rate Base	-	_	-	-	-	-		-	-	-	-	843,199	843,199
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	_	
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	439,416	439,416
	14 Property Tax	<u> </u>												
	15 Revenue Requirements	1,446,781	1,490,650	1,556,302	1,635,340	1,707,139	1,777,134	1,846,549	1,913,450	1,991,168	2,058,720	2,099,394	2,353,307	21,875,935

Minnesota Power BEC4 Rider 2015 Revenue Requirements: Total Sum All Projects

2015 Revenue Requirements

Total Sum: All Projects

Section	n Line	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Total Year Dec-15
C-2	Revenue Requirements - Stand Alone NOL 1 Net Plant 2 Less: ADITL - Def Taxes 3 Plus: ADITA - NOL (Stand Alone) 4 Rate Base	:	- - -	- - -	:	- - -	- - -	- - -	- - -	- - -	- - -	- - -	210,480,169 (43,922,258) 36,874,276 203,432,187	210,480,169 (43,922,258) 36,874,276 203,432,187
	5 Average Rate Base	-	-	-	-	-	- -	-	-	-	-	-	101,716,093	101,716,093
	6 Current Return on CWIP 7 Return on Average Rate Base 8 After Tax Return on Equity 9 Income Tax Component 10 Interest Expense Component	1,446,781 - - - -	1,490,650 - - - -	1,556,302 - - - -	1,635,340 - - - -	1,707,139 - - - -	1,777,134 - - - -	1,846,549 - - - -	1,913,450 - - - -	1,991,168 - - - -	2,058,720 - - - -	2,099,394	1,070,692 - 477,586 336,991 	20,593,320 477,586 336,991 215,299
	11 Total Return on Average Rate Base12 Operation & Maintenance Expense13 Depreciation Expense	- -	-	- -	-	-	-	- - -	-		-	-	1,029,875 - 439,416	1,029,875 - 439,416
	14 Property Tax15 Revenue Requirements	1,446,781	1,490,650	1,556,302	1,635,340	1,707,139	1,777,134	1,846,549	1,913,450	1,991,168	2,058,720	2,099,394	2,539,983	22,062,611
D	Stand Alone Taxable Income or Loss (NOL) 1 Revenue Requirements 2 Tax Depreciation 3 Property Tax	1,446,781 -	1,490,650	1,556,302	1,635,340	1,707,139	1,777,134	1,846,549 -	1,913,450	1,991,168	2,058,720	2,099,394	2,539,983 106,608,762	22,062,611 106,608,762
	4 Interest Expense (including on CWIP) 5 Operation & Maintenance Expense	302,455	311,626	325,350	341,874	356,883	371,516 -	386,028	400,013	416,261	430,383	438,886	439,131	4,520,405
	6 Total Tax Deduction	302,455	311,626	325,350	341,874	356,883	371,516	386,028	400,013	416,261	430,383	438,886	107,047,893	111,129,166
	7 Taxable Income (NOL)	1,144,326	1,179,025	1,230,952	1,293,467	1,350,256	1,405,618	1,460,521	1,513,437	1,574,908	1,628,337	1,660,508	(104,507,910)	(89,066,555)
	8 Current tax expense	473,408	487,762	509,245	535,107	558,600	581,504	604,217	626,109	651,539	673,643	686,952	(43,234,923)	(36,846,837)
	9 Taxable Income (NOL) 10 NOL carryforward	1,144,326	1,179,025 -	1,230,952	1,293,467	1,350,256	1,405,618 -	1,460,521	1,513,437 -	1,574,908 -	1,628,337 -	1,660,508	(104,507,910)	(89,066,555)
	11 Taxable Income after NOL carryforward	1,144,326	1,179,025	1,230,952	1,293,467	1,350,256	1,405,618	1,460,521	1,513,437	1,574,908	1,628,337	1,660,508	(89,115,894)	(89,066,555)
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	36,874,276	36,874,276
E	Summary: Revenue Requirements 1 Revenue Requirement: Consolidated 2 Revenue Requirement: Stand Alone 3 Revenue Requirement: Rider 1/	1,446,781 1,446,781 1,446,781	1,490,650 1,490,650 1,490,650	1,556,302 1,556,302 1,556,302	1,635,340 1,635,340 1,635,340	1,707,139 1,707,139 1,707,139	1,777,134 1,777,134 1,777,134	1,846,549 1,846,549 1,846,549	1,913,450 1,913,450 1,913,450	1,991,168 1,991,168 1,991,168	2,058,720 2,058,720 2,058,720	2,099,394 2,099,394 2,099,394	2,353,307 2,539,983 2,353,307	21,875,935 22,062,611 21,875,935
	4 Revenue Credit for Basin's Share	-	-	-	-	(340,604)	(354,848)	(368,969)	(382,773)	(398,797)	(413,127)	(422,118)	(470,655)	(3,151,890)
	5 BEC 4 Base Rate Revenue Credit 6 Total Net Revenue Requirements 7 MN Jurisdictional Allocator 2/ 8 MN Jurisdictional Revenue Requirement	1,446,781 0.8304 1,201,450	1,490,650 0.8304 1,237,881	1,556,302 0.8304 1,292,400	1,635,340 0.8304 1,358,036	1,366,535 0.8304 1,134,812	1,422,286 0.8304 1,181,109	1,477,580 0.8304 1,227,027	(75,828) 1,454,850 0.8304 1,208,151	(151,655) 1,440,715 0.8304 1,196,413	(151,655) 1,493,938 0.8304 1,240,611	(151,655) 1,525,621 0.8304 1,266,921	(151,655) 1,730,997 0.8304 1,437,472	(682,450) 18,041,596 0.8304 14,982,282

^{1/} Lesser of E1 or E2.

^{2/} Refer to Exhibit B-5, page 1.

Minnesota Power BEC4 Rider 2016 Revenue Requirements: Total Sum All Projects

2016 Revenue Requirements

Total Sum: All Project

Total S	um: All Project													Total Year
Section	n Line	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Dec-16
A	Book Basis of Property 0 CWIP (net of contra AFDC & internal costs) 1 Plant in Service (net of contra AFDC & Internal 2 Total Accumulated Depreciation 3 Net Plant 4 Total Depreciation	2,295,854 211,488,706 1,319,433 210,169,273 880,017	2,443,719 211,965,111 2,201,629 209,763,482 882,195	2,786,455 212,330,033 3,085,577 209,244,456 883,948	3,462,860 212,164,859 3,969,941 208,194,918 884,364	4,280,856 212,626,202 4,854,922 207,771,280 884,981	4,927,104 212,827,601 5,741,285 207,086,316 886,362	5,192,482 212,964,025 6,628,350 206,335,674 887,066	3,967,849 215,296,324 7,520,560 207,775,765 892,209	4,320,343 216,492,846 8,420,120 208,072,726 899,561	4,639,158 216,693,335 9,322,591 207,370,744 902,471	1,439,658 220,023,332 10,232,831 209,790,501 910,240	1,703,907 220,210,016 11,150,812 209,059,205 917,980	1,703,907 220,210,016 11,150,812 209,059,205 10,711,396
В	Tax Basis of Property 1 Plant in Service 2 Accumulated Depreciation 3 Net Plant	211,488,706 107,910,184 103,578,522	211,965,111 109,167,274 102,797,837	212,330,033 110,370,199 101,959,834	212,164,859 111,307,349 100,857,510	212,626,202 112,559,838 100,066,364	212,827,601 113,683,289 99,144,311	212,964,025 114,774,911 98,189,113	215,296,324 116,974,800 98,321,524	216,492,846 118,613,317 97,879,529	216,693,335 119,755,035 96,938,301	220,023,332 122,499,286 97,524,047	220,210,016 123,674,005 96,536,012	220,210,016 123,674,005 96,536,012
	4 Bonus Depreciation 5 Total Tax Depreciation (including bonus)	284,560 1,301,422	238,203 1,257,090	182,461 1,202,925	(82,587) 937,150	230,672 1,252,489	100,699 1,123,451	68,212 1,091,622	1,166,150 2,199,889	598,261 1,638,517	100,245 1,141,718	1,664,999 2,744,251	93,342 1,174,719	4,645,216 17,065,243
	6 Tax Book Difference 7 Income Tax Rate 8 Accumulated Deferred Income Tax Liability 9 Deferred Tax Expense debit / (Credit)	106,590,750 41.37% 44,096,593 174,335	106,965,645 41.37% 44,251,687 155,094	107,284,622 41.37% 44,383,648 131,961	107,337,408 41.37% 44,405,486 21,838	107,704,915 41.37% 44,557,524 152,038	107,942,005 41.37% 44,655,607 98,084	108,146,561 41.37% 44,740,232 84,625	109,454,241 41.37% 45,281,219 540,987	110,193,197 41.37% 45,586,925 305,706	110,432,443 41.37% 45,685,902 98,976	112,266,454 41.37% 46,444,632 758,730	112,523,193 41.37% 46,550,845 106,213	112,523,193 41.37% 46,550,845 2,628,586
C-1	Revenue Requirements - Consolidated NOL 1 Net Plant 2 Less: ADITL - Def Taxes 3 Rate Base 4 Average Rate Base	210,169,273 (44,096,593) 166,072,679 166,315,295	209,763,482 (44,251,687) 165,511,795 165,792,237	209,244,456 (44,383,648) 164,860,808 165,186,301	208,194,918 (44,405,486) 163,789,432 164,325,120	207,771,280 (44,557,524) 163,213,756 163,501,594	207,086,316 (44,655,607) 162,430,709 162,822,233	206,335,674 (44,740,232) 161,595,442 162,013,075	207,775,765 (45,281,219) 162,494,546 162,044,994	208,072,726 (45,586,925) 162,485,801 162,490,173	207,370,744 (45,685,902) 161,684,842 162,085,321	209,790,501 (46,444,632) 163,345,869 162,515,356	209,059,205 (46,550,845) 162,508,360 162,927,114	209,059,205 (46,550,845) 162,508,360 163,501,568
	5 Current Return on CWIP 6 Return on Average Rate Base 7 After Tax Return on Equity 8 Income Tax Component 9 Interest Expense Component 10 Total Return on Average Rate Base	23,276 - 780,897 551,011 352,034 1,683,942	23,994 - 778,442 549,278 350,927 1,678,646	26,478 - 775,596 547,270 349,644 1,672,511	31,637 - 771,553 544,417 347,822 1,663,792	39,203 - 767,686 541,689 346,078 1,655,454	46,615 - 764,497 539,438 344,640 1,648,575	51,230 - 760,697 536,757 342,928 1,640,382	46,374 - 760,847 536,863 342,995 1,640,706	41,959 - 762,937 538,338 343,938 1,645,213	45,357 - 761,037 536,997 343,081 1,641,114	30,774 - 763,056 538,421 343,991 1,645,468	15,914 - 764,989 539,786 344,862 1,649,637	9,212,234 6,500,266 4,152,940 19,865,440
	11 Operation & Maintenance Expense 12 Depreciation Expense 13 Property Tax 14 Revenue Requirements	384,623 880,017 - 2,971,858	160,938 882,195 	211,084 883,948 	119,730 884,364 	305,724 884,981 	241,677 886,362 	381,048 887,066 	296,387 892,209 	239,297 899,561 	245,925 902,471 2.834.867	251,269 910,240 	131,331 917,980 	2,969,034 10,711,396 - 33,968,682
	14 Revenue Requirements	2,971,858	2,745,774	2,794,021	2,099,524	2,885,362	2,823,230	2,959,727	2,875,675	2,826,030	2,834,867	2,831,151	2,714,863	33,908,082

Minnesota Power BEC4 Rider 2016 Revenue Requirements: Total Sum All Projects

2016 Revenue Requirements

Total Sum: All Project

Section	n Line	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Total Year Dec-16
C-2	Revenue Requirements - Stand Alone NOL 1 Net Plant	210,169,273	209,763,482	209,244,456	208,194,918	207,771,280	207,086,316	206,335,674	207,775,765	208,072,726	207,370,744	209,790,501	209,059,205	209,059,205
	2 Less: ADITL - Def Taxes	(44,096,593)	(44,251,687)	(44,383,648)	(44,405,486)	(44,557,524)	(44,655,607)	(44,740,232)	(45,281,219)	(45,586,925)	(45,685,902)	(46,444,632)	(46,550,845)	(46,550,845)
	3 Plus: ADITA - NOL (Stand Alone)	36,376,259	35,862,410	35,329,171	34,690,602	34,186,854	33,633,154	33,070,526	32,917,819	32,576,695	32,031,649	32,087,554	31,548,567	31,548,567
	4 Rate Base 5 Average Rate Base	202,448,938 202,940,562	201,374,205 201,911,572	200,189,979 200,782,092	198,480,034 199,335,007	197,400,610 197,940,322	196,063,863 196,732,237	194,665,968 195,364,915	195,412,365 195,039,166	195,062,496 195,237,430	193,716,491 194,389,493	195,433,423 194,574,957	194,056,927 194,745,175	194,056,927 197,416,077
	3 Average Nate base	202,940,302	201,911,572	200,762,092	199,333,007	197,940,322	190,732,237	193,304,913	193,039,100	195,257,450	194,309,493	194,574,957	154,743,173	197,410,077
	6 Current Return on CWIP 7 Return on Average Rate Base	23,276	23,994	26,478	31,637	39,203	46,615	51,230	46,374	41,959	45,357	30,774	15,914 -	422,812
	8 After Tax Return on Equity	952,863	948,032	942,729	935,934	929,386	923,714	917,294	915,764	916,695	912,714	913,585	914,384	11,123,093
	9 Income Tax Component	672,352	668,943	665,201	660,407	655,786	651,784	647,254	646,175	646,831	644,022	644,637	645,201	7,848,592
	10 Interest Expense Component	429,558	427,379	424,989	421,926	418,974	416,417	413,522	412,833	413,253	411,458	411,850	412,211	5,014,368
	11 Total Return on Average Rate Base	2,054,773	2,044,355	2,032,919	2,018,267	2,004,146	1,991,914	1,978,070	1,974,772	1,976,779	1,968,194	1,970,071	1,971,795	23,986,053
	12 Operation & Maintenance Expense 13 Depreciation Expense	384,623 880,017	160,938 882,195	211,084 883,948	119,730 884,364	305,724 884,981	241,677 886,362	381,048 887,066	296,387 892,209	239,297 899,561	245,925 902,471	251,269 910,240	131,331 917,980	2,969,034 10,711,396
	14 Property Tax	000,017	002,195	003,940	004,304	004,901	000,302	007,000	092,209	099,501	902,471	910,240	917,900	10,711,396
	15 Revenue Requirements	3,342,689	3,111,482	3,154,429	3,053,999	3,234,054	3,166,568	3,297,414	3,209,741	3,157,596	3,161,947	3,162,355	3,037,020	38,089,295
D	Stand Alone Taxable Income or Loss (NOL)													
	1 Revenue Requirements	3,342,689 1,301,422	3,111,482 1,257,090	3,154,429 1,202,925	3,053,999 937,150	3,234,054	3,166,568	3,297,414 1,091,622	3,209,741 2,199,889	3,157,596	3,161,947 1,141,718	3,162,355	3,037,020 1,174,719	38,089,295
	2 Tax Depreciation 3 Property Tax	1,301,422	1,257,090	1,202,925	937,150	1,252,489	1,123,451	1,091,022	2,199,009	1,638,517	1,141,710	2,744,251	1,174,719	17,065,243
	4 Interest Expense (including on CWIP)	434,423	432,396	430,524	428,540	427,169	426,162	424,232	422,528	422,024	420,940	418,284	415,538	5,102,759
	5 Operation & Maintenance Expense	384,623	160,938	211,084	119,730	305,724	241,677	381,048	296,387	239,297	245,925	251,269	131,331	2,969,034
	6 Total Tax Deduction	2,120,468	1,850,424	1,844,533	1,485,420	1,985,382	1,791,290	1,896,902	2,918,803	2,299,838	1,808,582	3,413,804	1,721,587	25,137,035
	7 Taxable Income (NOL)	1,222,221	1,261,059	1,309,895	1,568,579	1,248,672	1,375,278	1,400,512	290,938	857,758	1,353,365	(251,450)	1,315,433	12,952,260
	8 Current tax expense	505,632	521,700	541,904	648,921	516,576	568,952	579,391	120,362	354,854	559,887	(104,025)	544,194	5,358,348
	9 Taxable Income (NOL) 10 NOL carryforward	1,222,221 (89,132,888)	1,261,059 (87,929,077)	1,309,895 (86,686,996)	1,568,579 (85,398,044)	1,248,672 (83,854,488)	1,375,278 (82,636,824)	1,400,512 (81,298,416)	290,938 (79,938,424)	857,758 (79,569,300)	1,353,365 (78,744,729)	(251,450) (77,427,240)	1,315,433 (77,562,374)	
	11 Taxable Income after NOL carryforward	(87,910,667)	(86,668,018)	(85,377,101)	(83,829,465)	(82,605,816)	(81,261,545)	(79,897,904)	(79,541,009)	(78,711,542)	(77,391,365)	(77,550,988)	(76,246,941)	
	Traxable meeme after Nee earlyforward	, , , ,		, , , ,				(10,001,004)	, , , ,	, , , ,		, , , ,		
	12 Expected stand alone ADITA NOL	36,376,259	35,862,410	35,329,171	34,690,602	34,186,854	33,633,154	33,070,526	32,917,819	32,576,695	32,031,649	32,087,554	31,548,567	31,548,567
E	Summary: Revenue Requirements													
	1 Revenue Requirement: Consolidated	2,971,858	2,745,774	2,794,021	2,699,524	2,885,362	2,823,230	2,959,727	2,875,675	2,826,030	2,834,867	2,837,751	2,714,863	33,968,682
	2 Revenue Requirement: Stand Alone	3,342,689	3,111,482	3,154,429	3,053,999	3,234,054	3,166,568	3,297,414	3,209,741	3,157,596	3,161,947	3,162,355	3,037,020	38,089,295
	3 Revenue Requirement: Rider 1/	2,971,858	2,745,774	2,794,021	2,699,524	2,885,362	2,823,230	2,959,727	2,875,675	2,826,030	2,834,867	2,837,751	2,714,863	33,968,682
	4 Revenue Credit for Basin's Share	(586,884)	(544,806)	(553,942)	(536,402)	(571,267)	(559,727)	(585,266)	(569,604)	(560,446)	(562,161)	(562,667)	(539,605)	(6,732,778)
	5 BEC 4 Base Rate Revenue Credit	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(151,655)	(1,819,866)
	6 Total Net Revenue Requirements	2,233,319	2,049,313	2,088,423	2,011,466	2,162,439	2,111,847	2,222,806	2,154,416	2,113,928	2,121,050	2,123,428	2,023,602	25,416,038
	7 MN Jurisdictional Allocator 2/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
	8 MN Jurisdictional Revenue Requirement	1,854,615	1,701,811	1,734,289	1,670,382	1,795,754	1,753,741	1,845,885	1,789,091	1,755,469	1,761,384	1,763,359	1,680,460	21,106,241

^{1/} Lesser of E1 or E2.

^{2/} Refer to Exhibit B-5, page 1.

Minnesota Power BEC4 Rider 2017 Revenue Requirements: Total Sum All Projects

2017 Revenue Requirements

Ash Pone Section	d and Basin Revenue Credit only Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total Year Dec-17
Α	Book Basis of Property													
	0 CWIP (net of contra AFDC & internal costs)	1,739,248	1,707,207	1,711,715	1,713,734	1,711,238	1,711,258	1,712,104	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813
	1 Plant in Service (net of contra AFDC & Interr	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Tax Basis of Property													
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
	7 Income Tax Rate	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-
:	Revenue Requirements													
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP	17,431	17,448	17,308	17,341	17,339	17,326	17,331	17,364	17,393	17,393	17,393	17,393	208,460
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	
	7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	-	-
	8 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	-	-
	9 Interest Expense Component													
	10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	13 Property Tax													
	14 Revenue Requirements	17,431	17,448	17,308	17,341	17,339	17,326	17,331	17,364	17,393	17,393	17,393	17,393	208,460
	Summary: Revenue Requirements													
	1 Revenue Requirement	17,431	17,448	17,308	17,341	17,339	17,326	17,331	17,364	17,393	17,393	17,393	17,393	208,460
	Revenue Credit for Basin's Share	(560,117)	(562,055)	(574,235)	(522,497)	(560,789)	(540,015)	(543,906)	(550,483)	(554,536)	(521,321)	(536,008)	(527,216)	(6,553,178
	3 Total Net Revenue Requirements	(542,686)	(544,608)	(556,927)	(505,155)	(543,450)	(522,689)	(526,576)	(533,119)	(537,143)	(503,928)	(518,616)	(509,823)	(6,344,719
	4 MN Jurisdictional Allocator 1/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
	5 MN Jurisdictional Revenue Requirement	(450,662)	(452,258)	(462,489)	(419,496)	(451,297)	(434,057)	(437,284)	(442,718)	(446,060)	(418,477)	(430,674)	(423,373)	(5,268,845
	o iviin outioulciiotiai nevetiue nequitettietti	(400,002)	(402,200)	(402,409)	(413,430)	(401,297)	(434,037)	(431,204)	(442,110)	(440,000)	(410,477)	(430,074)	(423,313)	(3,200,02

^{1/} Refer to Exhibit B-5, page 1.

Minnesota Power BEC4 Rider 2018 Revenue Requirements: Total Sum All Projects

2018 Revenue Requirements

Ash Pond Section	d and Basin Revenue Credit only 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	Total Year Dec-18
Α	Book Basis of Property													
^	CWIP (net of contra AFDC & internal costs) 1/	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813
	1 Plant in Service (net of contra AFDC & Internal costs)	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Total Accumulated Depreciation	_	_	_	_	_	_	_	_	_	_	_	_	_
	3 Net Plant	-	_	_	_	_	_	_	_	_	_	_	_	_
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
В	Tax Basis of Property													
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
	7 Income Tax Rate	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.37%	41.379
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-	-
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-
С	Revenue Requirements													
-	1 Net Plant	-	-	-	_	_	-	-	_	-	-	-	_	-
	2 Less: ADITL - Def Taxes	_	-	-	_	-	-	-	-	-	-	_	-	-
	3 Rate Base	_	-	-	-	-	-	-	-	-	-	_	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP 1/	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	15,140	206,462
	6 Return on Average Rate Base													
	7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	-	-
	8 Income Tax Component	=	-	-	-	-	-	-	-	-	-	-	-	-
	9 Interest Expense Component													
	10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	13 Property Tax													
	14 Revenue Requirements	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	15,140	206,462
_	O													
D	Summary: Revenue Requirements	47.000	47.000	47.000	47.000	47.000	47.000	47.000	47.000	47.000	47.000	47.000	45.440	000 100
	1 Revenue Requirement	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	15,140	206,462
	2 Revenue Credit for Basin's Share 2/	(530,383)	(524,500)	(526,454)	(515,347)	(522,525)	(519,255)	(518,597)	(516,632)	(513,362)	(499,642)	(509,433)	(395,293)	(6,091,42
	3 Total Net Revenue Requirements	(512,990)	(507,107)	(509,061)	(497,954)	(505,133)	(501,862)	(501,204)	(499,239)	(495,969)	(482,249)	(492,040)	(380,152)	(5,884,96
	4 MN Jurisdictional Allocator 3/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.8436	(4.000.05
	5 MN Jurisdictional Revenue Requirement	(426,002)	(421,117)	(422,740)	(413,516)	(419,477)	(416,761)	(416,215)	(414,583)	(411,867)	(400,474)	(408,605)	(320,697)	(4,892,05

^{1/} Refer to Exhibit B-2, page 1, line A0.

^{2/} Refer to Exhibit B-2, sum lines C11 on pages 2 -5.

^{3/} Refer to Exhibit B-5, pages 1 and 4.

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

Exhibit B-2 Page 1 of 5

Boswell Ash Pond Phase 1 Project D # 106072 In Service 12/31/2019

Section	n 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
Α	Book Basis of Property												
	0 CWIP (net of contra AFUDC & internal costs) 1/	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813
	1 Plant in Service (net of contra AFUDC & Internal costs) 1/												
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	5 Book Depreciation Rate (BEC4, life 2050)												
В	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	-
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Bonus Depreciation												
	5 Tax Depreciation Rate 12/2019 Plant 2/												
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	-
	7 Income Tax Rate 3/	41 37%	41.37%	41.37%	41 37%	41.37%	41.37%	41.37%	41.37%	41 37%	41.37%	41.37%	41 37%
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-
	Revenue Requirements												
С	1 Net Plant												
C	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate base	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP 4/	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	15,140
	6 Return on Average Rate Base 4/												
	7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	-
	8 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	-
	9 Interest Expense Component												
	10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	=	-	=	-	-	-	-	=	-	-	-	-
	13 Property Tax 5/												
	14 Revenue Requirements	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	17,393	15,140

^{1/} Refer to Exhibit B-3.

^{2/} Refer to Exhibit B-6

^{3/} Minnesota Composite Income Tax Rate.

^{4/} Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations. For pre-tax rate of returns, refer to Exhibit B-4.

^{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 Page 2 of 5

BEC 4 Environmental Retrofit: Basin Proiect D # 103698 In Service 12/31/2015

Section	n 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
Α	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	33,538,444
	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	189,889,419
	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	581,843
	5 Book Depreciation Rate (Life to 2035/2050) /6	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.26%
В	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	117,238,680
	7 Income Tax Rate 3/	41.37%	41.37%	41.37%	41.37%	41.37%	41 37%	41 37%	41 37%	41.37%	41.37%	41.37%	41.37%
	8 Accumulated Deferred Income Tax Liability	47,884,164	47,927,169	47,970,174	48,013,178	48,056,183	48,099,188	48,142,193	48,185,198	48,228,202	48,271,207	48,314,212	48,501,642
	9 Deferred Tax Expense debit / (Credit)	43,005	43,005	43,005	43,005	43,005	43,005	43,005	43,005	43,005	43,005	43,005	187,430
С	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	189.889.419
	2 Less: ADITL - Def Taxes	(47,884,164)	(47,927,169)	(47,970,174)	(48,013,178)	(48,056,183)	(48,099,188)	(48,142,193)	(48,185,198)	(48,228,202)	(48,271,207)	(48,314,212)	(48,501,642)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	151,896,592	150,922,638	149,948,684	148,974,730	148,000,775	147,026,821	146,052,867	145,078,913	144,104,959	143,131,004	142,157,050	141,387,777
	4 Average Rate Base	152,383,569	151,409,615	150,435,661	149,461,707	148,487,753	147,513,798	146,539,844	145,565,890	144,591,936	143,617,982	142,644,027	141,772,414
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	299,045	297,134	295,222	293,311	291,400	289,488	287,577	285,666	283,754	281,843	279,932	233,541
	7 Operation & Maintenance Expense	40,490	36,572	40,490	31,347	40,490	39,184	40,490	40,490	39,184	27,429	39,184	40,490
	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	108,747
	9 Property Tax 5/				<u>-</u>			<u>-</u>			<u>-</u>		<u>-</u>
	10 Revenue Requirements - Basin	513,530	507,700	509,707	498,653	505,885	502,667	502,062	500,151	496,933	483,266	493,110	382,778
	11 Revenue Credit for Basin's Share	(513,530)	(507,700)	(509,707)	(498,653)	(505,885)	(502,667)	(502,062)	(500,151)	(496,933)	(483,266)	(493,110)	(382,778)

^{1/} Refer to Exhibit B-3, page 22-27.

2/ Refer to Exhibit B-6 for tax depreciation rates. [TRADE SECRET DATA EXCISED]

^{3/} Minnesota Composite Income Tax Rate. 4/ Revenue credit for Basin's

B-3, pages 22-27, for Basin's CWIP calculations.

share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/30/18, and then at 10.5765%. Refer to Exhibit

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

^{6/} Life to 2035 until 11/30/2018, then to 2050 coincident with Final Rates implementation in Rate Case Docket E015/GR-16-664.

Minnesota Power BEC4 Rider Basin Revenue Requirements: Boswell Storm Water Project

Exhibit B-2 Page 3 of 5

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

A Book Basis of Property 0 CWIP 1/	
	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	424,557 434,847
	3,526,770 3,516,480
4 Total Depreciation 17.330 17.330 17.330 17.330 17.330 17.330 17.330 17.330 17.330	17,330 10,290
5 Book Depreciation Rate (Life to 2035/2050) /6 0.44% 0.44% 0.44% 0.44% 0.44% 0.44% 0.44% 0.44% 0.44% 0.44% 0.44%	0.44% 0 26%
B Tax Basis of Property	
	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 2,075,349
7 Income Tax Rate 3/ 41.37% 41.37% 41.37% 41.37% 41.37% 41.37% 41.37% 41.37% 41.37% 41.37%	41.37% 41 37%
8 Accumulated Deferred Income Tax Liability 850,295 850,783 851,271 851,758 852,246 852,734 853,221 853,709 854,196 854,684	855,172 858,572
9 Deferred Tax Expense debit / (Credit) 488 488 488 488 488 488 488 488 488 48	488 3,400
C Revenue Requirements - Basin	
	3,526,770 3,516,480
2 Less: ADITL - Def Taxes (850,295) (850,783) (851,781) (851,788) (852,246) (852,734) (853,799) (854,196) (854,196)	(855,172) (858,572)
	2,671,598 2,657,908
	2,680,507 2,664,753
5 Current Return on CWIP 4/	
6 Return on Average Rate Base 4/ 5,610 5,575 5,540 5,505 5,470 5,435 5,400 5,365 5,330 5,295	5,260 4,390
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 1,923
9 Property Tax 5/	<u> </u>
10 Revenue Requirements - Basin 8,849 8,814 8,779 8,744 8,709 8,674 8,639 8,604 8,569 8,534	8,499 6,313
11 Revenue Credit for Basin's Share (8,849) (8,814) (8,779) (8,744) (8,709) (8,674) (8,639) (8,604) (8,569) (8,534)	(8,499) (6,313)

^{1/} Refer to Exhibit B-3, page 22-27.

3/ Minnesota Composite Income Tax Rate.

[TRADE SECRET DATA EXCISED]

^{2/} Refer to Exhibit B-6.

^{4/} Revenue credit for Basin's share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/30/18, and then at 10 5765%. Refer to Exhibit B-3, pages 22-27, for Basin's CW P 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.

^{6/} Life to 2035 until 11/30/2018, then to 2050 coincident with Final Rates implementation in Rate Case Docket E015/GR-16-664.

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

Exhibit B-2 Page 4 of 5

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

Section	n 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
Α	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	246,715
	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	1,856,530
	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	5,477
	5 Book Depreciation Rate (Life to 2035/2050) /6	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.26%
В	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	1,089,459
	7 Income Tax Rate 3/	41.37%	41.37%	41.37%	41.37%	41.37%	41 37%	41 37%	41 37%	41.37%	41.37%	41.37%	41.37%
	8 Accumulated Deferred Income Tax Liability	444,396	444,846	445,297	445,747	446,197	446,648	447,098	447,548	447,999	448,449	448,899	450,709
	9 Deferred Tax Expense debit / (Credit)	450	450	450	450	450	450	450	450	450	450	450	1,810
С	Revenue Requirements - Basin 4/												
C	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	1.856.530
	2 Less: ADITL - Def Taxes	(444,396)	(444,846)	(445,297)	(445,747)	(446,197)	(446,648)	(447,098)	(447,548)	(447,999)	(448,449)	(448,899)	(450,709)
	3 Plus: ADITA - NOL	(444,396)	(444,046)	(445,297)	(445,747)	(446,197)	(440,040)	(447,096)	(447,546)	(447,999)	(440,449)	(440,099)	(450,709)
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	1,505,246	1.496.032	1.486.819	1.477.605	1.468.391	1,459,177	1.449.963	1.440.749	1,431,535	1,422,321	1,413,108	1.405.820
	4 Average Rate Base	1,509,853	1,500,639	1,491,426	1,482,212	1,472,998	1,463,784	1,454,570	1,445,356	1,436,142	1,426,928	1,417,714	1,409,464
	5 Current Return on CWIP 4/												
	6 Return on Average Rate Base 4/	2,963	2,945	2,927	2,909	2,891	2,873	2,855	2,836	2,818	2,800	2,782	2,322
	7 Operation & Maintenance Expense	2,903	2,943	2,921	2,909	2,091	2,073	2,833	2,030	2,010	2,800	2,702	2,322
	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	1,024
	9 Property Tax 5/	<u>-</u>				<u> </u>		<u> </u>	<u>-</u>		<u> </u>	<u>-</u>	
	10 Revenue Requirements - Basin	4,601	4,583	4,565	4,547	4,529	4,511	4,492	4,474	4,456	4,438	4,420	3,345
	11 Revenue Credit for Basin's Share	(4,601)	(4,583)	(4,565)	(4,547)	(4,529)	(4,511)	(4,492)	(4,474)	(4,456)	(4,438)	(4,420)	(3,345)

^{1/} Refer to Exhibit B-3, page 22-27.

^{2/} Refer to Exhibit B-6.

^{3/} Minnesota Composite Income Tax Rate. 4/ Revenue credit for Basin's

[[]TRADE SECRET DATA EXCISED]

share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/30/18, and then at 10.5765%. Refer to Exhibit

B-3, pages 22-27, for Basin's CWIP calculations.

^{5/} Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.
6/ Life to 2035 until 11/30/2018, then to 2050 coincident with Final Rates implementation in Rate Case Docket E015/GR-16-664.

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

Exhibit B-2 Page 5 of 5

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

Section	ı 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
Α	Book Basis of Property												
	0 CWIP 1/	1,734,043	1,734,048	1,734,053	1,734,058	1,734,063	1,734,068	1,734,073	1,734,078	1,734,083	1,734,088	1,734,093	1,734,098
	1 Plant in Service												
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	5 Book Depreciation Rate (Life to 2035/2050) /6												
В	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/	41.37%	41.37%	41.37%	41.37%	41.37%	41 37%	41 37%	41 37%	41.37%	41.37%	41.37%	41.37%
	8 Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-
С	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/	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	2,857
	6 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-
	9 Property Tax 5/	<u>-</u>	<u>-</u>	<u> </u>		<u> </u>		<u> </u>					
	10 Revenue Requirements - Basin	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	2,857
	11 Revenue Credit for Basin's Share	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(3,403)	(2,857)

^{1/} Refer to Exhibit B-3, page 23-28.

[TRADE SECRET DATA EXCISED]

share starts 5/1/15 for 5 years ending 4/31/20 calculated with pre-tax ROR of 12.6% until 11/30/18, and then at 10.5765%. Refer to Exhibit

^{2/} Refer to Exhibit B-6.

^{3/} Minnesota Composite Income Tax Rate. 4/ Revenue credit for Basin's

B-3, pages 22-27, for Basin's CWIP calculations.

^{5/} Project assumed to qualify for 100% property tax pollution control exemption per Tax Department. 6/ Life to 2035 until 11/30/2018, then to 2050 coincident with Final Rates implementation in Rate Case Docket E015/GR-16-664.

BEC 4 Environmental Retrofit In Service 12/22/2015	Total <u>Project</u> 214,344,054	to date Jan-13	Feb-13	<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>	<u>Sep-13</u>	Oct-13 Start Return on CWIP	<u>Nov-13</u>	<u>Dec-13</u>	<u>Jan-14</u>	<u>Feb-14</u>	<u>Mar-14</u>	<u>Apr-14</u>	<u>May-14</u>	<u>Jun-14</u>	<u>Jul-14</u>
BOM CapEx Less Internal Cost	219,220,355 -8,077,521	0 20,189,572 -923,580 1,890,832	21,039,943 2,439,150 -86,728	23,516,218 2,594,454 -67,342 144,919	26,180,685 3,961,992 -84,473 163,136	30,213,278 3,061,934 -117,140 182,679	33,332,023 1,052,045 -79,756 199,828	2,124,604 -95,645	36,721,832 3,867,255 -105,757 225,340	40,697,760 3,425,444 -97,437 245,626	4,561,805 -89,439	48,732,179 4,719,711 -112,986 15,400	53,338,904 5,753,924 -193,104	58,899,724 1,807,357 -68,716 17,454	60,638,366 6,752,543 -96,609	67,294,300 7,196,027 -112,878 18,972	74,377,448 9,743,271 -117,852 19,907	84,002,868 7,845,283 -173,555	91,674,596 7,601,922 -119,708 22,939	99,156,809 5,701,139 -119,683
AFUDC Less AFUDC on Internal Cost	4,207,508 -1,006,288	-116,881	130,908 -7,056	-7,563	-8.063	-8,727	-9,669	208,650 -10,247	-10,910	-11,580	14,567 -14,567	-15,400	16,892 -16,892	-17,454	18,124 -18,124	-18,972	-19,907	21,082 -21,082	-22,939	23,234
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		21,039,943	23,516,218	26,180,685	30,213,278	33,332,023	34,494,470	36,721,832	40,697,760	44,259,813	48,732,179 218,312 154,044 98,417 470,772	53,338,904 239,626 169,083 108,025 516,735	58,899,724 263,496 185,926 118,786 568,208	60,638,366 280,633 198,018 126,511 605,162	67,294,300 300,340 211,924 135,395 647,659	74,377,448 332,594 234,683 149,936 717,213	84,002,868 371,820 262,361 167,619 801,800	91,674,596 412,428 291,014 185,925 889,367	99,156,809 448,004 316,117 201,963 966,084	104,738,266 478,673 337,757 215,789 1,032,219
BEC 4 Storm Water In Service 11/1/2016 BOM	3,776,593	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC	3,940,234 -169,768 11,093																			
Less AFUDC on Internal Cost	-4,966																			
Return on CWIP Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Haul Improve In Service 8/31/2016	2,079,250																			
BOM CapEx	2,098,287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	-22,740																			
AFUDC	4,958																			
Less AFUDC on Internal Cost EOM	-1,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		Ü	Ü	Ü	Ū	Ü	Ü	v	Ū	Ü	v	Ü	v	v	Ü	Ü	Ü	Ü	Ü	Ü
BEC 4 Ash Phase 1 CWIP 12/31/19 BOM	1,717,813	0	0	423	425	427	430	3,701	3,722	4,079	4.101	4.661	8.095	15,085	15,085	15.085	16,312	16,319	16,319	16,320
CapEx	1,731,953	0	422	423 0	425 0	0	3,266	3,701	3,722	4,079	4,101 560	3,436	6,994	15,085	15,085	1,228	312	0	0	0
Less Internal Cost	-14,340	0	0	0	0	0	-6	0	0	0	0	-2	-4	0	0	-1	-306	0	0	0
AFUDC Less AFUDC on Internal Cost	2,070 -1.871	0	1	2	2	2	11	20 0	21 0	22 0	0	0	0	0	0	0	1 -1	3 -2	3 -2	3
EOM	1,071	0	423	425	427	430	3,701	3,722	4,079	4,101	4,661	8,095	15,085	15,085	15,085	16,312	16,319	16,319	16,320	16,320
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component											21 15	30 21	54 38 <u>25</u>	71 50	71 50 32	74 52 <u>33</u>	77 54 <u>35</u>	77 54 <u>35</u>	77 54 <u>35</u>	77 54
Total Return on CWIP											<u>9</u> 44	<u>14</u> 65	117	<u>32</u> 153	153	159	165	165	165	<u>35</u> 165
BEC 4 Ash Phase 2 In Service 12/31/2019 BOM	60,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC	60,800 0 0																			
Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Interest Expense Component Total Return on CWIP

BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	to date Jan-13	Feb-13	<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>	<u>Sep-13</u>	Oct-13	<u>Nov-13</u>	<u>Dec-13</u>	<u>Jan-14</u>	<u>Feb-14</u>	<u>Mar-14</u>	<u>Apr-14</u>	<u>May-14</u>	<u>Jun-14</u>	<u>Jul-14</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0 0																			
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0																			
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0																			
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																			
BOM CapEx	235,331,526	20,189,572	21,039,943	23,516,640 2,594,454	26,181,110 3,961,992	30,213,705 3,061,934	33,332,452 1,055,311	34,498,171 2,124,604	36,725,554 3,867,591	40,701,839 3,425,444	44,263,914 4,562,365	48,736,841 4,723,148	53,347,000 5,760,918	58,914,810 1,807,357	60,653,451 6,752,543	67,309,385 7,197,255	74,393,761 9,743,583	84,019,187 7,845,283	91,690,915 7 ,601,922	99,173,129 5,701,139
Less Internal Cost AFUDC Less AFUDC on Internal Cost	-8,284,369 4,225,629 -1,014,379	-923,580 1,890,832 -116,881	-86,728 130,909 -7,056	-67,342 144,921 -7,563	-84,473 163,139 -8,063	-117,140 182,681 -8,727	-79,762 199,839 -9,669	-95,645 208,671 -10,247	-105,757 225,361 -10,910	-97,437 245,648 -11,580	-89,439 14,567 -14,567	-112,989 15,400 -15,400	-193,108 16,892 -16,892	-68,716 17,454 -17,454	-96,609 18,124 -18,124	-112,879 18,972 -18,972	-118,158 19,909 -19,908	-173,555 21,084 -21,084	-119,708 22,942 -22,941	-119,683 23,237 -23,236
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	21,039,943 0 0 0 0	23,516,640 0 0 0	26,181,110 0 0 0 0	30,213,705 0 0 0 0	33,332,452 0 0 0 0	34,498,171 0 0 0 0	36,725,554 0 0 0 0		44,263,914 0 0 0 0	48,736,841 218,332 154,058 98,426 470,816	53,347,000 239,656 169,104 108,039 516,799	58,914,810 263,551 185,964 118,810 568,325	60,653,451 280,703 198,068 126,543 605,314	67,309,385 300,411 211,974 135,427 647,812	74,393,761 332,668 234,735 149,969 717,372	84,019,187 371,897 262,415 167,654 801,966	91,690,915 412,504 291,068 185,960 889,532	99,173,129 448,080 316,171 201,998 966,249	478,749 337,811 215,823 1,032,384

BEC 4 Environmental Retrofit	Total <u>Project</u> 214,344,054	<u>Aug-14</u>	Sep-14	Oct-14	<u>Nov-14</u>	<u>Dec-14</u>	<u>Jan-15</u>	Feb-15	<u>Mar-15</u>	<u>Apr-15</u>	<u>May-15</u>	<u>Jun-15</u>	<u>Jul-15</u>	<u>Aug-15</u>	<u>Sep-15</u>	Oct-15	<u>Nov-15</u>
In Service 12/22/2015 BOM		104,738,266	110,556,751	116,118,882	125,338,194	131,402,729	140,798,110	144,899,471	149,457,555	157,809,889	164,934,241	171,873,115	178,666,367	185,407,601	191,566,271	199,522,302	203,838,664
CapEx	219,220,355	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	7,296,940	7,050,384	7,080,626	6,590,910	8,414,100	5,022,424	3,729,561
Less Internal Cost	-8,077,521	-113,297	-126,334	-173,872	-91,955	-102,500	-202,158	-121,873	-138,749	-203,971	-358,066	-257,132	-339,393	-432,239	-458,070	-706,061	-317,591
AFUDC Less AFUDC on Internal Cost	4,207,508	24,178	25,149	26,365	27,442	29,496	29,047	30,341	31,382	32,751	34,996	39,448	39,836	42,907	46,436	51,059	55,133
EOM	-1,006,288	-24,178 110,556,751	-25,149 116,118,882	-26,365 125,338,194	-27,442 131,402,729	-29,496 140,798,110	-29,047 144,899,471	-30,341 149,457,555	-31,382 157,809,889	-32,751 164,934,241	-34,996 171,873,115	-39,448 178,666,367	-39,836 185,407,601	-42,907 191,566,271	-46,436 199,522,302	-51,059 203,838,664	-55,133 207,250,635
Return on CWIP		110,000,701	110,110,002	120,000,104	101,402,723	140,730,110	144,055,471	140,407,000	107,000,000	104,354,241	17 1,070,110	170,000,001	100,407,001	131,300,271	100,022,002	200,000,004	201,200,000
After Tax Return on Equity		505,436	532,153	566,855	602,736	639,030	670,716	691,045	721,354	757,688	790,703	822,941	854,715	885,000	918,136	946,947	965,090
Income Tax Component		356,642	375,494	399,980	425,298	450,907	473,265	487,610	508,996	534,634	557,930	580,677	603,098	624,467	647,848	668,178	680,980
Interest Expense Component Total Return on CWIP		227,854 1,089,931	239,898 1,147,545	255,542 1,222,376	271,717 1,299,751	288,079 1,378,017	302,363 1,446,344	311,528 1,490,182	325,191 1,555,541	341,571 1,633,892	356,454 1,705,087	370,988 1,774,606	385,312 1,843,124	398,964 1,908,430	413,902 1,979,886	426,890 2,042,015	435,070 2,081,140
Total Hotalii oii oviii		1,000,001	1,111,010	1,222,010	1,200,101	1,070,011	1,110,011	1,100,102	1,000,011	1,000,002	1,700,007	1,111,000	1,010,121	1,000,100	1,010,000	2,012,010	2,001,110
BEC 4 Storm Water	3,776,593																
In Service 11/1/2016																	
BOM	3.940.234	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost	-169.768																
AFUDC	11,093																
Less AFUDC on Internal Cost	-4,966																
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
DEC 4 Ash Have become	2,079,250																
BEC 4 Ash Haul Improve In Service 8/31/2016	2,079,250																
BOM		0	0	0	0	0	0	0	0	0	0	6	5	70,302	241,737	1,261,624	1,275,687
CapEx	2,098,287										54	0	70,912	172,030	1,021,191	15,139	248,042
Less Internal Cost	-22,740										-48	0	-616	-597	-1,307	-1,081	-2,091
AFUDC Less AFUDC on Internal Cost	4,958 -1,255										0	0	3 -2	-6	15 -12	25 -20	37 -30
EOM	-1,233	0	0	0	0	0	0	0	0	0	6	5	70,302	241,737	1,261,624	1,275,687	1,521,645
Return on CWIP																	
After Tax Return on Equity											0	0	165	733	3,529	5,957	6,567
Income Tax Component Interest Expense Component											0	0 <u>0</u>	116 <u>74</u>	517 330	2,490 1,591	4,203 2,685	4,634 2,961
Total Return on CWIP											<u>u</u> 0	<u>u</u> 0	356	1.580	7,611	12.845	14,161
Total Hotalii oii oviii											· ·	Ü	000	1,000	7,011	12,010	,
BEC 4 Ash Phase 1	1,717,813																
CWIP 12/31/19																	
вом	4 704 050	16,320	16,847	17,392	18,617	26,887	41,389	44,935	47,489	102,779	183,289	221,993	277,310	328,821	350,760	374,492	387,937
CapEx Less Internal Cost	1,731,953 -14,340	527 -1	545 0	1,373 -149	8,275 -6	14,663 -162	3,551 -6	2,867 -314	55,515 -226	80,872 -365	40,610 -1,909	58,513 -3,204	51,673 -172	22,627 -699	24,124 -405	13,459 -27	32,677 -57
AFUDC	2,070	3	3	3	4	5	5	-514	9	11	20	41	54	57	62	64	64
Less AFUDC on Internal Cost	-1,871	-2	-2	-3	-3	-4	-4	-5	-7	-9	-16	-33	-44	-46	-50	-51	-52
EOM		16,847	17,392	18,617	26,887	41,389	44,935	47,489	102,779	183,289	221,993	277,310	328,821	350,760	374,492	387,937	420,569
Return on CWIP After Tax Return on Equity		78	80	85	107	160	203	217	353	672	951	1,172	1,423	1,595	1,703	1,790	1,898
Income Tax Component		55	57	60	75	113	143	153	249	474	671	827	1,004	1,126	1,201	1,263	1,339
Interest Expense Component		<u>35</u>	<u>36</u>	38	<u>48</u>	<u>72</u>	<u>91</u>	<u>98</u>	<u>159</u>	303	429	<u>528</u>	641	<u>719</u>	768	807	<u>856</u>
Total Return on CWIP		168	173	182	230	346	437	468	761	1,448	2,052	2,528	3,069	3,440	3,672	3,860	4,093
BEC 4 Ash Phase 2	60,800																
In Service 12/31/2019	22,300																
вом	00.555	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost	60,800 0																
AFUDC	0																
Less AFUDC on Internal Cost	Ö																
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP																	

Return on CWIP
After Tax Return on Equity
Income Tax Component
Interest Expense Component
Total Return on CWIP

	Total <u>Project</u>	<u>Aug-14</u>	<u>Sep-14</u>	Oct-14	<u>Nov-14</u>	<u>Dec-14</u>	<u>Jan-15</u>	<u>Feb-15</u>	<u>Mar-15</u>	<u>Apr-15</u>	May-15	<u>Jun-15</u>	<u>Jul-15</u>	<u>Aug-15</u>	<u>Sep-15</u>	Oct-15	<u>Nov-15</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC	2,160,560 0 0	U	U	U	U	U	U	0	0	0	0	U	0	0	0	U	0
Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0																
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0					J		, and the second	J	J	, and the second		J	J		J	
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	v	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																
вом		104,754,586	110,573,598	116,136,274	125,356,812	131,429,616	140,839,499	144,944,406	149,505,044	157,912,668	165,117,529	172,095,114	178,943,683	185,806,724	192,158,769	201,158,418	205,502,288
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	235,331,526 -8,284,369 4,225,629 -1,014,379	5,932,310 -113,298 24,181 -24,180	5,689,010 -126,334 25,152 -25,151	9,394,557 -174,020 26,369 -26,368	6,164,765 -91,961 27,446 -27,446	9,512,545 -102,662 29,501 -29,500	4,307,070 -202,164 29,052 -29,051	4,682,825 -122,187 30,347 -30,346	8,546,598 -138,975 31,390 -31,389	7,409,195 -204,336 32,762 -32,760	7,337,604 -360,023 35,016 -35,012	7,108,896 -260,336 39,489 -39,481	7,203,212 -340,181 39,893 -39,882	6,785,567 -433,536 42,972 -42,959	9,459,416 -459,782 46,513 -46,498	5,051,022 -707,169 51,147 -51,130	4,010,280 -319,739 55,235 -55,215

149,505,044

691,262

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791,654

558,601

356,883

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178,943,683

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581,505 371,516 1,777,134 185,806,724

856,303

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192,158,769

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954,694

673,644 430,383

2,058,720

923,368

651,540 416,261

1,991,168

209,192,849

973,556

686,953

438,886

2,099,394

144,944,406

670,918

473,408 302,455

1,446,781

EOM

Return on CWIP After Tax Return on Equity

Total Return on CWIP

Income Tax Component Interest Expense Component 110,573,598

505,513

356,697 227,889

1,090,099

17,429,592 12,298,533 7,815,928

37,544,053

116,136,274

532,234

375,551 239,935

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125,356,812 131,429,616

602,843

425,373 271,766

1,299,981

566,939

400,039 255,580

1,222,559

140,839,499

639,190

451,021 288,151

1,378,362

BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

BEC 4 Environmental Retrofit	Total <u>Project</u> 214,344,054	Dec-15 In-Service	<u>Jan-16</u>	<u>Feb-16</u>	<u>Mar-16</u>	<u>Apr-16</u>	<u>May-16</u>	<u>Jun-16</u>	<u>Jul-16</u>	<u>Aug-16</u>	<u>Sep-16</u>	Oct-16	<u>Nov-16</u>	<u>Dec-16</u>	<u>Jan-17</u>	<u>Feb-17</u>	<u>Mar-17</u>	<u>Apr-17</u>
In Service 12/22/2015 BOM		12/31/2015 207,250,635	210,919,585	211.488.706	211.965.111	212.330.033	212.164.859	212,626,202	212,827,601	212.964.025	213,197,792	214.394.314	214.594.803	214,173,023	214.354.351	214.349.968	214.345.986	
CapEx	219,220,355	4,018,617	689,993	588,281	428,508	-69,348	511,932	242,935	175,015	294,957	1,241,364	231,997	-398,180	193,937	21,214	-3,992	-1,936	
Less Internal Cost	-8,077,521	-349,666	-120,872	-111,876	-63,586	-95,825	-50,588	-41,537	-38,591	-61,190	-44,842	-31,508	-23,600	-12,609	-25,597	10	4	
AFUDC	4,207,508	60,874	0	432	897	995	-2,304	43	94	-157	0	0	0	181	0	0	0	
Less AFUDC on Internal Cost	-1,006,288	-60,874	0	-432	-897	-995	2,304	-43	-94	157	0	0	0	-181	0	0	0	
EOM Return on CWIP		210,919,585	211,488,706	211,965,111	212,330,033	212,164,859	212,626,202	212,827,601	212,964,025	213,197,792	214,394,314	214,594,803	214,173,023	214,354,351	214,349,968	214,345,986	214,344,054	
After Tax Return on Equity		486.550																
Income Tax Component		343,316																
Interest Expense Component		219,340																
Total Return on CWIP		1,049,206																
BEC 4 Storm Water In Service 11/1/2016	3,776,593												In-Service					
BOM		0	0	272	94,033	421,843	1,084,381	1,874,536	2,330,878	2,342,224	2,963,772	3,216,361	3,235,439	3,771,060	3,776,415			
CapEx	3,940,234		2,106	96,190	335,022	686,242	809,731	474,452	24,630	640,502	300,975	25,754	537,026	6,714	889			
Less Internal Cost AFUDC	-169,768 11,093		-1,836 7	-2,434 24	-7,225 63	-23,742 187	-19,648 361	-18,212 515	-13,409 639	-19,105 769	-48,591 1,040	-6,925 1,262	-6,574 6,224	-1,359 0	-711			
Less AFUDC on Internal Cost	-4,966		-6	-20	-50	-150	-289	-413	-514	-619	-835	-1,013	-1,057	0	0			
EOM	,,,,,,,	0	272	94,033	421,843	1,084,381	1,874,536	2,330,878	2,342,224	2,963,772	3,216,361	3,235,439	3,771,060	3,776,415	3,776,593			
Return on CWIP				0	40	0.5	00:-	0.0==	40.6=:	40.4==		45 /	7					
After Tax Return on Equity Income Tax Component			1 0	221 156	1,211 855	3,536 2,495	6,946 4,902	9,873 6,966	10,971 7,741	12,457 8,790	14,509 10,238	15,147 10,688	7,596 5,360					
Interest Expense Component			<u>0</u>	100	<u>546</u>	1,594	3,132	4,451	4,946	5,616	6,541	6,828	3,424					
Total Return on CWIP			1	477	2,612	7,625	14,980	21,290	23,658	26,862	31,287	32,662	16,379					
BEC 4 Ash Haul Improve	2,079,250									In-Service								
In Service 8/31/2016		4 504 045	4 055 000	4 005 040	4 000 405	4 007 404	4 007 574	4 000 400	1.898.143	0.005.000	0.000.500	2.098.533	0.000 500					
BOM CapEx	2,098,287	1,521,645 343,718	1,855,893 -15,879	1,835,813 58,491	1,893,105 6,013	1,897,481 117	1,897,574 500	1,898,109	1,898,143	2,095,093	2,098,533	2,098,533	2,098,533					
Less Internal Cost	-22,740	-9,487	-4,227	-1,231	-1,671	-59	-1	0	-352	0	0	0	28					
AFUDC	4,958	84	139	161	172	179	180	183	181	3,590	0	0	0					
Less AFUDC on Internal Cost	-1,255	-67	-112	-129	-138	-144	-144	-149	-150	-151	0	0	0					
EOM Return on CWIP		1,855,893	1,835,813	1,893,105	1,897,481	1,897,574	1,898,109	1,898,143	2,095,093	2,098,533	2,098,533	2,098,533	2,079,250					
After Tax Return on Equity		7,929	8,667	8,754	8,899	8,909	8,911	8,912	9,375	4,919								
Income Tax Component		5,595	6,115	6,177	6,279	6,287	6,288	6,289	6,615	3,471								
Interest Expense Component		3,575	3,907	3,946	4,012	4,016	4,017	4,018	4,226	2,217								
Total Return on CWIP		17,099	18,689	18,878	19,190	19,212	19,216	19,219	20,216	10,606								
BEC 4 Ash Phase 1 CWIP 12/31/19	1,717,813																	
вом		420,569	445,889	459,769	456,581	467,131	480,905	508,211	698,083	755,165	1,004,076	1,103,982	1,403,718	1,439,658	1,703,907	1,739,248	1,707,207	1,711,715
CapEx Less Internal Cost	1,731,953	25,344	13,950	-3,213 14	10,581 -41	14,145	27,454	191,937	57,677	250,228	100,387 -498	300,395	35,979	236,557	63,478	-32,140 84	4,503	2,009
AFUDC	-14,340 2,070	-36 66	-81 65	65	-41 65	-382 67	-160 69	-2,079 81	-608 89	-1,331 97	-498 104	-676 109	-58 112	27,695 6	-28,131	113	-10 113	-5 113
Less AFUDC on Internal Cost	-1,871	-54	-54	-54	-54	-56	-57	-67	-75	-82	-87	-91	-94	-8	-9	-98	-97	-97
EOM		445,889	459,769	456,581	467,131	480,905	508,211	698,083	755,165	1,004,076	1,103,982	1,403,718	1,439,658	1,703,907	1,739,248	1,707,207	1,711,715	1,713,734
Return on CWIP		0.004	0.400	0.454	0.400	0.000	0.000	0.000	0.440	4.400	4.040	5.007	0.075	7.000	0.000	0.004	0.000	0.040
After Tax Return on Equity Income Tax Component		2,034 1,435	2,126 1,500	2,151 1,518	2,169 1,530	2,226 1,570	2,322 1,638	2,832 1,998	3,412 2,407	4,130 2,914	4,949 3,492	5,887 4,154	6,675 4,710	7,380 5,207	8,083 5,704	8,091 5,709	8,026 5,664	8,042 5,674
Interest Expense Component		917	958	970	978	1,003	1,047	1,277	1,538	1,862	2,231	2,654	3,009	3,327	3,644	3,647	3,618	3,625
Total Return on CWIP		4,386	4,585	4,639	4,676	4,799	5,007	6,107	7,357	8,906	10,672	12,695	14,395	15,914	17,431	17,448	17,308	17,341
BEC 4 Ash Phase 2 In Service 12/31/2019	60,800																	
вом		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	60,800																	
Less Internal Cost AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP																		

Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP

14,271 10,070 6,433

30,774

7,380 5,207 3,327

15,914

5,704 3,644 17,431

5,709 3,647

17,448

5,664 3,618

17,308

5,674 3,625 17,341

21,505 15,174 9,695

46,374

13,730 8,772 41,959

14,842 9,482

45,357

Minnesota Power BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Dec-15</u>	<u>Jan-16</u>	Feb-16	<u>Mar-16</u>	<u>Apr-16</u>	<u>May-16</u>	<u>Jun-16</u>	<u>Jul-16</u>	Aug-16	Sep-16	Oct-16	<u>Nov-16</u>	<u>Dec-16</u>	<u>Jan-17</u>	<u>Feb-17</u>	<u>Mar-17</u>	<u>Apr-17</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0 0																	
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0																	
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0	Ţ.	J	·	J	J			,	J			Ţ.	J	J			
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																	
вом		209,192,849		213,784,560	214,408,830	215,116,488	215,627,719	216,907,058	217,754,705	218,156,507	219,264,173	220,813,190	221,332,493		221,913,924	221,945,059	221,909,036	221,911,613
CapEx	235,331,526	4,387,678	690,170	739,749	780,123	631,156	1,349,616	909,323	454,593	1,185,687	1,642,726	558,146	155,515	437,208	85,581	-36,132	2,567	2,009
Less Internal Cost AFUDC	-8,284,369 4,225,629	-359,190 61,024	-127,016 211	-115,526 682	-72,523 1,198	-120,008 1,428	-70,397 -1,694	-61,828 823	-52,960 1,003	-81,626 4,299	-93,931 1,144	-39,109 1,371	-30,204 6,336	13,727 188	-54,439 3	94 113	-6 113	-5 113
Less AFUDC on Internal Cost	-1,014,379	-60,995	-171	-635	-1,140	-1,344	1,814	-672	-834	-694	-923	-1,104	-1,150	-189	-9	-98	-97	-97
EOM Return on CWIP	.,,510	213,221,366	213,784,560	214,408,830	215,116,488	215,627,719	216,907,058	217,754,705	218,156,507	219,264,173	220,813,190	221,332,493	221,462,990	221,913,924	221,945,059	221,909,036	221,911,613	221,913,631
After Tax Return on Equity	17,429,592	496,514	10,794	11,127	12,279	14,671	18,179	21,617	23,757	21,505	19,458	21,034	14,271	7,380	8,083	8,091	8,026	8,042
Income Tay Component	12 208 522	350 346	7.616	7.951	9.664	10.352	12 929	15 252	16 763	15 174	12 720	14 942	10.070	5 207	5 704	5,700	5,664	5,674

15,253 9,745

46,615

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51,230

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350,346 223,832

1,070,692

17,429,592 12,298,533 7,815,928

37,544,053

Income Tax Component
Interest Expense Component
Total Return on CWIP

11,127 7,851 5,016

23,994

12,279 8,664 5,535

26,478

10,352 6,614

31,637

18,179 12,828 8,195 39,203

Control 18-70-20	BEC 4 Environmental Retrofit In Service 12/22/2015 BOM	Total <u>Project</u> 214,344,054	<u>May-17</u>	<u>Jun-17</u>	<u>Jul-17</u>	<u>Aug-17</u>	<u>Sep-17</u>	<u>Oct-17</u>	<u>Nov-17</u>	<u>Dec-17</u>	<u>Jan-18</u>	<u>Feb-18</u>	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	<u>Aug-18</u>	<u>Sep-18</u>
Region Color Properties	CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	-8,077,521 4,207,508																	
Compose Comp	Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component																		
Court Cour	In Service 11/1/2016	3,776,593																	
Return on CVIP Month Tak Returns on Elegary Victorial Elegarians Component Total Return on CVIP BCM Cupp APUDC A-508 Cup Cup Cup Cup Cup Cup Cup Cup Cup Cu	CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	-169,768 11,093																	
## Service ## S17/2016 Coppe	Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component																		
Case	BEC 4 Ash Haul Improve In Service 8/31/2016	2,079,250																	
EOM Return on CWIP	CapEx Less Internal Cost AFUDC	-22,740 4,958																	
CWP 123/19 BOM	EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component	.,250																	
CapEx 1,731,953 2,515 0 948 5,822	CWIP 12/31/19	1,717,813	1 713 734	1 711 238	1 711 258	1 712 104	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813	1 717 813
Less AFUDC on Internal Cost	CapEx Less Internal Cost	-14,340	-2,515 4	0	948 -2	5,822 -14	1,7 17,010	1,111,010	1,117,010	1,111,010	1,111,010	1,111,010	1,111,010	1,7 17,010	1,111,010	1,111,010	1,111,010	1,1 11,010	1,111,010
Return on CWIP After Tax Return on Equity 8,041 8,035 8,037 8,052 8,066 8,06	Less AFUDC on Internal Cost		-97	-100		-100	1 717 913	1 717 913	1 717 913	1 717 913	1 717 913	1 717 912	1 717 912	1 717 912	1 717 913	1 717 912	1 717 912	1 717 912	1 717 913
Norme Tax Component 5,674 5,669 5,671 5,682 5,691	Return on CWIP																		
In Service 1/2/31/2019 BOM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Income Tax Component Interest Expense Component		5,674 3,625	5,669 <u>3,622</u>	5,671 3,623	5,682 3,630	5,691 <u>3,636</u>												
CapEx 60,800	In Service 12/31/2019	60,800	0	0	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 0 0 0 0	CapEx Less Internal Cost AFUDC	0 0																	
After Tax Return on Equity 0	EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	After Tax Return on Equity Income Tax Component Interest Expense Component										0 <u>0</u>								

BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>May-17</u>	<u>Jun-17</u>	<u>Jul-17</u>	<u>Aug-17</u>	<u>Sep-17</u>	Oct-17	<u>Nov-17</u>	<u>Dec-17</u>	<u>Jan-18</u>	Feb-18	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	Aug-18	<u>Sep-18</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0 0																	
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	·	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0	-																
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0	-																
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																	
BOM CapEx	235,331,526	221,913,631 -2,515	221,911,136	221,911,156 948	221,912,002 5,822	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710
Less Internal Cost AFUDC Less AFUDC on Internal Cost	-8,284,369 4,225,629 -1,014,379	4 113 -97	0 120 -100	-2 0 -100	-14 0 -100	0	0	0		0	0	0	0	0	0	0	0	0
EOM Return on CWIP After Tax Return on Equity Income Tax Component	17,429,592 12,298,533	221,911,136 8,041 5.674	221,911,156 8,035 5,669	221,912,002 8,037 5,671		221,917,710 8,066 5,691												

12,298,533 7,815,928

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Income Tax Component
Interest Expense Component
Total Return on CWIP

5,674 3,625

17,339

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BEC 4 Environmental Retrofit In Service 12/22/2015 BOM	Total <u>Project</u> 214,344,054	Oct-18	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	Feb-19	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	Jul-19	<u>Aug-19</u>	<u>Sep-19</u>	Oct-19	<u>Nov-19</u>	<u>Dec-19</u>
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	219,220,355 -8,077,521 4,207,508 -1,006,288															
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																
BEC 4 Storm Water In Service 11/1/2016 BOM	3,776,593															
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component	3,940,234 -169,768 11,093 -4,966															
Interest Expense Component Total Return on CWIP																
BEC 4 Ash Haul Improve In Service 8/31/2016 BOM	2,079,250															
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,098,287 -22,740 4,958 -1,255															
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	-1,200															
BEC 4 Ash Phase 1 CWIP 12/31/19 BOM	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	<u>In-Service</u> 1,717,813
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	1,731,953 -14,340 2,070 -1,871	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013	1,717,013
EOM Return on CWIP		1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813	1,717,813
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		8,066 5,691 <u>3,636</u> 17,393	8,066 5,691 <u>3,636</u> 17,393	7,126 5,028 <u>2,986</u> 15,140	3,563 2,514 <u>1,493</u> 7,570											
BEC 4 Ash Phase 2 In Service 12/31/2019 BOM	60,800	0	0	0	0	0	0	15,200	15,200	15,200	30,400	30,400	30,400	45,600	45,600	In-Service 45,600
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	60,800 0 0				0 0 0 0	0 0 0 0	15,200 0 0 0	0 0 0 0	0 0 0 0	15,200 0 0 0	0 0 0 0	0 0 0 0	15,200 0 0 0	0 0 0 0	0 0 0 0	15,200 0 0 0
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0 0 0 0	0 0 0 <u>0</u>	0 0 0 <u>0</u> 0	0 0 0 0	0 0 0 <u>0</u> 0	15,200 32 22 <u>13</u> 67	15,200 63 44 <u>26</u> 134	15,200 63 44 <u>26</u> 134	30,400 95 67 <u>40</u> 201	30,400 126 89 <u>53</u> 268	30,400 126 89 <u>53</u> 268	45,600 158 111 <u>66</u> 335	45,600 189 133 <u>79</u> 402	45,600 189 133 <u>79</u> 402	60,800 95 67 <u>40</u> 201

	Total <u>Project</u>	Oct-18	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	Feb-19	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	Oct-19	<u>Nov-19</u>	<u>Dec-19</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0 0		U	U									U			U
REOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0															
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0			·						·						
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407															
BOM CapEx	235,331,526	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710	221,917,710 15,200	221,932,910	221,932,910	221,932,910 15,200	221,948,110	221,948,110	221,948,110 15,200	221,963,310	221,963,310	221,963,310 15,200
Less AFUDC on Internal Cost	-8,284,369 4,225,629 -1,014,379	0 0	0 0	0 0	0 0	0 0	0 0 0	0 0	0 0	0 0 0	0 0	0 0	0 0 0	0 0	0 0	0 0 0
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	221,917,710 8,066 5,691 3,636 17,393	221,917,710 8,066 5,691 3,636 17,393	221,917,710 7,126 5,028 2,986 15,140	221,917,710 7,126 5,028 2,986 15,140	221,917,710 7,126 5,028 2,986 15,140	221,932,910 7,158 5,050 2,999 15,207	221,932,910 7,189 5,073 3,013 15,274	221,932,910 7,189 5,073 3,013 15,274	221,948,110 7,221 5,095 3,026 15,341	221,948,110 7,252 5,117 3,039 15,408	221,948,110 7,252 5,117 3,039 15,408	221,963,310 7,284 5,139 3,052 15,475	221,963,310 7,315 5,162 3,065 15,542	221,963,310 7,315 5,162 3,065 15,542	221,978,510 3,658 2,581 1,533 7,771

BEC 4 Rider Page 11 of 27 Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Jan-20</u>	<u>Feb-20</u>	<u>Mar-20</u>	<u>Apr-20</u>	<u>May-20</u>	<u>Jun-20</u>	<u>Jul-20</u>	<u>Aug-20</u>	<u>Sep-20</u>	Oct-20	Nov-20	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560	0	0	0	427,500	427,500	427,500	855,000	855,000	855,000	1,282,500	1,282,500	1,282,500	1,710,000	1,710,000	1,710,000	1,726,100	1,726,100	1,726,100
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	2,160,560 0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0 0 427,500	0 0 0 0 427,500	427,500 0 0 0 855,000	0 0 0 0 855,000	0 0 0 0 855,000	0 0	0 0 0 0 1,282,500	0 0 0 0 1,282,500	427,500 0 0 0 1,710,000	0 0 0 0 1,710,000	0 0 0 0 1,710,000	16,100 0 0 0 0 1,726,100	0 0 0 0 0 1,726,100	0 0 0 0 0 1,726,100	16,100 0 0 0 1,742,200
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0 0 <u>0</u> 0	0 0 <u>0</u> 0	626 372	1,773 1,251 <u>743</u> 3,768	1,773 1,251 <u>743</u> 3,768	2,660 1,877 <u>1,115</u> 5,652	3,547 2,503 <u>1,486</u> 7,536	3,547 2,503 <u>1,486</u> 7,536	4,434 3,128 <u>1,858</u> 9,420	5,320 3,754 <u>2,229</u> 11,304	5,320 3,754 <u>2,229</u> 11,304	6,207 4,380 <u>2,601</u> 13,188	7,094 5,005 <u>2,973</u> 15,072	7,094 5,005 <u>2,973</u> 15,072	7,127 5,029 <u>2,987</u> 15,143	7,160 5,052 <u>3,001</u> 15,213	7,160 5,052 <u>3,001</u> 15,213	7,194 5,076 <u>3,015</u> 15,284
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0																		
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0																		
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																		
вом		221,978,510		221,978,510				222,833,510			223,261,010					223,688,510	223,704,610	223,704,610	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	235,331,526 -8,284,369 4,225,629 -1,014,379	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	0 0 0	0	0 0 0 0	0 0	0	0 0 0 0	0 0 0 0	16,100 0 0 0
EOM Beturn on CWID		221,978,510	221,978,510	222,406,010	222,406,010	222,406,010	222,833,510	222,833,510	222,833,510	223,261,010	223,261,010	223,261,010	223,688,510	223,688,510	223,688,510	223,704,610	223,704,610	223,704,610	223,720,710

Return on CWIP After Tax Return on Equity

Income Tax Component Interest Expense Component Total Return on CWIP

17,429,592

12,298,533 7,815,928 37,544,053

0

0

887

626 372

1,884

0 0 1,773

1,251 743

3,768

1,773

1,251 743

3,768

2,660

1,877 1,115

5,652

3,547

2,503 1,486 7,536

3,547

2,503 1,486

7,536

4,434

3,128 1,858

9,420

5,320

3,754 2,229

11,304

5,320

3,754 2,229

11,304

6,207

4,380 2,601

13,188

7,094

5,005 2,973

15,072

7,094

5,005 2,973

15,072

7,127

5,029 2,987

15,143

7,160

5,052 3,001

15,213

7,160

5,052 3,001

15,213

7,194

5,076 3,015

Minnesota Power BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Jul-21</u>	Aug-21	Sep-21	Oct-21	<u>Nov-21</u>	Dec-21	Jan-22	Feb-22	Mar-22	<u>Apr-22</u>	May-22	Jun-22	Jul-22	<u>Aug-22</u>	<u>Sep-22</u>	Oct-22	<u>Nov-22</u>	<u>Dec-22</u>
BEC 4 Ash Phase 3 In Service 12/31/2023	2,160,560	1,742,200	1,742,200	1,742,200	1,758,300	1,758,300	1,758,300	1,774,400	1,774,400	1,774,400	1,845,680	1,845,680	1,845,680	1,916,960	1.916.960	1,916,960	1,988,240	1.988.240	1,988,240
BOM CapEx	2.160.560	1,742,200	1,742,200	1,742,200	1,758,300	1,758,300	1,758,300	1,774,400	1,774,400	71,280	1,845,080	1,845,680	71,280	1,916,960	1,916,960	71,280	1,988,240	1,988,240	71,280
Less Internal Cost	0	Ö	ő	0	Ö	Ö	0	Ö	Ö	0	ő	Ö	0	Ö	Ö	0	Ö	ő	0
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM Return on CWIP		1,742,200	1,742,200	1,758,300	1,758,300	1,758,300	1,774,400	1,774,400	1,774,400	1,845,680	1,845,680	1,845,680	1,916,960	1,916,960	1,916,960	1,988,240	1,988,240	1,988,240	2,059,520
After Tax Return on Equity		7,227	7,227	7,261	7,294	7,294	7,327	7,361	7,361	7,509	7,657	7,657	7,804	7,952	7,952	8,100	8,248	8,248	8,396
Income Tax Component Interest Expense Component		5,100 3,029	5,100 3,029	5,123 3,043	5,147 3,057	5,147 3,057	5,170 3,071	5,194 3,084	5,194 3,084	5,298 3,146	5,403 3,208	5,403 3,208	5,507 3,270	5,611 3,332	5,611 3,332	5,715 3,394	5,820 3,456	5,820 3,456	5,924 3,518
Total Return on CWIP		15.355	15.355	15.426	15,497	15.497	15.568	15,639	15.639	15.953	16,267	16.267	16.582	16.896	16.896	17.210	17.524	17.524	17.838
			,	,	,	,	,	,	,	,	,	,		,	,	,	,	,	,
BEC 4 Ash Phase 4	2,940,724																		
In Service 12/31/2029																			
BOM CapEx	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	2,340,724																		
AFUDC	0																		
Less AFUDC on Internal Cost	0	_	_			_			_			_	_	_		_			
EOM Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
After Tax Return on Equity																			
Income Tax Component																			
Interest Expense Component																			
Total Return on CWIP																			
BEC 4 Ash Phase 5	3,178,613																		
In Service 12/31/2035	3,170,013																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	3,178,613																		
Less Internal Cost AFUDC	0																		
Less AFUDC on Internal Cost	0																		
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP																			
After Tax Return on Equity Income Tax Component																			
Interest Expense Component																			
Total Return on CWIP																			
<u>Total</u>	230,258,407																		
	200,200,101																		
BOM CapEx	235,331,526	223,720,710	223,720,710	223,720,710 16,100	223,736,810	223,736,810	223,736,810 16,100	223,752,910	223,752,910	223,752,910 71,280	223,824,190	223,824,190	223,824,190 71,280	223,895,470	223,895,470	223,895,470 71,280	223,966,750	223,966,750	223,966,750 71,280
Less Internal Cost	-8,284,369	0	0	0	0	0	0	Ö	o	0	0	o	0	0	0	0	0	0	0
AFUDC	4,225,629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-1,014,379	0	0	0	0	0	000 750 040	0	0	0	0	0	0	0	0	0	0	0	0
EOM Return on CWIP		223,720,710	223,720,710	223,736,810	223,736,810	223,736,810	223,752,910	223,752,910	223,752,910	223,824,190	223,824,190	223,824,190	223,895,470	223,895,470	223,895,470	223,966,750	223,966,750	223,966,750	224,038,030
After Tax Return on Equity	17,429,592	7,227	7,227	7,261	7,294	7,294	7,327	7,361	7,361	7,509	7,657	7,657	7,804	7,952	7,952	8,100	8,248	8,248	8,396
Income Tax Component Interest Expense Component	12,298,533 7.815.928	5,100 3.029	5,100 3.029	5,123 3.043	5,147 3.057	5,147 3.057	5,170 3.071	5,194 3.084	5,194 3.084	5,298 3,146	5,403 3,208	5,403 3,208	5,507 3.270	5,611 3.332	5,611 3,332	5,715 3,394	5,820 3,456	5,820 3.456	5,924 3.518
Total Return on CWIP	7,815,928 37,544,053	15,355	15,355	3,043 15,426	15,497	3,057 15,497	15,568	3,084 15,639	3,084 15,639	3,146 15,953	3,208 16,267	3,208 16,267	16,582	3,332 16,896	16,896	3,394 17,210	3,456 17,524	3,456 17,524	3,518 17,838
Total Notalli on OWIF	01,044,000	10,000	10,000	10,420	10,491	10,731	10,000	10,000	10,000	10,000	10,207	10,207	10,302	10,090	10,090	17,210	17,024	17,024	17,000

BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Jan-23</u>	Feb-23	<u>Mar-23</u>	<u>Apr-23</u>	<u>May-23</u>	<u>Jun-23</u>	<u>Jul-23</u>	<u>Aug-23</u>	Sep-23	Oct-23	Nov-23	<u>Dec-23</u>	Jan-24	Feb-24	Mar-24	<u>Apr-24</u>	<u>May-24</u>	<u>Jun-24</u>
BEC 4 Ash Phase 3 In Service 12/31/2023	2,160,560	0.050.500	0.050.500	0.050.500	0.004.700	0.004.700	0.004.700	0.440.040	0.440.040	0.440.040	0.405.000	0.405.000	In-Service						
BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0	2,059,520	2,059,520 0 0 0	2,059,520 25,260 0 0	2,084,780 0 0 0	2,084,780 0 0 0	2,084,780 25,260 0 0	2,110,040 0 0	2,110,040 0 0 0	2,110,040 25,260 0 0	2,135,300 0 0 0	2,135,300 0 0 0	2,135,300 25,260 0 0						
ECM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	Ü	2,059,520 8,544 6,028 3,580 18,152	2,059,520 8,544 6,028 3,580 18,152	2,084,780 8,596 6,065 3,602 18,263	2,084,780 8,648 6,102 3,624 18,375	2,084,780 8,648 6,102 3,624 18,375	2,110,040 8,701 6,139 3,646 18,486	2,110,040 8,753 6,176 3,668 18,597	2,110,040 8,753 6,176 3,668 18,597	2,135,300 8,806 6,213 3,690 18,709	2,135,300 8,858 6,250 3,712 18,820	2,135,300 8,858 6,250 3,712 18,820	2,160,560 4,429 3,125 1,856 9,410						
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313,201	313,201	313,201
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0													0 0 0 0	0 0 0 0	313,201 0 0 0	0 0 0 0	0 0 0 0	313,201 0 0 0
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 <u>0</u> 0	0 0 0 <u>0</u> 0	313,201 650 458 <u>272</u> 1,380	313,201 1,299 917 <u>544</u> 2,760	313,201 1,299 917 <u>544</u> 2,760	626,402 1,949 1,375 <u>817</u> 4,141
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0																		
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																		
BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	235,331,526 -8,284,369 4,225,629 -1,014,379	224,038,030 0 0 0 0	224,038,030 0 0 0 0	224,038,030 25,260 0 0	224,063,290 0 0 0	224,063,290 0 0 0 0	224,063,290 25,260 0 0	224,088,550 0 0 0 0	224,088,550 0 0 0 0	224,088,550 25,260 0 0 0	224,113,810 0 0 0 0	224,113,810 0 0 0 0	224,113,810 25,260 0 0	0 0 0 0	0 0 0 0	313,201 0 0 0	224,452,271 0 0 0 0	224,452,271 0 0 0 0 0	224,452,271 313,201 0 0 0
EOM Beturn on CWID		224,038,030	224,038,030	224,063,290	224,063,290	224,063,290	224,088,550	224,088,550	224,088,550	224,113,810	224,113,810	224,113,810	224,139,070	224,139,070	224,139,070	224,452,271	224,452,271	224,452,271	224,765,472

Return on CWIP
After Tax Return on Equity

Income Tax Component Interest Expense Component Total Return on CWIP

17,429,592

12,298,533 7,815,928

37,544,053

8,544

6,028 3,580

18,152

8,544

6,028 3,580

18,152

8,596

6,065 3,602

18,263

8,648

6,102 3,624

18,375

8,648

6,102

3,624

18,375

8,701

6,139 3,646

18,486

8,753

6,176 3,668

18,597

8,753

6,176 3,668

18,597

8,806

6,213 3,690

18,709

8,858

6,250 3,712

18,820

8,858

6,250 3,712

18,820

4,429

3,125 1,856

9,410

0

0

0

650

458 272

1,380

0

0

0

1,299

917 544

2,760

1,299

917 544

2,760

1,949

1,375 817

Minnesota Power BEC 4 Rider Plant Additions, AFUDC and Return on CWIP Exhibit B-3 Page 14 of 27

	Total <u>Project</u>	Jul-24	<u>Aug-24</u>	<u>Sep-24</u>	Oct-24	<u>Nov-24</u>	<u>Dec-24</u>	<u>Jan-25</u>	Feb-25	<u>Mar-25</u>	<u>Apr-25</u>	May-25	<u>Jun-25</u>	<u>Jul-25</u>	<u>Aug-25</u>	<u>Sep-25</u>	Oct-25	<u>Nov-25</u>	Dec-25
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																		
CapEx Less Internal Cost AFUDC	2,160,560 0 0																		
Less AFUDC on Internal Cost EOM Return on CWIP	0																		
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																			
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	626,402	626,402	626,402	939,602	939,602	939,602	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1,252,804	1.252.804	1,252,804
CapEx Less Internal Cost AFUDC	2,940,724 0 0	0 0 0	0 0 0	313,201 0 0	0 0 0	939,602 0 0	313,202 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Less AFUDC on Internal Cost EOM	0	0 626,402	0 626,402	939,602	939,602	939,602	1,252,804	0 1,252,804	0 1,252,804	1,252,804	0 1,252,804	0 1,252,804	0 1,252,804	1,252,804	0 1,252,804	0 1,252,804	0 1,252,804	1,252,804	1,252,804
Return on CWIP After Tax Return on Equity		2,599	2,599	3,248	3,898	3,898	4,547	5,197	5,197	5,197	5,197	5,197	5,197	5,197	5,197	5,197	5,197	5,197	5,197
Income Tax Component Interest Expense Component Total Return on CWIP		1,834 <u>1,089</u> 5,521	1,834 <u>1,089</u> 5,521	2,292 <u>1,361</u> 6,901	2,750 <u>1,633</u> 8,281	2,750 <u>1,633</u> 8,281	3,209 <u>1,906</u> 9,662	3,667 <u>2,178</u> 11,042											
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0	Ü			J		· ·	Ü	Ů	Ü	Ü			J	· ·	Ü		0	0
EOM	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																			
<u>Total</u>	230,258,407																		
BOM	235,331,526	224,765,472	224,765,472	224,765,472 313,201	225,078,673	225,078,673	225,078,673 313,202	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	-8,284,369 4,225,629 -1,014,379	0 0	0 0	0 0 0	0 0	0	0 0 0	0 0	0 0	0 0	0 0	0	0	0	0	0	0 0	0	0 0
EOM Return on CWIP		224,765,472	224,765,472	225,078,673	225,078,673	225,078,673	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874	225,391,874
After Tax Return on Equity Income Tax Component Interest Expense Component	17,429,592 12,298,533 7,815,928	2,599 1,834 1,089	2,599 1,834 1,089	3,248 2,292 1,361	3,898 2,750 1,633	3,898 2,750 1,633	4,547 3,209 1,906	5,197 3,667 2,178											
Total Return on CWIP	37,544,053	5,521	5,521	6,901	8,281	8,281	9,662	11,042	11,042	11,042	11,042	11,042	11,042	11,042	11,042	11,042	11,042	11,042	11,042

BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Jan-26</u>	Feb-26	<u>Mar-26</u>	<u>Apr-26</u>	May-26	<u>Jun-26</u>	<u>Jul-26</u>	<u>Aug-26</u>	<u>Sep-26</u>	Oct-26	<u>Nov-26</u>	<u>Dec-26</u>	<u>Jan-27</u>	Feb-27	<u>Mar-27</u>	<u>Apr-27</u>	<u>May-27</u>	<u>Jun-27</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																		
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	2,160,560 0 0 0																		
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																			
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	1,252,804	1,252,804	1,252,804	1,311,784	1,311,784	1,311,784	1,370,764	1,370,764	1,370,764	1,429,744	1,429,744	1,429,744	1,488,724	1,488,724	1,488,724	1,514,224	1,514,224	1,514,224
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0	0 0 0	0 0 0	58,980 0 0	0 0 0	0 0 0	58,980 0 0	0 0 0	0 0 0	58,980 0 0	0 0 0	0 0 0	58,980 0 0	0 0 0 0 0	0 0	25,500 0 0	0 0 0	0 0 0	25,500 0 0
EOM Return on CWIP		1,252,804	1,252,804	1,311,784	1,311,784	1,311,784	1,370,764	1,370,764	1,370,764	1,429,744	1,429,744	1,429,744	1,488,724	1,488,724	1,488,724	1,514,224	1,514,224	1,514,224	1,539,724
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		5,197 3,667 <u>2,178</u> 11,042	5,197 3,667 <u>2,178</u> 11,042	5,319 3,753 <u>2,229</u> 11,302	5,442 3,840 <u>2,280</u> 11,562	5,442 3,840 <u>2,280</u> 11,562	5,564 3,926 <u>2,332</u> 11,822	5,686 4,012 <u>2,383</u> 12,082	5,686 4,012 <u>2,383</u> 12,082	5,809 4,099 <u>2,434</u> 12,342	5,931 4,185 <u>2,485</u> 12,601	5,931 4,185 <u>2,485</u> 12,601	6,053 4,271 <u>2,537</u> 12,861	6,176 4,358 <u>2,588</u> 13,121	6,176 4,358 <u>2,588</u> 13,121	6,229 4,395 <u>2,610</u> 13,234	6,282 4,432 <u>2,632</u> 13,346	6,282 4,432 <u>2,632</u> 13,346	6,334 4,470 <u>2,654</u> 13,458
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0			Ū	Ū	Ü	Ū	Ü	Ū	U		Ü			Ü		Ü		0
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																		
ВОМ		225,391,874		225,391,874	225,450,854	225,450,854	225,450,854		225,509,834		225,568,814	225,568,814	225,568,814		225,627,794	225,627,794	225,653,294	225,653,294	225,653,294
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	235,331,526 -8,284,369 4,225,629 -1,014,379	0 0 0 0	0 0 0 0	58,980 0 0 0	0 0 0	0 0 0 0	58,980 0 0 0	0 0 0 0	0 0 0	58,980 0 0 0	0 0 0 0	0 0 0 0	58,980 0 0 0	0 0 0 0	0 0 0 0	25,500 0 0 0	0 0 0 0	0 0 0 0	25,500 0 0 0
EOM Return on CWIP			-,,-	225,450,854	225,450,854	225,450,854	225,509,834	225,509,834	225,509,834	-,,-	225,568,814	225,568,814	225,627,794	225,627,794	225,627,794	225,653,294	225,653,294	225,653,294	225,678,794
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	5,197 3,667 2,178 11,042	5,197 3,667 2,178 11,042	5,319 3,753 2,229 11,302	5,442 3,840 2,280 11,562	5,442 3,840 2,280 11,562	5,564 3,926 2,332 11,822	5,686 4,012 2,383 12,082	5,686 4,012 2,383 12,082	5,809 4,099 2,434 12,342	5,931 4,185 2,485 12,601	5,931 4,185 2,485 12,601	6,053 4,271 2,537 12,861	6,176 4,358 2,588 13,121	6,176 4,358 2,588 13,121	6,229 4,395 2,610 13,234	6,282 4,432 2,632 13,346	6,282 4,432 2,632 13,346	6,334 4,470 2,654 13,458

Exhibit B-3

Minnesota Power BEC 4 Rider Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	<u>Jul-27</u>	Aug-27	Sep-27	Oct-27	Nov-27	<u>Dec-27</u>	<u>Jan-28</u>	Feb-28	Mar-28	<u>Apr-28</u>	<u>May-28</u>	Jun-28	<u>Jul-28</u>	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	2,160,560 2,160,560 0 0																		
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724	1,539,724	1,539,724	1,539,724	1,565,224	1,565,224	1,565,224	1,590,724	1,590,724	1,590,724	1,928,224	1,928,224	1,928,224	2,265,724	2,265,724	2,265,724	2,603,224	2,603,224	2,603,224
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0	0 0 0 0	0 0 0 0	25,500 0 0 0	0 0 0 0	0 0 0 0	25,500 0 0 0	0 0 0 0	0 0 0 0	337,500 0 0 0	0 0 0 0	0 0 0 0	337,500 0 0 0	0 0 0 0	0 0 0 0	337,500 0 0 0	0 0 0 0	0 0 0 0	337,500 0 0
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		1,539,724 6,387 4,507 <u>2,677</u> 13,571	1,539,724 6,387 4,507 <u>2,677</u> 13,571	1,565,224 6,440 4,544 2,699 13,683	1,565,224 6,493 4,582 2,721 13,796	1,565,224 6,493 4,582 2,721 13,796	1,590,724 6,546 4,619 <u>2,743</u> 13,908	1,590,724 6,599 4,656 2,765 14,020	1,590,724 6,599 4,656 2,765 14,020	1,928,224 7,299 5,150 3,059 15,508	1,928,224 7,999 5,644 <u>3,352</u> 16,995	1,928,224 7,999 5,644 <u>3,352</u> 16,995	2,265,724 8,699 6,138 3,645 18,482	2,265,724 9,399 6,632 3,939 19,970	2,265,724 9,399 6,632 3,939 19,970	2,603,224 10,099 7,126 4,232 21,457	2,603,224 10,799 7,620 4,525 22,944	2,603,224 10,799 7,620 4,525 22,944	2,940,724 11,499 8,114 4,819 24,432
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0 0																		
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	230,258,407																		
BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	235,331,526 -8,284,369 4,225,629 -1,014,379	225,678,794 0 0 0 0 0 225,678,794	225,678,794 0 0 0 0 0 225,678,794	225,678,794 25,500 0 0 0 225,704,294	225,704,294 0 0 0 0 0 225,704,294	225,704,294 0 0 0 0 0 225,704,294	225,704,294 25,500 0 0 0 225,729,794	225,729,794 0 0 0 0 0 225,729,794	225,729,794 0 0 0 0 0 225,729,794	225,729,794 337,500 0 0 0 226,067,294	226,067,294 0 0 0 0 0 226,067,294	226,067,294 0 0 0 0 0 226,067,294	226,067,294 337,500 0 0 0 226,404,794	226,404,794 0 0 0 0 0	226,404,794 0 0 0 0 0	226,404,794 337,500 0 0 0 226,742,294	226,742,294 0 0 0 0 0 226,742,294	226,742,294 0 0 0 0 0 226,742,294	226,742,294 337,500 0 0 0 227,079,794
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	6,387 4,507 2,677 13,571	6,387 4,507 2,677 13,571	6,440 4,544 2,699 13,683	6,493 4,582 2,721 13,796	6,493 4,582 2,721 13,796	6,546 4,619 2,743 13,908	6,599 4,656 2,765 14,020	6,599 4,656 2,765 14,020	7,299 5,150 3,059 15,508	7,999 5,644 3,352 16,995	7,999 5,644 3,352 16,995	8,699 6,138 3,645 18,482	9,399 6,632 3,939 19,970	9,399 6,632 3,939 19,970	10,099 7,126 4,232 21,457	10,799 7,620 4,525 22,944	10,799 7,620 4,525 22,944	11,499 8,114 4,819 24,432

Minnesota Power Exhibit B-3
BEC 4 Rider Page 17 of 27
Plant Additions, AFUDC and Return on CWIP

	Total <u>Project</u>	Jan-29	Feb-29	Mar-29	<u>Apr-29</u>	May-29	Jun-29	Jul-29	<u>Aug-29</u>	Sep-29	Oct-29	Nov-29	Dec-29	<u>Jan-30</u>	Feb-30	Mar-30	<u>Apr-30</u>	May-30
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	2,160,560 2,160,560 0 0																	
BEC 4 Ash Phase 4 In Service 12/31/2029	2,940,724												In-Service					
BOM		2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724					
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0					
EOM		2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724	2,940,724					
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP		12,199 8,608 <u>5,112</u> 25,919	6,100 4,304 <u>2,556</u> 12,959															
BEC 4 Ash Phase 5 In Service 12/31/2035	3,178,613									_								
BOM CapEx	3,178,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 560	560 0	560 0
Less Internal Cost AFUDC Less AFUDC on Internal Cost	0 0 0													0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EOM Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	560	560	560
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP														0 0 <u>0</u> 0	0 0 <u>0</u> 0	1 1 <u>0</u> 2	2 2 <u>1</u> 5	2 2 <u>1</u> 5
<u>Total</u>	230,258,407																	
вом		227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,080,354	227,080,354
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	235,331,526 -8,284,369 4,225,629 -1,014,379	0 0 0 0	0 0 0 0	0 0 0	0 0 0 0	560 0 0 0	0 0 0	0 0 0										
EOM Return on CWIP		227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,079,794	227,080,354	227,080,354	227,080,354
After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	12,199 8,608 5,112 25,919	6,100 4,304 2,556 12,959	0 0 0	0 0 0	1 1 0 2	2 2 1 5	2 2 1 5										

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	Total <u>Project</u>	<u>Jun-30</u>	<u>Jul-30</u>	Aug-30	<u>Sep-30</u>	Oct-30	Nov-30	<u>Dec-30</u>	<u>Jan-31</u>	Feb-31	<u>Mar-31</u>	<u>Apr-31</u>	May-31	<u>Jun-31</u>	<u>Jul-31</u>	Aug-31	<u>Sep-31</u>	Oct-31
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	2,160,560 0 0 0																	
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724																	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	2,940,724 0 0 0																	
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																		
BEC 4 Ash Phase 5 In Service 12/31/2035	3,178,613																	
BOM CapEx	3,178,613	560 560	1,120 0	1,120 0	1,120 560	1,680 0	1,680 0	1,680 560	2,240 0	2,240 0	2,240 172,944	175,184 0	175,184	175,184 172,944	348,128 0	348,128 0	348,128 172,944	521,072
Less Internal Cost	3,176,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172,944	0
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM Return on CWIP		1,120	1,120	1,120	1,680	1,680	1,680	2,240	2,240	2,240	175,184	175,184	175,184	348,128	348,128	348,128	521,072	521,072
After Tax Return on Equity		3	5	5	6	7	7	8	9	9	368	727	727	1,085	1,444	1,444	1,803	2,162
Income Tax Component		2	3	3	4	5	5	6	7	7	260	513	513	766	1,019	1,019	1,272	1,525
Interest Expense Component Total Return on CWIP		<u>1</u> 7	<u>2</u> 10	<u>2</u> 10	<u>2</u> 12	<u>3</u> 15	<u>3</u> 15	<u>3</u> 17	<u>4</u> 20	4 20	154 782	<u>305</u> 1,544	<u>305</u> 1,544	<u>455</u> 2,306	605 3,068	605 3,068	<u>755</u> 3,830	<u>906</u> 4,593
<u>Total</u>	230,258,407																	
BOM		227,080,354	227,080,914	227,080,914	227,080,914	227,081,474	227,081,474	227,081,474	227,082,034	227,082,034	227,082,034	227,254,978	227,254,978	227,254,978	227,427,922	227,427,922	227,427,922	227,600,866
CapEx	235,331,526	560	0	0	560	0	0	560	0	0	172,944	0	0	172,944	0	0	172,944	0
Less Internal Cost AFUDC	-8,284,369 4,225,629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-1,014,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM	7. 7.1. 2	227,080,914	227,080,914	227,080,914	227,081,474	227,081,474	227,081,474	227,082,034	227,082,034	227,082,034	227,254,978	227,254,978	227,254,978	227,427,922	227,427,922	227,427,922	227,600,866	227,600,866
Return on CWIP		_			_					_								
After Tax Return on Equity	17,429,592	3	5 3	5	6	7	7	8	9 7	9	368	727	727	1,085	1,444	1,444	1,803	2,162
Income Tax Component Interest Expense Component	12,298,533 7,815,928	2	2	2	4 2	5 3	5 3	6	4	7	260 154	513 305	513 305	766 455	1,019 605	1,019 605	1,272 755	1,525 906
Total Return on CWIP	37,544,053	7	10	10	12	15	15	17	20	20	782	1,544	1,544	2,306	3,068	3,068	3,830	4,593

	Total <u>Project</u>	Nov-31	<u>Dec-31</u>	<u>Jan-32</u>	Feb-32	<u>Mar-32</u>	<u>Apr-32</u>	<u>May-32</u>	<u>Jun-32</u>	<u>Jul-32</u>	Aug-32	Sep-32	Oct-32	Nov-32	<u>Dec-32</u>	<u>Jan-33</u>	Feb-33	<u>Mar-33</u>
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0																	
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																		
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724																	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	2,940,724 0 0 0																	
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																		
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	521,072	521,072	694,016	694,016	694,016	1,064,816	1,064,816	1,064,816	1,435,616	1,435,616	1,435,616	1,806,416	1,806,416	1,806,416	2,177,216	2,177,216	2,177,216
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	3,178,613 0 0	0 0 0 0	172,944 0 0	0 0 0 0	0 0 0 0	370,800 0 0	0 0 0 0	0 0	370,800 0 0	0 0 0 0	0 0 0 0	370,800 0 0	0 0 0	0 0 0	370,800 0 0	0 0 0 0	0 0 0 0	0 0 0 0
EOM Return on CWIP		521,072	694,016	694,016	694,016	1,064,816	1,064,816	1,064,816	1,435,616	1,435,616	1,435,616	1,806,416	1,806,416	1,806,416	2,177,216	2,177,216	2,177,216	2,177,216
After Tax Return on Equity Income Tax Component Interest Expense Component		2,162 1,525 <u>906</u>	2,520 1,778 <u>1,056</u>	2,879 2,031 1,206	2,879 2,031 <u>1,206</u>	3,648 2,574 <u>1,529</u>	4,417 3,117 <u>1,851</u>	4,417 3,117 <u>1,851</u>	5,186 3,660 <u>2,173</u>	5,955 4,202 <u>2,496</u>	5,955 4,202 <u>2,496</u>	6,725 4,745 <u>2,818</u>	7,494 5,288 3,140	7,494 5,288 <u>3,140</u>	8,263 5,830 <u>3,462</u>	9,032 6,373 <u>3,785</u>	9,032 6,373 <u>3,785</u>	9,032 6,373 <u>3,785</u>
Total Return on CWIP		4,593	5,355	6,117	6,117	7,751	9,385	9,385	11,019	12,653	12,653	14,287	15,921	15,921	17,555	19,189	19,189	19,189
<u>Total</u>	230,258,407																	
BOM CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost EOM	235,331,526 -8,284,369 4,225,629 -1,014,379	227,600,866 0 0 0 0 227,600,866	227,600,866 172,944 0 0 0 0 227,773,810	227,773,810 0 0 0 0 0 227,773,810	227,773,810 0 0 0 0 0 227,773,810	370,800 0 0 0	228,144,610 0 0 0 0 0 228,144,610	228,144,610 0 0 0 0 0 228,144,610	228,144,610 370,800 0 0 0 228,515,410	228,515,410 0 0 0 0 0 228,515,410	228,515,410 0 0 0 0 0 228,515,410	228,515,410 370,800 0 0 0 228,886,210	228,886,210 0 0 0 0 228,886,210	228,886,210 0 0 0 0 0 228,886,210	228,886,210 370,800 0 0 0 229,257,010	229,257,010 0 0 0 0 229,257,010	229,257,010 0 0 0 0 0 229,257,010	229,257,010 0 0 0 0 229,257,010
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP	17,429,592 12,298,533 7,815,928 37,544,053	2,162 1,525 906 4,593	2,520 1,778 1,056 5,355	2,879 2,031 1,206 6,117	2,879 2,031 1,206 6,117	3,648 2,574 1,529 7,751	4,417 3,117 1,851 9,385	4,417 3,117 1,851 9,385	5,186 3,660 2,173 11,019	5,955 4,202 2,496 12,653	5,955 4,202 2,496 12,653	6,725 4,745 2,818 14,287	7,494 5,288 3,140 15,921	7,494 5,288 3,140 15,921	8,263 5,830 3,462 17,555	9,032 6,373 3,785 19,189	9,032 6,373 3,785 19,189	9,032 6,373 3,785 19,189

Minnesota Power BEC 4 Rider Plant Additions, AFUDC and Return on CWIP Exhibit B-3 Page 20 of 27

	Total <u>Project</u>	<u>Apr-33</u>	<u>May-33</u>	<u>Jun-33</u>	<u>Jul-33</u>	<u>Aug-33</u>	<u>Sep-33</u>	Oct-33	<u>Nov-33</u>	<u>Dec-33</u>	<u>Jan-34</u>	Feb-34	<u>Mar-34</u>	<u>Apr-34</u>	May-34	<u>Jun-34</u>	<u>Jul-34</u>	Aug-34
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																	
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0																	
EOM Return on CWIP	U																	
After Tax Return on Equity Income Tax Component Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724																	
CapEx Less Internal Cost AFUDC	2,940,724 0 0																	
Less AFUDC on Internal Cost EOM	0																	
Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																		
	0.470.040																	
BEC 4 Ash Phase 5 In Service 12/31/2035 BOM	3,178,613	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,776	2,177,776	2,177,776	2,178,336	2,178,336
CapEx Less Internal Cost	3,178,613 0	0	0	0	0	0	0	0	0	0	0	0	560 0	0	0	560 0	0	0
AFUDC Less AFUDC on Internal Cost	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
EOM Return on CWIP		2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,216	2,177,776	2,177,776	2,177,776	2,178,336	2,178,336	2,178,336
After Tax Return on Equity Income Tax Component		9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,033 6,374	9,034 6,375	9,034 6,375	9,035 6,375	9,036 6,376	9,036 6,376
Interest Expense Component Total Return on CWIP		<u>3,785</u> 19,189	<u>3,785</u> 19,189	3,785 19,189	<u>3,785</u> 19,189	<u>3,785</u> 19,189	<u>3,785</u> 19,189	<u>3,785</u> 19,189	3,785 19,189	3,785 19,189	3,785 19,189	<u>3,785</u> 19,189	<u>3,785</u> 19,192	3 <u>,786</u> 19,194	<u>3,786</u> 19,194	<u>3,786</u> 19,197	<u>3,787</u> 19,199	3,787 19,199
<u>Total</u>	230,258,407																	
BOM CapEx	235,331,526	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010 560	229,257,570	229,257,570	229,257,570 560	229,258,130 0	229,258,130
Less Internal Cost AFUDC	-8,284,369 4,225,629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost EOM	-1,014,379	229,257,010	229,257,010	229,257,010	229,257,010	0 229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,010	229,257,570	229,257,570	229,257,570	0 229,258,130	229,258,130	229,258,130
Return on CWIP																		
After Tax Return on Equity Income Tax Component	17,429,592 12,298,533	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,032 6,373	9,033 6,374	9,034 6,375	9,034 6,375	9,035 6,375	9,036 6,376	9,036 6,376
Interest Expense Component Total Return on CWIP	7,815,928 37,544,053	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,189	3,785 19,192	3,786 19,194	3,786 19,194	3,786 19,197	3,787 19,199	3,787 19,199
Total Notalli on Own	01,044,000	13,109	15,155	13,103	15,105	15,169	13,109	13,103	15,105	15,105	15,105	15,165	15,152	13,134	15,154	15,157	13,133	10,100

	Total <u>Project</u>	<u>Sep-34</u>	Oct-34	Nov-34	Dec-34	<u>Jan-35</u>	Feb-35	<u>Mar-35</u>	<u>Apr-35</u>	<u>May-35</u>	<u>Jun-35</u>	<u>Jul-35</u>	<u>Aug-35</u>	Sep-35	Oct-35	<u>Nov-35</u>	Dec-35
BEC 4 Ash Phase 3 In Service 12/31/2023 BOM	2,160,560																
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,160,560 0 0																
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																	
BEC 4 Ash Phase 4 In Service 12/31/2029 BOM	2,940,724																
CapEx Less Internal Cost AFUDC Less AFUDC on Internal Cost	2,940,724 0 0 0																
EOM Return on CWIP After Tax Return on Equity Income Tax Component Interest Expense Component Total Return on CWIP																	
BEC 4 Ash Phase 5 In Service 12/31/2035	3,178,613	0.470.000	0.470.000	0.470.000	0.470.000	0.470.450	0.470.450	0.470.450	0.400.045	0.400.045	0.400.045	0.070.004	0.070.004	0.070.004	0.000.000	0.000.000	In-Service
BOM CapEx	3,178,613	2,178,336 560	2,178,896	2,178,896	2,178,896 560	2,179,456 0	2,179,456	2,179,456 249,789	2,429,245	2,429,245 0	2,429,245 249,789	2,679,034	2,679,034	2,679,034 249,789	2,928,822	2,928,822	2,928,822 249,790
Less Internal Cost AFUDC	0	0	0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0	0 0	0
Less AFUDC on Internal Cost EOM	0	2,178,896	2,178,896	0 2,178,896	0 2,179,456	0 2,179,456	0 2,179,456	0 2,429,245	0 2,429,245	0 2,429,245	0 2,679,034	2,679,034	2,679,034	0 2,928,822	0 2,928,822	0 2,928,822	0 3,178,613
Return on CWIP		2,170,030	2,170,090	2,170,090	2,179,430	2,179,430	2,179,430	2,429,243	2,429,243	2,429,243	2,079,034	2,079,034	2,073,034	2,920,022	2,920,022	2,920,022	3,170,013
After Tax Return on Equity		9,038	9,039	9,039	9,040	9,041	9,041	9,559	10,077	10,077	10,595	11,114	11,114	11,632	12,150	12,150	6,075
Income Tax Component Interest Expense Component		6,377 <u>3,787</u>	6,378 3,788	6,378 3,788	6,379 3,788	6,380 <u>3,789</u>	6,380 <u>3,789</u>	6,745 <u>4,006</u>	7,111 <u>4,223</u>	7,111 <u>4,223</u>	7,476 <u>4,440</u>	7,842 <u>4,657</u>	7,842 4,657	8,207 <u>4,874</u>	8,573 <u>5,091</u>	8,573 5,091	4,286 2,546
Total Return on CWIP		19,202	19,204	19,204	19,207	19,209	19,209	20,310	21,411	21,411	22,512	23,612	23,612	24,713	25,814	25,814	12,907
<u>Total</u>	230,258,407																
BOM		229,258,130	229,258,690	229,258,690	229,258,690	229,259,250	229,259,250	229,259,250	229,509,039	229,509,039	229,509,039	229,758,828	229,758,828	229,758,828	230,008,617	230,008,617	230,008,617
CapEx	235,331,526	560	0	0	560	0	0	249,789	0	0	249,789	0	0	249,789	0	0	249,790
Less Internal Cost AFUDC	-8,284,369 4,225,629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-1,014,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö
EOM		229,258,690	229,258,690	229,258,690	229,259,250	229,259,250	229,259,250	229,509,039	229,509,039	229,509,039	229,758,828	229,758,828	229,758,828	230,008,617	230,008,617	230,008,617	230,258,407
Return on CWIP After Tax Return on Equity	17,429,592	9,038	9,039	9,039	9,040	9,041	9,041	9,559	10,077	10,077	10,595	11,114	11,114	11,632	12,150	12,150	6,075
Income Tax Component	12,298,533	6,377	6,378	6,378	6,379	6,380	6,380	6,745	7,111	7,111	7,476	7,842	7,842	8,207	8,573	8,573	4,286
Interest Expense Component	7,815,928	3,787	3,788	3,788	3,788	3,789	3,789 19,209	4,006	4,223	4,223	4,440	4,657	4,657	4,874	5,091	5,091	2,546
Total Return on CWIP	37,544,053	19,202	19,204	19,204	19,207	19,209	19,209	20,310	21,411	21,411	22,512	23,612	23,612	24,713	25,814	25,814	12,907

BEC 4 Environmental Retrofit In Service 12/31/2015	Total <u>Project</u> 223,427,863	to date Jan-13	<u>Feb-13</u>	<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>	<u>Sep-13</u>	Oct-13	<u>Nov-13</u>	<u>Dec-13</u>	<u>Jan-14</u>	<u>Feb-14</u>
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 EOM	4,207,508	1,890,832	130,908 24,650,462	144,919 27,389,835	163,136 31,514,963	182,679	199,828	208,650	225,340 42,437,297	245,626 46,108,367	14,567	15,400 55,419,850	16,892	17,454	18,124 69,786,144
EOM		22,080,404	24,000,402	21,369,635	31,314,963	34,759,576	36,011,448	38,344,703	42,437,297	40,100,307	50,684,738	55,419,650	61,190,666	63,015,477	69,766,144
Basin's Return on CWIP															
BEC 4 Storm Water In Service 11/1/2016 BOM	3,951,327	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														
вом		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost 1/	2,098,287 0														
AFUDC	4,958														
EOM	4,330	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return on CWIP		Ü	Ü	Ū	Ū	Ü	· ·	· ·	Ū	Ū	v	v	ŭ	v	· ·
BEC 4 Ash Phase 1 In Service 12/31/2019	1,734,158														
BOM		0	0	423	426	428	430	3,708	3,728	4,086	4,108	4,669	8,105	15,099	15,099
CapEx	1,731,953	0	422	0	0	0	3,266	0	336	0	560	3,436	6,994	0	0
Less Internal Cost 1/ AFUDC	135	0	0 1	0	0	0 2	0 11	0 20	0 21	0 22	0	0	0	0	0
EOM	2,070	0	423	2 426	2 428	430	3,708	3,728	4,086	4,108	4,669	0 8,105	15,099	0 15,099	15,100
Basin's Return on CWIP		Ü	423	420	420	430	3,706	3,726	4,000	4,100	4,009	8,103	13,099	13,099	13,100
BEC 4 Ash Phase 2 In Service 12/31/2019	60,800	0	0	0	0	0	0	0	0	0		0	0	0	2
BOM CapEx	60,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	00,800	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	Ü	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.

BEC 4 Environmo	2/31/2015	Total <u>Project</u> 223,427,863	<u>Mar-14</u>	<u>Apr-14</u>	<u>May-14</u>	<u>Jun-14</u>	Jul-14	<u>Aug-14</u>	<u>Sep-14</u>	Oct-14	<u>Nov-14</u>	<u>Dec-14</u>	<u>Jan-15</u>	<u>Feb-15</u>	<u>Mar-15</u>	<u>Apr-15</u>
BOM		040 000 055	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
CapE Less Internal		219,220,355 0	7,196,027 0	9,743,271 0	7,845,283 0	7,601,922 0	5,701,139 0	5,931,783 0	5,688,464 0	9,393,184	6,156,489 0	9,497,882	4,303,519 0	4,679,957 0	8,491,083 0	7,328,323
AFUD		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		4,207,300	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			,,		. ,,	, , .	7. 7.	.,,	.,.	.,,		,,	., ,.	,.	. ,,	., .,
BEC 4 Storn In Service 11 BOM	1/1/2016	3,951,327	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapE		3,940,234	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal		0,340,234	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUD		11,093	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM	Л		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return	n on CWIP															
BEC 4 Ash Ha In Service 8/	/31/2016	2,103,245														
BOM		0.000.007	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapE Less Internal		2,098,287 0											0	0	0	0
AFUD		4,958											0	0	0	0
EOM		1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return	n on CWIP															
BEC 4 Ash I In Service 12	2/31/2019	1,734,158														
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
CapE		1,731,953	1,228	312	0	0	0	527	545	1,373	8,275	14,663	3,551	2,867	55,515	80,872
Less Internal		135	0	0	0	0	0	0	0	0	0	0 5	0 5	0 6	0 9	0 11
EOM		2,070	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			10,020	10,011	10,011	10,010	10,010	,	.,,,20	10,100	27,002	12,010	10,000	10, 110	101,000	101,000
BEC 4 Ash I In Service 12 BOM	2/31/2019	60,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapE		60,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM	Л		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin's Return	n on CWIP		0	0	0	0	0	0	0	0	0	0	0	0	0	0

BEC 4 Environmental Retrofit In Service 12/31/2015	Total <u>Project</u> 223,427,863	<u>May-15</u>	<u>Jun-15</u>	<u>Jul-15</u>	<u>Aug-15</u>	<u>Sep-15</u>	Oct-15	<u>Nov-15</u>	Dec-15 In-Service	<u>Jan-16</u>	<u>Feb-16</u>	<u>Mar-16</u>	<u>Apr-16</u>	<u>May-16</u>	<u>Jun-16</u>
BOM		169,706,756	177,038,691	184,128,523	191,248,985	197,882,801	206,343,337	211,416,820	215,201,514	219,281,005	219,970,998	220,559,711	220,989,116	220,920,763	221,430,391
CapEx	219,220,355	7,296,940	7,050,384	7,080,626	6,590,910	8,414,100	5,022,424	3,729,561	4,018,617	689,993	588,281	428,508	-69,348	511,932	242,935
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	4,207,508	34,996	39,448	39,836	42,907	46,436	51,059	55,133	60,874	0	432	897	995	-2,304	43
EOM		177,038,691	184,128,523	191,248,985	197,882,801	206,343,337	211,416,820	215,201,514	219,281,005	219,970,998	220,559,711	220,989,116	220,920,763	221,430,391	221,673,369
Basin's Return on CWIP		340,201	354,348	368,291	381,784	396,591	409,867	418,554	211,161						
BEC 4 Storm Water In Service 11/1/2016	3,951,327	0	0	0	0	0	0	0	0	0	0.440	00.000	400 440	4 440 040	4 000 004
BOM	3,940,234	0	0	0	0	0	0	0	0	2,106	2,113 96,190	98,328 335,022	433,413 686,242	1,119,842	1,929,934 474,452
CapEx Less Internal Cost 1/	3,940,234	0	0	0	0	0	0	0	0	2,106	96,190	335,022	0	809,731 0	474,452
AFUDC	11,093	0	0	0	0	0	0	0	0	7	24	63	187	361	515
EOM	11,095	0	0	0	0	0	0	0	0	2,113	98,328	433,413	1,119,842	1,929,934	2,404,901
Basin's Return on CWIP		0	0	0	0	0	0	0	0	2,113	99	522	1,524	2,992	4,253
	0.400.045	Ü	· ·	· ·	Ü	Ü	Ü	0	Ü	-	33	022	1,024	2,002	4,200
BEC 4 Ash Haul Improve In Service 8/31/2016	2,103,245	0	54	54	70.000	040.007	4 004 040	4 070 070	4 507 450	4 074 050	4 055 547	1.011.100	4 000 054	4 000 050	4 004 000
BOM CapEx	2,098,287	54	54 0	54 70,912	70,969 172,030	243,007 1,021,191	1,264,213 15,139	1,279,376 248,042	1,527,456 343,718	1,871,258 -15,879	1,855,517 58,491	1,914,169 6,013	1,920,354 117	1,920,650 500	1,921,330
Less Internal Cost 1/	2,090,207	0	0	70,912	172,030	1,021,191	15,139	246,042	343,716	-15,679	56,491	0,013	0	0	0
AFUDC	4,958	0	0	3	8	15	25	37	84	139	161	172	179	180	183
EOM	4,500	54	54	70,969	243,007	1,264,213	1,279,376	1,527,456	1,871,258	1,855,517	1,914,169	1,920,354	1,920,650	1,921,330	1,921,514
				,	,	.,,	1,=:0,0:0	.,,	.,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,	.,,	.,,	.,,	.,,
Basin's Return on CWIP		0	0	70	308	1,479	2,496	2,754	3,335	3,657	3,699	3,762	3,769	3,770	3,771
BEC 4 Ash Phase 1 In Service 12/31/2019	1,734,158														
BOM		184,886	225,516	284,069	335,796	358,481	382,667	396,190	428,931	454,341	468,356	465,207	475,854	490,065	517,588
CapEx	1,731,953	40,610	58,513	51,673	22,627	24,124	13,459	32,677	25,344	13,950	-3,213	10,581	14,145	27,454	191,937
Less Internal Cost 1/	135	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0
AFUDC	2,070	20	41	54	57	62	64	64	66	65	65	65	67	69	81
ЕОМ		225,516	284,069	335,796	358,481	382,667	396,190	428,931	454,341	468,356	465,207	475,854	490,065	517,588	709,606
Basin's Return on CWIP		403	500	608	681	727	764	810	867	905	916	923	948	989	1,204
BEC 4 Ash Phase 2 In Service 12/31/2019	60,800														
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	60,800	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

BEC 4 Environmental Retrofit In Service 12/31/2015 BOM	Total <u>Project</u> 223,427,863	<u>Jul-16</u> 221,673,369	Aug-16 221,848,478	<u>Sep-16</u> 222,143,278	Oct-16 223,384,642	Nov-16 223,616,639	Dec-16 223,218,459	<u>Jan-17</u> 223,412,577	<u>Feb-17</u> 223,433,791	<u>Mar-17</u> 223,429,799	<u>Apr-17</u>	<u>May-17</u>	<u>Jun-17</u>	<u>Jul-17</u>	<u>Aug-17</u>
CapEx	219,220,355	175,015	294,957	1,241,364	231,997	-398,180	193,937	21,214	-3,992	-1,936					
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0					
AFUDC	4,207,508	94	-157	0	0	0	181	0	0	0					
EOM		221,848,478	222,143,278	223,384,642	223,616,639	223,218,459	223,412,577	223,433,791	223,429,799	223,427,863					
Basin's Return on CWIP															
BEC 4 Storm Water In Service 11/1/2016	3,951,327					In-Service									
вом		2,404,901	2,430,170	3,071,441	3,373,457	3,400,473	3,943,723	3,950,438							
CapEx	3,940,234	24,630	640,502	300,975	25,754	537,026	6,714	889							
Less Internal Cost 1/ AFUDC	0 11,093	0 639	0 769	0 1,040	0 1,262	0 6,224	0	0							
EOM	11,093	2,430,170	3,071,441	3,373,457	3,400,473	3,943,723	3,950,438	3,951,327							
LOW		2,430,170	3,071,441	3,373,437	3,400,473	3,343,723	3,330,430	3,331,321							
Basin's Return on CWIP		4,744	5,398	6,323	6,646	3,337									
BEC 4 Ash Haul Improve In Service 8/31/2016	2,103,245		In-Service												
вом		1,921,514	2,118,965	2,122,556	2,122,556	2,122,556									
CapEx	2,098,287	197,271	0	0	0	-19,310									
Less Internal Cost 1/ AFUDC	0 4,958	0 181	0 3,590	0	0	0									
EOM	4,936	2,118,965	2,122,556	2,122,556	2,122,556	2,103,245									
20		2,110,000	2,122,000	2,122,000	2,122,000	2,100,210									
Basin's Return on CWIP		3,964	2,079												
BEC 4 Ash Phase 1	1,734,158														
In Service 12/31/2019															
вом		709,606	767,372	1,017,697	1,118,188	1,418,691	1,454,782	1,691,346	1,754,826	1,722,799	1,727,415	1,729,536	1,727,134	1,727,254	1,728,201
CapEx	1,731,953	57,677	250,228 0	100,387 0	300,395	35,979	236,557 0	63,478 0	-32,140 0	4,503	2,009	-2,515	0	948	5,822
Less Internal Cost 1/ AFUDC	135 2,070	0 89	97	104	0 109	0 112	6	3	113	0 113	0 113	0 113	120	0	0
EOM	2,070	767,372	1,017,697	1,118,188	1,418,691	1,454,782	1,691,346	1,754,826	1,722,799	1,727,415	1,729,536	1,727,134	1,727,254	1,728,201	1,734,024
		,	.,,	.,,	.,,	.,	.,,	.,,	.,,.	.,,	.,,	.,,	., ,	.,,	.,,
Basin's Return on CWIP		1,449	1,751	2,096	2,489	2,819	3,087	3,381	3,412	3,385	3,392	3,392	3,389	3,391	3,397
BEC 4 Ash Phase 2	60,800														
In Service 12/31/2019		_	•	•	_	_	-	_	-	-	_	_	•	•	_
BOM CapEx	60,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost 1/	00,800	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

BEC 4 Environmental Retrofit In Service 12/31/2015	Total <u>Project</u> 223,427,863	<u>Sep-17</u>	<u>Oct-17</u>	<u>Nov-17</u>	<u>Dec-17</u>	<u>Jan-18</u>	<u>Feb-18</u>	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	<u>Aug-18</u>	<u>Sep-18</u>	Oct-18
ВОМ															
CapEx Less Internal Cost 1/ AFUDC	219,220,355 0 4,207,508														
EOM															
Basin's Return on CWIP															
BEC 4 Storm Water In Service 11/1/2016 BOM	3,951,327														
CapEx	3,940,234														
Less Internal Cost 1/ AFUDC	0 11,093														
EOM															
Basin's Return on CWIP															
BEC 4 Ash Haul Improve In Service 8/31/2016 BOM	2,103,245														
CapEx	2,098,287														
Less Internal Cost 1/ AFUDC	0 4,958														
EOM	4,930														
Basin's Return on CWIP															
BEC 4 Ash Phase 1	1,734,158														
In Service 12/31/2019 BOM		1,734,024	4 704 000	4 704 000	1,734,033	1,734,038	4 704 040	4.704.040	1,734,053	4 704 050	1,734,063	4 704 000	1,734,073	1,734,078	1,734,083
CapEx	1,731,953	1,734,024	1,734,026 0	1,734,029 0	1,734,033	1,734,036	1,734,043 0	1,734,048 0	1,734,053	1,734,058 0	1,734,063	1,734,068 0	1,734,073	1,734,078	1,734,063
Less Internal Cost 1/	135	2	3	4	5	5	5	5	5	5	5	5	5	5	5
AFUDC EOM	2,070	0 1,734,026	0 1,734,029	0 1,734,033	0 1,734,038	0 1,734,043	0 1,734,048	0 1,734,053	0 1,734,058	0 1,734,063	0 1,734,068	0 1,734,073	0 1,734,078	0 1,734,083	0 1,734,088
LOW		1,734,020	1,734,023	1,734,000	1,734,000	1,734,043	1,734,040	1,734,000	1,734,000	1,734,003	1,734,000	1,734,073	1,734,070	1,734,003	1,734,000
Basin's Return on CWIP		3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403	3,403
BEC 4 Ash Phase 2 In Service 12/31/2019	60,800														
вом		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx Less Internal Cost 1/	60,800 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

BOM CapEx 219,220,355 Less Internal Cost 1/ 0 AFUDC 4,207,508 EOM Basin's Return on CWIP	
BEC 4 Storm Water 3,951,327 In Service 11/1/2016 BOM	
CapEx 3,940,234 Less Internal Cost 1/ 0 AFUDC 11,093	
EOM Basin's Return on CWIP	
BEC 4 Ash Haul Improve 2,103,245 In Service 8/31/2016 BOM	
CapEx 2,098,287 Less Internal Cost 1/ 0 AFUDC 4,958 EOM	
Basin's Return on CWIP	
BEC 4 Ash Phase 1 1,734,158 In Service 12/31/2019 BOM 1,734,088 1,734,093 1,734,098 1,734,103 1,734,108 1,734,113 1,734,118 1,734,123 1,734,128 1,734,133 1,734,138 1,734,143 1,734,148	<u>In-Service</u> 1,734,153
CapEx 1,731,953 0 <	0 5 0
EOM 1,734,093 1,734,098 1,734,103 1,734,108 1,734,113 1,734,118 1,734,123 1,734,128 1,734,133 1,734,138 1,734,143 1,734,148 1,734,153 Basin's Return on CWIP 3,403 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857 2,857	1,734,158 1,428
BEC 4 Ash Phase 2 60,800 In Service 12/31/2019	In-Service
BOM 0 0 0 0 0 15,200 15,200 30,400 30,400 30,400 45,600 45,600 CapEx 60,800 0 0 0 0 15,200 0 0 15,200 0 0 15,200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45,600 15,200 0
EOM 0 0 0 0 15,200 15,200 30,400 30,400 30,400 45,600 45,600 45,600 45,600 Basin's Return on CWIP 0 0 0 13 25 25 38 50 50 63 75 75	60,800

MPUC Docket E015/GR-09-1151 Rate of Return / Cost of Capital Summary (thousands of dollars) Commission Decision (9/29/2010)

Average for 13 months Ended 12/31/10

Long Term Debt Common Equity

			Component	Weighted	Pre-tax	After-Tax
	Amount	% of Total	Cost	Cost	Rate	Rate
9	696,677	45.71%	5.56%	2.540%	2.540%	1.490%
9	827,534	54.29%	10.38%	5.640%	9.610%	5.640%
9	31,524,211	100.00%		8.180%	12.150%	7.130%
			Pretax "Gro	State Income oss-up" Factor	•	41.37% 1.70560 5.6343% 1/
			Income Ta	x Component pense Compo		3.9757% 2/ 2.5400% 12.1500%

^{1/} Rounding forced to 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

				Component	Weighted	Pre-tax	After-Tax
	A	mount	% of Total	Cost	Cost	Rate	Rate
Long Term Debt	\$	1,229	46.189%	4.5170%	2.0860%	2.0860%	1.220%
Common Equity	\$	1,431	53.811%	9.2500%	4.9780%	8.4905%	4.978%
	\$	2,660	100.00%	•	7.0640%	10.5765%	6.198%
				Federal & S	State Income	Tax Rate	41.37%
				Pretax "Gro	oss-up" Facto	or	1.70560
				After Tax F	Return on Eq	uity	4.9780% 1/
				Income Ta	x Componer	ıt	3.5125% 2/
				Interest Ex	pense Comp	onent	2.0860%
				Pre-tax Re	eturn		10.5765%

^{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.

^{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.

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

Minnesota Power BEC 4 Environmental Rider: 2018 Factor Filing Revised Allocation Factors for Use Starting 1/1/2014 until 11/30/2018

	D-01	
	Revised /1	Normalized
MN Jurisdiction	0.83043	1.0000
Residential	0.11400	0.1373
General Service	0.06291	0.0758
Large Light & Power	0.12627	0.1521
Large Power	0.51910	0.6251
Municipal Pumping	0.00575	0.0069
Lighting	0.00240	0.0029

1/ BEC4 2016 Factor Filing, Docket E015/M-15-876, Exhibit B-5, page 4. Because the revenue tracker amounts are 100% MN Jurisdictional, the factor are normalized to obtain class allocations.

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

Demand Responsibility for Power Supply Costs Based on 12-Month Average CP Demands (MW) 2017 Test Year 2/28/2017 Supplemental Filing

Volume V - Supplement Direct, AF-1, page 2 of 37, Docket E-015/GR-16-664

				Lowest Level of Allocation		Power Supply Transmission		Power Supply Production	
		Lowest Level	Demand	Losses to	Demand	Losses on	Demand	Losses on	Demand
Line		of Allocation	at Meter	Meter Point	at LLA	Dist Bulk Del	at Trans	Trans Sys	at Prod
(No)	<u></u>	(kV)	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Group A -	Full Requirement Customers								
1	Buhl	23	1.162	0.000	1.162	0.013	1.175	0.000	1.175
2	Gilbert	23	1.691	0.000	1.691	0.019	1.710	0.000	1.710
3	Keewatin	23	0.902	0.000	0.902	0.010	0.912	0.000	0.912
4	Mountain Iron	23	2.187	0.000	2.187	0.025	2.212	0.000	2.212
5	Nashwauk	23	2.033	0.000	2.033	0.023	2.056	0.000	2.056
6	Pierz	34	1.744	0.041	1.785	0.020	1.805	0.000	1.805
7	Randall	34	0.813	0.019	0.832	0.009	0.841	0.000	0.841
8	Biwabik	46	1.032	0.000	1.032	0.012	1.044	0.000	1.044
9	Ely	46	5.615	0.000	5.615	0.064	5.679	0.000	5.679
10	Aitkin	PST	6.078	0.000	6.078	0.000	6.078	0.000	6.078
11	Brainerd	PST	26.699	0.000	26.699	0.000	26.699	0.000	26.699
12	Grand Rapids	PST	26.029	0.000	26.029	0.000	26.029	0.000	26.029
13	Hibbing	PST	22.373	0.000	22.373	0.000	22.373	0.000	22.373
14	Proctor	PST	3.687	0.086	3.773	0.000	3.773	0.000	3.773
15	Two Harbors	PST	4.326	0.101	4.427	0.000	4.427	0.000	4.427
16	Virginia	PST	19.137	0.000	19.137	0.000	19.137	0.000	19.137
17	Group A - Total		125.508	0.246	125.754	0.197	125.950	0.000	125.950
18	- Demand Responsibility (%)						8.858		8.510
Group B -	Private Utilities								
19	Superior Water, Light & Power Company	PST	105.521	0.000	105.521	0.000	105.521	0.000	105.521
20	Group B - Total		105.521	0.000	105.521	0.000	105.521	0.000	105.521
21	- Demand Responsibility (%)		.00.02	0.000		0.000	7.421	0.000	7.130
Group C -	Transmission and Distribution Wheeling Service								
22	Staples	34	3.514	0.000	3.514	0.040	3.554		
23	Wadena	34	10.661	0.000	10.661	0.122	10.782		
		01							
24 25	Group C - Total		14.175	0.000	14.175	0.162	14.337 1.008		
25	- Demand Responsibility (%)						1.006		
Other									
26	Other - Total						1,176.141		1,248.511
27	- Demand Responsibility (%)						82.713		84.360
Total Syste									
28	System - Total						1,421.949		1,479.983
29	 Demand Responsibility (%) 						100.000		100.000
							(D-02)		(D-01)
Notes:							DTRAN		DPROD
	+11 A (a) (b)						2		3

Demand at LLA (c) = (a) + (b).

Demand at Trans (e) = (c) + (d).

Demand at Prod (g) = (e) + (f).

Demand loss factors:

Secondary (%) @ 1.25

Line Transf (%) @ 2.30

Primary (%) @ 1.99

Distribution Subs (%) @ 0.33

Dist Bulk Delivery (%) @ 1.14

Transmission losses supplied through MISO and not allocated here.

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

		Total Retail	Residential	General Service	Large Light & Power	Large Power	Municipal Pumping	Lighting
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 Jurisditional 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 Jurisditional 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: 2018 Factor Filing Allocation Factors for Use Starting 12/1/2018

	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 3, line 11.

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

Minnesota Power BEC4 Rider Tax Depreciation Table

2015 BEC4 Environmental Retrofit and Ash Haul Project

		Pollution				Pollution	
	20 yr PUP	Control			20 yr PUP	Control	
	40%	60%	Weighted		40%	60%	Weighted
	Weighting 1/	Weighting 2/	Average		Weighting 3/	Weighting 4/	Average
Year 1	0.938%	1.1905%	1.0895%	Year 1	3.750%	14.2857%	10.071%
Year 2	7.430%	14.2857%	11.5434%	Year 2	7.219%	14.2857%	11.459%
Year 3	6.872%	14.2857%	11.3202%	Year 3	6.677%	14.2857%	11.242%
Year 4	6.357%	14.2857%	11.1142%	Year 4	6.177%	14.2857%	11.042%
Year 5	5.880%	14.2857%	10.9234%	Year 5	5.713%	14.2857%	10.857%
Year 6	5.439%	14.2857%	10.7470%	Year 6	5.285%	14.2857%	10.685%
Year 7	5.031%	14.2857%	10.5838%	Year 7	4.888%	14.2857%	10.527%
Year 8	4.654%	13.095%	9.7187%	Year 8	4.522%	0.000%	1.809%
Year 9	4.458%	0.000%	1.7832%	Year 9	4.462%	0.000%	1.785%
Year 10	4.458%	0.000%	1.7832%	Year 10	4.461%	0.000%	1.784%
Year 11	4.458%	0.000%	1.7832%	Year 11	4.462%	0.000%	1.785%
Year 12	4.458%	0.000%	1.7832%	Year 12	4.461%	0.000%	1.784%
Year 13	4.458%	0.000%	1.7832%	Year 13	4.462%	0.000%	1.785%
Year 14	4.458%	0.000%	1.7832%	Year 14	4.461%	0.000%	1.784%
Year 15	4.458%	0.000%	1.7832%	Year 15	4.462%	0.000%	1.785%
Year 16	4.458%	0.000%	1.7832%	Year 16	4.461%	0.000%	1.784%
Year 17	4.458%	0.000%	1.7832%	Year 17	4.462%	0.000%	1.785%
Year 18	4.459%	0.000%	1.7836%	Year 18	4.461%	0.000%	1.784%
Year 19	4.458%	0.000%	1.7832%	Year 19	4.462%	0.000%	1.785%
Year 20	4.459%	0.000%	1.7836%	Year 20	4.461%	0.000%	1.784%
Year 21	3.901%	0.000%	1.5604%	Year 21	2.231%	0.000%	0.892%
	100.000%	100.000%	100.000%		100.000%	100.000%	100.000%

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

^{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.

	40%	60%	Weighted
	Weighting 3/	Weighting 4/	Average
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%
	100.000%	100.000%	100.000%

BEC4 2016 Costs and Boswell Ash Pond Projects

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

Boswell Storm Water Project

		.,	Pollution		
	20 yr PUP		Control		
	40%		60%		Weighted
	Weighting	5/	Weighting	6/	Average
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%
	100.000%		100.000%		100.000%

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

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

^{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 Janaury. For plant in-service in other months, straight line is prorated in years 1 and 8.

^{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)	AFFIDAVIT OF SERVICE VIA
) ss	ELECTRONIC FILING AND
COUNTY OF ST. LOUIS)	MAILING VIA U.S. MAIL

Susan Romans of the City of Duluth, County of St. Louis, State of Minnesota, says that on the **9**th day of **April**, **2018** she served Minnesota Power's *Rider for Boswell Unit 4 Emission Reduction (BEC4 Rider) and 2017 Factor* on the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce via electronic filing. The persons Minnesota Power's General Service List were served as requested.

Susan Romans

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