



September 30, 2015

**PUBLIC DOCUMENT
TRADE SECRET DATA EXCISED**

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 2016 Factor
Docket No. E015/M-15-___

Dear Mr. Wolf:

Minnesota Power hereby electronically submits the attached Petition seeking Minnesota Public Utilities Commission approval of its 2016 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 lhoyum@mnpower.com with any questions related to this matter.

Yours truly,

Lori Hoyum
Policy Manager

LH:sr
Enc.

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 2016 Factor

Docket No. E015/M-15-_____

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 2016 Factor

Docket No. E015/M-15-_____

I. INTRODUCTION

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 (“BEC4”) mercury emission reduction project (“BEC4 Project”) through Minnesota Power’s Commission-approved Rider for Boswell Unit 4 Emission Reduction (“BEC4 Rider”). Upon Commission approval, Minnesota Power will adjust the line item on customers’ monthly electric bills under the Boswell 4 Plan Adjustment.

On August 31, 2012, Minnesota Power submitted its Boswell Energy Center Unit 4 mercury emission reduction plan petition (“BEC4 Plan”) in compliance with Minn. Stat. § 216B.6851 to the Commission and Minnesota Pollution Control Agency (“MPCA”). The BEC4 Plan is a multi-pollutant solution for reducing mercury, particulate matter (“PM”), sulfur dioxide (“SO₂”), and other hazardous air pollutants being addressed by United States Environmental Protection Agency (“EPA”) regulations while also reducing plant wastewater. Minnesota Power is installing 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.¹ 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.² 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.

¹ See Docket No. E015/M-13-1166.

² See Docket No. E015/M-14-990.

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
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55802 (218) 722-2641

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

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

This Petition is being filed on September 30, 2015. The proposed effective date of the BEC4 Plan Adjustment is April 1, 2016.

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 15-16.

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 is installing Alstom's circulating dry scrubber ("CDS") technology,³ referred to as the NID system ("NID"), for the removal of PM, SO₂, acid gases including hydrochloric acid and trace metals, and other hazardous air pollutants being addressed by EPA regulations, while also reducing plant wastewater. In addition to the NID system, Minnesota Power is installing 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 will cost effectively achieve the mercury reduction required by MERA while ensuring compliance with other regulatory programs over the long term.

Construction activities have been proceeding well. Erection of the NID building, as well as all internal components, is nearly complete. Construction has moved into system turnover for start-up status and Unit 4 is currently off line for the tie in of the duct work. Progress made since Minnesota Power filed its 2015 BEC4 Factor and Compliance Filing in November 2014 includes:

- Weld-out completed on all baghouse compartments
- All reactor ducts installed and welded
- All bags installed in baghouse
- Waste ash silo complete and in service
- All cable tray and conduit complete in NID electrical building
- All cables pulled to NID electrical room
- All motor control centers set
- Batteries installed and in service
- Building siding complete

³ See <http://www.alstom.com/Global/Power/Resources/Documents/Brochures/circulating-fluidised-bed-boiler-technology-coal-oil-power.pdf> for information on NID system.

- Lime day bins installed
- Air compressors installed and in service
- All ID fan inlet ducts demolished and new duct ready to install
- NID inlet ducts nearly all installed and welded out
- Start up and commissioning nearly 60 percent complete

Overall, construction is approximately 90 percent complete, engineering is more than 98 percent complete and the project stands at more than 90 percent complete.

Exhibit C contains pictures of the construction work at various stages of the project. Minnesota Power can report that through August 2015, with more than 942,000 hours worked on the project, there have been eight OSHA (Occupational Safety and Health Administration) recordable injuries and one lost time injury.

B. Project Schedule

Construction work is progressing on schedule as presented in the BEC4 Plan Petition (see Table 2, page 29) submitted on August 31, 2012, the subsequent March 7, 2013 Petition seeking Commission approval to establish the BEC4 Rider (see Table 1, page 9), and 2015 BEC4 Factor and Compliance Filing submitted on November 26, 2014 (see Table 1, page 9). As identified in Table 1 on page 9, work continues on the electrical and control components which can only be completed while Unit 4 is off line during the ten-week scheduled outage that started on August 15. The outage period is when all tie in occurs as well as checkout and commissioning for tuning of the new equipment. More specifically, outage activities include:

- Air heater outlet duct demo and tie in to new NID inlet duct
- ID fan inlet duct demo and tie in to NID outlet duct
- ID fan motor removal and installation of new motors
- Removal of old variable frequency drive (“VFD”) equipment and installation of new VFD and transformers
- Start up and check out of all systems
- Stack choke removal

- Completion of insulation and lagging of duct work
- Completion of electrical system tie in

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 Equipment <i>*Completed</i>	Apr 2012 – Dec 2012
Phase 2 – Final Design & Procurement Fabricate/Deliver – Fabric Filter/CDS <i>*In Progress</i>	Jul 2012 – May 2015
Phase 3 – Construction Site Preparation <i>*Completed</i> Pile construction <i>*Completed</i> Construction – Civil & Foundations <i>*Completed</i> Construction – CDS/Fabric Filter and Ash Silo <i>*Completed</i> Construction – Electrical and Controls <i>*In Progress</i>	Apr 2013 – Jul 2013 Jul 2013 – Nov 2013 Apr 2013 – Sep 2014 Apr 2014 – Jul 2015 Nov 2014 – Oct 2015
Phase 4 – Start-Up Checkout & Commission for Tuning <i>*In Progress</i> Final Plant Start-Up and Tuning	Apr 2015 – Oct 2015 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 is 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 uses best practices in industry supply chain management. The Company uses its purchasing procedures to obtain competitive bids for as many purchases as

possible, including equipment and labor packages, and award contracts to bidder(s) based on the best overall economic value for its customers. The Company also includes 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. The BEC4 Project total anticipated project cost has not changed since Minnesota Power submitted its 2015 BEC4 Factor and Compliance Filing in November 2014,⁴ remaining at an estimate of approximately \$260 million from an originally estimated approximately \$350 million. The total project cost reflects Minnesota Power's 80 percent⁵ ownership interest in the equipment and facilities that comprise the BEC4 Project. The reasons for the decrease in total project cost for the BEC4 Project, 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 offers 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 has progressed from the initial design stage through the planning, procurement and initial construction stages. Over the course of the project, Minnesota Power will put out for bid 43 contracts associated with the BEC4 Project. Similar to the CDS technology, as the other

⁴ Docket No. E015/M-14-990.

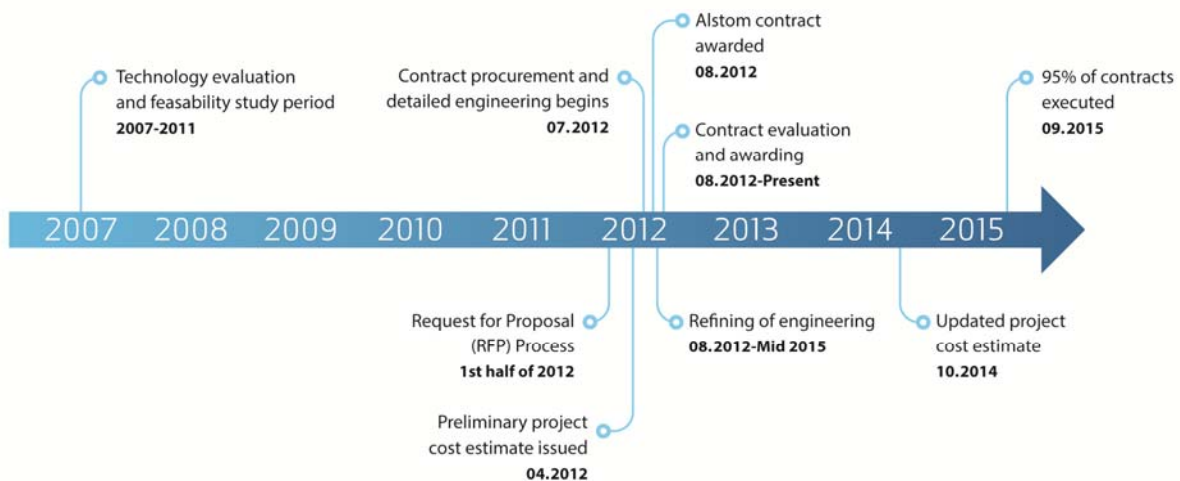
⁵ BEC4 is jointly owned by Minnesota Power and WPPI Energy. As a co-owner of BEC4, WPPI Energy will pay a proportionate share of the required capital and O&M (operations & maintenance) associated with the BEC4 Project. Amounts reflected are net of WPPI's 20% ownership interest in BEC4. Amounts include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

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. As previously stated, approximately 95 percent of the contracts have currently been awarded and engineering is more than 98 percent complete. Many of these contracts were awarded for less 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, because approximately 95 percent of the contracts are awarded and costs determined, Minnesota Power is able to carry a lower contingency on the Project than what was included in the original estimate. The BEC4 Project cost updates the Company provided since submitting its March 7, 2013 Petition seeking Commission approval to establish the BEC4 Rider each reflect 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 has been successful to this point in working towards achieving the lowest overall cost for the BEC4 Project on behalf of its customers.

Figure 1 illustrates the span of time and sequence for the project-cost related activities associated with the BEC4 Project.

Figure 1 - Timeline of Project-cost Related Activities



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, will comply 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. Minnesota Power will need to increase the amount of lime used in order to achieve compliance with the settlement terms for SO₂ emissions. Based on current engineering estimates, the projected cost differential for the additional lime usage is estimated to be less than \$150,000 annually. The cost differential is based on the pre-project baseline emission reduction level identified in the BEC4 Plan Petition. The small additional cost each year to reduce SO₂ emission 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. These operating costs will begin in 2016 after the Project is complete and the facility becomes operational.

V. COST RECOVERY

A. BEC4 Rider - Revenue Requirements

Based upon the current estimated costs, the revenue requirements for the BEC4 Project have been calculated according to the cost recovery terms detailed in Minnesota Power's Petition as approved by the November 5, 2013 Order.⁶ 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.

In addition to the adjustments discussed in the above paragraph, another adjustment has been made to the revenue requirements. Equipment with Original Installed Cost ("OIC") of approximately \$40 million will be retired from BEC4 prior to the BEC4 Project being placed into service. Beginning August 15, 2015 with the outage of BEC4, Minnesota Power began deducting the estimated revenue requirements associated with this equipment that is currently in base rates from the BEC4 rider revenue requirements. This credit includes a return on average rate base, depreciation expense and associated O&M (operations & maintenance) expenses. This credit is applied beginning in August 2015 in this Petition and will continue until the BEC4 Project is rolled into base rates in Minnesota Power's subsequent rate case. Refer to Exhibit B-1, page 6 of 8, row E5 for the application of this credit, and to Exhibit B-2, page 22 of 22, for the calculation of this credit.

As part of a power sales agreement to Basin Electric Power Cooperative ("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

⁶ 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).

agreement directly to customers through crediting the revenue requirements by Basin's specified share of the costs for a portion of the contract. Refer to Exhibit B-1, pages 6 and 8, row E4 for Basin's 2015 and 2016 share.

Minnesota Power proposes to include a total of \$32.8 million in jurisdictional revenue requirements in the BEC4 Rider Adjustment Factors. The total revenue requirements for the BEC4 Rider Adjustment Factors consist of the projected 2015 year-end Tracker Balance of \$6.4 million and 2016 revenue requirements of \$26.4 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, 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 August 24, 2015 Order approving the 2015 Boswell 4 Plan Adjustment Factors, the Company has included the revised jurisdictional allocation factors to reflect the loss of a wholesale customer, Dahlberg Light & Power, effective January 1, 2014. 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 2010 base rate demand and energy revenue split of approximately 60 percent demand and 40 percent energy from the Company’s most recent rate case (Docket No. E015/GR-09-1151). The LP demand rate adder is calculated as 60 percent of the projected LP revenue requirement divided by the LP class Billing Demand (kW-month) from the 2016 budget. The LP energy rate adder is calculated as 40 percent of the projected LP revenue requirement divided by the annual LP energy sales (kWh) from the 2016 budget. See Exhibit B-1, page 1 of 5, 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 2016 budget. See Exhibit B-1, page 1 of 5, for further detail. Also, refer to Exhibit A for the proposed Rider for Boswell Unit 4 Emission Reduction tariff page.

C. Customer Impact

Assuming the effective date of the new 2016 Boswell 4 Plan Adjustment Factors is April 1, 2016, the rate impact for the average residential customer will be approximately \$0.99 per month or a 1.15 percent increase during the first twelve months the new factors are effective.

For Large Power customers, the rate impact will be approximately 0.112¢ per kWh of energy or an increase of 1.93 percent during the first twelve months the new factors are effective.

Table 2 summarizes the estimated revenue requirements and rate impacts by customer class for the twelve months beginning April 1, 2016.

Table 2--Estimated Customer Impact

Proposed Billing Factor Effective	4/1/2016
Retail Revenue Requirements	\$32,837,470
Rate Class Impacts 1/	
Residential	
Average Current Rate (¢/kWh)	10.673
Increase (¢/kWh)	0.123
Increase (%)	1.15
Average Impact (\$/month)	0.99
General Service	
Average Current Rate (¢/kWh)	10.668
Increase (¢/kWh)	0.123
Increase (%)	1.15
Average Impact (\$/month)	3.43
Large Light & Power	
Average Current Rate (¢/kWh)	8.792
Increase (¢/kWh)	0.123
Increase (%)	1.40
Average Impact (\$/month)	284.70
Large Power	
Average Current Rate (¢/kWh)	6.311
Increase (demand + energy combined) (¢/kWh)	0.112
Increase (%)	1.93
Average Impact (\$/month)	64,168
Municipal Pumping	
Average Current Rate (¢/kWh)	9.835
Increase (¢/kWh)	0.123
Increase (%)	1.25
Average Impact (\$/month)	7.88
Lighting	
Average Current Rate (¢/kWh)	16.366
Increase (¢/kWh)	0.123
Increase (%)	0.75
Average Impact (\$/month)	0.45

Notes:

1/ Average current rates are 2015 estimated rates based on Final 2010 TY General Rates in 2009 Rate Case (E015/GR-09-1151) without riders, adjusted to include current rider rates. Current rider rates include Renewable Resources Rider rates, Transmission Cost Recovery Rider rates, BEC4 Rider rates, Conservation Program Adjustment, and estimated 2015 Fuel and Purchased Energy Adjustment. Average \$/month impact based on 2016 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. Additionally, Minnesota Power appreciates the opportunity to update the Commission and its stakeholders on the progress of the BEC4 Project.

Dated: September 30, 2015

Respectfully submitted,

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

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EXHIBIT A-1

MINNESOTA POWER
ELECTRIC RATE BOOK - VOLUME I

SECTION V PAGE NO. 93
REVISION 42

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	\$1. <u>5200</u> per kW-month of Billing Demand
	and
	0. <u>144095</u> ¢/kWh
All other applicable Retail Rate Customers	0. <u>388265</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
ELECTRIC RATE BOOK - VOLUME I**

SECTION V PAGE NO. 93
REVISION 2

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	\$1.52 per kW-month of Billing Demand
	and
	0.144¢/kWh
All other applicable Retail Rate Customers	0.388¢/kWh

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

Approved by: Marcia A. Podratz
Marcia A. Podratz
Director - Rates

EXHIBITS

B-1 thru B-6

Minnesota Power
BEC4 Rider: 2016 Factor Filing
Summary: Revenue Requirements, Cost Allocation and Rate Design

	MN Jurisdictional Amounts <u>Total</u>
<u>Projected Year End 2015 Tracker Balance 1/</u>	
MN Jurisdictional & Class Tracker	\$ 6,393,991
Large Power	\$ 3,887,705
All Other Retail Classes	\$ 2,506,286

<u>2016 Net Revenue Requirements 2/</u>	<u>Allocators 3/</u>	
MN Jurisdictional & Class Revenue Requirements	100.00%	\$ 26,443,479
Large Power	62.51%	\$ 16,529,874
All Other Retail Classes	37.49%	\$ 9,913,604

<u>Total 2016 BEC4 Factor Revenue Requirements</u>	
MN Jurisdictional & Class Revenue Requirements	\$ 32,837,470
Large Power	\$ 20,417,580
All Other Retail Classes	\$ 12,419,890

<u>Billing Units 4/</u>		
Large Power	kW - month	672,947
	kWh	5,683,897,000
All Other Retail Classes	kWh	3,197,365,000

<u>Billing Factors 5/</u>		<u>Proposed 4/1/2016</u>
Large Power	\$/kW - month	1.52
	¢/kWh	0.144
All Other Retail Classes	¢/kWh	0.388

		<u>Current Rate</u>	<u>Proposed</u>	<u>Increase</u>
Large Power	(\$/kW - month)	1.00	1.52	0.520
	(¢/kWh)	0.095	0.144	0.049
All Other Classes	(¢/kWh)	0.265	0.388	0.123

Notes:

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

2/ Refer to Exhibit B-1, page 8 of 8, row E8.

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

4/ 2016 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: 2016 Factor Filing
Tracker Summary

		<u>2013</u> <u>Total /2</u>	<u>2014</u> <u>Total /3</u>	<u>2015</u> <u>Estimated /4</u>	<u>Estimated</u> <u>2015 Year</u> <u>End Tracker</u>
<u>Revenue Requirements</u>					
	Allocation /1				
MN Jurisdiction	1.0000	1,276,136	9,798,539	16,210,047	
Large Power	0.6251	797,715	6,125,088	10,132,934	
All Other Classes	0.3749	478,421	3,673,452	6,077,112	
<u>Cash Collections</u>					
MN Jurisdiction		-	(5,393,694)	(15,497,037)	
Large Power		-	(3,605,582)	(9,562,450)	
All Other Classes		-	(1,788,112)	(5,934,587)	
<u>(Over)/Under Collection</u>					
MN Jurisdiction		1,276,136	4,404,845	713,010	6,393,991
Large Power		797,715	2,519,506	570,484	3,887,705
All Other Classes		478,421	1,885,340	142,525	2,506,286

1/ Refer to Exhibit B-5, page 4.

2/ Refer to Exhibit B-1, page 4, line G3.

3/ Refer to Exhibit B-1, page 4, lines E8, G1 and G3.

4/ Refer to Exhibit B-1, page 6, lines E8, G1 and G3.

2014 Revenue Requirements

Total Sum: All Projects

Section	Line	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Total Year Dec-14
A	Book Basis of Property														
	0 CWIP (net of contra AFUDC & internal costs) 1/	60,653,451	67,309,446	74,393,822	84,019,248	91,690,976	99,173,190	104,754,647	110,573,659	116,136,335	125,356,873	131,429,677	140,839,560	140,839,560	
	1 Plant in Service (net of contra AFUDC & Internal costs)	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	
B	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)	-	-	-	-	-	-	-	-	-	-	-	-	-	
C-1	Revenue Requirements - Consolidated NOL														
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5 Current Return on CWIP 1/	605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356	
	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	605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356	

1/ Refer to Exhibit B-3, pages 6 and 7.

Minnesota Power
BEC4 Rider
2014 Revenue Requirements: Total Sum All Projects

2014 Revenue Requirements

Total Sum: All Projects

Section	Line	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Total Year Dec-14
C-2	Revenue Requirements - Stand Alone NOL														
	1 Net Plant		-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Less: ADITL - Def Taxes		-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base		-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base		-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP /1		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	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		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
D	Stand Alone Taxable Income or Loss (NOL)														
	1 Revenue Requirements		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	2 Tax Depreciation		-	-	-	-	-	-	-	-	-	-	-	-	-
	3 Property Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP) /1		126,543	135,427	149,969	167,654	185,960	201,998	215,824	227,889	239,935	255,580	271,766	288,152	2,466,697
	5 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction		126,543	135,427	149,969	167,654	185,960	201,998	215,824	227,889	239,935	255,580	271,766	288,152	2,466,697
	7 Taxable Income (NOL)		478,771	512,385	567,404	634,312	703,573	764,252	816,561	862,210	907,785	966,979	1,028,216	1,090,211	9,332,659
	8 Current tax expense		198,068	211,974	234,735	262,415	291,068	316,171	337,811	356,697	375,551	400,040	425,373	451,020	3,860,923
E	Summary: Revenue Requirements														
	1 Revenue Requirement: Consolidated		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	2 Revenue Requirement: Stand Alone		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	3 Revenue Requirement: Rider 2/		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	4 Revenue Credit for Basin's Share /3		-	-	-	-	-	-	-	-	-	-	-	-	-
	5 BEC 4 Base Rate Revenue Credit 3/		-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Net Revenue Requirements		605,314	647,812	717,373	801,966	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,378,363	11,799,356
	7 MN Jurisdictional Allocator /4		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		502,671	537,963	595,728	665,977	738,695	802,403	857,323	905,251	953,101	1,015,250	1,079,544	1,144,634	9,798,539
F	Monthly Entry														
	1 Monthly Entry needed		502,671	537,963	595,728	665,977	738,695	802,403	857,323	905,251	953,101	1,015,250	1,079,544	1,144,634	
	2 Cumulative Year		502,671	1,040,634	1,636,362	2,302,338	3,041,033	3,843,436	4,700,759	5,606,011	6,559,111	7,574,361	8,653,905	9,798,539	
	3 Booked YTD		502,671	1,040,634	1,636,362	2,302,338	3,041,033	3,843,436	4,700,759	5,606,011	6,559,111	7,574,361	8,653,905	9,798,539	
	4 Entry Needed		502,671	537,963	595,728	665,977	738,695	802,403	857,323	905,251	953,101	1,015,250	1,079,544	1,144,634	
G	Tracker														
	1 Cash Collections		-	-	-	-	-	-	-	906,960	1,091,041	1,103,520	1,106,931	1,185,242	5,393,694
	2 Monthly (Over)/Under collection		502,671	537,963	595,728	665,977	738,695	802,403	857,323	(1,709)	(137,940)	(88,270)	(27,387)	(40,608)	4,404,845
	3 Cumulative (Over)/Under Balance	1,276,136	1,778,807	2,316,770	2,912,498	3,578,475	4,317,170	5,119,573	5,976,896	5,975,187	5,837,246	5,748,977	5,721,589	5,680,981	

1/ Refer to Exhibit B-3, page 6 and 7.
2/ Lesser of E1 or E2.
3/ Details to follow as applicable.
4/ Refer to Exhibit B-5, page 3, line 11.

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

2015 Revenue Requirements

Total Sum: All Projects

Section	Line	Dec-14	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
A	Book Basis of Property														
	0 CWIP (net of contra AFDC & internal costs) 1/		144,944,467	149,505,105	157,912,730	165,117,794	172,248,091	179,303,124	188,169,658	197,501,104	205,574,986	210,432,901	214,199,139	542,838	542,838
	1 Plant in Service (net of contra AFDC & Internal costs)		-	-	-	-	-	-	-	-	-	-	-	227,317,799	227,317,799
	2 Total Accumulated Depreciation		-	-	-	-	-	-	-	-	-	-	-	473,579	473,579
	3 Net Plant		-	-	-	-	-	-	-	-	-	-	-	226,844,220	226,844,220
	4 Total Depreciation		-	-	-	-	-	-	-	-	-	-	-	473,579	473,579
B	Tax Basis of Property														
	1 Plant in Service		-	-	-	-	-	-	-	-	-	-	-	227,317,799	227,317,799
	2 Accumulated Depreciation		-	-	-	-	-	-	-	-	-	-	-	72,108,693	72,108,693
	3 Net Plant		-	-	-	-	-	-	-	-	-	-	-	155,209,106	155,209,106
	4 Bonus Depreciation		-	-	-	-	-	-	-	-	-	-	-	70,399,086	70,399,086
	5 Total Tax Depreciation (including bonus)		-	-	-	-	-	-	-	-	-	-	-	72,108,693	72,108,693
	6 Tax Book Difference		-	-	-	-	-	-	-	-	-	-	-	71,635,114	71,635,114
	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		-	-	-	-	-	-	-	-	-	-	-	29,635,447	29,635,447
	9 Deferred Tax Expense debit / (Credit)		-	-	-	-	-	-	-	-	-	-	-	29,635,447	29,635,447
C-1	Revenue Requirements - Consolidated NOL														
	1 Net Plant		-	-	-	-	-	-	-	-	-	-	-	226,844,220	226,844,220
	2 Less: ADITL - Def Taxes		-	-	-	-	-	-	-	-	-	-	-	(29,635,447)	(29,635,447)
	3 Plus: ADITA - NOL		-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base		-	-	-	-	-	-	-	-	-	-	-	197,208,774	197,208,774
	5 Average Rate Base		-	-	-	-	-	-	-	-	-	-	-	98,604,387	98,604,387
	6 Current Return on CWIP		1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,149,700	1,087,131	20,812,953
	7 Return on Average Rate Base		-	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity		-	-	-	-	-	-	-	-	-	-	-	462,976	462,976
	9 Income Tax Component		-	-	-	-	-	-	-	-	-	-	-	326,681	326,681
	10 Interest Expense Component		-	-	-	-	-	-	-	-	-	-	-	208,713	208,713
	11 Total Return on Average Rate Base		-	-	-	-	-	-	-	-	-	-	-	998,369	998,369
	12 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	810,000	810,000	1,620,000
	13 Depreciation Expense		-	-	-	-	-	-	-	-	-	-	-	473,579	473,579
	14 Property Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements		1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,369,079	23,904,901

1/ Refer to Exhibit B-3.

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

2015 Revenue Requirements

Total Sum: All Projects

Section	Line	Dec-14	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	-	-	-	-	-	-	-	-	-	-	-	-	226,844,220	226,844,220
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-	(29,635,447)	(29,635,447)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-	22,504,901	22,504,901
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	219,713,675	219,713,675
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	109,856,837	109,856,837
	6 Current Return on CWIP	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,149,700	1,087,131	20,812,953	
	7 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	-	515,809	515,809
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	-	363,961	363,961
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	-	232,530	232,530
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	1,112,300	1,112,300
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	810,000	810,000	1,620,000
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-	473,579	473,579
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,483,010	24,018,832	
D	Stand Alone Taxable Income or Loss (NOL)														
	1 Revenue Requirements	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,483,010	24,018,832	
	2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	72,108,693	72,108,693
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP) 1/	302,455	311,626	325,351	341,874	357,046	372,058	388,909	408,168	426,589	440,275	449,402	459,799	4,583,551	
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	810,000	810,000	
	6 Total Tax Deduction	302,455	311,626	325,351	341,874	357,046	372,058	388,909	408,168	426,589	440,275	1,259,402	73,378,492	78,312,244	
	7 Taxable Income (NOL)	1,144,327	1,179,025	1,230,952	1,293,468	1,350,869	1,407,670	1,471,422	1,544,290	1,613,984	1,665,765	1,700,297	(69,895,481)	(54,293,411)	
	8 Current tax expense	473,408	487,763	509,245	535,108	558,855	582,353	608,727	638,873	667,706	689,127	703,412	(28,915,761)	(22,461,184)	
	9 Taxable Income (NOL)	1,144,327	1,179,025	1,230,952	1,293,468	1,350,869	1,407,670	1,471,422	1,544,290	1,613,984	1,665,765	1,700,297	(69,895,481)	(54,293,411)	
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward	1,144,327	1,179,025	1,230,952	1,293,468	1,350,869	1,407,670	1,471,422	1,544,290	1,613,984	1,665,765	1,700,297	(54,319,527)	(54,293,411)	
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-	22,504,901	22,504,901
E	Summary: Revenue Requirements														
	1 Revenue Requirement: Consolidated	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,369,079	23,904,901	
	2 Revenue Requirement: Stand Alone	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,483,010	24,018,832	
	3 Revenue Requirement: Rider 2/	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573	2,106,040	2,959,700	3,369,079	23,904,901	
	4 Revenue Credit for Basin's Share /3	-	-	-	-	(340,752)	(355,193)	(371,018)	(389,077)	(406,485)	(419,631)	(579,875)	(657,883)	(3,519,915)	
	5 BEC 4 Base Rate Revenue Credit /4	-	-	-	-	-	-	-	(96,103)	(192,205)	(192,205)	(192,205)	(192,205)	(864,923)	
	6 Total Net Revenue Requirements	1,446,782	1,490,651	1,556,303	1,635,342	1,367,163	1,424,535	1,489,313	1,467,278	1,441,882	1,494,204	2,187,619	2,518,992	19,520,064	
	7 MN Jurisdictional Allocator /5	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	0.8304	
	8 MN Jurisdictional Revenue Requirement	1,201,451	1,237,881	1,292,401	1,358,037	1,135,333	1,182,977	1,236,770	1,218,472	1,197,382	1,240,832	1,816,665	2,091,846	16,210,047	
F	Monthly Entry														
	1 Monthly Entry needed	1,201,451	1,237,881	1,292,401	1,358,037	1,135,333	1,182,977	1,236,770	1,218,472	1,197,382	1,240,832	1,816,665	2,091,846		
	2 Cumulative Year	1,201,451	2,439,332	3,731,733	5,089,770	6,225,103	7,408,080	8,644,850	9,863,322	11,060,704	12,301,536	14,118,200	16,210,047		
	3 Booked YTD	1,201,451	2,439,332	3,731,733	5,089,770	6,225,103	7,408,080	8,644,850	9,863,322	11,060,704	12,301,536	14,118,200	16,210,047		
	4 Entry Needed	1,201,451	1,237,881	1,292,401	1,358,037	1,135,333	1,182,977	1,236,770	1,218,472	1,197,382	1,240,832	1,816,665	2,091,846		
G	Tracker														
	1 Cash Collections /6		1,212,670	1,167,214	1,175,791	1,080,583	1,021,481	944,345	1,051,222	1,057,971	1,057,971	1,909,262	1,909,262	1,909,262	15,497,037
	2 Monthly (Over)/Under collection		(11,219)	70,667	116,609	277,454	113,852	238,632	185,548	160,501	139,411	(668,431)	(92,598)	182,584	713,010
	3 Cumulative (Over)/Under Balance	5,680,981	5,669,762	5,740,429	5,857,039	6,134,492	6,248,344	6,486,976	6,672,523	6,833,024	6,972,435	6,304,005	6,211,407	6,393,991	

1/ Refer to Exhibit B-3.

2/ Lesser of E1 or E2.

3/ Refer to Exhibit B-2, pages 15, 18 and 20, line C11.

4/ Refer to Exhibit B-2, page 22, line C14.

5/ Refer to Exhibit B-5, page 3, line 11.

6/ Actual cash collection 1/1/15 to 8/31/15. September cash collection assumed same as August. October to December based on MPUC approved 2015 Factor (\$22,911,148/12) effective 9/1/15 with cash assumed to be received starting 10/1/2015.

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

2016 Revenue Requirements

Total Sum: All Project

Section	Line	Dec-15	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
A	Book Basis of Property														
	0 CWIP (net of contra AFDC & internal costs)		556,991	651,145	785,298	1,310,412	2,738,535	4,142,657	5,602,780	7,062,903	2,560,636	2,703,590	2,797,743	-	-
	1 Plant in Service (net of contra AFDC & Internal costs)	227,987,365	228,416,930	228,416,930	228,793,193	229,579,313	231,817,949	234,046,729	234,846,729	235,449,668	240,822,069	240,822,069	240,822,069	243,633,965	243,633,965
	2 Total Accumulated Depreciation	1,422,131	2,372,973	3,325,495	4,280,437	5,241,682	6,212,233	7,189,094	8,168,878	9,161,700	10,166,304	11,170,907	12,181,677	12,181,677	12,181,677
	3 Net Plant	226,565,233	226,043,957	225,091,435	224,512,756	224,337,631	225,605,716	226,857,635	226,677,851	226,280,968	230,655,765	229,651,161	231,452,288	231,452,288	231,452,288
	4 Total Depreciation	948,552	950,842	952,521	954,943	961,244	970,551	976,861	979,784	992,822	1,004,603	1,004,603	1,010,770	1,010,770	1,170,898
B	Tax Basis of Property														
	1 Plant in Service	227,987,365	228,416,930	228,793,193	229,579,313	231,817,949	234,046,729	234,846,729	235,449,668	240,822,069	240,822,069	240,822,069	240,822,069	243,633,965	243,633,965
	2 Accumulated Depreciation	73,623,795	75,142,552	76,664,561	78,193,496	79,742,618	81,312,435	82,889,968	84,473,615	86,115,784	87,757,952	89,400,120	91,104,552	91,104,552	91,104,552
	3 Net Plant	154,363,569	153,274,378	152,128,632	151,385,817	152,075,331	152,734,293	151,956,761	150,976,052	154,706,285	153,064,117	151,421,948	152,529,413	152,529,413	152,529,413
	4 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Total Tax Depreciation (including bonus)	1,515,103	1,518,757	1,522,009	1,528,934	1,549,122	1,569,818	1,577,532	1,583,648	1,642,168	1,642,168	1,642,168	1,704,432	1,704,432	18,995,860
	6 Tax Book Difference	72,201,664	72,769,579	73,339,067	73,913,058	74,500,936	75,100,203	75,700,873	76,304,737	76,954,083	77,591,648	78,229,213	78,892,875	78,892,875	78,892,875
	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%	41.37%
	8 Accumulated Deferred Income Tax Liability	29,869,829	30,104,775	30,340,372	30,577,832	30,821,037	31,068,954	31,317,451	31,567,270	31,835,904	32,099,665	32,363,425	32,650,393	32,650,393	32,650,393
	9 Deferred Tax Expense debit / (Credit)	234,382	234,946	235,597	237,460	243,205	247,917	248,497	249,818	268,635	263,761	263,761	286,968	286,968	3,014,947
C-1	Revenue Requirements - Consolidated NOL														
	1 Net Plant	226,565,233	226,043,957	225,467,699	225,298,875	226,576,267	227,834,496	227,657,634	227,280,789	231,660,368	230,655,765	229,651,161	231,452,288	231,452,288	231,452,288
	2 Less: ADITL - Def Taxes	(29,869,829)	(30,104,775)	(30,340,372)	(30,577,832)	(30,821,037)	(31,068,954)	(31,317,451)	(31,567,270)	(31,835,904)	(32,099,665)	(32,363,425)	(32,650,393)	(32,650,393)	(32,650,393)
	3 Rate Base	196,695,405	195,939,182	195,127,327	194,721,043	195,755,230	196,765,542	196,340,183	195,713,520	199,824,464	198,556,100	197,287,736	198,801,895	198,801,895	198,801,895
	4 Average Rate Base	196,952,089	196,317,293	195,533,254	194,924,185	195,238,136	196,260,386	196,552,862	196,026,851	197,768,992	199,190,282	197,921,918	198,044,815	198,044,815	196,727,589
	5 Current Return on CWIP	5,568	6,116	7,272	10,610	20,498	34,836	49,336	64,120	48,719	26,650	27,850	14,164	14,164	315,739
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7 After Tax Return on Equity	924,746	921,765	918,084	915,224	916,698	921,498	922,871	920,402	928,581	935,255	929,299	929,877	929,877	11,084,301
	8 Income Tax Component	652,512	650,409	647,811	645,794	646,834	650,220	651,189	649,447	655,219	659,927	655,725	656,132	656,132	7,821,220
	9 Interest Expense Component	416,882	415,538	413,879	412,590	413,254	415,418	416,037	414,924	418,611	421,619	418,935	419,195	419,195	4,996,881
	10 Total Return on Average Rate Base	1,994,140	1,987,713	1,979,774	1,973,607	1,976,786	1,987,136	1,990,098	1,984,772	2,002,411	2,016,802	2,003,959	2,005,204	2,005,204	23,902,402
	11 Operation & Maintenance Expense	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	6,515,070
	12 Depreciation Expense	948,552	950,842	952,521	954,943	961,244	970,551	976,861	979,784	992,822	1,004,603	1,004,603	1,010,770	1,010,770	11,708,098
	13 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14 Revenue Requirements	3,491,183	3,487,594	3,482,490	3,482,082	3,501,451	3,535,446	3,559,218	3,571,599	3,586,875	3,590,978	3,579,336	3,573,060	3,573,060	42,441,310

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

2016 Revenue Requirements

Total Sum: All Project

Section	Line	Dec-15	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		226,565,233	226,043,957	225,467,699	225,298,875	226,576,267	227,834,496	227,657,634	227,280,789	231,660,368	230,655,765	229,651,161	231,452,288	231,452,288
	2 Less: ADITL - Def Taxes		(29,869,829)	(30,104,775)	(30,340,372)	(30,577,832)	(30,821,037)	(31,068,954)	(31,317,451)	(31,567,270)	(31,835,904)	(32,099,665)	(32,363,425)	(32,650,393)	(32,650,393)
	3 Plus: ADITA - NOL (Stand Alone)		22,015,663	21,530,651	21,050,432	20,575,621	20,107,023	19,641,243	19,176,562	18,716,421	18,260,300	17,809,702	17,364,610	16,925,005	16,925,005
	4 Rate Base		218,711,068	217,469,833	216,177,759	215,296,664	215,862,253	216,406,785	215,516,745	214,429,941	218,084,764	216,365,802	214,652,346	215,726,900	215,726,900
	5 Average Rate Base		219,212,371	218,090,450	216,823,796	215,737,211	215,579,458	216,134,519	215,961,765	214,973,343	216,257,352	217,225,283	215,509,074	215,189,623	216,391,187
	6 Current Return on CWIP		5,568	6,116	7,272	10,610	20,498	34,836	49,336	64,120	48,719	26,650	27,850	14,164	315,739
	7 Return on Average Rate Base		-	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity		1,029,264	1,023,996	1,018,049	1,012,947	1,012,207	1,014,813	1,014,002	1,009,361	1,015,390	1,019,934	1,011,876	1,010,376	12,192,215
	9 Income Tax Component		726,262	722,545	718,348	714,748	714,226	716,064	715,492	712,217	716,471	719,678	713,992	712,934	8,602,978
	10 Interest Expense Component		464,000	461,625	458,944	456,644	456,310	457,485	457,119	455,027	457,745	459,794	456,161	455,485	5,496,336
	11 Total Return on Average Rate Base		2,219,525	2,208,166	2,195,341	2,184,339	2,182,742	2,188,362	2,186,613	2,176,605	2,189,606	2,199,406	2,182,029	2,178,795	26,291,529
	12 Operation & Maintenance Expense		542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	6,515,070
	13 Depreciation Expense		948,552	950,842	952,521	954,943	961,244	970,551	979,784	992,822	992,822	1,004,603	1,004,603	1,010,770	11,708,098
	14 Property Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements		3,716,568	3,708,047	3,698,057	3,692,814	3,707,407	3,736,672	3,755,733	3,763,432	3,774,069	3,773,582	3,757,406	3,746,651	44,830,437
D	Stand Alone Taxable Income or Loss (NOL)														
	1 Revenue Requirements		3,716,568	3,708,047	3,698,057	3,692,814	3,707,407	3,736,672	3,755,733	3,763,432	3,774,069	3,773,582	3,757,406	3,746,651	44,830,437
	2 Tax Depreciation		1,515,103	1,518,757	1,522,009	1,528,934	1,549,122	1,569,818	1,577,532	1,583,648	1,642,168	1,642,168	1,642,168	1,704,432	18,995,860
	3 Property Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)		465,164	462,903	460,464	458,862	460,595	464,767	467,433	468,431	467,930	465,365	461,983	458,446	5,562,343
	5 Operation & Maintenance Expense		542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	542,923	6,515,070
	6 Total Tax Deduction		2,523,189	2,524,583	2,525,395	2,530,719	2,552,639	2,577,508	2,587,888	2,595,002	2,653,021	2,650,456	2,647,074	2,705,800	31,073,272
	7 Taxable Income (NOL)		1,193,379	1,183,464	1,172,661	1,162,096	1,154,767	1,159,164	1,167,845	1,168,430	1,121,049	1,123,126	1,110,332	1,040,851	13,757,165
	8 Current tax expense		493,701	489,599	485,130	480,759	477,727	479,546	483,139	483,380	463,778	464,638	459,344	430,600	5,691,341
	9 Taxable Income (NOL)		1,193,379	1,183,464	1,172,661	1,162,096	1,154,767	1,159,164	1,167,845	1,168,430	1,121,049	1,123,126	1,110,332	1,040,851	
	10 NOL carryforward		(54,399,084)	(53,216,492)	(52,044,116)	(50,883,326)	(49,735,608)	(48,602,908)	(47,477,020)	(46,353,787)	(45,241,530)	(44,138,989)	(43,049,800)	(41,973,918)	
	11 Taxable Income after NOL carryforward		(53,205,705)	(52,033,028)	(50,871,455)	(49,721,230)	(48,580,841)	(47,443,744)	(46,309,174)	(45,185,356)	(44,035,457)	(43,015,863)	(41,939,468)	(40,799,024)	
	12 Expected stand alone ADITA NOL		22,015,663	21,530,651	21,050,432	20,575,621	20,107,023	19,641,243	19,176,562	18,716,421	18,260,300	17,809,702	17,364,610	16,925,005	16,925,005
E	Summary: Revenue Requirements														
	1 Revenue Requirement: Consolidated		3,491,183	3,487,594	3,482,490	3,482,082	3,501,451	3,535,446	3,559,218	3,571,599	3,586,875	3,590,978	3,579,336	3,573,060	42,441,310
	2 Revenue Requirement: Stand Alone		3,716,568	3,708,047	3,698,057	3,692,814	3,707,407	3,736,672	3,755,733	3,763,432	3,774,069	3,773,582	3,757,406	3,746,651	44,830,437
	3 Revenue Requirement: Rider 1/		3,491,183	3,487,594	3,482,490	3,482,082	3,501,451	3,535,446	3,559,218	3,571,599	3,586,875	3,590,978	3,579,336	3,573,060	42,441,310
	4 Revenue Credit for Basin's Share 2/		(681,939)	(681,338)	(680,468)	(680,502)	(684,321)	(690,974)	(695,578)	(697,889)	(700,691)	(701,336)	(699,011)	(697,684)	(8,291,733)
	5 BEC 4 Base Rate Revenue Credit 3/		(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(2,306,461)
	6 Total Net Revenue Requirements		2,617,038	2,614,051	2,609,817	2,609,375	2,624,925	2,652,268	2,671,435	2,681,504	2,693,978	2,697,436	2,688,119	2,683,170	31,843,116
	7 MN Jurisdictional Allocator 4/		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		2,173,267	2,170,786	2,167,270	2,166,903	2,179,817	2,202,523	2,218,439	2,226,802	2,237,160	2,240,032	2,232,295	2,228,185	26,443,479
F	Monthly Entry														
	1 Monthly Entry needed		2,173,267	2,170,786	2,167,270	2,166,903	2,179,817	2,202,523	2,218,439	2,226,802	2,237,160	2,240,032	2,232,295	2,228,185	
	2 Cumulative Year		2,173,267	4,344,053	6,511,323	8,678,226	10,858,043	13,060,565	15,279,005	17,505,806	19,742,967	21,982,999	24,215,294	26,443,479	
	3 Booked YTD		2,173,267	4,344,053	6,511,323	8,678,226	10,858,043	13,060,565	15,279,005	17,505,806	19,742,967	21,982,999	24,215,294	26,443,479	
	4 Entry Needed		2,173,267	2,170,786	2,167,270	2,166,903	2,179,817	2,202,523	2,218,439	2,226,802	2,237,160	2,240,032	2,232,295	2,228,185	

1/ Lesser of E1 or E2.
2/ Refer to Exhibit B-2, pages 16, 17, 19 and 21, line C11.
3/ Refer to Exhibit B-2, page 22, line C14.
4/ Refer to Exhibit B-5, page 3, line 11.

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Environmental Retrofit

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

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
A	Book Basis of Property												
	0 CWIP (net of contra AFUDC & internal costs) 1/	144,899,532	149,457,617	157,809,950	164,934,505	171,873,379	178,491,740	186,553,717	194,951,841	202,789,221	207,511,358	211,183,007	
	1 Plant in Service (net of contra AFUDC & Internal costs) 1/												224,748,001
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	468,225
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	224,279,776
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	468,225
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												0.42%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	224,748,001
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	72,080,695
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	152,667,306
	4 Bonus Depreciation (50% on 2014 spend)												70,399,086
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	72,080,695
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	71,612,470
	7 Income Tax Rate 2/	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	-	-	-	-	-	-	-	-	-	-	-	29,626,079
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	29,626,079
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	224,279,776
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(29,626,079)
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	194,653,697
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	97,326,849
	5 Current Return on CWIP 3/	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,119,640	1,069,114
	6 Return on Average Rate Base 3/												
	7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	456,977
	8 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	322,449
	9 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	206,008
	10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	985,434
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	770,000	770,000
	12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	468,225
	13 Property Tax 4/	-	-	-	-	-	-	-	-	-	-	-	-
	14 Revenue Requirements	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,292,773

1/ Refer to Exhibit B-3.

2/ Minnesota Composite Income Tax Rate.

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

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

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Environmental Retrofit

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

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
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	224,279,776
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(29,626,079)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	22,504,901
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	217,158,598
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	108,579,299
	6 Current Return on CWIP 3/	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,119,640	1,069,114
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	509,811
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	359,729
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	229,826
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,099,365
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	770,000	770,000
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	468,225
	14 Property Tax 4/	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,406,704
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,406,704
	2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	72,080,695
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	302,363	311,528	325,192	341,571	356,455	370,803	386,340	403,760	420,943	434,235	443,118	453,328
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	770,000	770,000
	6 Total Tax Deduction	302,363	311,528	325,192	341,571	356,455	370,803	386,340	403,760	420,943	434,235	1,213,118	73,304,023
	7 Taxable Income (NOL)	1,143,981	1,178,655	1,230,351	1,292,323	1,348,635	1,402,920	1,461,703	1,527,612	1,592,622	1,642,912	1,676,522	(69,897,319)
	8 Current tax expense	473,265	487,610	508,996	534,634	557,930	580,388	604,706	631,973	658,868	679,673	693,577	(28,916,521)
	9 Taxable Income (NOL)	1,143,981	1,178,655	1,230,351	1,292,323	1,348,635	1,402,920	1,461,703	1,527,612	1,592,622	1,642,912	1,676,522	(69,897,319)
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 5/	1,143,981	1,178,655	1,230,351	1,292,323	1,348,635	1,402,920	1,461,703	1,527,612	1,592,622	1,642,912	1,676,522	(54,399,084)
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	22,504,901
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,292,773
	2 Revenue Requirement: Stand Alone	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,406,704
	3 Revenue Requirement: Rider 6/	1,446,345	1,490,183	1,555,542	1,633,894	1,705,090	1,773,723	1,848,043	1,931,372	2,013,564	2,077,147	2,889,640	3,292,773
	4 Revenue Credit for Basin's Share 7/	-	-	-	-	(340,201)	(354,026)	(368,633)	(384,987)	(401,247)	(414,028)	(566,570)	(643,404)
	5 BEC 4 Base Rate Revenue Credit 8/	-	-	-	-	-	-	-	(96,103)	(192,205)	(192,205)	(192,205)	(192,205)
	6 Total Net Revenue Requirements	1,446,345	1,490,183	1,555,542	1,633,894	1,364,888	1,419,698	1,479,409	1,450,282	1,420,112	1,470,914	2,130,865	2,457,164
	7 MN Jurisdictional Allocator 9/	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 Net Jurisdictional Revenue Requirement	1,201,088	1,237,493	1,291,769	1,356,834	1,133,444	1,178,960	1,228,546	1,204,358	1,179,303	1,221,491	1,769,534	2,040,503

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

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

5/ For in-service year, any positive taxable income from return of CWIP is added to first month of taxable loss to establish the first month taxable income/loss.

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-2, page 15 and 16, row C11.

8/ Refer to Exhibit B-2, page 22, row C14.

9/ Refer to Exhibit B-5, page 3, row 11.

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Environmental Retrofit

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

Section 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
A Book Basis of Property												
0 CWIP (net of contra AFUDC & internal costs) 1/												
1 Plant in Service (net of contra AFUDC & Internal costs) 1/	225,417,567	225,847,132	226,223,395	227,009,515	229,248,151	231,476,931	232,276,931	232,879,870	232,879,870	232,879,870	232,879,870	232,879,870
2 Total Accumulated Depreciation	1,406,070	2,346,205	3,288,018	4,232,254	5,182,790	6,142,634	7,108,788	8,077,865	9,048,198	10,018,530	10,988,863	11,959,196
3 Net Plant	224,011,497	223,500,927	222,935,377	222,777,261	224,065,360	225,334,296	225,168,142	224,802,005	223,831,672	222,861,339	221,891,006	220,920,674
4 Total Depreciation	937,845	940,135	941,814	944,235	950,537	959,844	966,154	969,077	970,333	970,333	970,333	970,333
5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B Tax Basis of Property												
1 Plant in Service	225,417,567	225,847,132	226,223,395	227,009,515	229,248,151	231,476,931	232,276,931	232,879,870	232,879,870	232,879,870	232,879,870	232,879,870
2 Accumulated Depreciation	73,571,078	75,065,114	76,562,403	78,066,617	79,591,019	81,136,117	82,688,928	84,247,856	85,806,783	87,365,711	88,924,638	90,483,565
3 Net Plant	151,846,489	150,782,018	149,660,992	148,942,897	149,657,132	150,340,814	149,588,002	148,632,014	147,073,087	145,514,159	143,955,232	142,396,304
4 Bonus Depreciation (50% on 2014 spend)												
5 Total Tax Depreciation (including bonus)	1,490,383	1,494,037	1,497,289	1,504,214	1,524,402	1,545,098	1,552,812	1,558,927	1,558,927	1,558,927	1,558,927	1,558,927
6 Tax Book Difference	72,165,008	72,718,910	73,274,385	73,834,364	74,408,229	74,993,482	75,580,140	76,169,991	76,758,586	77,347,180	77,935,775	78,524,369
7 Income Tax Rate 2/	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	29,854,664	30,083,813	30,313,613	30,545,276	30,782,684	31,024,804	31,267,504	31,511,525	31,755,027	31,998,528	32,242,030	32,485,532
9 Deferred Tax Expense debit / (Credit)	228,585	229,149	229,800	231,663	237,408	242,119	242,700	244,021	243,502	243,502	243,502	243,502
C-1 Revenue Requirements - Consolidated NOL												
1 Net Plant	224,011,497	223,500,927	222,935,377	222,777,261	224,065,360	225,334,296	225,168,142	224,802,005	223,831,672	222,861,339	221,891,006	220,920,674
2 Less: ADITL - Def Taxes	(29,854,664)	(30,083,813)	(30,313,613)	(30,545,276)	(30,782,684)	(31,024,804)	(31,267,504)	(31,511,525)	(31,755,027)	(31,998,528)	(32,242,030)	(32,485,532)
3 Rate Base	194,156,833	193,417,114	192,621,764	192,231,985	193,282,676	194,309,493	193,900,638	193,290,480	192,076,645	190,862,811	189,648,976	188,435,142
4 Average Rate Base	194,405,265	193,786,974	193,019,439	192,426,874	192,757,330	193,796,084	194,105,066	193,595,559	192,683,562	191,469,728	190,255,894	189,042,059
5 Current Return on CWIP 3/												
6 Return on Average Rate Base 3/												
7 After Tax Return on Equity	912,788	909,885	906,281	903,499	905,050	909,928	911,378	908,986	904,704	899,005	893,305	887,606
8 Income Tax Component	644,074	642,026	639,483	637,520	638,615	642,056	643,080	641,392	638,370	634,349	630,327	626,306
9 Interest Expense Component	411,491	410,182	408,558	407,304	408,003	410,202	410,856	409,777	407,847	405,278	402,708	400,139
10 Total Return on Average Rate Base	1,968,353	1,962,093	1,954,322	1,948,322	1,951,668	1,962,185	1,965,314	1,960,155	1,950,921	1,938,631	1,926,341	1,914,051
11 Operation & Maintenance Expense	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583
12 Depreciation Expense	937,845	940,135	941,814	944,235	950,537	959,844	966,154	969,077	970,333	970,333	970,333	970,333
13 Property Tax 4/	-	-	-	-	-	-	-	-	-	-	-	-
14 Revenue Requirements	3,381,782	3,377,811	3,371,719	3,368,141	3,377,788	3,397,613	3,407,051	3,404,815	3,396,837	3,384,547	3,372,257	3,359,967

1/ Refer to Exhibit B-3.

2/ Minnesota Composite Income Tax Rate.

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

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

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Environmental Retrofit

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

Section 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
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	224,011,497	223,500,927	222,935,377	222,777,261	224,065,360	225,334,296	225,168,142	224,802,005	223,831,672	222,861,339	221,891,006	220,920,674
2 Less: ADITL - Def Taxes	(29,854,664)	(30,083,813)	(30,313,613)	(30,545,276)	(30,782,684)	(31,024,804)	(31,267,504)	(31,511,525)	(31,755,027)	(31,998,528)	(32,242,030)	(32,485,532)
3 Plus: ADITA - NOL (Stand Alone)	22,015,663	21,530,651	21,050,432	20,575,621	20,107,023	19,641,243	19,176,562	18,716,421	18,260,300	17,809,702	17,364,610	16,925,005
4 Rate Base	216,172,496	214,947,765	213,672,196	212,807,606	213,389,699	213,950,736	213,077,200	212,006,901	210,336,945	208,672,513	207,013,586	205,360,147
5 Average Rate Base	216,665,547	215,560,131	214,309,981	213,239,901	213,098,652	213,670,217	213,513,968	212,542,050	211,171,923	209,504,729	207,843,050	206,186,867
6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity	1,017,306	1,012,116	1,006,246	1,001,222	1,000,559	1,003,242	1,002,509	997,945	991,512	983,684	975,882	968,106
9 Income Tax Component	717,824	714,161	710,020	706,474	706,006	707,900	707,382	704,162	699,623	694,100	688,594	683,107
10 Interest Expense Component	458,609	456,269	453,623	451,358	451,059	452,269	451,938	449,881	446,981	443,452	439,934	436,429
11 Total Return on Average Rate Base	2,193,739	2,182,546	2,169,889	2,159,054	2,157,624	2,163,411	2,161,829	2,151,988	2,138,116	2,121,235	2,104,411	2,087,642
12 Operation & Maintenance Expense	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583
13 Depreciation Expense	937,845	940,135	941,814	944,235	950,537	959,844	966,154	969,077	970,333	970,333	970,333	970,333
14 Property Tax 4/	-	-	-	-	-	-	-	-	-	-	-	-
15 Revenue Requirements	3,607,167	3,598,264	3,587,285	3,578,873	3,583,744	3,598,838	3,603,566	3,596,648	3,584,032	3,567,152	3,550,327	3,533,558
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	3,607,167	3,598,264	3,587,285	3,578,873	3,583,744	3,598,838	3,603,566	3,596,648	3,584,032	3,567,152	3,550,327	3,533,558
2 Tax Depreciation	1,490,383	1,494,037	1,497,289	1,504,214	1,524,402	1,545,098	1,552,812	1,558,927	1,558,927	1,558,927	1,558,927	1,558,927
3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
4 Interest Expense (including on CWIP)	458,609	456,269	453,623	451,358	451,059	452,269	451,938	449,881	446,981	443,452	439,934	436,429
5 Operation & Maintenance Expense	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583	475,583
6 Total Tax Deduction	2,424,575	2,425,889	2,426,495	2,431,155	2,451,044	2,472,950	2,480,333	2,484,391	2,481,491	2,477,962	2,474,445	2,470,940
7 Taxable Income (NOL)	1,182,592	1,172,375	1,160,791	1,147,717	1,132,700	1,125,889	1,123,233	1,112,257	1,102,541	1,089,189	1,075,882	1,062,619
8 Current tax expense	489,238	485,012	480,219	474,811	468,598	465,780	464,682	460,141	456,121	450,598	445,092	439,605
9 Taxable Income (NOL)	1,182,592	1,172,375	1,160,791	1,147,717	1,132,700	1,125,889	1,123,233	1,112,257	1,102,541	1,089,189	1,075,882	1,062,619
10 NOL carryforward	(54,399,084)	(53,216,492)	(52,044,116)	(50,883,326)	(49,735,608)	(48,602,908)	(47,477,020)	(46,353,787)	(45,241,530)	(44,138,989)	(43,049,800)	(41,973,918)
11 Taxable Income after NOL carryforward 5/	(53,216,492)	(52,044,116)	(50,883,326)	(49,735,608)	(48,602,908)	(47,477,020)	(46,353,787)	(45,241,530)	(44,138,989)	(43,049,800)	(41,973,918)	(40,911,300)
12 Expected stand alone ADITA NOL	22,015,663	21,530,651	21,050,432	20,575,621	20,107,023	19,641,243	19,176,562	18,716,421	18,260,300	17,809,702	17,364,610	16,925,005
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	3,381,782	3,377,811	3,371,719	3,368,141	3,377,788	3,397,613	3,407,051	3,404,815	3,396,837	3,384,547	3,372,257	3,359,967
2 Revenue Requirement: Stand Alone	3,607,167	3,598,264	3,587,285	3,578,873	3,583,744	3,598,838	3,603,566	3,596,648	3,584,032	3,567,152	3,550,327	3,533,558
3 Revenue Requirement: Rider 6/	3,381,782	3,377,811	3,371,719	3,368,141	3,377,788	3,397,613	3,407,051	3,404,815	3,396,837	3,384,547	3,372,257	3,359,967
4 Revenue Credit for Basin's Share 7/	(661,272)	(660,597)	(659,535)	(658,955)	(660,889)	(664,796)	(666,622)	(666,100)	(664,476)	(662,026)	(659,575)	(657,125)
5 BEC 4 Base Rate Revenue Credit 8/	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)	(192,205)
6 Total Net Revenue Requirements	2,528,304	2,525,009	2,519,978	2,516,980	2,524,694	2,540,612	2,548,224	2,546,510	2,540,156	2,530,316	2,520,477	2,510,637
7 MN Jurisdictional Allocator 9/	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 Net Jurisdictional Revenue Requirement	2,099,580	2,096,844	2,092,666	2,090,176	2,096,582	2,109,800	2,116,122	2,114,698	2,109,422	2,101,251	2,093,080	2,084,909

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

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

5/ For in-service year, any positive taxable income from return of CWIP is added to first month of taxable loss to establish the first month taxable income/loss.

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-2, page 15 and 16, row C11.

8/ Refer to Exhibit B-2, page 22, row C14.

9/ Refer to Exhibit B-5, page 3, row 11.

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell Storm Water Project

Boswell Storm Water Project
Project ID # 107641
In Service 9/30/2016

Section 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
A Book Basis of Property												
0 CWIP (net of contra AFUDC & internal costs) 1/	-	-	-	358,160	1,483,806	2,609,452	3,735,098	4,860,743				
1 Plant in Service (net of contra AFUDC & Internal costs) 1/									5,372,401	5,372,401	5,372,401	5,372,401
2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	11,782	35,345	58,908	82,471
3 Net Plant	-	-	-	-	-	-	-	-	5,360,619	5,337,056	5,313,493	5,289,930
4 Total Depreciation	-	-	-	-	-	-	-	-	11,782	23,563	23,563	23,563
5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)									0.44%	0.44%	0.44%	0.44%
B Tax Basis of Property												
1 Plant in Service	-	-	-	-	-	-	-	-	5,372,401	5,372,401	5,372,401	5,372,401
2 Accumulated Depreciation	-	-	-	-	-	-	-	-	58,521	117,042	175,562	234,083
3 Net Plant	-	-	-	-	-	-	-	-	5,313,880	5,255,359	5,196,839	5,138,318
4 Bonus Depreciation												
5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	58,521	58,521	58,521	58,521
6 Tax Book Difference	-	-	-	-	-	-	-	-	46,739	81,697	116,654	151,612
7 Income Tax Rate 2/	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	-	-	-	-	-	-	-	-	19,336	33,798	48,260	62,722
9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	19,336	14,462	14,462	14,462
C-1 Revenue Requirements - Consolidated NOL												
1 Net Plant	-	-	-	-	-	-	-	-	5,360,619	5,337,056	5,313,493	5,289,930
2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	(19,336)	(33,798)	(48,260)	(62,722)
3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base	-	-	-	-	-	-	-	-	5,341,283	5,303,258	5,265,233	5,227,208
5 Average Rate Base	-	-	-	-	-	-	-	-	2,670,642	5,322,271	5,284,246	5,246,220
6 Current Return on CWIP 3/	-	-	-	1,813	9,325	20,722	32,119	43,516	24,608			
7 Return on Average Rate Base 3/												
8 After Tax Return on Equity	-	-	-	-	-	-	-	-	12,539	24,990	24,811	24,632
9 Income Tax Component	-	-	-	-	-	-	-	-	8,848	17,633	17,507	17,381
10 Interest Expense Component	-	-	-	-	-	-	-	-	5,653	11,265	11,185	11,104
11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	27,040	53,888	53,503	53,118
12 Operation & Maintenance Expense 4/												
13 Depreciation Expense	-	-	-	-	-	-	-	-	11,782	23,563	23,563	23,563
14 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
15 Revenue Requirements	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681

1/ Refer to Exhibit B-3.
2/ Minnesota Composite Income Tax Rate.
3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4.
Return on Average Rate Base starts 12/31/16 (Avg. Monthly Rate Base x ROR% / 12).
4/ O&M for Storm Water Project included in BEC4 Retrofit O&M.
5/ Project assumed to qualify for 100% property tax pollution control exemption per Tax Department.

Minnesota Power
BEC4 Rider

Boswell Storm Water Project
Project ID # 107641
In Service 9/30/2016

Revenue Requirements: Boswell Storm Water Project

Section 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
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	-	-	-	-	-	-	-	-	5,360,619	5,337,056	5,313,493	5,289,930
2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	(19,336)	(33,798)	(48,260)	(62,722)
3 Rate Base	-	-	-	-	-	-	-	-	5,341,283	5,303,258	5,265,233	5,227,208
4 Average Rate Base	-	-	-	-	-	-	-	-	2,670,642	5,322,271	5,284,246	5,246,220
5 Current Return on CWIP 3/	-	-	-	1,813	9,325	20,722	32,119	43,516	24,608	-	-	-
6 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
7 After Tax Return on Equity	-	-	-	-	-	-	-	-	12,539	24,990	24,811	24,632
8 Income Tax Component	-	-	-	-	-	-	-	-	8,848	17,633	17,507	17,381
9 Interest Expense Component	-	-	-	-	-	-	-	-	5,653	11,265	11,185	11,104
10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	27,040	53,888	53,503	53,118
11 Operation & Maintenance Expense 4/	-	-	-	-	-	-	-	-	-	-	-	-
12 Depreciation Expense	-	-	-	-	-	-	-	-	11,782	23,563	23,563	23,563
13 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
14 Revenue Requirements	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681
2 Tax Depreciation	-	-	-	-	-	-	-	-	58,521	58,521	58,521	58,521
3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
4 Interest Expense (including on CWIP)	-	-	-	379	1,949	4,332	6,715	9,097	10,797	11,265	11,185	11,104
5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
6 Total Tax Deduction	-	-	-	379	1,949	4,332	6,715	9,097	69,318	69,786	69,706	69,625
7 Taxable Income (NOL)	-	-	-	1,434	7,376	16,390	25,405	34,419	(5,889)	7,665	7,360	7,056
8 Current tax expense	-	-	-	593	3,051	6,781	10,510	14,239	(2,436)	3,171	3,045	2,919
9 Taxable Income (NOL)	-	-	-	1,434	7,376	16,390	25,405	34,419	(5,889)	7,665	7,360	7,056
10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
11 Taxable Income after NOL carryforward 6/	-	-	-	1,434	7,376	16,390	25,405	34,419	79,135	7,665	7,360	7,056
12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681
2 Revenue Requirement: Stand Alone	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681
3 Revenue Requirement: Rider 7/	-	-	-	1,813	9,325	20,722	32,119	43,516	63,429	77,451	77,066	76,681
4 Revenue Credit for Basin's Share 8/	-	-	-	(351)	(1,807)	(4,016)	(6,225)	(8,434)	(12,212)	(14,849)	(14,774)	(14,699)
5 Total Net Revenue Requirements	-	-	-	1,462	7,518	16,706	25,894	35,082	51,217	62,603	62,292	61,982
6 MN Jurisdictional Allocator 9/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
7 MN Net Jurisdictional Revenue Requirement	-	-	-	1,214	6,243	13,873	21,503	29,133	42,532	51,987	51,729	51,471

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

4/ O&M for Storm Water Project included in BEC4 Retrofit O&M.

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

6/ For in-service year, any positive taxable income from return of CWIP is added to first month of taxable loss to establish the first month taxable income/loss.

7/ Lesser of E1 or E2.

8/ Refer to Exhibit B-2, page 17, row C11.

9/ Refer to Exhibit B-5, page 3, row 11.

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Ash Haul Route Improvement and Equipment

BEC4 Ash Haul Route Improvement and Equipment
Project ID # 107825
In Service 12/31/2015

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
A	Book Basis of Property												
	0 CWIP (net of contra AFUDC & internal costs) 1/	-	-	-	-	91,008	468,543	1,204,239	2,082,751	2,242,928	2,378,705	2,473,294	
	1 Plant in Service (net of contra AFUDC & Internal costs) 1/												2,569,798
	2 Accumulated Depreciation 12/2015 Plant	-	-	-	-	-	-	-	-	-	-	-	5,354
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,564,444
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	5,354
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												0.42%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	2,569,798
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	27,998
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,541,800
	4 Bonus Depreciation												
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	27,998
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	22,644
	7 Income Tax Rate 2/	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	-	-	-	-	-	-	-	-	-	-	-	9,368
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	9,368
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,564,444
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(9,368)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,555,076
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,277,538
	6 Current Return on CWIP 3/	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	12,521
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	5,998
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	4,233
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	2,704
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	12,935
	12 Operation & Maintenance Expense 4/	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	5,354
	15 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810

1/ Refer to Exhibit B-3.

2/ Minnesota Composite Income Tax Rate.

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

4/ All O&M for ash projects included in Ash Phase 1 project. Refer to Exhibit B-2, pages 9 to 12.

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

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Ash Haul Route Improvement and Equipment

BEC4 Ash Haul Route Improvement and Equipment
Project ID # 107825
In Service 12/31/2015

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
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,564,444
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(9,368)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,555,076
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,277,538
	6 Current Return on CWIP 3/	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	12,521
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	5,998
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	4,233
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	2,704
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	12,935
	12 Operation & Maintenance Expense 4/	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	5,354
	14 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810
	2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	27,998
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	-	-	-	-	96	592	1,770	3,479	4,578	4,891	5,135	5,322
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	-	-	-	-	96	592	1,770	3,479	4,578	4,891	5,135	33,319
	7 Taxable Income (NOL)	-	-	-	-	364	2,241	6,698	13,162	17,321	18,506	19,428	(2,509)
	8 Current tax expense	-	-	-	-	151	927	2,771	5,445	7,166	7,656	8,037	(1,038)
	9 Taxable Income (NOL)	-	-	-	-	364	2,241	6,698	13,162	17,321	18,506	19,428	(2,509)
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 6/	-	-	-	-	364	2,241	6,698	13,162	17,321	18,506	19,428	75,210
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810
	2 Revenue Requirement: Stand Alone	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810
	3 Revenue Requirement: Rider 7/	-	-	-	-	461	2,833	8,468	16,640	21,899	23,397	24,563	30,810
	4 Revenue Credit for Basin's Share 8/	-	-	-	-	(89)	(549)	(1,641)	(3,225)	(4,244)	(4,535)	(4,761)	(5,935)
	5 Total Net Revenue Requirements	-	-	-	-	371	2,284	6,827	13,415	17,654	18,862	19,802	24,875
	6 MN Jurisdictional Allocator 9/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
	7 MN Net Jurisdictional Revenue Requirement	-	-	-	-	308	1,896	5,669	11,140	14,661	15,664	16,444	20,657

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

4/ All O&M for ash projects included in Ash Phase 1 project. Refer to Exhibit B-2, pages 9 to 12.

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

6/ For in-service year, any positive taxable income from return of CWIP is added to first month of taxable loss to establish the first month taxable income/loss.

7/ Lesser of E1 or E2.

8/ Refer to Exhibit B-2, pages 18 and 19, row C11.

9/ Refer to Exhibit B-5, page 3, row 11.

Minnesota Power
BEC4 Rider

BEC4 Ash Haul Route Improvement and Equipment
Project ID # 107825
In Service 12/31/2015

Revenue Requirements: Boswell 4 Ash Haul Route Improvement and Equipment

Section 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
A Book Basis of Property												
0 CWIP (net of contra AFUDC & internal costs) 1/												
1 Plant in Service (net of contra AFUDC & Internal costs) 1/	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798
2 Accumulated Depreciation 12/2015 Plant	16,061	26,769	37,476	48,184	58,891	69,599	80,306	91,014	101,721	112,429	123,136	133,844
3 Net Plant	2,553,737	2,543,029	2,532,322	2,521,614	2,510,907	2,500,199	2,489,492	2,478,784	2,468,077	2,457,369	2,446,662	2,435,954
4 Total Depreciation	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707
5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B Tax Basis of Property												
1 Plant in Service	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798
2 Accumulated Depreciation	52,718	77,438	102,158	126,879	151,599	176,319	201,039	225,759	250,480	275,200	299,920	324,640
3 Net Plant	2,517,080	2,492,360	2,467,640	2,442,919	2,418,199	2,393,479	2,368,759	2,344,039	2,319,318	2,294,598	2,269,878	2,245,158
4 Bonus Depreciation												
5 Total Tax Depreciation (including bonus)	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720
6 Tax Book Difference	36,657	50,669	64,682	78,695	92,708	106,720	120,733	134,746	148,759	162,771	176,784	190,797
7 Income Tax Rate 2/	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	15,165	20,962	26,759	32,556	38,353	44,150	49,947	55,744	61,541	67,338	73,136	78,933
9 Deferred Tax Expense debit / (Credit)	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797
C-1 Revenue Requirements - Consolidated NOL												
1 Net Plant	2,553,737	2,543,029	2,532,322	2,521,614	2,510,907	2,500,199	2,489,492	2,478,784	2,468,077	2,457,369	2,446,662	2,435,954
2 Less: ADITL - Def Taxes	(15,165)	(20,962)	(26,759)	(32,556)	(38,353)	(44,150)	(49,947)	(55,744)	(61,541)	(67,338)	(73,136)	(78,933)
3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base	2,538,572	2,522,067	2,505,563	2,489,058	2,472,554	2,456,049	2,439,545	2,423,040	2,406,535	2,390,031	2,373,526	2,357,022
5 Average Rate Base	2,546,824	2,530,320	2,513,815	2,497,311	2,480,806	2,464,301	2,447,797	2,431,292	2,414,788	2,398,283	2,381,779	2,365,274
6 Current Return on CWIP 3/												
7 Return on Average Rate Base 3/												
8 After Tax Return on Equity	11,958	11,881	11,803	11,726	11,648	11,571	11,493	11,416	11,338	11,261	11,183	11,106
9 Income Tax Component	8,438	8,383	8,328	8,274	8,219	8,164	8,110	8,055	8,000	7,946	7,891	7,836
10 Interest Expense Component	5,391	5,356	5,321	5,286	5,251	5,216	5,181	5,146	5,111	5,076	5,041	5,006
11 Total Return on Average Rate Base	25,787	25,619	25,452	25,285	25,118	24,951	24,784	24,617	24,450	24,283	24,116	23,948
12 Operation & Maintenance Expense 4/												
13 Depreciation Expense	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707
15 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656

1/ Refer to Exhibit B-3.

2/ Minnesota Composite Income Tax Rate.

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

4/ All O&M for ash projects included in Ash Phase 1 project. Refer to Exhibit B-2, pages 9 to12.

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

Minnesota Power
BEC4 Rider
Revenue Requirements: Boswell 4 Ash Haul Route Improvement and Equipment

BEC4 Ash Haul Route Improvement and Equipment
Project ID # 107825
In Service 12/31/2015

Section 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
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	2,553,737	2,543,029	2,532,322	2,521,614	2,510,907	2,500,199	2,489,492	2,478,784	2,468,077	2,457,369	2,446,662	2,435,954
2 Less: ADITL - Def Taxes	(15,165)	(20,962)	(26,759)	(32,556)	(38,353)	(44,150)	(49,947)	(55,744)	(61,541)	(67,338)	(73,136)	(78,933)
3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base	2,538,572	2,522,067	2,505,563	2,489,058	2,472,554	2,456,049	2,439,545	2,423,040	2,406,535	2,390,031	2,373,526	2,357,022
5 Average Rate Base	2,546,824	2,530,320	2,513,815	2,497,311	2,480,806	2,464,301	2,447,797	2,431,292	2,414,788	2,398,283	2,381,779	2,365,274
6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity	11,958	11,881	11,803	11,726	11,648	11,571	11,493	11,416	11,338	11,261	11,183	11,106
9 Income Tax Component	8,438	8,383	8,328	8,274	8,219	8,164	8,110	8,055	8,000	7,946	7,891	7,836
10 Interest Expense Component	5,391	5,356	5,321	5,286	5,251	5,216	5,181	5,146	5,111	5,076	5,041	5,006
11 Total Return on Average Rate Base	25,787	25,619	25,452	25,285	25,118	24,951	24,784	24,617	24,450	24,283	24,116	23,948
12 Operation & Maintenance Expense 4/	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707
14 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
15 Revenue Requirements	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656
2 Tax Depreciation	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720
3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
4 Interest Expense (including on CWIP)	5,391	5,356	5,321	5,286	5,251	5,216	5,181	5,146	5,111	5,076	5,041	5,006
5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
6 Total Tax Deduction	30,111	30,076	30,041	30,006	29,971	29,936	29,901	29,866	29,832	29,797	29,762	29,727
7 Taxable Income (NOL)	6,383	6,251	6,119	5,987	5,854	5,722	5,590	5,458	5,326	5,194	5,061	4,929
8 Current tax expense	2,641	2,586	2,531	2,477	2,422	2,367	2,313	2,258	2,203	2,149	2,094	2,039
9 Taxable Income (NOL)	6,383	6,251	6,119	5,987	5,854	5,722	5,590	5,458	5,326	5,194	5,061	4,929
10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
11 Taxable Income after NOL carryforward 6/	6,383	6,251	6,119	5,987	5,854	5,722	5,590	5,458	5,326	5,194	5,061	4,929
12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656
2 Revenue Requirement: Stand Alone	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656
3 Revenue Requirement: Rider 7/	36,494	36,327	36,160	35,993	35,826	35,659	35,491	35,324	35,157	34,990	34,823	34,656
4 Revenue Credit for Basin's Share 8/	(6,999)	(6,967)	(6,934)	(6,902)	(6,870)	(6,837)	(6,805)	(6,773)	(6,740)	(6,708)	(6,675)	(6,643)
5 Total Net Revenue Requirements	29,495	29,360	29,225	29,091	28,956	28,821	28,687	28,552	28,417	28,282	28,148	28,013
6 MN Jurisdictional Allocator 9/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
7 MN Net Jurisdictional Revenue Requirement	24,493	24,382	24,270	24,158	24,046	23,934	23,822	23,710	23,598	23,487	23,375	23,263

3/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

Return on Average Rate Base starts 12/31/15 (Avg. Monthly Rate Base x ROR% / 12).

4/ All O&M for ash projects included in Ash Phase 1 project. Refer to Exhibit B-2, pages 9 to 12.

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

6/ For in-service year, any positive taxable income from return of CWIP is added to first month of taxable loss to establish the first month taxable income/loss.

7/ Lesser of E1 or E2.

8/ Refer to Exhibit B-2, pages 18 and 19, row C11.

9/ Refer to Exhibit B-5, page 3, row 11.

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

Boswell Ash Pond Phase 1
Project ID # 106072
In Service 12/31/2016

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
A	Book Basis of Property												
	0 CWIP (net of contra AFUDC & internal costs) 1/	44,935	47,489	102,779	183,289	283,704	342,841	411,702	466,513	542,838	542,838	542,838	542,838
	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, 24 yrs remaining life 2012)												
B	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 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)	-	-	-	-	-	-	-	-	-	-	-	-
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP 4/	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	5,496	5,496
	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 5/	-	-	-	-	-	-	-	-	-	-	40,000	40,000
	12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Property Tax 6/	-	-	-	-	-	-	-	-	-	-	-	-
	14 Revenue Requirements	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496

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.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4.

Return on Average Rate Base starts 12/31/16 (Avg. Monthly Rate Base x ROR% / 12).

5/ All O&M for Ash Pond projects included in Phase 1 project.

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

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

Boswell Ash Pond Phase 1
Project ID # 106072
In Service 12/31/2016

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
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-
3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
5 Current Return on CWIP 4/	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	5,496	5,496
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 5/	-	-	-	-	-	-	-	-	-	-	40,000	40,000
12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-
13 Property Tax 6/	-	-	-	-	-	-	-	-	-	-	-	-
14 Revenue Requirements	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496
2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
4 Interest Expense (including on CWIP) 4/	91	98	159	303	494	663	799	929	1,068	1,149	1,149	1,149
5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	40,000	40,000
6 Total Tax Deduction	91	98	159	303	494	663	799	929	1,068	1,149	41,149	41,149
7 Taxable Income (NOL)	346	370	602	1,145	1,870	2,509	3,021	3,517	4,042	4,347	4,347	4,347
8 Current tax expense	143	153	249	474	774	1,038	1,250	1,455	1,672	1,798	1,798	1,798
9 Taxable Income (NOL)	346	370	602	1,145	1,870	2,509	3,021	3,517	4,042	4,347	4,347	4,347
10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
11 Taxable Income after NOL carryforward 7/	346	370	602	1,145	1,870	2,509	3,021	3,517	4,042	4,347	4,347	4,347
12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496
2 Revenue Requirement: Stand Alone	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496
3 Revenue Requirement: Rider 7/	437	468	761	1,448	2,364	3,172	3,820	4,446	5,110	5,496	45,496	45,496
4 Revenue Credit for Basin's Share 8/	-	-	-	-	(461)	(618)	(744)	(865)	(994)	(1,068)	(8,544)	(8,544)
5 Total Net Revenue Requirements	437	468	761	1,448	1,903	2,554	3,076	3,581	4,116	4,428	36,952	36,952
6 MN Jurisdictional Allocator 9/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
7 MN Net Jurisdictional Revenue Requirement	363	389	632	1,203	1,580	2,121	2,555	2,974	3,418	3,677	30,686	30,686

4/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4.

Return on Average Rate Base starts 12/31/16 (Avg. Monthly Rate Base x ROR% / 12).

5/ All O&M for Ash Pond projects included in Phase 1 project.

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

7/ Lesser of E1 or E2.

8/ Refer to Exhibit B-2, pages 20 and 21, row C11.

9/ Refer to Exhibit B-5, page 3, line 11.

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

Boswell Ash Pond Phase 1
Project ID # 106072
In Service 12/31/2016

Section	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
A	Book Basis of Property												
	0 CWIP (net of contra AFUDC & internal costs) 1/	556,991	651,145	785,298	952,252	1,254,729	1,533,206	1,867,682	2,202,159	2,560,636	2,703,590	2,797,743	
	1 Plant in Service (net of contra AFUDC & Internal costs) 1/												2,811,897
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	6,166
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,805,730
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	6,166
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												0.44%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	2,811,897
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	62,263
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,749,633
	4 Bonus Depreciation												
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	62,263
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	56,097
	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	-	-	-	-	-	-	-	-	-	-	-	23,207
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	23,207
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,805,730
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(23,207)
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,782,523
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,391,262
	5 Current Return on CWIP 4/	5,568	6,116	7,272	8,796	11,173	14,114	17,217	20,604	24,112	26,650	27,850	14,164
	6 Return on Average Rate Base 4/												
	7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	6,532
	8 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	4,609
	9 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	2,945
	10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	14,087
	11 Operation & Maintenance Expense 5/	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339
	12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	6,166
	13 Property Tax 6/	-	-	-	-	-	-	-	-	-	-	-	-
	14 Revenue Requirements	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756

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.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4.

Return on Average Rate Base starts 12/31/16 (Avg. Monthly Rate Base x ROR% / 12).

5/ All O&M for Ash Pond projects included in Phase 1 project.

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

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

Boswell Ash Pond Phase 1
Project ID # 106072
In Service 12/31/2016

Section 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
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,805,730
2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(23,207)
3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,782,523
4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,391,262
5 Current Return on CWIP 4/	5,568	6,116	7,272	8,796	11,173	14,114	17,217	20,604	24,112	26,650	27,850	14,164
6 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
7 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	6,532
8 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	4,609
9 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	2,945
10 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	14,087
11 Operation & Maintenance Expense 5/	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339
12 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	6,166
13 Property Tax 6/	-	-	-	-	-	-	-	-	-	-	-	-
14 Revenue Requirements	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756
2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	62,263
3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
4 Interest Expense (including on CWIP) 4/	1,164	1,279	1,520	1,839	2,336	2,951	3,599	4,307	5,041	5,571	5,822	5,906
5 Operation & Maintenance Expense	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339	67,339
6 Total Tax Deduction	68,503	68,618	68,859	69,178	69,675	70,290	70,938	71,646	72,380	72,910	73,161	135,508
7 Taxable Income (NOL)	4,404	4,838	5,752	6,957	8,837	11,163	13,618	16,296	19,071	21,079	22,028	(33,753)
8 Current tax expense	1,822	2,001	2,380	2,878	3,656	4,618	5,634	6,742	7,890	8,720	9,113	(13,963)
9 Taxable Income (NOL)	4,404	4,838	5,752	6,957	8,837	11,163	13,618	16,296	19,071	21,079	22,028	(33,753)
10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
11 Taxable Income after NOL carryforward 7/	4,404	4,838	5,752	6,957	8,837	11,163	13,618	16,296	19,071	21,079	22,028	100,291
12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756
2 Revenue Requirement: Stand Alone	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756
3 Revenue Requirement: Rider 7/	72,907	73,455	74,611	76,136	78,512	81,453	84,556	87,943	91,451	93,989	95,190	101,756
4 Revenue Credit for Basin's Share 8/	(13,668)	(13,774)	(13,998)	(14,294)	(14,754)	(15,324)	(15,926)	(16,582)	(17,262)	(17,754)	(17,987)	(19,217)
5 Total Net Revenue Requirements	59,239	59,681	60,613	61,842	63,758	66,129	68,630	71,360	74,189	76,235	77,203	82,538
6 MN Jurisdictional Allocator 9/	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043	0.83043
7 MN Net Jurisdictional Revenue Requirement	49,194	49,561	50,335	51,355	52,946	54,915	56,993	59,260	61,608	63,308	64,112	68,542

4/ Current Return on CWIP starts 10/1/13 (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.

Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4.

Return on Average Rate Base starts 12/31/16 (Avg. Monthly Rate Base x ROR% / 12).

5/ All O&M for Ash Pond projects included in Phase 1 project.

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

7/ Lesser of E1 or E2.

8/ Refer to Exhibit B-2, pages 20 and 21, row C11.

9/ Refer to Exhibit B-5, page 3, line 11.

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 15 of 22

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

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
A	Book Basis of Property												
	0 CWIP 1/	149,112,980	153,823,279	162,345,743	169,707,020	177,038,955	183,760,689	191,926,039	200,427,535	208,497,504	213,452,230	217,291,859	
	1 Plant in Service												231,024,835
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	481,302
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	230,543,533
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	481,302
	5 Book Depreciation Rate (24 yrs remaining life 2012)												0.42%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	231,024,835
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	74,118,509
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	156,906,326
	4 Bonus Depreciation (50% on 2014 spend)												72,390,207
	5 Total Tax Depreciation (including bonus) /2	-	-	-	-	-	-	-	-	-	-	-	74,118,509
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	73,637,207
	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	-	-	-	-	-	-	-	-	-	-	-	30,463,713
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	30,463,713
C	Revenue Requirements - Basin 4/												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	230,543,533
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(30,463,713)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	200,079,820
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	100,039,910
	5 Current Return on CWIP	-	-	-	-	340,201	354,026	368,633	384,987	401,247	414,028	422,657	213,212
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	196,323
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	143,913	143,913
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	89,955
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	-	-	-	-	340,201	354,026	368,633	384,987	401,247	414,028	566,570	643,404
	11 Revenue Credit for Basin's Share	-	-	-	-	(340,201)	(354,026)	(368,633)	(384,987)	(401,247)	(414,028)	(566,570)	(643,404)

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

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 16 of 22

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

Section	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
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	231,758,078	232,251,321	232,707,181	233,556,978	235,859,292	238,167,669	238,967,669	239,570,608	239,570,608	239,570,608	239,570,608	239,570,608
	2 Total Accumulated Depreciation	1,445,433	2,412,119	3,380,783	4,352,166	5,330,117	6,317,673	7,311,705	8,308,660	9,306,871	10,305,081	11,303,292	12,301,503
	3 Net Plant	230,312,645	229,839,202	229,326,399	229,204,812	230,529,175	231,849,996	231,655,964	231,261,948	230,263,737	229,265,527	228,267,316	227,269,105
	4 Total Depreciation	964,131	966,686	968,664	971,384	977,951	987,556	994,032	996,955	998,211	998,211	998,211	998,211
	5 Book Depreciation Rate (24 yrs remaining life 2012)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	231,758,078	232,251,321	232,707,181	233,556,978	235,859,292	238,167,669	238,967,669	239,570,608	239,570,608	239,570,608	239,570,608	239,570,608
	2 Accumulated Depreciation	75,650,652	77,186,992	78,727,271	80,275,037	81,843,564	83,433,527	85,031,203	86,634,996	88,238,788	89,842,580	91,446,372	93,050,165
	3 Net Plant	156,107,425	155,064,329	153,979,910	153,281,942	154,015,728	154,734,142	153,936,466	152,935,612	151,331,820	149,728,028	148,124,236	146,520,443
	4 Bonus Depreciation (50% on 2014 spend)												
	5 Total Tax Depreciation (including bonus) /2	1,532,144	1,536,339	1,540,279	1,547,766	1,568,528	1,589,962	1,597,677	1,603,792	1,603,792	1,603,792	1,603,792	1,603,792
	6 Tax Book Difference	74,205,220	74,774,873	75,346,489	75,922,870	76,513,447	77,115,854	77,719,498	78,326,336	78,931,917	79,537,499	80,143,080	80,748,662
	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	30,698,699	30,934,365	31,170,842	31,409,291	31,653,613	31,902,829	32,152,557	32,403,605	32,654,134	32,904,663	33,155,192	33,405,721
	9 Deferred Tax Expense debit / (Credit)	234,987	235,665	236,477	238,449	244,322	249,215	249,728	251,049	250,529	250,529	250,529	250,529
C	Revenue Requirements - Basin 4/												
	1 Net Plant	230,312,645	229,839,202	229,326,399	229,204,812	230,529,175	231,849,996	231,655,964	231,261,948	230,263,737	229,265,527	228,267,316	227,269,105
	2 Less: ADITL - Def Taxes	(30,698,699)	(30,934,365)	(31,170,842)	(31,409,291)	(31,653,613)	(31,902,829)	(32,152,557)	(32,403,605)	(32,654,134)	(32,904,663)	(33,155,192)	(33,405,721)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	199,613,946	198,904,837	198,155,556	197,795,520	198,875,562	199,947,167	199,503,407	198,858,343	197,609,603	196,360,863	195,112,123	193,863,384
	4 Average Rate Base	199,846,883	199,259,391	198,530,197	197,975,538	198,335,541	199,411,365	199,725,287	199,180,875	198,233,973	196,985,233	195,736,493	194,487,754
	5 Current Return on CWIP												
	6 Return on Average Rate Base	392,190	391,037	389,606	388,517	389,224	391,335	391,951	390,883	389,024	386,574	384,123	381,672
	7 Operation & Maintenance Expense	88,887	88,887	88,887	88,887	88,887	88,887	88,887	88,887	88,887	88,887	88,887	88,887
	8 Depreciation Expense	180,196	180,674	181,043	181,552	182,779	184,574	185,785	186,331	186,566	186,566	186,566	186,566
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	661,272	660,597	659,535	658,955	660,889	664,796	666,622	666,100	664,476	662,026	659,575	657,125
	11 Revenue Credit for Basin's Share	(661,272)	(660,597)	(659,535)	(658,955)	(660,889)	(664,796)	(666,622)	(666,100)	(664,476)	(662,026)	(659,575)	(657,125)

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

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 17 of 22

Boswell Storm Water Project: Basin
Project ID # 107641
In Service 9/30/2016

Section	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
A	Book Basis of Property												
	0 CWIP 1/	-	-	-	358,160	1,483,806	2,609,452	3,735,098	4,860,743				
	1 Plant in Service									5,372,401	5,372,401	5,372,401	5,372,401
	2 Accumulated Depreciation 9/2016 Plant									11,782	35,345	58,908	82,471
	3 Net Plant									5,360,619	5,337,056	5,313,493	5,289,930
	4 Total Depreciation									11,782	23,563	23,563	23,563
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)									0.44%	0.44%	0.44%	0.44%
B	Tax Basis of Property												
	1 Plant in Service									5,372,401	5,372,401	5,372,401	5,372,401
	2 Accumulated Depreciation									58,521	117,042	175,562	234,083
	3 Net Plant									5,313,880	5,255,359	5,196,839	5,138,318
	4 Bonus Depreciation												
	5 Total Tax Depreciation (including bonus)									58,521	58,521	58,521	58,521
	6 Tax Book Difference									46,739	81,697	116,654	151,612
	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									19,336	33,798	48,260	62,722
	9 Deferred Tax Expense debit / (Credit)									19,336	14,462	14,462	14,462
C	Revenue Requirements - Basin 4/												
	1 Net Plant									5,360,619	5,337,056	5,313,493	5,289,930
	2 Less: ADITL - Def Taxes									(19,336)	(33,798)	(48,260)	(62,722)
	3 Rate Base									5,341,283	5,303,258	5,265,233	5,227,208
	4 Average Rate Base									2,670,642	5,322,271	5,284,246	5,246,220
	5 Current Return on CWIP				351	1,807	4,016	6,225	8,434	4,769			
	6 Return on Average Rate Base									5,241	10,445	10,370	10,295
	7 Operation & Maintenance Expense 5/												
	8 Depreciation Expense									2,202	4,404	4,404	4,404
	9 Property Tax 6/												
	10 Revenue Requirements - Basin				351	1,807	4,016	6,225	8,434	12,212	14,849	14,774	14,699
	11 Revenue Credit for Basin's Share				(351)	(1,807)	(4,016)	(6,225)	(8,434)	(12,212)	(14,849)	(14,774)	(14,699)

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

5/ O&M for Storm Water Project included in BEC4 Retrofit O&M.

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 18 of 22

BEC4 Ash Haul Route Improvement and Equipment: Basin
Project ID # 107825
In Service 12/31/2015

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
A	Book Basis of Property												
	0 CWIP 1/	-	-	-	-	91,008	468,543	1,204,239	2,082,751	2,242,928	2,378,705	2,473,294	
	1 Plant in Service												2,569,798
	2 Accumulated Depreciation 12/2015 Plant	-	-	-	-	-	-	-	-	-	-	-	5,354
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,564,444
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	5,354
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												0.42%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	2,569,798
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	27,998
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,541,800
	4 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	27,998
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	22,644
	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	-	-	-	-	-	-	-	-	-	-	-	9,368
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	9,368
C	Revenue Requirements - Basin 4/												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,564,444
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(9,368)
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,555,076
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,277,538
	5 Current Return on CWIP	-	-	-	-	89	549	1,641	3,225	4,244	4,535	4,761	2,427
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,507
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	1,001
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	-	-	-	-	89	549	1,641	3,225	4,244	4,535	4,761	5,935
	11 Revenue Credit for Basin's Share	-	-	-	-	(89)	(549)	(1,641)	(3,225)	(4,244)	(4,535)	(4,761)	(5,935)

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

BEC4 Ash Haul Route Improvement and Equipment: Basin
Project ID # 107825
In Service 12/31/2015

Section	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
A	Book Basis of Property												
	0 CWIP 1/												
	1 Plant in Service	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798
	2 Accumulated Depreciation 12/2015 Plant	16,061	26,769	37,476	48,184	58,891	69,599	80,306	91,014	101,721	112,429	123,136	133,844
	3 Net Plant	2,553,737	2,543,029	2,532,322	2,521,614	2,510,907	2,500,199	2,489,492	2,478,784	2,468,077	2,457,369	2,446,662	2,435,954
	4 Total Depreciation	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707	10,707
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
B	Tax Basis of Property												
	1 Plant in Service	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798	2,569,798
	2 Accumulated Depreciation	52,718	77,438	102,158	126,879	151,599	176,319	201,039	225,759	250,480	275,200	299,920	324,640
	3 Net Plant	2,517,080	2,492,360	2,467,640	2,442,919	2,418,199	2,393,479	2,368,759	2,344,039	2,319,318	2,294,598	2,269,878	2,245,158
	4 Bonus Depreciation												
	5 Total Tax Depreciation (including bonus)	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720	24,720
	6 Tax Book Difference	36,657	50,669	64,682	78,695	92,708	106,720	120,733	134,746	148,759	162,771	176,784	190,797
	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	15,165	20,962	26,759	32,556	38,353	44,150	49,947	55,744	61,541	67,338	73,136	78,933
	9 Deferred Tax Expense debit / (Credit)	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797
C	Revenue Requirements - Basin 4/												
	1 Net Plant	2,553,737	2,543,029	2,532,322	2,521,614	2,510,907	2,500,199	2,489,492	2,478,784	2,468,077	2,457,369	2,446,662	2,435,954
	2 Less: ADITL - Def Taxes	(15,165)	(20,962)	(26,759)	(32,556)	(38,353)	(44,150)	(49,947)	(55,744)	(61,541)	(67,338)	(73,136)	(78,933)
	3 Rate Base	2,538,572	2,522,067	2,505,563	2,489,058	2,472,554	2,456,049	2,439,545	2,423,040	2,406,535	2,390,031	2,373,526	2,357,022
	4 Average Rate Base	2,546,824	2,530,320	2,513,815	2,497,311	2,480,806	2,464,301	2,447,797	2,431,292	2,414,788	2,398,283	2,381,779	2,365,274
	5 Current Return on CWIP												
	6 Return on Average Rate Base	4,998	4,966	4,933	4,901	4,868	4,836	4,804	4,771	4,739	4,707	4,674	4,642
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	8 Depreciation Expense	2,001	2,001	2,001	2,001	2,001	2,001	2,001	2,001	2,001	2,001	2,001	2,001
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	6,999	6,967	6,934	6,902	6,870	6,837	6,805	6,773	6,740	6,708	6,675	6,643
	11 Revenue Credit for Basin's Share	(6,999)	(6,967)	(6,934)	(6,902)	(6,870)	(6,837)	(6,805)	(6,773)	(6,740)	(6,708)	(6,675)	(6,643)

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

2/ Refer to Exhibit B-6.

3/ Minnesota Composite Income Tax Rate.

4/ Revenue credit for Basin's [TRADE SECRET EXCISED] share starts 5/1/15 for 5 years ending 4/31/20 calculated with a ROR of [TRADE SECRET EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 20 of 22

Boswell Ash Pond Phase 1: Basin
Project ID # 106072
In Service 12/31/2016

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
A	Book Basis of Property												
	0 CWIP 1/	45,605	48,479	104,003	184,886	285,301	344,438	413,300	468,110	544,435	544,435	544,435	544,435
	1 Plant in Service												
	2 Accumulated Depreciation 12/2016 Plant	-	-	-	-	-	-	-	-	-	-	-	-
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	-
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												
B	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 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)	-	-	-	-	-	-	-	-	-	-	-	-
C	Revenue Requirements - Basin 4/												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	-
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	5 Current Return on CWIP	-	-	-	-	461	618	744	865	994	1,068	1,068	1,068
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
	7 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	7,476	7,476
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	-
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	-	-	-	-	461	618	744	865	994	1,068	8,544	8,544
	11 Revenue Credit for Basin's Share	-	-	-	-	(461)	(618)	(744)	(865)	(994)	(1,068)	(8,544)	(8,544)

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

PUBLIC DOCUMENT
TRADE SECRET DATA
HAS BEEN EXCISED

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

Exhibit B-2
Page 21 of 22

Boswell Ash Pond Phase 1: Basin
Project ID # 106072
In Service 12/31/2016

Section	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
A	Book Basis of Property												
	0 CWIP 1/	558,588	652,742	786,896	953,849	1,256,326	1,534,803	1,869,280	2,203,756	2,562,233	2,705,187	2,799,340	
	1 Plant in Service												2,813,494
	2 Accumulated Depreciation 12/2016 Plant	-	-	-	-	-	-	-	-	-	-	-	6,170
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,807,324
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	6,170
	5 Book Depreciation Rate (BEC4, 24 yrs remaining life 2012)												0.44%
B	Tax Basis of Property												
	1 Plant in Service	-	-	-	-	-	-	-	-	-	-	-	2,813,494
	2 Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	62,299
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,751,195
	4 Bonus Depreciation												
	5 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	62,299
	6 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	56,129
	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	-	-	-	-	-	-	-	-	-	-	-	23,221
	9 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	23,221
C	Revenue Requirements - Basin 4/												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	2,807,324
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(23,221)
	3 Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,784,104
	4 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,392,052
	5 Current Return on CWIP	1,082	1,189	1,413	1,708	2,169	2,739	3,340	3,997	4,677	5,169	5,401	2,747
	6 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	2,732
	7 Operation & Maintenance Expense	12,586	12,586	12,586	12,586	12,586	12,586	12,586	12,586	12,586	12,586	12,586	12,586
	8 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	1,153
	9 Property Tax 5/	-	-	-	-	-	-	-	-	-	-	-	-
	10 Revenue Requirements - Basin	13,668	13,774	13,998	14,294	14,754	15,324	15,926	16,582	17,262	17,754	17,987	19,217
	11 Revenue Credit for Basin's Share	(13,668)	(13,774)	(13,998)	(14,294)	(14,754)	(15,324)	(15,926)	(16,582)	(17,262)	(17,754)	(17,987)	(19,217)

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

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 a ROR of [TRADE SECRET DATA EXCISED] per contract for return on CWIP and return on average rate base. Refer to Exhibit B-3, pages 23-25, for Basin's CWIP calculations.

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

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

Minnesota Power
BEC 4 Rider
Revenue Requirement Credit for Revenue Requirements in Base Rates Associated with Plant to be Retired

BEC 4 Environmental Retrofit: Base Rate Revenue Credit

Expected Property Retirement: August 15, 2015

Section	Line	2009	Base Rates 2010
A	Book Basis of Property to be Retired		
	1 Plant in Service	38,547,474	38,446,916
	2 Total Accumulated Depreciation	21,988,517	22,424,632
	3 Net Plant	16,558,958	16,022,285
	4 Depreciation Expense		436,115
B	Tax Basis of Property of to be Retired		
	1 Plant in Service	38,547,474	38,446,916
	2 Accumulated Depreciation	37,285,386	37,326,552
	3 Net Plant	1,262,088	1,120,364
	4 Total Tax Depreciation		41,166
	5 Tax Book Difference	15,296,869	14,901,920
	6 Income Tax Rate 1/	41.37%	41.37%
	7 Accumulated Deferred Income Tax Liability	6,328,315	6,164,924
	8 Deferred Tax Expense debit / (Credit)		(163,390)
C	Revenue Requirements in Base Rates		
	1 Net Plant	16,558,958	16,022,285
	2 Less: ADITL - Def Taxes	(6,328,315)	(6,164,924)
	3 Rate Base	10,230,643	9,857,360
	4 Average Rate Base		10,044,001
	5 Return on Average Rate Base 2/		
	6 After Tax Return on Equity		565,913
	7 Income Tax Component		399,315
	8 Interest Expense Component		255,118
	9 Total Return on Average Rate Base		1,220,346
	10 Operation & Maintenance Expense Associated with Plant to be Retired		650,000
	11 Depreciation Expense		436,115
	12 Property Tax 3/		-
	13 Revenue Requirements in Base Rates Associated with Property to be Retired		2,306,461
	14 Monthly Credit for Revenue Requirements in Base Rates		(192,205)
	15 MN Jurisdictional Allocator 4/		0.82017
	16 Monthly MN jurisdictional Credit for Revenue Requirements in Base Rates 5/		(157,641)

1/ Minnesota Composite Income Tax Rate.

2/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-4 rate of return components.

3/ Property qualified for property tax pollution control exemption per Tax Department.

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

5/ This monthly revenue requirement credit is needed beginning with when the property is retired (8/15/2015) until the retirement and BEC 4 Project are incorporated into base rates in a subsequent rate case.

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

Total Project	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	
BEC 4 Environmental Retrofit	232,879,870																	
In Service 12/31/2015																		
BOM																		
CapEx	235,698,973																	
Less Internal Cost	-6,020,324																	
AFUDC	3,871,635																	
Less AFUDC on Internal Cost	-670,414																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Storm Water	5,372,401																	
In Service 9/30/2016																		
BOM																		
CapEx	5,372,401																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Haul Improve	2,569,798																	
In Service 12/31/2015																		
BOM																		
CapEx	2,569,798																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 1	2,811,897																	
In Service 12/31/2016																		
BOM																		
CapEx	2,813,353																	
Less Internal Cost	-1,550																	
AFUDC	141																	
Less AFUDC on Internal Cost	-47																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 2	834,400																	
In Service 12/31/2019																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	163,400	163,400	163,400	326,800	
CapEx	835,692													0	0	0	163,400	0
Less Internal Cost	-1,292													0	0	0	0	0
AFUDC	0													0	0	0	0	0
Less AFUDC on Internal Cost	0													0	0	0	0	0
EOM		0	0	0	0	0	0	0	0	0	0	0	0	163,400	163,400	163,400	326,800	326,800
Return on CWIP																		
After Tax Return on Equity											0	0	384	767	767	1,151	1,534	
Income Tax Component											0	0	271	541	541	812	1,083	
Interest Expense Component											0	0	173	346	346	519	692	
Total Return on CWIP											0	0	827	1,654	1,654	2,482	3,309	

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

Total Project	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	In-Service 12/31/2019
BEC 4 Environmental Retrofit	232,879,870																	
In Service 12/31/2015																		
BOM																		
CapEx	235,698,973																	
Less Internal Cost	-6,020,324																	
AFUDC	3,871,635																	
Less AFUDC on Internal Cost	-670,414																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Storm Water	5,372,401																	
In Service 9/30/2016																		
BOM																		
CapEx	5,372,401																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Haul Improve	2,569,798																	
In Service 12/31/2015																		
BOM																		
CapEx	2,569,798																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 1	2,811,897																	
In Service 12/31/2016																		
BOM																		
CapEx	2,813,353																	
Less Internal Cost	-1,550																	
AFUDC	141																	
Less AFUDC on Internal Cost	-47																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 2	834,400																	
In Service 12/31/2019																		
BOM		326,800	326,800	490,200	490,200	490,200	653,600	653,600	653,600	698,800	698,800	698,800	744,000	744,000	744,000	789,200	789,200	789,200
CapEx	835,692	0	163,400	0	0	163,400	0	0	45,200	1,292	0	45,200	0	0	45,200	0	0	45,200
Less Internal Cost	-1,292	0	0	0	0	0	0	0	0	-1,292	0	0	0	0	0	0	0	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		326,800	490,200	490,200	490,200	653,600	653,600	653,600	698,800	698,800	698,800	744,000	744,000	744,000	789,200	789,200	789,200	834,400
Return on CWIP																		
After Tax Return on Equity		1,534	1,918	2,302	2,302	2,685	3,069	3,069	3,175	3,281	3,281	3,387	3,493	3,493	3,599	3,706	3,706	1,853
Income Tax Component		1,083	1,353	1,624	1,624	1,895	2,165	2,165	2,240	2,315	2,315	2,390	2,465	2,465	2,540	2,615	2,615	1,307
Interest Expense Component		692	865	1,038	1,038	1,211	1,383	1,383	1,431	1,479	1,479	1,527	1,575	1,575	1,623	1,670	1,670	835
Total Return on CWIP		3,309	4,136	4,963	4,963	5,790	6,618	6,618	6,847	7,075	7,075	7,304	7,533	7,533	7,762	7,991	7,991	3,995

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

	Total Project	to date Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14
BEC 4 Ash Phase 3	253,600																
In Service 12/31/2023																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	253,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
BEC 4 Ash Phase 4	4,661,600																
In Service 12/31/2029																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
BEC 4 Ash Phase 5	2,601,600																
In Service 12/31/2035																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
Total	251,985,165																
BOM		0	21,039,943	23,516,640	26,181,110	30,213,705	33,332,452	34,498,171	36,725,554	40,701,839	44,263,914	48,736,841	53,347,000	58,914,810	60,653,451	67,309,446	74,393,822
CapEx	254,807,017	20,189,572	2,439,572	2,594,454	3,961,992	3,061,934	1,055,311	2,124,604	3,867,591	3,425,444	4,562,365	4,723,148	5,760,918	1,807,357	6,752,604	7,197,255	9,743,583
Less Internal Cost	-6,023,167	-923,580	-86,728	-67,342	-84,473	-117,140	-79,762	-95,645	-105,757	-97,437	-89,439	-112,989	-193,108	-68,716	-96,609	-112,879	-118,158
AFUDC	3,871,776	1,890,832	130,909	144,921	163,139	182,681	199,839	208,671	225,361	245,648	14,567	15,400	16,892	17,454	18,124	18,972	19,909
Less AFUDC on Internal Cost	-670,461	-116,881	-7,056	-7,563	-8,063	-8,727	-9,669	-10,247	-10,910	-11,580	-14,567	-15,400	-16,892	-17,454	-18,124	-18,972	-19,908
EOM		21,039,943	23,516,640	26,181,110	30,213,705	33,332,452	34,498,171	36,725,554	40,701,839	44,263,914	48,736,841	53,347,000	58,914,810	60,653,451	67,309,446	74,393,822	84,019,248
Return on CWIP																	
After Tax Return on Equity	17,191,146	0	0	0	0	0	0	0	0	0	218,332	239,656	263,551	280,703	300,411	332,668	371,897
Income Tax Component	12,130,285	0	0	0	0	0	0	0	0	0	154,058	169,104	185,964	198,068	211,974	234,735	262,415
Interest Expense Component	7,749,889	0	0	0	0	0	0	0	0	0	98,426	108,039	118,810	126,543	135,427	149,969	167,654
Total Return on CWIP	37,071,320	0	0	0	0	0	0	0	0	0	470,816	516,799	568,325	605,314	647,812	717,373	801,966

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

	Total Project	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15
BEC 4 Ash Phase 3	253,600																	
In Service 12/31/2023																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	253,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 4	4,661,600																	
In Service 12/31/2029																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 5	2,601,600																	
In Service 12/31/2035																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
Total	251,985,165																	
BOM		84,019,248	91,690,976	99,173,190	104,754,647	110,573,659	116,136,335	125,356,873	131,429,677	140,839,560	144,944,467	149,505,105	157,912,730	165,117,794	172,248,091	179,303,124	188,169,658	197,501,104
CapEx	254,807,017	7,845,283	7,601,922	5,701,139	5,932,310	5,689,010	9,394,557	6,164,765	9,512,545	4,307,070	4,682,825	8,546,598	7,409,398	7,488,363	7,158,406	8,969,907	9,434,819	8,306,471
Less Internal Cost	-6,023,167	-173,555	-119,708	-119,683	-113,298	-126,334	-174,020	-91,961	-102,662	-202,164	-122,187	-138,975	-204,336	-358,066	-103,373	-103,373	-103,373	-232,589
AFUDC	3,871,776	21,084	22,942	23,237	24,181	25,152	26,369	27,446	29,501	29,052	30,347	31,390	32,762	34,996	0	0	0	0
Less AFUDC on Internal Cost	-670,461	-21,084	-22,941	-23,236	-24,180	-25,151	-26,368	-27,446	-29,500	-29,051	-30,346	-31,389	-32,760	-34,996	0	0	0	0
EOM		91,690,976	99,173,190	104,754,647	110,573,659	116,136,335	125,356,873	131,429,677	140,839,560	144,944,467	149,505,105	157,912,730	165,117,794	172,248,091	179,303,124	188,169,658	197,501,104	205,574,986
Return on CWIP																		
After Tax Return on Equity	17,191,146	412,505	448,081	478,749	505,514	532,234	566,940	602,843	639,191	670,918	691,262	721,707	758,360	792,014	825,316	862,694	905,417	946,278
Income Tax Component	12,130,285	291,068	316,171	337,812	356,697	375,551	400,040	425,373	451,021	473,408	487,763	509,245	535,108	558,855	582,353	608,728	638,873	667,706
Interest Expense Component	7,749,889	185,960	201,998	215,824	227,889	239,935	255,580	271,766	288,152	302,455	311,626	325,351	341,874	357,046	372,058	388,909	408,168	426,589
Total Return on CWIP	37,071,320	889,533	966,250	1,032,385	1,090,100	1,147,719	1,222,559	1,299,982	1,376,363	1,446,782	1,490,651	1,556,303	1,635,342	1,707,915	1,779,728	1,860,331	1,952,458	2,040,573

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

Total Project	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17
BEC 4 Ash Phase 3	253,600																
In Service 12/31/2023																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	253,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
BEC 4 Ash Phase 4	4,661,600																
In Service 12/31/2029																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
BEC 4 Ash Phase 5	2,601,600																
In Service 12/31/2035																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600																
Less Internal Cost	0																
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
Return on CWIP																	
After Tax Return on Equity																	
Income Tax Component																	
Interest Expense Component																	
Total Return on CWIP																	
Total	251,985,165																
BOM		205,574,986	210,432,901	214,199,139	227,860,636	228,544,356	229,068,075	229,578,492	230,889,724	234,556,483	238,189,386	240,449,508	242,512,570	243,382,705	243,525,658	243,619,812	243,633,965
CapEx	254,807,017	5,090,503	3,934,219	13,829,479	747,397	587,397	590,014	1,374,910	3,730,436	3,712,500	2,260,123	2,063,062	870,134	142,954	94,154	14,154	0
Less Internal Cost	-6,023,167	-232,589	-167,981	-167,981	-63,678	-63,678	-79,597	-63,678	-63,678	-79,597	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		210,432,901	214,199,139	227,860,636	228,544,356	229,068,075	229,578,492	230,889,724	234,556,483	238,189,386	240,449,508	242,512,570	243,382,705	243,525,658	243,619,812	243,633,965	243,633,965
Return on CWIP																	
After Tax Return on Equity	17,191,146	976,637	996,884	504,137	2,582	2,836	3,372	4,920	9,505	16,155	22,879	29,734	22,593	12,359	12,915	6,568	0
Income Tax Component	12,130,285	689,127	703,414	355,725	1,822	2,001	2,380	3,472	6,707	11,399	16,144	20,981	15,942	8,720	9,113	4,635	0
Interest Expense Component	7,749,889	440,275	449,402	227,269	1,164	1,279	1,520	2,218	4,285	7,283	10,314	13,405	10,185	5,571	5,822	2,961	0
Total Return on CWIP	37,071,320	2,106,040	2,149,700	1,087,131	5,568	6,116	7,272	10,610	20,498	34,836	49,336	64,120	48,719	26,650	27,850	14,164	0

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

	Total Project	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	
BEC 4 Ash Phase 3	253,600																		
In Service 12/31/2023																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	253,600																		
Less Internal Cost	0																		
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																			
BEC 4 Ash Phase 4	4,661,600																		
In Service 12/31/2029																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600																		
Less Internal Cost	0																		
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																			
BEC 4 Ash Phase 5	2,601,600																		
In Service 12/31/2035																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600																		
Less Internal Cost	0																		
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																			
Total	251,985,165																		
BOM		243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,797,365	243,797,365	243,797,365	243,960,765	243,960,765
CapEx	254,807,017	0	0	0	0	0	0	0	0	0	0	0	0	163,400	0	0	163,400	0	0
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,633,965	243,797,365	243,797,365	243,797,365	243,960,765	243,960,765	243,960,765
Return on CWIP																			
After Tax Return on Equity	17,191,146	0	0	0	0	0	0	0	0	0	0	0	0	384	767	767	1,151	1,534	1,534
Income Tax Component	12,130,285	0	0	0	0	0	0	0	0	0	0	0	0	271	541	541	812	1,083	1,083
Interest Expense Component	7,749,889	0	0	0	0	0	0	0	0	0	0	0	0	173	346	346	519	692	692
Total Return on CWIP	37,071,320	0	0	0	0	0	0	0	0	0	0	0	0	827	1,654	1,654	2,482	3,309	3,309

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

	Total Project	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
BEC 4 Ash Phase 3	253,600																	
In Service 12/31/2023																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	253,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 4	4,661,600																	
In Service 12/31/2029																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
BEC 4 Ash Phase 5	2,601,600																	
In Service 12/31/2035																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600																	
Less Internal Cost	0																	
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																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
Total	251,985,165																	
BOM		243,960,765	243,960,765	244,124,165	244,124,165	244,124,165	244,287,565	244,287,565	244,287,565	244,332,765	244,332,765	244,332,765	244,377,965	244,377,965	244,377,965	244,423,165	244,423,165	244,423,165
CapEx	254,807,017	0	163,400	0	0	163,400	0	45,200	1,292	0	45,200	0	0	45,200	0	0	45,200	
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	-1,292	0	0	0	0	0	0	0	0	
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM		243,960,765	244,124,165	244,124,165	244,124,165	244,287,565	244,287,565	244,332,765	244,332,765	244,332,765	244,377,965	244,377,965	244,377,965	244,377,965	244,423,165	244,423,165	244,423,165	244,468,365
Return on CWIP																		
After Tax Return on Equity	17,191,146	1,534	1,918	2,302	2,302	2,685	3,069	3,069	3,175	3,281	3,281	3,387	3,493	3,493	3,599	3,706	3,706	1,853
Income Tax Component	12,130,285	1,083	1,353	1,624	1,624	1,895	2,165	2,165	2,240	2,315	2,315	2,390	2,465	2,465	2,540	2,615	2,615	1,307
Interest Expense Component	7,749,889	692	865	1,038	1,038	1,211	1,383	1,383	1,431	1,479	1,479	1,527	1,575	1,575	1,623	1,670	1,670	835
Total Return on CWIP	37,071,320	3,309	4,136	4,963	4,963	5,790	6,618	6,618	6,847	7,075	7,075	7,304	7,533	7,533	7,762	7,991	7,991	3,995

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

	Total Project	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	
BEC 4 Ash Phase 3	253,600																		
In Service 12/31/2023																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,600	38,600	
CapEx	253,600																		
Less Internal Cost	0													0	0	38,600	0	0	
AFUDC	0													0	0	0	0	0	
Less AFUDC on Internal Cost	0													0	0	0	0	0	
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,600	38,600	38,600	
Return on CWIP																			
After Tax Return on Equity																	91	181	181
Income Tax Component																	64	128	128
Interest Expense Component																	41	82	82
Total Return on CWIP																	195	391	391
BEC 4 Ash Phase 4	4,661,600																		
In Service 12/31/2029																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	4,661,600																		
Less Internal Cost	0																		
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																			
After Tax Return on Equity																			
Income Tax Component																			
Interest Expense Component																			
Total Return on CWIP																			
BEC 4 Ash Phase 5	2,601,600																		
In Service 12/31/2035																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	2,601,600																		
Less Internal Cost	0																		
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																			
After Tax Return on Equity																			
Income Tax Component																			
Interest Expense Component																			
Total Return on CWIP																			
Total	251,985,165																		
BOM		244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,506,965	244,506,965	
CapEx	254,807,017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,600	0	
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM		244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,468,365	244,506,965	244,506,965	244,506,965	
Return on CWIP																			
After Tax Return on Equity	17,191,146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	181	181
Income Tax Component	12,130,285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	128	128
Interest Expense Component	7,749,889	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	82	82
Total Return on CWIP	37,071,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195	391	391

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

	Total Project	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23 In-Service 12/31/2023	Jan-24	Feb-24	Mar-24
BEC 4 Ash Phase 3	253,600																	
In Service 12/31/2023																		
BOM		154,400	154,400	154,400	154,400	154,400	179,200	179,200	179,200	204,000	204,000	204,000	228,800	228,800	228,800			
CapEx	253,600	0	0	0	0	24,800	0	0	24,800	0	0	24,800	0	0	24,800			
Less Internal Cost	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			
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
EOM		154,400	154,400	154,400	154,400	179,200	179,200	179,200	204,000	204,000	204,000	228,800	228,800	228,800	253,600			
Return on CWIP																		
After Tax Return on Equity		725	725	725	725	783	841	841	900	958	958	1,016	1,074	1,074	537			
Income Tax Component		512	512	512	512	553	594	594	635	676	676	717	758	758	379			
Interest Expense Component		327	327	327	327	353	379	379	406	432	432	458	484	484	242			
Total Return on CWIP		1,563	1,563	1,563	1,563	1,689	1,814	1,814	1,940	2,066	2,066	2,191	2,317	2,317	1,158			
BEC 4 Ash Phase 4	4,661,600																	
In Service 12/31/2029																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	4,661,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346,000
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	346,000
Return on CWIP																		
After Tax Return on Equity																0	0	812
Income Tax Component																0	0	573
Interest Expense Component																0	0	366
Total Return on CWIP																0	0	1,752
BEC 4 Ash Phase 5	2,601,600																	
In Service 12/31/2035																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,601,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	0	0	0	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	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		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																		
Total	251,985,165																	
BOM		244,622,765	244,622,765	244,622,765	244,622,765	244,622,765	244,647,565	244,647,565	244,647,565	244,672,365	244,672,365	244,672,365	244,697,165	244,697,165	244,697,165	244,721,965	244,721,965	244,721,965
CapEx	254,807,017	0	0	0	0	24,800	0	0	24,800	0	0	24,800	0	0	24,800	0	0	346,000
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		244,622,765	244,622,765	244,622,765	244,622,765	244,647,565	244,647,565	244,647,565	244,672,365	244,672,365	244,672,365	244,697,165	244,697,165	244,697,165	244,721,965	244,721,965	244,721,965	245,067,965
Return on CWIP																		
After Tax Return on Equity	17,191,146	725	725	725	725	783	841	841	900	958	958	1,016	1,074	1,074	537	0	0	812
Income Tax Component	12,130,285	512	512	512	512	553	594	594	635	676	676	717	758	758	379	0	0	573
Interest Expense Component	7,749,889	327	327	327	327	353	379	379	406	432	432	458	484	484	242	0	0	366
Total Return on CWIP	37,071,320	1,563	1,563	1,563	1,563	1,689	1,814	1,814	1,940	2,066	2,066	2,191	2,317	2,317	1,158	0	0	1,752

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

Total Project	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	
BEC 4 Ash Phase 3	253,600																	
In Service 12/31/2023																		
BOM																		
CapEx	253,600																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	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	4,661,600																	
In Service 12/31/2029																		
BOM	346,000	346,000	346,000	692,000	692,000	692,000	1,038,000	1,038,000	1,038,000	1,384,000	1,384,000	1,384,000	1,513,600	1,513,600	1,513,600	1,643,200	1,643,200	
CapEx	4,661,600	0	0	346,000	0	0	346,000	0	0	346,000	0	0	129,600	0	0	129,600	0	
Less Internal Cost	0	0	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	0	0	
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM	346,000	346,000	692,000	692,000	692,000	1,038,000	1,038,000	1,038,000	1,384,000	1,384,000	1,384,000	1,513,600	1,513,600	1,513,600	1,643,200	1,643,200	1,643,200	
Return on CWIP																		
After Tax Return on Equity	1,625	1,625	2,437	3,249	3,249	4,061	4,874	4,874	5,686	6,498	6,498	6,803	7,107	7,107	7,411	7,715	7,715	
Income Tax Component	1,146	1,146	1,719	2,293	2,293	2,866	3,439	3,439	4,012	4,585	4,585	4,800	5,015	5,015	5,229	5,444	5,444	
Interest Expense Component	732	732	1,099	1,465	1,465	1,831	2,197	2,197	2,563	2,929	2,929	3,067	3,204	3,204	3,341	3,478	3,478	
Total Return on CWIP	3,503	3,503	5,255	7,007	7,007	8,758	10,510	10,510	12,261	14,013	14,013	14,669	15,325	15,325	15,981	16,637	16,637	
BEC 4 Ash Phase 5	2,601,600																	
In Service 12/31/2035																		
BOM																		
CapEx	2,601,600																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	0																	
EOM																		
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
Total	251,985,165																	
BOM	245,067,965	245,067,965	245,067,965	245,413,965	245,413,965	245,413,965	245,413,965	245,759,965	245,759,965	245,759,965	246,105,965	246,105,965	246,105,965	246,235,565	246,235,565	246,235,565	246,365,165	246,365,165
CapEx	254,807,017	0	0	346,000	0	0	346,000	0	0	346,000	0	0	129,600	0	0	129,600	0	
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM	245,067,965	245,067,965	245,413,965	245,413,965	245,413,965	245,759,965	245,759,965	245,759,965	246,105,965	246,105,965	246,105,965	246,235,565	246,235,565	246,235,565	246,365,165	246,365,165	246,365,165	
Return on CWIP																		
After Tax Return on Equity	17,191,146	1,625	1,625	2,437	3,249	3,249	4,061	4,874	4,874	5,686	6,498	6,498	6,803	7,107	7,107	7,411	7,715	
Income Tax Component	12,130,285	1,146	1,146	1,719	2,293	2,293	2,866	3,439	3,439	4,012	4,585	4,585	4,800	5,015	5,015	5,229	5,444	
Interest Expense Component	7,749,889	732	732	1,099	1,465	1,465	1,831	2,197	2,197	2,563	2,929	2,929	3,067	3,204	3,204	3,341	3,478	
Total Return on CWIP	37,071,320	3,503	3,503	5,255	7,007	7,007	8,758	10,510	10,510	12,261	14,013	14,013	14,669	15,325	15,325	15,981	16,637	

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

Total Project	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	
BEC 4 Ash Phase 3	253,600																	
In Service 12/31/2023																		
BOM																		
CapEx	253,600																	
Less Internal Cost	0																	
AFUDC	0																	
Less AFUDC on Internal Cost	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	4,661,600																	
In Service 12/31/2029																		
BOM		1,902,400	1,902,400	1,975,400	1,975,400	1,975,400	2,048,400	2,048,400	2,048,400	2,121,400	2,121,400	2,121,400	2,194,400	2,194,400	2,194,400	2,750,600	2,750,600	2,750,600
CapEx	4,661,600	0	73,000	0	0	73,000	0	0	73,000	0	0	73,000	0	0	556,200	0	0	556,200
Less Internal Cost	0	0	0	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	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		1,902,400	1,975,400	1,975,400	1,975,400	2,048,400	2,048,400	2,048,400	2,121,400	2,121,400	2,121,400	2,194,400	2,194,400	2,194,400	2,750,600	2,750,600	2,750,600	3,306,800
Return on CWIP																		
After Tax Return on Equity		8,932	9,104	9,275	9,275	9,446	9,618	9,618	9,789	9,961	9,961	10,132	10,303	10,303	11,609	12,915	12,915	14,221
Income Tax Component		6,303	6,424	6,545	6,545	6,666	6,786	6,786	6,907	7,028	7,028	7,149	7,270	7,270	8,192	9,113	9,113	10,034
Interest Expense Component		4,027	4,104	4,181	4,181	4,259	4,336	4,336	4,413	4,490	4,490	4,568	4,645	4,645	5,233	5,822	5,822	6,411
Total Return on CWIP		19,262	19,631	20,001	20,001	20,370	20,740	20,740	21,110	21,479	21,479	21,849	22,218	22,218	25,034	27,850	27,850	30,666
BEC 4 Ash Phase 5	2,601,600																	
In Service 12/31/2035																		
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	2,601,600																	
Less Internal Cost	0																	
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	
Return on CWIP																		
After Tax Return on Equity																		
Income Tax Component																		
Interest Expense Component																		
Total Return on CWIP																		
Total	251,985,165																	
BOM		246,624,365	246,624,365	246,697,365	246,697,365	246,697,365	246,770,365	246,770,365	246,770,365	246,843,365	246,843,365	246,843,365	246,916,365	246,916,365	246,916,365	247,472,565	247,472,565	247,472,565
CapEx	254,807,017	0	73,000	0	0	73,000	0	0	73,000	0	0	73,000	0	0	556,200	0	0	556,200
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		246,624,365	246,697,365	246,697,365	246,697,365	246,770,365	246,770,365	246,770,365	246,843,365	246,843,365	246,843,365	246,916,365	246,916,365	246,916,365	247,472,565	247,472,565	247,472,565	248,028,765
Return on CWIP																		
After Tax Return on Equity	17,191,146	8,932	9,104	9,275	9,275	9,446	9,618	9,618	9,789	9,961	9,961	10,132	10,303	10,303	11,609	12,915	12,915	14,221
Income Tax Component	12,130,285	6,303	6,424	6,545	6,545	6,666	6,786	6,786	6,907	7,028	7,028	7,149	7,270	7,270	8,192	9,113	9,113	10,034
Interest Expense Component	7,749,889	4,027	4,104	4,181	4,181	4,259	4,336	4,336	4,413	4,490	4,490	4,568	4,645	4,645	5,233	5,822	5,822	6,411
Total Return on CWIP	37,071,320	19,262	19,631	20,001	20,001	20,370	20,740	20,740	21,110	21,479	21,479	21,849	22,218	22,218	25,034	27,850	27,850	30,666

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

Total Project	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29	Apr-29	May-29	Jun-29	Jul-29	Aug-29	Sep-29	Oct-29	
BEC 4 Ash Phase 3	253,600																
In Service 12/31/2023																	
BOM																	
CapEx	253,600																
Less Internal Cost	0																
AFUDC	0																
Less AFUDC on Internal Cost	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	4,661,600																
In Service 12/31/2029																	
BOM		3,306,800	3,306,800	3,306,800	3,863,000	3,863,000	3,863,000	4,419,200	4,419,200	4,419,200	4,479,800	4,479,800	4,479,800	4,540,400	4,540,400	4,540,400	4,601,000
CapEx	4,661,600	0	0	556,200	0	0	556,200	0	0	60,600	0	0	60,600	0	0	60,600	0
Less Internal Cost	0	0	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	0	0
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		3,306,800	3,306,800	3,863,000	3,863,000	3,863,000	4,419,200	4,419,200	4,419,200	4,479,800	4,479,800	4,479,800	4,540,400	4,540,400	4,540,400	4,601,000	4,601,000
Return on CWIP																	
After Tax Return on Equity		15,526	15,526	16,832	18,138	18,138	19,444	20,749	20,749	20,892	21,034	21,034	21,176	21,318	21,318	21,461	21,603
Income Tax Component		10,956	10,956	11,877	12,798	12,798	13,720	14,641	14,641	14,741	14,842	14,842	14,942	15,043	15,043	15,143	15,243
Interest Expense Component		6,999	6,999	7,588	8,177	8,177	8,765	9,354	9,354	9,418	9,482	9,482	9,546	9,611	9,611	9,675	9,739
Total Return on CWIP		33,481	33,481	36,297	39,113	39,113	41,929	44,744	44,744	45,051	45,358	45,358	45,665	45,972	45,972	46,278	46,585
BEC 4 Ash Phase 5	2,601,600																
In Service 12/31/2035																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	2,601,600																
Less Internal Cost	0																
AFUDC	0																
Less AFUDC on Internal Cost	0																
EOM		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																	
Total	251,985,165																
BOM		248,028,765	248,028,765	248,028,765	248,584,965	248,584,965	248,584,965	249,141,165	249,141,165	249,141,165	249,201,765	249,201,765	249,201,765	249,262,365	249,262,365	249,262,365	249,322,965
CapEx	254,807,017	0	0	556,200	0	0	556,200	0	0	60,600	0	0	60,600	0	0	60,600	0
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		248,028,765	248,028,765	248,584,965	248,584,965	248,584,965	249,141,165	249,141,165	249,141,165	249,201,765	249,201,765	249,201,765	249,262,365	249,262,365	249,262,365	249,322,965	249,322,965
Return on CWIP																	
After Tax Return on Equity	17,191,146	15,526	15,526	16,832	18,138	18,138	19,444	20,749	20,749	20,892	21,034	21,034	21,176	21,318	21,318	21,461	21,603
Income Tax Component	12,130,285	10,956	10,956	11,877	12,798	12,798	13,720	14,641	14,641	14,741	14,842	14,842	14,942	15,043	15,043	15,143	15,243
Interest Expense Component	7,749,889	6,999	6,999	7,588	8,177	8,177	8,765	9,354	9,354	9,418	9,482	9,482	9,546	9,611	9,611	9,675	9,739
Total Return on CWIP	37,071,320	33,481	33,481	36,297	39,113	39,113	41,929	44,744	44,744	45,051	45,358	45,358	45,665	45,972	45,972	46,278	46,585

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

	Total Project	Mar-31	Apr-31	May-31	Jun-31	Jul-31	Aug-31	Sep-31	Oct-31	Nov-31	Dec-31	Jan-32	Feb-32	Mar-32	Apr-32	May-32	Jun-32	Jul-32	
BEC 4 Ash Phase 3	253,600																		
In Service 12/31/2023																			
BOM																			
CapEx	253,600																		
Less Internal Cost	0																		
AFUDC	0																		
Less AFUDC on Internal Cost	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	4,661,600																		
In Service 12/31/2029																			
BOM																			
CapEx	4,661,600																		
Less Internal Cost	0																		
AFUDC	0																		
Less AFUDC on Internal Cost	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	2,601,600																		
In Service 12/31/2035																			
BOM		0	31,200	31,200	31,200	62,400	62,400	62,400	93,600	93,600	93,600	124,800	124,800	124,800	496,400	496,400	496,400	868,000	868,000
CapEx	2,601,600	31,200	0	0	31,200	0	0	31,200	0	0	31,200	0	0	371,600	0	0	371,600	0	0
Less Internal Cost	0	0	0	0	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	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		31,200	31,200	31,200	62,400	62,400	93,600	93,600	93,600	124,800	124,800	124,800	496,400	496,400	496,400	868,000	868,000	868,000	868,000
Return on CWIP																			
After Tax Return on Equity		73	146	146	220	293	293	366	439	439	513	586	586	1,458	2,331	2,331	3,203	4,076	4,076
Income Tax Component		52	103	103	155	207	207	258	310	310	362	413	413	1,029	1,645	1,645	2,260	2,876	2,876
Interest Expense Component		33	66	66	99	132	132	165	198	198	231	264	264	657	1,051	1,051	1,444	1,837	1,837
Total Return on CWIP		158	316	316	474	632	632	790	948	948	1,106	1,264	1,264	3,145	5,026	5,026	6,907	8,789	8,789
Total	251,985,165																		
BOM		249,383,565	249,414,765	249,414,765	249,414,765	249,445,965	249,445,965	249,445,965	249,477,165	249,477,165	249,477,165	249,508,365	249,508,365	249,508,365	249,879,965	249,879,965	249,879,965	250,251,565	250,251,565
CapEx	254,807,017	31,200	0	0	31,200	0	0	31,200	0	0	31,200	0	0	371,600	0	0	371,600	0	0
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		249,414,765	249,414,765	249,414,765	249,445,965	249,445,965	249,445,965	249,477,165	249,477,165	249,477,165	249,508,365	249,508,365	249,508,365	249,879,965	249,879,965	249,879,965	250,251,565	250,251,565	250,251,565
Return on CWIP																			
After Tax Return on Equity	17,191,146	73	146	146	220	293	293	366	439	439	513	586	586	1,458	2,331	2,331	3,203	4,076	4,076
Income Tax Component	12,130,285	52	103	103	155	207	207	258	310	310	362	413	413	1,029	1,645	1,645	2,260	2,876	2,876
Interest Expense Component	7,749,889	33	66	66	99	132	132	165	198	198	231	264	264	657	1,051	1,051	1,444	1,837	1,837
Total Return on CWIP	37,071,320	158	316	316	474	632	632	790	948	948	1,106	1,264	1,264	3,145	5,026	5,026	6,907	8,789	8,789

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

	Total Project	Aug-32	Sep-32	Oct-32	Nov-32	Dec-32	Jan-33	Feb-33	Mar-33	Apr-33	May-33	Jun-33	Jul-33	Aug-33	Sep-33	Oct-33	Nov-33
BEC 4 Ash Phase 3	253,600																
In Service 12/31/2023																	
BOM																	
CapEx	253,600																
Less Internal Cost	0																
AFUDC	0																
Less AFUDC on Internal Cost	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	4,661,600																
In Service 12/31/2029																	
BOM																	
CapEx	4,661,600																
Less Internal Cost	0																
AFUDC	0																
Less AFUDC on Internal Cost	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	2,601,600																
In Service 12/31/2035																	
BOM		868,000	868,000	1,239,600	1,239,600	1,239,600	1,611,200	1,611,200	1,611,200	1,666,200	1,666,200	1,666,200	1,721,200	1,721,200	1,721,200	1,776,200	1,776,200
CapEx	2,601,600	0	371,600	0	0	371,600	0	0	55,000	0	0	55,000	0	0	55,000	0	0
Less Internal Cost	0	0	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	0	0
Less AFUDC on Internal Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		868,000	1,239,600	1,239,600	1,239,600	1,611,200	1,611,200	1,611,200	1,666,200	1,666,200	1,666,200	1,721,200	1,721,200	1,721,200	1,776,200	1,776,200	1,776,200
Return on CWIP																	
After Tax Return on Equity		4,076	4,948	5,820	5,820	6,693	7,565	7,565	7,694	7,823	7,823	7,952	8,082	8,082	8,211	8,340	8,340
Income Tax Component		2,876	3,491	4,107	4,107	4,722	5,338	5,338	5,429	5,520	5,520	5,611	5,702	5,702	5,794	5,885	5,885
Interest Expense Component		1,837	2,231	2,624	2,624	3,017	3,410	3,410	3,469	3,527	3,527	3,585	3,643	3,643	3,701	3,760	3,760
Total Return on CWIP		8,789	10,670	12,551	12,551	14,432	16,313	16,313	16,592	16,870	16,870	17,149	17,427	17,427	17,706	17,984	17,984
Total	251,985,165																
BOM		250,251,565	250,251,565	250,623,165	250,623,165	250,623,165	250,994,765	250,994,765	250,994,765	251,049,765	251,049,765	251,049,765	251,104,765	251,104,765	251,104,765	251,159,765	251,159,765
CapEx	254,807,017	0	371,600	0	0	371,600	0	0	55,000	0	0	55,000	0	0	55,000	0	0
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		250,251,565	250,623,165	250,623,165	250,623,165	250,994,765	250,994,765	250,994,765	251,049,765	251,049,765	251,049,765	251,104,765	251,104,765	251,104,765	251,159,765	251,159,765	251,159,765
Return on CWIP																	
After Tax Return on Equity	17,191,146	4,076	4,948	5,820	5,820	6,693	7,565	7,565	7,694	7,823	7,823	7,952	8,082	8,082	8,211	8,340	8,340
Income Tax Component	12,130,285	2,876	3,491	4,107	4,107	4,722	5,338	5,338	5,429	5,520	5,520	5,611	5,702	5,702	5,794	5,885	5,885
Interest Expense Component	7,749,889	1,837	2,231	2,624	2,624	3,017	3,410	3,410	3,469	3,527	3,527	3,585	3,643	3,643	3,701	3,760	3,760
Total Return on CWIP	37,071,320	8,789	10,670	12,551	12,551	14,432	16,313	16,313	16,592	16,870	16,870	17,149	17,427	17,427	17,706	17,984	17,984

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

	Total Project	Apr-35	May-35	Jun-35	Jul-35	Aug-35	Sep-35	Oct-35	Nov-35	Dec-35	
BEC 4 Ash Phase 3	253,600										
In Service 12/31/2023											
BOM											
CapEx	253,600										
Less Internal Cost	0										
AFUDC	0										
Less AFUDC on Internal Cost	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	4,661,600										
In Service 12/31/2029											
BOM											
CapEx	4,661,600										
Less Internal Cost	0										
AFUDC	0										
Less AFUDC on Internal Cost	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	2,601,600										In-Service
In Service 12/31/2035											12/31/2035
BOM		2,023,800	2,023,800	2,023,800	2,216,400	2,216,400	2,216,400	2,409,000	2,409,000	2,409,000	2,409,000
CapEx	2,601,600	0	0	192,600	0	0	192,600	0	0	0	192,600
Less Internal Cost	0	0	0	0	0	0	0	0	0	0	0
AFUDC	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
EOM		2,023,800	2,023,800	2,216,400	2,216,400	2,216,400	2,409,000	2,409,000	2,409,000	2,409,000	2,601,600
Return on CWIP											
After Tax Return on Equity		9,502	9,502	9,954	10,407	10,407	10,859	11,311	11,311	11,311	5,655
Income Tax Component		6,705	6,705	7,024	7,343	7,343	7,662	7,981	7,981	7,981	3,991
Interest Expense Component		4,284	4,284	4,488	4,691	4,691	4,895	5,099	5,099	5,099	2,550
Total Return on CWIP		20,491	20,491	21,466	22,441	22,441	23,416	24,391	24,391	24,391	12,196
Total	251,985,165										
BOM		251,407,365	251,407,365	251,407,365	251,599,965	251,599,965	251,599,965	251,792,565	251,792,565	251,792,565	251,985,165
CapEx	254,807,017	0	0	192,600	0	0	192,600	0	0	0	192,600
Less Internal Cost	-6,023,167	0	0	0	0	0	0	0	0	0	0
AFUDC	3,871,776	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-670,461	0	0	0	0	0	0	0	0	0	0
EOM		251,407,365	251,407,365	251,599,965	251,599,965	251,599,965	251,792,565	251,792,565	251,792,565	251,985,165	
Return on CWIP											
After Tax Return on Equity	17,191,146	9,502	9,502	9,954	10,407	10,407	10,859	11,311	11,311	11,311	5,655
Income Tax Component	12,130,285	6,705	6,705	7,024	7,343	7,343	7,662	7,981	7,981	7,981	3,991
Interest Expense Component	7,749,889	4,284	4,284	4,488	4,691	4,691	4,895	5,099	5,099	5,099	2,550
Total Return on CWIP	37,071,320	20,491	20,491	21,466	22,441	22,441	23,416	24,391	24,391	24,391	12,196

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

	Total Project	to date Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	
BEC 4 Environmental Retrofit In Service 12/31/2015	239,570,608																	
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	69,786,205	77,001,204	
CapEx	235,698,973	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	6,752,604	7,196,027	9,743,271	
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	3,871,635	1,890,832	130,908	144,919	163,136	182,679	199,828	208,650	225,340	245,626	14,567	15,400	16,892	17,454	18,124	18,972	19,907	
EOM		22,080,404	24,650,462	27,389,835	31,514,963	34,759,576	36,011,448	38,344,703	42,437,297	46,108,367	50,684,738	55,419,850	61,190,666	63,015,477	69,786,205	77,001,204	86,764,383	
Basin's Return on CWIP																		
BEC 4 Storm Water In Service 9/30/2016	5,372,401																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	5,372,401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	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	
Basin's Return on CWIP																		
BEC 4 Ash Haul Improve In Service 12/31/2015	2,569,798																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	2,569,798																	
Less Internal Cost 1/	0																	
AFUDC	0																	
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Basin's Return on CWIP																		
BEC 4 Ash Phase 1 In Service 12/31/2016	2,813,494																	
BOM		0	0	423	426	428	430	3,708	3,728	4,086	4,108	4,669	8,105	15,099	15,099	15,100	16,328	
CapEx	2,813,353	0	422	0	0	0	3,266	0	336	0	560	3,436	6,994	0	0	1,228	312	
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	141	0	1	2	2	2	11	20	21	22	0	0	0	0	0	0	1	
EOM		0	423	426	428	430	3,708	3,728	4,086	4,108	4,669	8,105	15,099	15,099	15,100	16,328	16,641	
Basin's Return on CWIP																		
BEC 4 Ash Phase 2 In Service 12/31/2019	835,692																	
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	835,692	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	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	
Basin's Return on CWIP																		

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

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

	Total Project	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
BEC 4 Environmental Retrofit In Service 12/31/2015	239,570,608															
BOM																
CapEx	235,698,973															
Less Internal Cost 1/	0															
AFUDC	3,871,635															
EOM																
Basin's Return on CWIP																
BEC 4 Storm Water In Service 9/30/2016	5,372,401															
BOM																
CapEx	5,372,401															
Less Internal Cost 1/	0															
AFUDC	0															
EOM																
Basin's Return on CWIP																
BEC 4 Ash Haul Improve In Service 12/31/2015	2,569,798															
BOM																
CapEx	2,569,798															
Less Internal Cost 1/	0															
AFUDC	0															
EOM																
Basin's Return on CWIP																
BEC 4 Ash Phase 1 In Service 12/31/2016	2,813,494															
BOM																
CapEx	2,813,353															
Less Internal Cost 1/	0															
AFUDC	141															
EOM																
Basin's Return on CWIP																
BEC 4 Ash Phase 2 In Service 12/31/2019	835,692															
BOM		0	0	163,400	163,400	163,400	326,800	326,800	326,800	490,200	490,200	490,200	653,600	653,600	653,600	698,800
CapEx	835,692	0	163,400	0	0	163,400	0	0	163,400	0	0	163,400	0	0	45,200	1,292
Less Internal Cost 1/	0	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	0
EOM		0	163,400	163,400	163,400	326,800	326,800	326,800	490,200	490,200	490,200	653,600	653,600	653,600	698,800	700,092
Basin's Return on CWIP		0	160	321	321	481	641	641	802	962	962	1,122	1,283	1,283	1,327	1,373

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

	Total Project	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
BEC 4 Environmental Retrofit In Service 12/31/2015	239,570,608									
BOM										
CapEx	235,698,973									
Less Internal Cost 1/	0									
AFUDC	3,871,635									
EOM										
Basin's Return on CWIP										
BEC 4 Storm Water In Service 9/30/2016	5,372,401									
BOM										
CapEx	5,372,401									
Less Internal Cost 1/	0									
AFUDC	0									
EOM										
Basin's Return on CWIP										
BEC 4 Ash Haul Improve In Service 12/31/2015	2,569,798									
BOM										
CapEx	2,569,798									
Less Internal Cost 1/	0									
AFUDC	0									
EOM										
Basin's Return on CWIP										
BEC 4 Ash Phase 1 In Service 12/31/2016	2,813,494									
BOM										
CapEx	2,813,353									
Less Internal Cost 1/	0									
AFUDC	141									
EOM										
Basin's Return on CWIP										
BEC 4 Ash Phase 2 In Service 12/31/2019	835,692									
BOM		700,092	700,092	745,292	745,292	745,292	790,492	790,492		
CapEx	835,692	0	45,200	0	0	45,200	0	0	45,200	
Less Internal Cost 1/	0	0	0	0	0	0	0	0	0	
AFUDC	0	0	0	0	0	0	0	0	0	
EOM		700,092	745,292	745,292	745,292	790,492	790,492	790,492	835,692	
Basin's Return on CWIP										
		1,374	1,418	1,463	1,463	1,507	1,551	1,551	1,596	

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						
	Amount	% of Total	Component Cost	Weighted Cost	Pre-tax Rate	After-Tax Rate
Long Term Debt	\$ 696,677	45.71%	5.56%	2.540%	2.540%	1.490%
Common Equity	\$ 827,534	54.29%	10.38%	5.640%	9.610%	5.640%
	<u>\$ 1,524,211</u>	<u>100.00%</u>		<u>8.180%</u>	<u>12.150%</u>	<u>7.130%</u>
			Federal & State Income Tax Rate			41.37%
			Pretax "Gross-up" Factor			1.70560
			After Tax Return on Equity			5.6343% 1/
			Income Tax Component			3.9757% 2/
			Interest Expense Component			2.5400%
			Pre-tax Return			<u>12.1500%</u>

1/ Rounding forced to equity.

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

Minnesota Power
 BEC 4 Rider
 2010 Rate Case Allocators

Demand Responsibility of Power Supply Cost Based on Peak & Average Methodology: D-01 & D-02
 Test Year 2010 Rebuttal Customer Budget
 Revised from original work paper AF-3, page 14
 MP Exhibit (SJS) Rebuttal Schedule 2, page 9 of 15
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		<u>Total Retail</u>	<u>Residential</u>	<u>General Service</u>	<u>Large Light & Power</u>	<u>Large Power</u>	<u>Municipal Pumping</u>	<u>Lighting</u>
1	Annual Energy (E-01 with losses)	8,973,590	1,164,063	645,945	1,311,171	5,768,410	61,116	22,885
2	Average Demand	1,024,382	132,884	73,738	149,677	658,494	6,977	2,612
3	Percent	100.000	12.972	7.198	14.611	64.282	0.681	0.255
4	Annual CP Demand (loss adjusted)	1,267,035	214,342	116,138	224,399	697,256	9,334	5,567
5	Percent	100.000	16.917	9.166	17.711	55.031	0.737	0.439
6	Annual Load Factor (Line 2 / Line 4)	0.80849						
7	1.0 - Load Factor	0.19151						
8	Average Factor (Line 3 x Line 6 total)	80.849	10.488	5.820	11.813	51.971	0.551	0.206
9	Peak Factor (Line 5 x Line 7 total)	19.151	3.240	1.755	3.392	10.539	0.141	0.084
10	Composite Factor - D-01 (Line 8 + Line 9)	100.000	13.728	7.575	15.205	62.510	0.692	0.290
11	Power Supply Production - D-01 Adjusted for Jurisdictional Split (Line 10 x .82017)	82.017	11.259	6.213	12.471	51.269	0.568	0.237
12	Power Supply Transmission - D-02 Adjusted for Jurisdictional Split (Line 10 x .77570)	77.570	10.649	5.876	11.795	48.489	0.537	0.224

Notes:

Residential, General Service, Large Light and Power and Municipal Pumping CP demands per customer from load research multiplied by budgeted number of customers and adjusted for losses. Large Power CP demand based on 2008 CP adjusted for losses and ratio of 2008 to Test Year average demand. Large Light and Power and Large Power loads normalized to reflect three customers that moved from Large Power to Large Light and Power. Lighting CP is average load based on Test Year budgeted total energy and 4,200 burning hours and adjusted for losses.

Minnesota Power
BEC 4 Environmental Rider: 2016 Factor Filing
Allocation Factors for 2013 Only

	D-01 Rate Case	Normalized
MN Jurisdiction	0.82017	1.0000
Residential	0.11259	0.1373
General Service	0.06213	0.0758
Large Light & Power	0.12471	0.1521
Large Power	0.51269	0.6251
Municipal Pumping	0.00568	0.0069
Lighting	0.00237	0.0029

The D-01 allocators from MP's 2009 MPUC rate case Docket No. E-015/GR-09-1151.
Because the revenue tracker amounts are 100% MN Jurisdictional, the factor are normalized to obtain class allocations.

Minnesota Power
BEC 4 Rider
Revised Rate Case Allocators

Demand Responsibility of Power Supply Cost Based on Peak & Average Methodology: D-01 & D-02
Revised to Reflect Loss of Dahlberg in 2014
For Use in BEC 4 Rider Starting 1/1/2014

	<u>Total Retail</u>	<u>Residential</u>	<u>General Service</u>	<u>Large Light & Power</u>	<u>Large Power</u>	<u>Municipal Pumping</u>	<u>Lighting</u>
1 Annual Energy (E-01 with losses)	8,973,590	1,164,063	645,945	1,311,171	5,768,410	61,116	22,885
2 Average Demand	1,024,382	132,884	73,738	149,677	658,494	6,977	2,612
3 Percent	100.000	12.972	7.198	14.611	64.282	0.681	0.255
4 Annual CP Demand (loss adjusted)	1,267,035	214,342	116,138	224,399	697,256	9,334	5,567
5 Percent	100.000	16.917	9.166	17.711	55.031	0.737	0.439
6 Annual Load Factor (Line 2 / Line 4)	0.80849						
7 1.0 - Load Factor	0.19151						
8 Average Factor (Line 3 x Line 6 total)	80.849	10.488	5.820	11.813	51.971	0.551	0.206
9 Peak Factor (Line 5 x Line 7 total)	19.151	3.240	1.755	3.392	10.539	0.141	0.084
10 Composite Factor - D-01 (Line 8 + Line 9)	100.000	13.728	7.575	15.205	62.510	0.692	0.290
11 Power Supply Production - D-01 Adjusted for Jurisdictional Split (Line 10 x .83043)	83.043	11.400	6.291	12.627	51.910	0.575	0.240
12 Power Supply Transmission - D-02 Adjusted for Jurisdictional Split (Line 10 x .78556)	78.556	10.784	5.951	11.944	49.105	0.544	0.228

Notes:

Residential, General Service, Large Light and Power and Municipal Pumping CP demands per customer from load research multiplied by budgeted number of customers and adjusted for losses. Large Power CP demand based on 2008 CP adjusted for losses and ratio of 2008 to Test Year average demand. Large Light and Power and Large Power loads normalized to reflect three customers that moved from Large Power to Large Light and Power. Lighting CP is average load based on Test Year budgeted total energy and 4,200 burning hours and adjusted for losses.

Minnesota Power
BEC 4 Environmental Rider: 2016 Factor Filing
Revised Allocation Factors for Use Starting 1/1/2014

	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/ See Exhibit B-5, page 3, row 11.

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

Minnesota Power
BEC 4 Rider

Adjusted System Net Load Peaks - Forecast & Normalized (MW)
Revised to Reflect Loss of Dahlberg in 2014
For Use in BEC 4 Rider Starting 1/1/2014

System Peak	Forecast	Normalized			Wheeling						
	Expected System Net Load Peak (a)	Dual Fuel (b)	Large Power Interruptible (c)	Production Peak (d)	Staples (e)	Wadena (f)	Subtotal (g)	Losses (h)	Silver Bay (i)	Total (j)	Transmission Peak (k)
Jan	1367.839	25.000	192.466	1,150.373	4.027	12.830	16.857	0.249	42.000	59.106	1,155.848
Feb	1355.239	24.772	193.174	1,137.293	3.935	12.022	15.957	0.236	41.000	57.193	1,141.465
Mar	1304.739	23.860	192.394	1,088.485	3.537	11.297	14.834	0.220	41.000	56.054	1,093.793
Apr	1384.507	25.301	192.910	1,166.296	3.185	10.185	13.370	0.198	41.000	54.568	1,166.490
May	1449.361	4.637	192.345	1,252.379	3.047	9.624	12.671	0.188	41.000	53.859	1,247.851
Jun	1541.085	4.927	192.623	1,343.535	3.875	11.190	15.065	0.223	41.000	56.288	1,337.187
Jul	1564.066	5.000	192.854	1,366.212	3.844	11.051	14.895	0.220	43.000	58.115	1,360.634
Aug	1552.582	4.964	192.597	1,355.021	3.852	11.039	14.891	0.220	43.000	58.111	1,349.961
Sep	1524.054	4.873	191.697	1,327.484	3.662	10.507	14.169	0.210	41.000	55.379	1,320.975
Oct	1533.982	4.905	191.703	1,337.374	3.032	8.607	11.639	0.172	41.000	52.811	1,327.836
Nov	1567.539	25.608	191.363	1,350.568	3.673	12.018	15.691	0.232	41.000	56.923	1,344.527
Dec	1559.473	28.462	191.636	1,339.375	3.793	11.052	14.845	0.220	42.000	57.065	1,333.997
Avg	1,475.372	15.192	192.314	1,267.866	3.622	10.952	14.574	0.216	41.500	56.289	1,265.047

Notes:

Production Peak (d) = (a) - (b) - (c).

Subtotal (g) = (e) + (f).

Losses (h) = (g) x Distribution Bulk Delivery loss.

Total (j) = (g) + (h) + (i).

Transmission Peak (k) = ((d) / (1 + transmission loss)) + (j).

Demand loss factors:

Dist. Bulk Delivery (%) @ 1.48

Transmission (%) @ 4.89

Demand Responsibility for Power Supply Costs Based on 12-Month Average CP Demands (MW)
Revised to Reflect Loss of Dahlberg in 2014
For Use in BEC 4 Rider Starting 1/1/2014

Line (No)	Lowest Level of Allocation (kV)	Demand at Meter (a)	Lowest Level of Allocation		Power Supply Transmission		Power Supply Production		
			Losses to Meter Point (b)	Demand at LLA (c)	Losses on Dist Bulk Del (d)	Demand at Trans (e)	Losses on Trans Sys (f)	Demand at Prod (g)	
Group A - Full Requirement Customers									
1	Buhl	23	1.219	0.000	1.219	0.018	1.237	0.000	1.237
2	Gilbert	23	1.819	0.000	1.819	0.027	1.845	0.000	1.845
3	Keewatin	23	0.978	0.000	0.978	0.014	0.993	0.000	0.993
4	Mountain Iron	23	2.101	0.000	2.101	0.031	2.132	0.000	2.132
5	Nashwauk	23	2.305	0.000	2.305	0.034	2.340	0.000	2.340
6	Pierz	34	1.538	0.065	1.603	0.024	1.627	0.000	1.627
7	Randall	34	0.851	0.036	0.888	0.013	0.901	0.000	0.901
8	Biwabik	46	1.119	0.000	1.119	0.017	1.135	0.000	1.135
9	Ely	46	6.112	0.000	6.112	0.090	6.202	0.000	6.202
10	Aitkin	PST	5.872	0.000	5.872	0.000	5.872	0.000	5.872
11	Brainerd	PST	37.896	0.000	37.896	0.000	37.896	0.000	37.896
12	Grand Rapids	PST	25.729	0.000	25.729	0.000	25.729	0.000	25.729
13	Hibbing	PST	17.976	0.000	17.976	0.000	17.976	0.000	17.976
14	Proctor	PST	3.911	0.166	4.077	0.000	4.077	0.000	4.077
15	Two Harbors	PST	4.604	0.196	4.800	0.000	4.800	0.000	4.800
16	Virginia	PST	15.635	0.000	15.635	0.000	15.635	0.000	15.635
17	Dahlberg	PST	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	Group A - Total		129.664	0.463	130.128	0.269	130.396	0.000	130.396
19	- Demand Responsibility (%)						10.308		10.285
Group B - Private Utilities									
20	Superior Water, Light & Power Company	PST	84.588	0.000	84.588	0.000	84.588	0.000	84.588
21	Group B - Total		84.588	0.000	84.588	0.000	84.588	0.000	84.588
22	- Demand Responsibility (%)						6.687		6.672
Group C - Transmission and Distribution Wheeling Service									
23	Staples	34	3.622	0.000	3.622	0.054	3.675		
24	Wadena	34	10.952	0.000	10.952	0.162	11.114		
25	Group C - Total		14.574	0.000	14.574	0.216	14.789		
26	- Demand Responsibility (%)						1.169		
Group D - Wheeling Service									
27	Silver Bay Power Corp.	PST	41.500	0.000	41.500	0.000	41.500		
28	Group D - Total		41.500	0.000	41.500	0.000	41.500		
29	- Demand Responsibility (%)						3.281		
Group E - Distribution Wheeling Service									
30	Great River Energy	23, 34, 46	0	0	0	0	0		
31	Group E - Total		0	0	0	0	0		
32	- Demand Responsibility (%)						0.000		
Other									
33	Other - Total						993.773		1,052.881
34	- Demand Responsibility (%)						78.556		83.043
Total System									
35	System - Total						1,265.047		1,267.866
36	- Demand Responsibility (%)						100.000		100.000
							(D-02)		(D-01)

Notes:

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

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

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

Demand loss factors:

Secondary (%) @ 0.68

Line Transf (%) @ 1.69

Primary (%) @ 3.93

Distribution Subs (%) @ 0.33

Dist Bulk Delivery (%) @ 1.48

Transmission (%) @ 4.89

Transmission losses supplied through MISO and not allocated here.

Group A & B rebuttal demands estimated based on ratio of initial filing demands to energy and rebuttal energy.

DTRAN

DPROD

Minnesota Power
BEC 4 Rider

System Net Load Peaks
Adjusted System Net Load Peaks - Forecast & Normalized (MW)
Test Year 2010 Rebuttal Customer Budget
Revised from original work paper, AF-3, page 2.
MP Exhibit (SJS) Rebuttal Schedule 3, page 2 of 15
Docket No. E-015/GR-09-1151

System Peak	Forecast	Normalized			Wheeling						
	Expected System Net Load Peak (a)	Dual Fuel (b)	Large Power Interruptible (c)	Production Peak (d)	Staples (e)	Wadena (f)	Subtotal (g)	Losses (h)	Silver Bay (i)	Total (j)	Transmission Peak (k)
Jan	1383.700	25.000	192.466	1,166.234	4.027	12.830	16.857	0.249	42.000	59.106	1,170.970
Feb	1371.100	24.772	193.174	1,153.154	3.935	12.022	15.957	0.236	41.000	57.193	1,156.587
Mar	1320.600	23.860	192.394	1,104.346	3.537	11.297	14.834	0.220	41.000	56.054	1,108.915
Apr	1400.368	25.301	192.910	1,182.157	3.185	10.185	13.370	0.198	41.000	54.568	1,181.612
May	1465.222	4.637	192.345	1,268.240	3.047	9.624	12.671	0.188	41.000	53.859	1,262.973
Jun	1556.946	4.927	192.623	1,359.396	3.875	11.190	15.065	0.223	41.000	56.288	1,352.309
Jul	1579.927	5.000	192.854	1,382.073	3.844	11.051	14.895	0.220	43.000	58.115	1,375.756
Aug	1568.443	4.964	192.597	1,370.882	3.852	11.039	14.891	0.220	43.000	58.111	1,365.082
Sep	1539.915	4.873	191.697	1,343.345	3.662	10.507	14.169	0.210	41.000	55.379	1,336.097
Oct	1549.843	4.905	191.703	1,353.235	3.032	8.607	11.639	0.172	41.000	52.811	1,342.958
Nov	1583.400	25.608	191.363	1,366.429	3.673	12.018	15.691	0.232	41.000	56.923	1,359.649
Dec	1575.334	28.462	191.636	1,355.236	3.793	11.052	14.845	0.220	42.000	57.065	1,349.119
Avg	1,491.233	15.192	192.314	1,283.727	3.622	10.952	14.574	0.216	41.500	56.289	1,280.169

Notes:

Production Peak (d) = (a) - (b) - (c).

Subtotal (g) = (e) + (f).

Losses (h) = (g) x Distribution Bulk Delivery loss.

Total (j) = (g) + (h) + (i).

Transmission Peak (k) = ((d) / (1 + transmission loss)) + (j).

Demand loss factors:

Dist. Bulk Delivery (%) @	1.48
Transmission (%) @	4.89

Minnesota Power
BEC 4 Rider

Demand Responsibility for Power Supply Costs Based on 12-Month Average CP Demands (MW)
Test Year 2010 Rebuttal Customer Budget
Revised from original work paper, AF-3, page 3.
MP Exhibit (SJS) Rebuttal Schedule 3, page 3 of 15
Docket No. E-015/GR-09-1151

Line (No)	Lowest Level of Allocation (kV)	Demand at Meter (a)	Lowest Level of Allocation		Power Supply Transmission		Power Supply Production		
			Losses to Meter Point (b)	Demand at LLA (c)	Losses on Dist Bulk Del (d)	Demand at Trans (e)	Losses on Trans Sys (f)	Demand at Prod (g)	
Group A - Full Requirement Customers									
1	Buhl	23	1.219	0.000	1.219	0.018	1.237	0.000	1.237
2	Gilbert	23	1.819	0.000	1.819	0.027	1.845	0.000	1.845
3	Keewatin	23	0.978	0.000	0.978	0.014	0.993	0.000	0.993
4	Mountain Iron	23	2.101	0.000	2.101	0.031	2.132	0.000	2.132
5	Nashwauk	23	2.305	0.000	2.305	0.034	2.340	0.000	2.340
6	Pierz	34	1.538	0.065	1.603	0.024	1.627	0.000	1.627
7	Randall	34	0.851	0.036	0.888	0.013	0.901	0.000	0.901
8	Biwabik	46	1.119	0.000	1.119	0.017	1.135	0.000	1.135
9	Ely	46	6.112	0.000	6.112	0.090	6.202	0.000	6.202
10	Aitkin	PST	5.872	0.000	5.872	0.000	5.872	0.000	5.872
11	Brainerd	PST	37.896	0.000	37.896	0.000	37.896	0.000	37.896
12	Grand Rapids	PST	25.729	0.000	25.729	0.000	25.729	0.000	25.729
13	Hibbing	PST	17.976	0.000	17.976	0.000	17.976	0.000	17.976
14	Proctor	PST	3.911	0.166	4.077	0.000	4.077	0.000	4.077
15	Two Harbors	PST	4.604	0.196	4.800	0.000	4.800	0.000	4.800
16	Virginia	PST	15.635	0.000	15.635	0.000	15.635	0.000	15.635
17	Dahlberg	PST	15.861	0.000	15.861	0.000	15.861	0.000	15.861
18	Group A - Total		145.526	0.463	145.989	0.269	146.258	0.000	146.258
19	- Demand Responsibility (%)						11.425		11.393
Group B - Private Utilities									
20	Superior Water, Light & Power Company	PST	84.588	0.000	84.588	0.000	84.588	0.000	84.588
21	Group B - Total		84.588	0.000	84.588	0.000	84.588	0.000	84.588
22	- Demand Responsibility (%)						6.608		6.589
Group C - Transmission and Distribution Wheeling Service									
23	Staples	34	3.622	0.000	3.622	0.054	3.675		
24	Wadena	34	10.952	0.000	10.952	0.162	11.114		
25	Group C - Total		14.574	0.000	14.574	0.216	14.789		
26	- Demand Responsibility (%)						1.155		
Group D - Wheeling Service									
27	Silver Bay Power Corp.	PST	41.500	0.000	41.500	0.000	41.500		
28	Group D - Total		41.500	0.000	41.500	0.000	41.500		
29	- Demand Responsibility (%)						3.242		
Group E - Distribution Wheeling Service									
30	Great River Energy	23, 34, 46	0	0	0	0	0		
31	Group E - Total		0	0	0	0	0		
32	- Demand Responsibility (%)						0.000		
Other									
33	Other - Total						993.033		1,052.881
34	- Demand Responsibility (%)						77.570		82.017
Total System									
35	System - Total						1,280.169		1,283.727
36	- Demand Responsibility (%)						100.000 (D-02)		100.000 (D-01)

Notes:

Demand at LLA (c) = (a) + (b).
Demand at Trans (e) = (c) + (d).
Demand at Prod (g) = (e) + (f).

Demand loss factors:

Secondary (%) @ 0.68
Line Transf (%) @ 1.69
Primary (%) @ 3.93
Distribution Subs (%) @ 0.33
Dist Bulk Delivery (%) @ 1.48
Transmission (%) @ 4.89

Transmission losses supplied through MISO and not allocated here.

Group A & B rebuttal demands estimated based on ratio of intital filing demands to energy and rebuttal energy.

DTRAN

DPROD

2015 BEC4 Environmental Retrofit and Ash Haul Project

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

BEC4 2016 Costs and Boswell Ash Pond Projects

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

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

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

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

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

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

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

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

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

Boswell Storm Water Project

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

Weighting allocation per Internal Revenue Code Regulation 1.169-4.

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

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

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

EXHIBIT C

NORTHWEST CORNER OF THE NID



INSTALLATION OF REACTOR DUCT G INTO NID BUILDING



PROJECT SITE



PENTHOUSE STEEL ERECTION



AERIAL VIEW OF NID BUILDING



INSTALLING SEAL GAS PIPING AND SUPPORTS



WEST SIDE OF THE NID BUILDING



NID BUILDING - ROOF INSTALLATION SHOWING ALL REACTOR DUCTS INSTALLED, INSULATED AND LAGGED



WEST SIDE OF THE NID BUILDING SHOWING PILE WALL AND SOUTH STAIR TOWER



ASH SILO



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

AFFIDAVIT OF SERVICE VIA
ELECTRONIC FILING AND
MAILING VIA U.S. MAIL

Susan Romans of the City of Duluth, County of St. Louis, State of Minnesota, says that on the **30th** day of **September, 2015** she served Minnesota Power's Rider for Boswell Unit 4 Emission Reduction (BEC4 Rider) and 2016 Factor to the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce via electronic filing. The persons on Minnesota Power's General Service List were served as requested.



Susan Romans

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