



AN ALLETE COMPANY

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November 2, 2016

VIA ELECTRONIC FILING

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

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

Dear Mr. Wolf:

Minnesota Power hereby submits the attached Petition seeking Minnesota Public Utilities Commission approval of its 2017 Renewable Factor. This Petition is filed pursuant to Minn. Stat. § 216B.1645, subd. 2a for cost recovery of investments, expenditures and costs related to the development of the Bison Wind Energy Center and the Thomson Hydroelectric Restoration Project through Minnesota Power's Renewable Resources Rider.

Minnesota Power is submitting a general rate case concurrent with this 2017 Factor Filing and most of the projects included in the Renewable Resources Rider will ultimately be transferred into the Company's rate base. The Direct Testimony of Mr. Herbert Minke in the general rate case includes discussion about how cost recovery will be handled for projects transitioning into rate base.

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

Please contact me at 218-355-3586 with any questions related to this matter.

Respectfully yours,

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

Susan Ludwig

SL:sr
Encl

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

In the Matter of Minnesota Power's Renewable Resources
Rider and 2017 Renewable Factor

Docket No. E015/M-16-776

SUMMARY

Minnesota Power submits this Petition to the Minnesota Public Utilities Commission ("Commission") pursuant to Minn. Stat. § 216B.1645 and Minn. Rules 7829.1300. Minnesota Power is seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd 2a to update cost recovery of investments, expenditures and costs related to the development of the Bison Wind Energy Center and the Thomson Hydroelectric Restoration Project, through Minnesota Power's Commission-approved Rider for Renewable Resources.

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

In the Matter of Minnesota Power's Renewable Resources
Rider and 2017 Renewable Factor

Docket No. E015/M-16-776

I. INTRODUCTION

Minnesota Power submits this Petition to the Minnesota Public Utilities Commission (“Commission”) pursuant to Minn. Stat. § 216B.1645 and Minn. Rules 7829.1300. Minnesota Power (“the Company”) is seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd. 2a to update cost recovery of incurred investments, expenditures and costs related to the development of the Company’s Bison Wind Energy Center (“Bison Projects”), as well as the Thomson Hydroelectric Restoration Project (“Thomson Project”), through Minnesota Power’s Commission-approved Rider for Renewable Resources (“Renewable Resources Rider”). The Thomson Project is a 71 MW hydroelectric restoration project. The Bison Projects are made up of the following projects:

- The Bison 1 Wind Project and associated transmission upgrades (“Bison 1 Project”);
- The Bison 2 Wind Project (“Bison 2 Project”);
- The Bison 3 Wind Project (“Bison 3 Project”); and
- The Bison 4 Wind Project and associated transmission upgrades (“Bison 4 Project”).

Upon Commission approval, Minnesota Power will adjust the line item on customers’ monthly electric bills under the Renewable Adjustment.

On May 11, 2007, the Commission established Minnesota Power’s Renewable Resources Rider through an order approving recovery of investments and expenditures allowed under Minn.

Stat. § 216B.1645.¹ The initial Bison 1 Project cost recovery began in 2010, additional Bison 1, 2 and 3 cost recoveries started in late 2013, Bison 4 cost recovery started in June 2015, and Thomson Project cost recovery began in April 2016. Minnesota Power now seeks approval to adjust this Rider for recovery of updated investments and expenditures related to the Bison and Thomson Projects.

The Company's most recent Renewable Resources Rider Factor Filing ("2015 Factor Filing") was filed on November 10, 2015² and approved by the Commission on March 9, 2016. The Company's proposed factor in this petition ("2017 Renewable Resources Factor") will result in a rate reduction for all customer classes except the LP customer class. The impact for the average residential customer will be a reduction of about 5.34 percent. The LP average class rate will be an increase of about 1.46 percent.

Minnesota Power is filing a general rate case (Docket No. E015/GR-16-664) concurrent with this 2017 Factor Filing and most of the projects included in the Renewable Resources Rider will ultimately be transferred into the Company's rate base. The Direct Testimony of Mr. Herbert Minke in the general rate case includes discussion about how cost recovery will be handled for projects transitioning into rate base. Mr. Minke's testimony also explains how the trackers for projects which will remain in the Renewable Resources Rider will be updated with the final rate of return approved in the rate case going back to the start of interim rates. The true-up would occur in a subsequent factor filing once the final rate of return is approved.

Because the 2017 Factor Filing will result in a decrease in customer bills for most customers, Minnesota Power requests that the Commission waive the requirements of Minn. Rule 7825.3200, which requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. The Company is requesting that the Commission waive the 90 day requirement and grant provisional approval of its rate request in this petition, effective January 1, 2017. This will allow cost recovery for Renewable Resources Rider projects to be synchronized between the rate case and the 2017 Factor Filing. The Company believes it is appropriate to grant provisional approval of the new 2017 Renewable Resources Factor in order to provide timely rate relief to most customers, with the understanding

¹ Docket No. E015/M-07-216.

² Docket No. E015/M-14-962.

that a final decision would be made subsequent to a comment period in which parties may conduct a thorough review of the petition.

All of the Bison Projects are fully operational and have a combined nameplate capacity of 496.6 MW. Additionally, construction is nearly complete on the Thomson Project, which has been restored to its full capacity and associated energy. All projects are described in more detail below.

On August 21, 2015, Minnesota Power filed a petition³ with the Commission seeking approval to include costs of the Camp Ripley Solar Project through a new Solar Renewable Factor separate from the existing Renewable Resources Rider. In an Order on February 26, 2016, the Commission approved the Company's petition, subject to certain compliance requirements which are still open before the Commission. None of the costs associated with the Camp Ripley Solar Project have been included in this 2017 Renewable Resources Rider. Likewise, no costs associated with the Minnesota Power's proposed community solar garden pilot program⁴ have been included. The Company expects to include the costs associated with these approved solar projects in a future Solar Renewable Factor filing.

A. Bison 1 Project

On March 23, 2009, Minnesota Power submitted a petition⁵ seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd. 1 for the investments and expenditures related to the development of the Bison 1 Project and associated transmission upgrades through Minnesota Power's Commission-approved Renewable Resources Rider. The Bison 1 Project is an 81.8 MW wind facility located southwest of Center, North Dakota, with the wind energy applied towards Minnesota Power's requirements under the Renewable Energy Standard ("RES").⁶ The Bison 1 Project included upgrading Minnesota Power's existing DC Line between the Square Butte Substation in Center, North Dakota, and Minnesota Power's Arrowhead Substation near Duluth.⁷ The upgrade increased the DC Line capacity from 500 MW to 550 MW, facilitating the deliverability and reliability of the Bison 1 Project.

³ Docket No. E015/M-15-773.

⁴ Docket No. E015/M-15-825.

⁵ Docket No. E015/M-09-285.

⁶ Minn. Stat. § 216B.1691.

⁷ Docket No. E015/PA-09-526.

On July 7, 2009, the Commission issued an order finding that Minnesota Power's Bison 1 Project, including transmission related components, qualifies as an eligible technology under Minn. Stat. § 216B.1691, its generated energy is a reasonable means by which to meet Minnesota Power's renewable energy standard obligations, and the project is prudent and reasonable when compared to alternative approaches for meeting these obligations.

B. Bison 2 Project

On March 24, 2011, Minnesota Power submitted a petition⁸ seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd. 1 for the investments and expenditures related to the development of the Bison 2 Project through Minnesota Power's Commission-approved Renewable Resources Rider. The Bison 2 Project is a 105 MW wind facility located in Oliver and Morton Counties in central North Dakota, with the wind energy applied towards Minnesota Power's requirements under the RES.

On September 8, 2011, the Commission issued an order finding that Minnesota Power's Bison 2 Project qualifies as an eligible technology under Minn. Stat. § 216B.1691 and approved the related investments and expenditures.

C. Bison 3 Project

On June 21, 2011, Minnesota Power submitted a petition⁹ seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd. 1 for the investments and expenditures related to the development of the Bison 3 Project through Minnesota Power's Commission-approved Renewable Resources Rider. The Bison 3 Project is also a 105 MW wind facility located in Oliver and Morton Counties in central North Dakota, with the wind energy applied towards Minnesota Power's requirements under the RES.

On November 2, 2011, the Commission issued an order finding that Minnesota Power's Bison 3 Project qualifies as an eligible technology under Minn. Stat. § 216B.1691 and approved the related investments and expenditures.

⁸ Docket No. E015/M-11-234.

⁹ Docket No. E015/M-11-626.

D. Bison 4 Project

On September 27, 2013, Minnesota Power submitted a petition¹⁰ seeking Commission approval pursuant to Minn. Stat. § 216B.1645, subd. 1 for the investments and expenditures related to the development of the Bison 4 Project through Minnesota Power’s Commission-approved Renewable Resources Rider. The Bison 4 Project is a 204.8 MW wind facility located in Oliver County in central North Dakota, with the wind energy applied towards Minnesota Power’s requirements under the RES. The Bison 4 Project included expanding the existing Bison Substation, constructing a new Tri-County Substation, constructing 11 miles of 230 kV transmission line connecting the two substations, and integrating software to enhance voltage regulation. In addition, a component of this project involved upgrading the capacity of the Center-Heskett 230 kV transmission line that runs between Center and Mandan, North Dakota to support the injection of additional wind energy onto the alternating current (AC) system.

On January 17, 2014, the Commission issued an order finding that Minnesota Power’s Bison 4 Project qualifies as an eligible technology under Minn. Stat. § 216B.1691 and approved the related investments and expenditures.

E. Thomson Project

On July 3, 2014, Minnesota Power filed a petition¹¹ with the Commission seeking approval to include costs of a hydroelectric restoration project at the Company’s Thomson Hydroelectric Facility through the Renewable Resources Rider. The Thomson Project was developed to restore 71 MW of renewable energy to the hydroelectric facility after it was severely damaged in record rainfall and flooding in June 2012. On March 5, 2015, the Commission issued an order finding that the Thomson Project qualifies as an eligible technology under Minn. Stat. § 216B.1691 and approved the related investments and expenditures.

F. Renewable Resources Factor

On March 9, 2016, the Commission issued an order approving Minnesota Power’s 2015 rate adjustment mechanism (“2015 Renewable Resources Factor”) under its Renewable Resources Rider to recover costs related to the Bison Projects and the Thomson Project.¹² The

¹⁰ Docket No. E015/M-13-907.

¹¹ Docket No. E015/M-14-577.

¹² Docket No. E015/M-14-962.

approved 2015 Renewable Resources Factor is currently being applied to customer bills. Minnesota Power now seeks approval to update the Renewable Resources Rider for recovery beginning January 1, 2017, for its updated investments and expenditures associated with the Bison Projects and the Thomson Project.

The Company's proposed 2017 Renewable Resources Factor will result in a rate reduction for most customers. As previously stated, Minnesota Power is filing a general rate case concurrent with this 2017 Factor Filing and most of the projects included in the Renewable Resources Rider will ultimately be transferred into the Company's rate base. In order to provide timely rate relief for most customers, Minnesota Power requests that the Commission waive the requirements of Minn. Rule 7825.3200, which requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. The Company is requesting that the Commission waive the 90 day requirement and grant provisional approval of its rate request in this petition, effective January 1, 2017. This will also allow cost recovery for Renewable Resources Rider projects to be synchronized between the rate case and the 2017 Factor Filing. Because the 2017 Factor Filing will result in a decrease in customer bills for most customers, the Company believes it is appropriate to grant provisional approval of the new 2017 Renewable Resources Factor, with the understanding that a final decision would be made subsequent to a comment period in which parties may conduct a thorough review of the petition.

A similar provisional approval was granted in Otter Tail Power Company's petition for approval of its environmental upgrades cost recovery rider (Docket No. E017/M-16-373) and transmission cost recovery rider annual adjustment (Docket No. E017/M-16-374). In these petitions, Otter Tail Power Company requested cost recovery factors which would decrease rates for customers. In response, the Minnesota Department of Commerce Division of Energy Resources ("Department") proposed that the Commission grant provisional approval in order to provide rate reductions to customers at a time when extensive workload and resource constraints were presenting a significant barrier to the Department's ability to thoroughly review the petitions. Minnesota Power believes that a provisional approval is also appropriate in this petition in order to provide timely rate reduction to most customers and to more efficiently align cost recovery of approved projects between the 2017 Renewable Resources Rider and the Company's rate case in Docket No. E015/GR-16-664.

II. PROCEDURAL MATTERS

A. General Filing Information

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

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

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

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

David Moeller
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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 November 2, 2016. Minn. Rule 7825.3200 requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of

modified rates. However, the Company is requesting the Commission waive the 90 day requirement and grant provisional approval to implement the 2017 Renewable Factor effective January 1, 2017. This will allow for a timelier rate reduction for most customers. However, a final Commission decision on implementing the 2017 Renewable Resources Factor would be made subsequent to a comment period in which parties conduct a thorough review of the petition. Section IV-G includes additional information on the Company's waiver request.

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

This Petition is made pursuant to Minn. Stat. § 216B.1645, subd. 2a. Minn. Rule 7825.3200 requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. Furthermore, Minnesota Power's proposed 2017 Renewable Resources Factor falls within the definition of a "Miscellaneous Tariff Filing" under Minn. Rules 7829.0100, subp. 11 and 7829.1400, subp. 1 and 4 permitting comments in response to a miscellaneous filing to be filed within 30 days, and reply comments to be filed no later than 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 2017 Renewable Resources Factor will have no effect on Minnesota Power's base rates. The additional information required under Minn. Rule 7829.1300, subp. 4(F) is included throughout this Petition.

9. Service List (Minn. Rule 7829.0700)

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III. RENEWABLE RESOURCES RIDER AUTHORIZATION

Minn. Stat. § 216B.1645, subd. 2a allows the Commission to approve a schedule that provides for the automatic adjustment of charges to recover prudently incurred investments, expenses, or costs associated with facilities constructed, owned, or operated by a utility to satisfy the requirements of section 216B.1691, provided those facilities were previously approved by the Commission. Under Minn. Stat. § 216B.1645, subd. 2a, the Commission may approve, or approve as modified, a rate schedule that:

- (1) allows a utility to recover directly from customers on a timely basis the costs of qualifying renewable energy projects, including:
 - (i) return on investment;
 - (ii) depreciation;
 - (iii) ongoing operation and maintenance costs;
 - (iv) taxes; and
 - (v) costs of transmission and other ancillary expenses directly allocable to transmitting electricity generated from a project meeting the specifications of this paragraph;
- (2) provides a current return on construction work in progress, provided that recovery of these costs from Minnesota ratepayers is not sought through any other mechanism;
- (3) allows recovery of other expenses incurred that are directly related to a renewable energy project, including expenses for energy storage, provided that the utility demonstrates to the commission's satisfaction that the expenses improve project economics, ensure project implementation, advance research and understanding of how storage devices may improve renewable energy projects, or facilitate coordination with the development of transmission necessary to transport energy produced by the project to market;
- (4) allocates recoverable costs appropriately between wholesale and retail customers; and
- (5) terminates recovery when costs have been fully recovered or have otherwise been reflected in a utility's rates.

IV. 2017 RENEWABLE RESOURCES FACTOR

A. Description of Facilities (Minn. Stat. § 216B.1645, subd. 2a(b)(1))

1. **Bison 1 Project**

As detailed in Minnesota Power's March 23, 2009, Petition,¹³ the Bison 1 Project is an 81.8 MW wind facility located southwest of Center, North Dakota. The Bison 1 Project was constructed in two phases. Phase 1 of the Project, consisting of sixteen Siemens SWT-2.3-101 gear-driven turbines generating 36.8 MW of wind energy, became commercially operational on December 8, 2010. Phase 2 of the Project, consisting of fifteen 3.0 MW SWT-3.0-101 direct drive or "gearless" turbines generating 45 MW of wind energy, became fully operational on January 31, 2012. In addition, a component of this Project was the upgrading of the DC Line terminals to increase the DC Line capacity from 500 MW to 550 MW. The DC Line upgrade was completed in November 2013.

2. **Bison 2 Project**

As detailed in Minnesota Power's March 24, 2011, Petition,¹⁴ the Bison 2 Project is a 105 MW wind energy facility located in Oliver and Morton Counties in central North Dakota. The project consists of 35 Siemens SWT-3.0-101 turbines and interconnects to the electric grid at the Square Butte Substation, which allows the wind energy to flow via Minnesota Power's existing DC Line and provides a cost competitive energy and capacity resource for Minnesota Power's customers. The project became commercially operational on December 18, 2012.

3. **Bison 3 Project**

As detailed in Minnesota Power's June 21, 2011, Petition,¹⁵ the Bison 3 Project is also a 105 MW wind energy facility located in Oliver and Morton Counties in central North Dakota. The project consists of 35 Siemens SWT-3.0-101 turbines and interconnects to the electric grid at the Square Butte Substation, which allows the wind energy to flow via Minnesota Power's existing DC Line. The project became commercially operational on December 18, 2012.

¹³ Docket No. E015/M-09-285.

¹⁴ Docket No. E015/M-11-234.

¹⁵ Docket No. E015/M-11-626.

4. Bison 4 Project

As detailed in Minnesota Power's September 27, 2013 Petition,¹⁶ the Bison 4 Project is a 204.8 MW wind energy facility located in Oliver County in central North Dakota. The Bison 4 Project consists of 64 Siemens 3.2 MW SWT-3.2-113 turbines and interconnects to the electric grid at the Square Butte Substation, which allows the wind energy to flow via Minnesota Power's existing DC Line or the AC system. The Bison 4 Project included expanding the existing Bison Substation, constructing a new Tri-County Substation, constructing 11 miles of 230 kV transmission line connecting the two substations, and integrating software to enhance voltage regulation. In addition, a component of this project was upgrading the capacity of the Center-Heskett 230 kV transmission line that runs between Center and Mandan, North Dakota from a summer emergency rating of 438 MVA¹⁷ to 591 MVA. The upgrade was required to prevent the additional AC system injection by the Bison 4 Project from overloading the Center-Heskett 230 kV line for critical AC system contingencies. The upgrade of the Center-Heskett 230 kV line was completed on October 22, 2014. The Bison 4 Project became operational on December 21, 2014.

5. Thomson Project

As detailed in Minnesota Power's July 3, 2014, Petition,¹⁸ the Thomson Project is a 71 MW hydroelectric restoration project located at the Thomson Development in Minnesota Power's St. Louis River Hydro System. The Thomson facility was severely damaged and brought offline by record rainfall and flooding in June 2012. The project was to restore the facility from the damages and upgrade Thomson to meet current safety and engineering standards. Specifically, the project included reconstruction of the forebay canal, electrical restoration, mechanical and general civil rehabilitation, upgrades to the water conveyance system, and construction of additional spillway facilities at the Thomson main dam.

The Thomson Project is nearly complete. On October 9, 2014, the forebay reconstruction was completed and the forebay was subsequently refilled. Work related to the electrical restoration, mechanical and general civil rehabilitation, and upgrades to the water conveyance system has been completed. By the end of 2016, all portions of the Thomson Project will be

¹⁶ Docket No. E015/M-13-907.

¹⁷ MVA stands for megavolt ampere.

¹⁸ Docket No. E015/M-14-577.

complete except for the spill capacity projects, which are anticipated to be completed by the end of 2017, pending necessary authorization and design approvals by the Federal Energy Regulatory Commission.

The Company is pleased to report that the Thomson Project has resulted in improved efficiency of the units resulting in an increase of generation capability from pre-reconstruction levels. The Thomson station is now capable of nearly 75 MW at peak production.

B. Project Schedule (Minn. Stat. § 216B.1645, subd. 2a(b)(2))

As described above, all generating turbines at the Bison Projects have been placed in service and are currently operational. In addition, most of the Thomson Project has been completed. The spill capacity projects are anticipated to be completed by the end of 2017.

C. Minnesota Power's Costs (Minn. Stat. § 216B.1645, subd. 2a(b)(3 & 4))

Minnesota Power has employed multiple steps to help ensure the lowest costs to customers on the Bison and Thomson Projects. Minn. Stat. § 216B.1645, subd. 2a(b)(4). Minnesota Power utilized its standard purchasing procedures to obtain competitive quotations for most major purchases and awarded contracts to the lowest bidder(s), unless a better overall value could be obtained. In some cases, contracts were awarded on a single source basis to qualified contractors based on utilizing existing partnering agreements or based upon original equipment manufacturer considerations. Minnesota Power will provide any additional information deemed necessary, as part of notice and comment, for the Commission to conclude that “the utility’s efforts to ensure that costs of the facilities are reasonable and were prudently incurred.” Minn. Stat. § 216B.1645, subd. 2a(b)(4).

Minnesota Power is pleased to announce that the total project cost for the Bison Projects were finalized at \$813.3 million, or \$23.4 million below the total original estimates of \$836.7 million. After deducting internal costs, AFUDC on internal costs, and wholesale AFUDC, \$796 million in capital expenditures are utilized for calculating the revenue requirements.

Based on the original Petition, Minnesota Power projected that the Bison 1 Project, including the associated transmission upgrades to the DC Line, would have total project costs of approximately \$177.6 million, with the wind generation project estimated at \$172.0 million and

the associated upgrades to the DC Line estimated at \$5.6 million. The final overall project costs were \$177.9 million. After deducting internal costs, AFUDC on internal costs, and wholesale AFUDC, approximately \$172.0 million in capital expenditures are utilized for calculating the revenue requirements. Refer to Exhibit B-3, pages 1-10, for additional detail on Bison 1 Project expenditures utilized in calculating the revenue requirements.

Based on the original Petitions, Minnesota Power projected that the Bison 2 and Bison 3 Projects would have total project costs of approximately \$157 million for each project. The overall Bison 2 Project was finalized at \$149.2 million, or \$7.8 million under the original budget, and the Bison 3 Project was finalized at \$150.1 million, or \$6.6 million under the original budget. After deducting internal costs, AFUDC on internal costs, and wholesale AFUDC, approximately \$145.8 million and \$147.6 million in capital expenditures are utilized for calculating the revenue requirements for Bison 2 Project and Bison 3 Project, respectively. Refer to Exhibit B-3, pages 10-15, for additional detail on the Bison 2 and Bison 3 Projects expenditures utilized in estimating the revenue requirements.

As detailed in the Company's original Petition, Minnesota Power projected that the Bison 4 Project and associated transmission system improvements would have total projected capital expenditures of approximately \$345.3 million. These costs were finalized at about \$336.1 million, or \$9.2 million under budget. After deducting internal costs, AFUDC on internal costs, and wholesale AFUDC, approximately \$330.2 million in capital expenditures are utilized for calculating the revenue requirements. Refer to Exhibit B-3, pages 15-20, for detail on the Bison 4 Project expenditures and total expenditures for all Bison Projects utilized in estimating the revenue requirements.

Based on the original Petition, Minnesota Power anticipated that the Thomson Project would cost approximately \$90.4 million, net of insurance proceeds. Currently the Company estimates the overall project costs will be finalized at about \$91.8 million, net of insurance proceeds. In order to remain within the maximum level of capital expenditures approved in the original Petition, capital expenditures, net of insurance proceeds, were capped in the 2017 Renewable Resources Factor at \$90.4 million. After deducting internal costs, AFUDC on internal costs, and wholesale AFUDC, the capital expenditures for calculating revenue requirements is \$82.5 million, or roughly \$1.5 million less than the amount of capital

expenditures utilized for calculating revenue requirements in the original Petition.¹⁹ Refer to Exhibit B-6 for additional detail on Thomson Project expenditures utilized in calculating the revenue requirements.

D. Revenue Requirements

The total recoverable Retail revenue requirements for the 2017 Renewable Resources Rider are \$75.5 million, consisting of a \$14.7 million tracker balance estimated through the end of 2016 for the Bison and Thomson Projects, \$51.2 million in projected revenue requirements for 2017 for the Bison Projects, and \$9.6 million in projected revenue requirements for 2017 for the Thomson Projects. As shown in Exhibit B-1, the estimated 2016 ending tracker balance of \$14.7 million indicates a tracker balance for Large Power Class of \$17.8 million and a balance of -\$3.1 million for All Other Classes. This slight over collection for All Other Classes was anticipated when the current 2015 Factors were approved and was reflected in the March 9, 2016 Order Point 3 approving the 2015 billing Factors: “Required Minnesota Power, by the end of 2016, to file a new Renewable Resources Recovery Rider or make a compliance filing in this docket demonstrating that the approved rates are still reasonable and will not result in over-recovery during 2017.”²⁰ The higher tracker balance for the Large Power Class is a result of the downturn in the taconite industry and resulting lower collections. Because the 2015 Factor was based on assumptions of higher production for the taconite industry, the tracker balance increased for the LP class.

The 2017 Renewable Adjustment Factors shown in Exhibit A-1 are proposed to be effective on January 1, 2017. Exhibit B-1, page 1, summarizes the revenue requirements, cost allocation, and rate design for all projects. Exhibit B-1, pages 2 to 9, provides a summary of the 2015 ending tracker and projected 2016 ending tracker for all projects. Exhibit B-1, pages 3 to 8 summarize the 2015, 2016 and 2017 trackers for the Bison Projects, and Exhibit B-1, page 9, shows the 2016 and 2017 revenue requirements for each Bison project and the allocation to class. The revenue requirement calculations for each Bison project are included in Exhibit B-2. Exhibit B-4 shows the 2016 and 2017 revenue requirements for each Thomson project and

¹⁹ The reason for the \$1.5 million variance is because internal costs, AFUDC on internal costs, and wholesale AFUDC are \$1.5 million higher in the 2017 Renewable Resources Factor than in the original Petition.

²⁰ Docket No. E015/M-14-962.

allocation to class, and the 2015, 2016 and 2017 trackers for the Thomson Project. The revenue requirement calculations for each Thomson project are included in Exhibit B-5. A description of the revenue requirement components is provided below.

1. Return on Construction Work in Progress (“CWIP”)

Minnesota Power will record capital expenditures related to the Renewable Resources Rider in Federal Energy Regulatory Commission (“FERC”) Account 107 – CWIP. Minnesota Power is requesting a current return on CWIP on the components that are not yet placed in-service beginning when cost recovery under the Rider is approved by the Commission. A return on CWIP will be the only component of revenue requirements recovered under the Rider until the components not yet in-service are placed in-service. Consistent with the terms of the 2011 Transmission Cost Recovery Factor Filing²¹ and subsequent filings, internal capitalized costs are excluded from the CWIP balances as shown in Exhibit B-3 for the Bison Project and Exhibit B-6 for the Thomson Project. In compliance with the terms of the 2013 Renewable Resources Factor Filing,²² allowance for funds used during construction (“AFUDC”) on internal capitalized costs is excluded from CWIP balances as shown in Exhibits B-3 and B-6.

a) Allowance for Funds Used During Construction (“AFUDC”)

The Company will calculate AFUDC for the Bison and Thomson Projects and record an offsetting regulatory liability (referred to as a “contra” entry) equaling 100 percent of the projects’ AFUDC and include that regulatory liability as a reduction to rate base through an entry to “Pre-funded AFUDC Regulatory Liability.” After the projects are placed in-service, the amount of the Pre-funded AFUDC Regulatory Liability will be amortized over the lives of the projects.

In a December 2010 Order, FERC prescribed specific accounting treatment, which requires the Company to record the Pre-funded AFUDC Regulatory Liability by debiting Account 407.3, Regulatory Debits, and crediting Account 254, Other Regulatory Liabilities, in accordance with the instructions of those accounts. In addition, the Company will amortize the Pre-funded AFUDC Regulatory Liability as an offset to depreciation expense by debiting

²¹ Docket No. E015/M-11-695.

²² Docket No. E015/M-13-410.

Account 254 and crediting Account 407.4, Regulatory Credits. The Company will maintain all necessary controls to ensure the amount of the Pre-funded AFUDC Regulatory Liability recorded in Account 254 includes the total amount of AFUDC accrued on the projects. This FERC-approved methodology for the application of AFUDC is currently being applied to all Minnesota Power current cost recovery rider projects.

b) Return on Investment – CWIP

Revenue requirements during the construction phase of the projects will be based on the average monthly CWIP balance of the Bison and Thomson Projects. The Return on Investment – CWIP will be calculated on the average of the beginning and ending monthly CWIP balance until the projects are placed in-service. The components of the revenue requirement will include an after-tax return on equity component, current and deferred income taxes, and interest expense. The total annual revenue requirements are the sum of the monthly current return on CWIP calculations until the projects are placed in-service. At that time, the ending CWIP balance is transferred to plant in-service and Minnesota Power will begin to recover full revenue requirements. Internal capitalized costs and AFUDC on internal costs are excluded from the CWIP balances as shown in Exhibits B-3 and B-6.

(i) Return on Equity Component

The return on investment will be based on Minnesota Power's last retail rate case.²³ Minnesota Power will use the average monthly CWIP balance multiplied by the after-tax equity return rate and the equity percentage of the allowed capital structure from the last rate case to calculate the return on equity component of the revenue requirement calculation.

$$\text{[Return on Equity Component = Average Monthly CWIP Balance X After-Tax Equity Return Rate X Capital Structure Equity Percentage]}$$

(ii) Income Tax Expense Component

Minnesota Power will include a component of the revenue requirement calculation to recover the effective rate of taxes. This represents both current and deferred income taxes. The

²³ Docket No. E015/GR-09-1151.

income tax amount will be based upon the Return on Equity component of the revenue requirement to equate it to a pretax amount.

$$[Income\ Taxes = Return\ on\ Equity\ Component \times 1/(1-41.37\%) \times 41.37\%]$$

(iii) Interest Expense Component

Minnesota Power will include a component of the revenue requirement calculation to recover an equivalent amount of interest expense that would be incurred given the investment in the Bison and Thomson Projects. The interest component will be calculated based on the average monthly CWIP balance times the debt rate approved in the last rate case times the debt percentage of the allowed capital structure from the last rate case.

$$[Interest\ Expense = Average\ Monthly\ CWIP\ Balance \times Debt\ Rate \times Capital\ Structure\ Debt\ Percentage]$$

(iv) Thomson Base Rate Revenue Credit

The Minnesota Jurisdictional Revenue Requirements include a credit for plant equipment that will be retired as a result of the Thomson Project. Equipment with original installed cost of approximately \$3.1 million is being retired as part of the Thomson Project. The estimated jurisdictional revenue requirements associated with this equipment that are currently in base rates are deducted from the Thomson Project jurisdictional revenue requirements. This credit includes a return on average rate base, depreciation expense, and associated property tax. This credit began with the start of revenue requirements in February 2015 following Commission approval of the Thomson Project and will continue until the Thomson Project revenue requirements are rolled into base rates in Minnesota Power's next rate case. Refer to Exhibit B-4, pages 3 and 5, line E4 for the application of this credit to the 2015 and 2016 revenue requirements and to Exhibit B-5, page 50 of 50, for the calculation of this credit.

(v) Property Taxes

Any Minnesota property taxes that Minnesota Power is required to pay on CWIP that is in-place will be included in the project revenue requirements.

2. Full Revenue Requirements – In-service

Full revenue requirements will be based on the Original Installed Cost (“OIC”) when the Bison and Thomson Projects are placed in-service. Internal capitalized costs and AFUDC on internal costs are excluded from the OIC balances as shown in Exhibits B-3 and B-6. As described in greater detail below, the in-service revenue requirements will be calculated using the adjusted average monthly rate base for the projects plus related expenses. The components of the revenue requirements for the Bison and Thomson Projects will include an after-tax return on investment, current and deferred income taxes, interest expense, depreciation expense, and property taxes. Revenue requirements for the Bison Projects will additionally include applicable PTCs, North Dakota Investment Tax Credits (“ND ITC”) when utilized, and incremental operation and maintenance (“O&M”) expenses related to these projects.

a) Adjusted Average Rate Base

Adjusted average rate base will be calculated using the monthly balance of the Bison and Thomson Projects’ OIC reduced by the accumulated depreciation for the projects. The adjusted average rate base will also be adjusted for any differences between book and tax depreciation expense through accumulated deferred income taxes. To the extent the Company is unable to utilize tax deductions generated by the projects, deferred tax assets will be established and included under the hybrid method as discussed in Section 3, “Treatment of Deferred Taxes” starting on page 22.

b) Return on Equity Component

The return on investment calculation will be based on Minnesota Power’s last retail rate case.²⁴ Minnesota Power will use the average monthly adjusted rate base multiplied by the after-tax equity return rate and the equity percentage of the allowed capital structure from the last rate case to calculate the return on equity component of revenue requirements.

[Return on Equity Component = Average Monthly Adjusted Rate Base X After-tax Equity Return Rate X Capital Structure Equity Percentage]

²⁴ Docket No. E015/GR-09-1151.

c) Income Tax Expense Component

Minnesota Power will include a component of the revenue requirement calculation to recover the effective rate of taxes. This represents both current and deferred income taxes. The income tax amount will be based upon the Return on Equity component of the revenue requirement to equate it to a pre-tax amount.

$$[Income\ Taxes = Return\ on\ Equity\ Component \times 1/(1-41.37\%) \times 41.37\%]$$

d) Interest Expense Component

Minnesota Power will include a component of the revenue requirement calculation to recover an equivalent amount of interest expense that would be incurred given the investment in the Bison and Thomson Projects. The interest component will be calculated based on the average monthly adjusted rate base times the debt rate approved in the last rate case times the debt percentage of the allowed capital structure from the last rate case.

$$[Interest\ Expense = Average\ Monthly\ Adjusted\ Rate\ Base \times Debt\ Rate \times Capital\ Structure\ Debt\ Percentage]$$

e) Depreciation Expense Component

Once the assets are placed in service, depreciation on the Bison and Thomson Projects will be recovered through the Rider. Depreciation expense will be calculated on a straight line basis over the lives of the projects on the components and will begin as the assets are placed in-service.

f) Property Tax Component

Property tax on wind generation assets in North Dakota is a combination of wind generation rated capacity and actual kilowatt hours generated. Property taxes on the Thomson projects are included based upon the value of the property and applicable tax rates.

g) O&M Expense Component

O&M expenses related to the Bison Projects will also be recovered through the Rider. Minnesota Power anticipates these O&M expenses to be in line with the originally estimated expenses outlined in the Plan Petitions. Major components of O&M expense at the Bison

Projects include costs related to labor, offices, wind project easements, and services including maintenance and insurance. No incremental O&M expenses related to the Thomson Project are included in the calculation of revenue requirements for the Renewable Resources Factor.

h) Production Tax Credits

The PTCs generated from the Bison wind projects are credited as an offset to revenue requirements in the year they are generated. However, as a result of Minnesota Power's tax net operating losses ("NOLs"), as described in the deferred tax section below, the cash benefits of the PTCs from these projects will not be realized in the year generated, but deferred for future realization as deferred tax assets. These deferred tax assets have been applied as an addition to rate base in calculating revenue requirements.

i) North Dakota Investment Tax Credits²⁵

The Bison Projects qualify for the North Dakota Investment Tax Credit ("ND ITC"). Currently no North Dakota income taxes are charged to revenue requirements. To the extent Minnesota Power generates taxable income in North Dakota in the future, any resulting income taxes will be offset by the use of this nonrefundable credit. Minnesota Power will offset future Renewable Resources Rider revenue requirements with ND ITC once they have been realized. Based upon Minnesota Power's current estimates of corporate North Dakota income taxes, it is not anticipated that the Company will be able to fully utilize these tax credits at this time.

j) Thomson Investment Tax Credits

Federal investment tax credits ("ITCs") are currently available for qualified renewable energy projects. The Thomson Project qualifies for \$22.3 million of federal ITCs under Internal Revenue Service ("IRS") guidance pertaining to when a rebuilt renewable asset will qualify as a new asset for purposes of earning a tax credit. As discussed above, as a result of Minnesota Power's NOLs, the cash benefit of the federal ITCs from this project will not be realized in the year generated, but deferred for future utilization. Under IRS normalization rules Minnesota Power cannot begin to amortize this new federal ITC until it is utilized in a subsequent tax year.

²⁵ At an October 18, 2016, hearing in the Company's 2015 Factor Filing (Docket No. E015/M-14-962), the Commission decided that all ALLETE consolidated tax return ND ITCs actually realized be reflected in the Company's revenue requirements. The Commission also directed Minnesota Power to amortize the actual ND ITC benefit realized over the remaining life of Bison Wind Projects. Since no ND ITCs have been realized to date, there is no ND ITC amortization reflected in the 2017 Factor Filing.

Minnesota Power currently anticipates fully utilizing the NOL carryforward in approximately 2020, and at that time will begin using the Minnesota Power tax credit carryforwards. Once the federal ITC is utilized, Minnesota Power will begin amortizing these federal ITCs to reduce regulatory tax expense in a future rate case, or revenue requirements in a future factor filing. The Thomson ITCs will have no impact on revenue requirements in this filing; they are included in the filing discussion to provide full transparency of the full costs and benefits generated from this project.

k) Thomson Base Rate Revenue Credit

The Minnesota Jurisdictional Revenue Requirements include a credit for plant equipment that will be retired as a result of the Thomson Project. Equipment with original installed cost of approximately \$3.1 million is being retired as part of the Thomson Project. The estimated jurisdictional revenue requirements associated with this equipment that are currently in base rates are deducted from the Thomson Project jurisdictional revenue requirements. This credit includes a return on average rate base, depreciation expense, and associated property tax. This credit began with the start of revenue requirements in February 2015 following Commission approval of the Thomson Project and will continue until the Thomson Project revenue requirements are rolled into base rates in Minnesota Power's next rate case. Refer to Exhibit B-4, pages 3 and 5, line E4, for the application of this credit to the 2015 and 2016 revenue requirements and to Exhibit B-5, page 50 of 50, for the calculation of this credit.

E. Rate Calculation and Customer Impact

Minnesota Power has calculated its proposed 2017 Renewable Adjustment Factors as shown in Exhibit A-1. Minn. Stat. § 216B.1645, subd. 2a(b)(3). Exhibit B-1, page 1, summarizes the revenue requirements, tracker balance, cost allocation, and rate design for the 2017 Renewable Adjustment Factors. Minnesota Power proposes to maintain the current Renewable Adjustment Factor rate design that incorporates demand (\$/kW-month) and energy (¢/kWh) adders for the Large Power ("LP") class and an average energy (¢/kWh) adder that is applied to all other retail classes. Specifically, the LP revenue requirements, including any over/under tracker balance, will continue to be split between demand and energy based on LP's base rate demand and energy revenue split of approximately 60 percent demand and 40 percent

energy from Minnesota Power's last retail rate case. The LP demand rate adder will continue to be calculated as 60 percent of the projected LP revenue requirement divided by the LP class Billing Demand (kW-month) from Minnesota Power's most recent budget. The LP energy rate adder will be calculated as 40 percent of the projected LP revenue requirement divided by the LP energy (kilowatt-hour) sales from Minnesota Power's most recent budget. The Renewable Adjustment Factor for the other non-LP classes will continue to be calculated as an average energy-based ($\text{\$/kWh}$) charge consisting of the projected revenue requirements, including any over/under tracker balance, divided by the total energy (kWh) sales of the other non-LP classes from Minnesota Power's most recent budget.

Minnesota Power has utilized the appropriate authorized rates of return, the jurisdictional Power Supply Production Demand allocators, and the jurisdictional Power Supply Transmission Demand allocators, based on those approved by the Commission in Minnesota Power's last retail rate case²⁶ and as approved in previous Renewable Resources Rider Factor filings. Refer to Exhibit B-7 for authorized rates of return, and to Exhibit B-8 for the allocation factors from Minnesota Power's last retail rate case.

1. Tracker Mechanism

In support of the Renewable Resources Rider Factor filings, Minnesota Power has implemented a tracker mechanism to account for the balance of actual revenue requirements and cash collected from customers. The trackers indicate the actual monthly Minnesota jurisdictional revenue requirements, actual cash collections, and over/under balances. Refer to Exhibit B-1, page 2 to 8, for the 2015-2017 trackers for the Bison Project and to Exhibit B-4, pages 2 to 7, for the 2015-2017 tracker for the Thomson Project.

2. Treatment of Deferred Taxes

In the Company's approved 2011 Transmission Factor Filing,²⁷ the Commission reviewed Minnesota Power's methodology of applying the Deferred Tax Assets ("DTA") for NOLs to the Company's riders and approved the use of the hybrid approach for accounting for NOLs in its riders. Under the hybrid method, the NOL DTA amount added to rate base in each year by each project is based on the lower of the stand-alone and consolidated methods. The

²⁶ Docket Nos. E015/GR-09-1151 and E015/GR-08-415.

²⁷ Docket No. E015/M-11-695.

approved hybrid methodology is currently being applied to all Minnesota Power current cost recovery rider projects.

The inclusion of the NOL DTAs is coordinated between the Transmission Factor Filing, the Renewable Factor Filing, and the Boswell Energy Center Unit 4 Emission Reduction Rider to ensure total NOL DTAs included in all filings is being limited to the total Minnesota Power available NOL. The expected December 31, 2016, total Minnesota Power available NOL has been updated to reflect the most recently filed tax return and incorporates a forecast for 2016 taxable income. Under current assumptions of taxable income in 2016 and 2017, Minnesota Power will be using a portion of its NOL carryforward in 2016 and 2017. Minnesota Power currently anticipates fully utilizing the NOL carryforward in approximately 2020. Once the NOL carryforward has been fully utilized, production tax credits and federal investment tax credits will be utilized in the order generated.

Refer to Exhibits B-2 and B-5 for detailed calculations regarding the hybrid method and the inclusion of the NOL DTA in rate base.

3. Customer Impact

Table 1 below summarizes the estimated rate impacts by customer class assuming the 2017 Renewable Adjustment Factors are implemented on January 1, 2017. The rate increase/decrease in cents per kWh shown in Table 1 below is the incremental change between the current 2015 Renewable Adjustment Factors and the 2017 Renewable Factors in this filing.

Based on the above assumptions, all of the non-LP classes would have an average rate decrease of about 0.574 cents per kWh. For an average residential customer this would be about a 5.34% reduction or about \$4.34 less per month. The LP average class rate would increase about 0.096 cents per kWh or an increase of about 1.46%.

Table 1. Estimated Customer Impact

Proposed Effective Date	1/1/2017
Rate Class Impacts 1/	
Residential	
Average Current Rate (¢/kWh)	10.741
Increase (Decrease) (¢/kWh)	(0.574)
Increase (Decrease) (%)	(5.34%)
Average Impact (\$/month)	(\$4.34)
General Service	
Average Current Rate (¢/kWh)	10.736
Increase (Decrease) (¢/kWh)	(0.574)
Increase (Decrease) (%)	(5.35%)
Average Impact (\$/month)	(\$15.54)
Large Light & Power	
Average Current Rate (¢/kWh)	8.863
Increase (Decrease) (¢/kWh)	(0.574)
Increase (Decrease) (%)	(6.48%)
Average Impact (\$/month)	(\$1,592.58)
Large Power	
Average Current Rate (¢/kWh)	6.603
Increase (Decrease) (demand + energy combined) (¢/kWh)	0.096
Increase (Decrease) (%)	1.46%
Average Impact (\$/month)	\$49,743
Municipal Pumping	
Average Rate (¢/kWh)	9.906
Increase (Decrease) (¢/kWh)	(0.574)
Increase (Decrease) (%)	(5.79%)
Average Impact (\$/month)	(\$35.66)
Lighting	
Average Rate (¢/kWh)	16.445
Increase (Decrease) (¢/kWh)	(0.574)
Increase (Decrease) (%)	(3.49%)
Average Impact (\$/month)	(\$2.09)

Notes:

1/ Average current rates are 2016 estimated rates based on Final General Rates in 2009 Rate Case without riders (E015/GR-09-1151) adjusted to include current rider rates. Current rider rates include Renewable Resources Rider rates, Transmission Cost Recovery Rider rates, BEC4 Environmental rate, Conservation Program Adjustment rate, and estimated 2016 Fuel and Purchased Energy Adjustment. Average \$/month impact based on 2017 budgeted billing units. The increase/decrease in cents/kWh is the incremental decrease due to the new factor being implemented (new 2017 Renewable Factor minus the current 2015 Renewable factor).

F. Project Benefits in Promoting Renewable Energy (Minn. Stat. § 216B.1645, subd. 2a(b)(5))

The project benefits in promoting renewable energy were described in Minnesota Power's initial plan filings for each of the projects and confirmed by Commission Order for the Bison and Thomson Projects. Together these projects are key components of Minnesota Power's proactive renewable plan to cost effectively meet Minnesota's 25 percent by 2025 RES.

G. Variance from Minn. Rule 7825.3200

Notwithstanding the date of Commission action or the date an Order is issued in this matter, because Minnesota Power's proposes that the 2017 Factor be provisionally effective January 1, 2017, a variance to Minnesota Rule 7825.3200 in this matter may be required. Minn. Rule 7825.3200 requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. Under Minn. Rule 7829.3200, the Commission shall grant a variance to its rules when it determines that the following requirements are met:

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

In this instance, enforcement of the rule would obviate Minnesota Power's desire to achieve the lower rates for most customers as of January 1, 2017 on a provisional basis and subject to full Commission review and approval. Enforcement of the Rule requiring 90-day notice would impose an excessive burden, considering that Minnesota Power can true-up any differences in approved rates under the 2017 Factor. Minnesota Power is not aware of any reason why granting the variance in this instance would adversely affect the public interest and would directly benefit most customers. Granting of the variance would also not conflict with standards imposed by law or rules governing the Commission's actions and is consistent with prior Commission decisions on Minnesota Power's electric service agreements.

V. CONCLUSION

Minnesota Power believes the Renewable Resources Rider will appropriately recover the current costs associated with the Bison and Thomson Projects and respectfully requests that the

Commission approve Minnesota Power's 2017 Renewable Factor. The Company further requests that the Commission waive the 90 day requirement under Minn. Rule 7825.3200 and grant provisional approval to apply the reduced 2017 Renewable Factor to customer bills beginning January 1, 2017, with the understanding that a final decision will be made subsequent to a comment period in which parties may conduct a thorough review of the petition.

Dated: November 2, 2016

Respectfully submitted,

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

Susan Ludwig
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MINNESOTA POWER
ELECTRIC RATE BOOK - VOLUME I

SECTION V **PAGE NO.** 85
REVISION 87

RIDER FOR RENEWABLE RESOURCES

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:

Large Power Customers \$~~4.614.26~~ per kW-month
for all Billing Demand kW

and

~~0.4500.404~~¢ per kWh
for all kWh

All other applicable Retail Rate Customers ~~0.5981.172~~¢ per kWh
for all kWh

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

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

**MINNESOTA POWER
ELECTRIC RATE BOOK - VOLUME I**

SECTION V **PAGE NO.** 85
REVISION 8

RIDER FOR RENEWABLE RESOURCES

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:

Large Power Customers	\$4.61 per kW-month for all Billing Demand kW
	and
	0.450¢ per kWh for all kWh
All other applicable Retail Rate Customers	0.598¢ per kWh for all kWh

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

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

Minnesota Power
Renewable Resources Rider: 2017 Factor Filing
Summary: Revenue Requirements, Cost Allocation and Rate Design

<u>2016 Estimated Tracker Balance (\$) 1/</u>	Total
MN Jurisdiction	14,683,084
Large Power	17,788,537
All Other Retail Classes	(3,105,453)
<u>2017 Revenue Requirements Bison 1-4 (\$) 2/</u>	
MN Jurisdiction	51,169,983
Large Power	31,986,464
All Other Retail Classes	19,183,518
<u>2017 Revenue Requirements Thomson (\$) 3/</u>	
MN Jurisdiction	9,605,152
Large Power	6,004,180
All Other Retail Classes	3,600,972
<u>Total 2017 Factor Revenue Requirements (\$)</u>	
MN Jurisdiction	75,458,218
Large Power	55,779,181
All Other Retail Classes	19,679,037

<u>Billing Units 4/</u>		
Large Power	kW - month	605,385
	kWh	4,961,473,000
All Other Retail Classes	kWh	3,290,254,000

<u>Billing Factors 5/</u>			Proposed 1/1/2017
Large Power	\$/kW - month		4.61
	¢/kWh		0.450
All Other Retail Classes	¢/kWh		0.598

		Current Rate	Proposed	Change
Large Power	(\$/kW - month)	4.26	4.61	0.350
	¢/kWh	0.404	0.450	0.046
All Other Classes	¢/kWh	1.172	0.598	(0.574)

Notes:

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

2/ Refer to Exhibit B-1, page 10.

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

4/ 2017 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
Renewable Resources Rider: 2017 Factor Filing
2016 Tracker Summary for all Bison and Thomson Projects

2015 Ending Bison Tracker (Over)/Under Collection 1/

MN Jurisdiction		30,669,332
Large Power		22,453,470
All Other Retail Classes		8,215,862

2015 Ending Thomson Tracker 2/

	Allocation /3	
MN Jurisdiction	100.00%	9,594,470
Large Power	62.51%	5,997,523
All Other Retail Classes	37.49%	3,596,947

2016 Revenue Requirements Bison 3/

MN Jurisdiction	100.00%	48,744,177
Large Power	62.51%	30,470,088
All Other Retail Classes	37.49%	18,274,089

2016 Revenue Requirements Thomson 4/

MN Jurisdiction	100.00%	9,471,816
Large Power	62.51%	5,920,852
All Other Retail Classes	37.49%	3,550,964

2016 Estimated Cash Collections 5/

MN Jurisdiction	(83,796,711)
Large Power	(47,053,397)
All Other Retail Classes	(36,743,314)

2016 Total Estimated Ending Tracker (Over)/Under Collection

MN Jurisdiction	14,683,083
Large Power	17,788,537
All Other Retail Classes	(3,105,453)

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

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

3/ Refer to Exhibit B-1, page 6, line E4.

4/ Refer to Exhibit B-4, page 5, line E4.

5/ Actual collections through 7/31/2016, estimated 8/1/2016-12/31/2016.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Total Sum All Bison Projects

2016 Renewable Resource Rider
Tracker for All Bison Projects

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 2016
C-2 Revenue Requirements - Stand Alone NOL														
1 Net Plant	737,020,262	735,718,516	733,842,624	731,965,136	730,081,030	728,201,159	726,317,964	724,433,777	722,549,590	720,665,404	718,781,217	716,897,030	715,012,843	715,012,843
2 Less: ADITL - Def Taxes	(247,687,962)	(248,909,988)	(250,012,944)	(251,115,593)	(252,216,872)	(253,319,045)	(254,420,535)	(255,521,820)	(256,623,105)	(257,724,389)	(258,825,674)	(259,926,959)	(261,028,244)	(261,028,244)
3 Plus: ADITA - NOL (Stand Alone)	211,236,609	211,794,838	212,243,095	213,586,594	214,837,270	215,550,223	216,467,829	216,678,267	217,071,647	217,863,987	218,808,696	220,035,022	220,850,726	220,850,726
4 Plus: ADITA - PTC	84,726,211	87,475,861	90,239,426	94,278,364	98,198,461	101,362,456	104,822,829	107,283,819	110,003,634	113,291,739	116,801,799	120,719,487	124,063,059	124,063,059
5 Rate Base	785,295,121	786,079,227	786,312,202	788,714,501	790,899,890	791,794,793	793,188,087	792,874,044	793,001,767	794,096,740	795,566,037	797,724,580	798,898,385	798,898,385
6 Average Rate Base	785,339,734	785,687,174	786,195,714	787,513,351	789,807,195	791,347,341	792,491,440	793,031,065	792,937,905	793,549,253	794,831,389	796,645,308	798,311,482	791,862,385
7 Current Return on CWIP	2,930	2,940	-	-	-	-	-	-	-	-	-	-	-	2,940
8 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 After Tax Return on Equity	3,687,393	3,689,024	3,691,412	3,697,598	3,708,369	3,715,600	3,720,972	3,723,506	3,723,068	3,725,939	3,731,959	3,740,475	3,748,299	44,616,219
10 Income Tax Component	2,601,870	2,603,021	2,604,706	2,609,071	2,616,671	2,621,773	2,625,564	2,627,352	2,627,043	2,629,068	2,633,316	2,639,326	2,644,846	31,481,756
11 Interest Expense Component	1,662,302	1,663,038	1,664,114	1,666,903	1,671,759	1,675,019	1,677,440	1,678,582	1,678,385	1,679,679	1,682,393	1,686,233	1,689,759	20,113,305
12 Total Return on Average Rate Base	7,951,565	7,955,083	7,960,232	7,973,573	7,996,798	8,012,392	8,023,976	8,029,444	8,028,496	8,034,686	8,047,668	8,066,034	8,082,904	96,211,280
13 Operation & Maintenance Expense	1,287,149	1,104,761	1,066,375	1,193,180	1,233,274	1,193,045	1,155,281	1,257,703	1,257,703	1,257,703	1,257,703	1,257,703	1,257,703	14,492,133
14 Depreciation Expense	1,880,938	1,882,525	1,884,148	1,884,166	1,884,174	1,884,179	1,884,186	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	22,608,499
15 Property Tax	186,903	186,060	186,060	186,060	186,060	186,060	186,060	186,061	186,061	186,061	186,061	186,061	186,061	2,232,725
16 Federal Production Tax Credit	(4,416,330)	(4,689,835)	(4,713,568)	(6,888,859)	(6,686,162)	(5,396,546)	(5,902,052)	(4,197,493)	(4,638,948)	(5,608,229)	(5,986,798)	(6,682,054)	(5,702,836)	(67,093,379)
17 ND Investment Tax Credit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 Revenue Requirements	6,893,156	6,441,534	6,383,247	4,348,120	4,614,144	5,879,130	5,347,451	7,159,897	6,717,499	5,754,408	5,388,820	4,711,930	5,708,018	68,454,197
D Stand Alone Taxable Income or Loss (NOL)														
1 Revenue Requirements	6,893,156	6,441,534	6,383,247	4,348,120	4,614,144	5,879,130	5,347,451	7,159,897	6,717,499	5,754,408	5,388,820	4,711,930	5,708,018	68,454,197
2 Tax Depreciation	7,490,847	4,836,421	4,550,224	4,549,501	4,546,197	4,548,364	4,546,719	4,546,224	4,546,224	4,546,224	4,546,224	4,546,224	4,546,224	54,854,770
3 Property Tax	186,903	186,060	186,060	186,060	186,060	186,060	186,060	186,061	186,061	186,061	186,061	186,061	186,061	2,232,725
4 Interest Expense (including on CWIP)	1,662,915	1,663,652	1,664,114	1,666,903	1,671,759	1,675,019	1,677,440	1,678,582	1,678,385	1,679,679	1,682,393	1,686,233	1,689,759	20,113,919
5 Operation & Maintenance Expense	1,287,149	1,104,761	1,066,375	1,193,180	1,233,274	1,193,045	1,155,281	1,257,703	1,257,703	1,257,703	1,257,703	1,257,703	1,257,703	14,492,133
6 Total Tax Deduction	10,627,814	7,790,894	7,466,773	7,595,645	7,637,290	7,602,487	7,565,500	7,668,570	7,668,373	7,669,667	7,672,381	7,676,220	7,679,747	91,693,547
7 Taxable Income (NOL)	(3,734,658)	(1,349,360)	(1,083,526)	(3,247,525)	(3,023,146)	(1,723,357)	(2,218,050)	(508,673)	(950,874)	(1,915,259)	(2,283,561)	(2,964,290)	(1,971,729)	(23,239,350)
8 Current tax expense	(1,545,028)	(558,231)	(448,253)	(1,343,501)	(1,250,677)	(712,954)	(917,607)	(210,437)	(393,375)	(792,342)	(944,709)	(1,226,328)	(815,703)	(9,614,117)
9 Taxable Income (NOL)	(3,734,658)	(1,349,360)	(1,083,526)	(3,247,525)	(3,023,146)	(1,723,357)	(2,218,050)	(508,673)	(950,874)	(1,915,259)	(2,283,561)	(2,964,290)	(1,971,729)	(26,974,008)
10 NOL carryforward	(506,866,379)	(510,603,354)	(511,952,715)	(513,036,241)	(516,283,766)	(519,306,912)	(521,030,269)	(523,248,319)	(523,756,993)	(524,707,866)	(526,623,125)	(528,906,686)	(531,870,976)	(510,601,037)
11 Taxable Income after NOL carryforward	(510,601,037)	(511,952,715)	(513,036,241)	(516,283,766)	(519,306,912)	(521,030,269)	(523,248,319)	(523,756,993)	(524,707,866)	(526,623,125)	(528,906,686)	(531,870,976)	(533,842,704)	(537,575,044)
12 Expected stand alone ADITA NOL	211,236,609	211,794,838	212,243,095	213,586,594	214,837,270	215,550,223	216,467,829	216,678,267	217,071,647	217,863,987	218,808,696	220,035,022	220,850,726	220,850,726
9 Annual Fed Production Tax Credit (\$)	2,589,294	2,749,650	2,763,565	4,038,938	3,920,097	3,163,995	3,460,373	2,460,990	2,719,815	3,288,104	3,510,060	3,917,688	3,343,573	39,336,848
10 Utilized PTC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 ADITA for PTC	84,726,211	87,475,861	90,239,426	94,278,364	98,198,461	101,362,456	104,822,829	107,283,819	110,003,634	113,291,739	116,801,799	120,719,487	124,063,059	124,063,059
E Summary: Revenue Requirements														
1 Revenue Requirement: Consolidated		6,065,392	6,001,585	3,957,472	4,210,448	5,465,578	4,925,729	6,732,550	6,287,180	5,318,172	4,943,875	4,256,079	5,241,915	63,405,975
2 Revenue Requirement: Stand Alone		6,441,534	6,383,247	4,348,120	4,614,144	5,879,130	5,347,451	7,159,897	6,717,499	5,754,408	5,388,820	4,711,930	5,708,018	68,454,197
3 Revenue Requirement: Rider 1/		5,773,827	5,706,203	3,660,841	3,915,093	5,169,636	4,627,968	6,431,640	5,981,630	5,009,513	4,633,565	3,945,268	4,930,278	59,785,461
4 MN Jurisdictional Revenue Requirement		4,710,720	4,655,372	2,977,942	3,186,587	4,215,640	3,771,493	5,250,925	4,881,953	4,084,765	3,776,536	3,212,128	4,020,116	48,744,177

1/ Lesser of E1 or E2. For the sum of all projects, E3 does not equal the lesser of E1 or E2. This is due to the limitation and utilization of NOL carryforwards under both methods results in each individual projects' lower requirement changing from stand-alone to consolidated at different times.

**2017 Renewable Resource Rider
Tracker for All Bison Projects**

Section Line	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total Year Dec-17
C-2 Revenue Requirements - Stand Alone NOL														
1 Net Plant	715,012,843	713,128,657	711,244,470	709,360,283	707,476,096	705,591,910	703,707,723	701,823,536	699,939,349	698,055,162	696,170,976	694,286,789	692,402,602	692,402,602
2 Less: ADITL - Def Taxes	(261,028,244)	(261,519,941)	(262,011,638)	(262,503,335)	(262,995,033)	(263,486,730)	(263,978,427)	(264,470,124)	(264,961,821)	(265,453,519)	(265,945,216)	(266,436,913)	(266,928,610)	(266,928,610)
3 Plus: ADITA - NOL (Stand Alone)	220,850,726	221,553,026	221,471,180	221,953,058	222,593,947	222,847,788	222,521,928	221,945,791	221,260,396	221,023,669	221,644,526	222,123,474	221,997,905	221,997,905
4 Plus: ADITA - PTC	124,063,059	128,118,174	131,068,740	134,823,741	138,813,762	142,263,666	144,894,962	147,169,811	149,286,003	152,036,163	156,007,228	159,786,791	162,715,051	162,715,051
5 Rate Base	798,898,385	801,279,916	801,772,751	803,633,747	805,888,773	807,216,634	807,146,186	806,469,014	805,523,927	805,661,476	807,877,514	809,760,141	810,186,948	810,186,948
6 Average Rate Base	798,311,482	800,089,150	801,526,333	802,703,249	804,761,260	806,552,703	807,181,410	806,807,600	805,996,470	805,592,701	806,769,495	808,818,827	809,973,544	805,564,395
7 Current Return on CWIP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 After Tax Return on Equity	3,748,299	3,756,645	3,763,393	3,768,919	3,778,582	3,786,993	3,789,945	3,788,190	3,784,382	3,782,486	3,788,011	3,797,634	3,803,055	45,388,237
10 Income Tax Component	2,644,846	2,650,735	2,655,497	2,659,396	2,666,214	2,672,149	2,674,232	2,672,994	2,670,307	2,668,969	2,672,868	2,679,657	2,683,483	32,026,501
11 Interest Expense Component	1,689,759	1,693,522	1,696,564	1,699,055	1,703,411	1,707,203	1,708,534	1,707,743	1,706,026	1,705,171	1,707,662	1,712,000	1,714,444	20,461,336
12 Total Return on Average Rate Base	8,082,904	8,100,903	8,115,454	8,127,370	8,148,208	8,166,346	8,172,712	8,168,927	8,160,714	8,156,626	8,168,541	8,189,291	8,200,982	97,876,074
13 Operation & Maintenance Expense	1,257,703	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	1,314,844	15,778,128
14 Depreciation Expense	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	1,884,187	22,610,241
15 Property Tax	186,061	183,469	183,469	183,469	183,469	183,469	183,469	183,469	183,469	183,469	183,469	183,469	183,469	2,201,628
16 Federal Production Tax Credit	(5,702,836)	(6,916,450)	(5,032,518)	(6,404,574)	(6,805,425)	(5,884,195)	(4,487,969)	(3,880,009)	(3,609,401)	(4,690,705)	(6,773,093)	(6,446,467)	(4,994,473)	(65,925,279)
17 ND Investment Tax Credit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 Revenue Requirements	5,708,018	4,566,952	6,465,435	5,105,296	4,725,282	5,664,651	7,067,243	7,671,417	7,933,813	6,848,421	4,777,948	5,125,324	6,589,009	72,540,792
D Stand Alone Taxable Income or Loss (NOL)														
1 Revenue Requirements	6,243,059	5,098,815	6,994,121	5,630,803	5,247,611	6,183,802	7,583,216	8,184,212	8,443,429	7,354,858	5,281,206	5,625,402	7,085,908	78,713,383
2 Tax Depreciation	4,412,601	2,934,328	2,932,460	2,930,593	2,928,725	2,926,857	2,924,989	2,923,121	2,921,254	2,919,386	2,917,518	2,915,650	2,913,782	35,088,664
3 Property Tax	292,911	290,467	290,631	290,811	291,008	291,221	291,450	291,695	291,956	292,233	292,527	292,836	293,160	3,499,995
4 Interest Expense (including on CWIP)	1,688,650	1,692,423	1,695,476	1,697,977	1,702,344	1,706,146	1,707,487	1,706,706	1,704,999	1,704,155	1,706,656	1,711,004	1,713,458	20,448,831
5 Operation & Maintenance Expense	1,779,344	1,831,538	1,826,606	1,821,691	1,816,792	1,811,910	1,807,043	1,802,193	1,797,358	1,792,540	1,787,738	1,782,952	1,778,180	21,656,538
6 Total Tax Deduction	8,197,922	6,774,883	6,772,996	6,770,574	6,770,034	6,768,946	6,765,412	6,759,773	6,753,224	6,747,553	6,745,244	6,744,798	6,742,473	81,115,908
7 Taxable Income (NOL)	(1,974,314)	(1,697,248)	198,233	(1,164,358)	(613,073)	788,227	1,393,232	1,657,383	572,885	(1,156,965)	304,315	(1,156,965)	304,315	(2,766,100)
8 Current tax expense	(816,773)	(702,152)	82,011	(481,696)	(640,692)	(253,628)	326,088	576,381	685,660	237,000	(620,567)	(478,637)	125,896	(1,144,336)
9 Taxable Income (NOL)	(1,972,578)	(1,695,528)	199,936	(1,162,671)	(1,547,018)	(611,419)	789,866	1,394,855	1,658,990	574,475	(1,498,466)	(1,155,406)	305,858	(2,746,528)
10 NOL carryforward	(531,609,002)	(533,583,327)	(535,280,585)	(535,082,363)	(536,246,732)	(537,795,431)	(538,408,515)	(537,620,298)	(536,227,076)	(534,569,703)	(533,996,829)	(535,496,880)	(536,653,855)	(533,579,119)
11 Taxable Income after NOL carryforward	(533,579,119)	(535,276,417)	(535,078,234)	(536,242,643)	(537,791,381)	(538,404,504)	(537,616,327)	(536,223,144)	(534,565,810)	(533,992,974)	(535,493,064)	(536,650,077)	(536,345,810)	(536,325,647)
12 Expected stand alone ADITA NOL	220,747,104	221,449,256	221,367,246	221,848,944	222,489,636	222,743,264	222,417,175	221,840,793	221,155,137	220,918,133	221,538,696	222,017,335	221,891,442	221,891,442
9 Annual Fed Production Tax Credit (\$)	3,343,573	4,055,115	2,950,566	3,755,002	3,990,021	3,449,904	2,631,296	2,274,849	2,116,192	2,750,160	3,971,064	3,779,563	2,928,259	38,651,991
10 Utilized PTC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 ADITA for PTC	124,071,594	128,126,658	131,077,174	134,832,126	138,822,097	142,271,951	144,903,198	147,177,998	149,294,141	152,044,252	156,015,268	159,794,783	162,722,994	162,722,994
E Summary: Revenue Requirements														
1 Revenue Requirement: Consolidated	5,241,915	4,085,597	5,965,720	4,588,336	4,187,419	5,107,038	6,494,776	7,088,298	7,341,861	6,245,918	4,158,281	4,484,869	5,931,547	65,679,657
2 Revenue Requirement: Stand Alone	5,708,018	4,566,952	6,465,435	5,105,296	4,725,282	5,664,651	7,067,243	7,671,417	7,933,813	6,848,421	4,777,948	5,125,324	6,589,009	72,540,792
3 Revenue Requirement: Rider 1/	4,930,278	3,780,189	5,672,684	4,307,128	3,919,897	4,852,643	6,251,058	6,853,158	7,114,400	6,027,017	3,945,441	4,275,943	5,723,626	62,723,185
4 MN Jurisdictional Revenue Requirement	4,020,116	3,076,981	4,629,259	3,509,382	3,191,898	3,957,018	5,104,065	5,597,999	5,812,371	4,920,640	3,213,503	3,484,678	4,672,189	51,169,983

1/ Lesser of E1 or E2. For the sum of all projects, E3 does not equal the lesser of E1 or E2. This is due to the limitation and utilization of NOL carryforwards under both methods results in each individual projects' lower requirement changing from stand-alone to consolidated at different times.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1A: 36.8MW

Bison 1 Wind Phase 1A: 36.8 MW

Project ID # 104049
In Service 11/19/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347
	2 Total Accumulated Depreciation	13,581,573	13,764,191	13,946,808	14,129,426	14,312,043	14,494,661	14,677,278	14,859,896	15,042,513	15,225,131	15,407,748	15,590,366
	3 Net Plant	63,117,773	62,935,156	62,752,538	62,569,921	62,387,303	62,204,686	62,022,068	61,839,451	61,656,833	61,474,216	61,291,599	61,108,981
	4 Total Depreciation	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347	76,699,347
	2 Accumulated Depreciation	76,699,570	76,699,549	76,699,529	76,699,509	76,699,489	76,699,468	76,699,448	76,699,428	76,699,408	76,699,387	76,699,367	76,699,347
	3 Net Plant	(223)	(203)	(182)	(162)	(142)	(122)	(102)	(81)	(61)	(41)	(21)	(0)
	4 Bonus Depreciation (50% 2010, 100% 2011, 50% 2012-15)												
	5 Total Tax Depreciation (including bonus)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	6 Tax Book Difference	63,117,996	62,935,359	62,752,721	62,570,083	62,387,445	62,204,808	62,022,170	61,839,532	61,656,895	61,474,257	61,291,619	61,108,981
	7 Income Tax Rate 1/	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	26,111,915	26,036,358	25,960,801	25,885,243	25,809,686	25,734,129	25,658,572	25,583,014	25,507,457	25,431,900	25,356,343	25,280,786
	9 Deferred Tax Expense debit / (Credit)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)	(75,557)
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)	(1,099,568)
	12 ADITA - NOL	25,994,759	24,895,190	23,795,622	22,696,054	21,596,486	20,496,917	19,397,349	18,297,781	17,198,213	16,098,645	14,999,076	13,899,508
	13 Energy (MWh)	12,978	9,071	11,720	12,267	10,793	8,309	6,973	6,548	8,685	12,070	11,054	8,742
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	298,494	208,633	269,560	282,141	248,239	191,107	160,379	150,604	199,755	277,610	254,242	201,066
	16 Utilized PTC /3												
	17 ADITA for PTC	17,055,262	17,263,895	17,533,455	17,815,596	18,063,835	18,254,942	18,415,321	18,565,925	18,765,680	19,043,290	19,297,532	19,498,598
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	63,117,773	62,935,156	62,752,538	62,569,921	62,387,303	62,204,686	62,022,068	61,839,451	61,656,833	61,474,216	61,291,599	61,108,981
	2 Less: ADITL - Def Taxes	(26,111,915)	(26,036,358)	(25,960,801)	(25,885,243)	(25,809,686)	(25,734,129)	(25,658,572)	(25,583,014)	(25,507,457)	(25,431,900)	(25,356,343)	(25,280,786)
	3 Plus: ADITA - NOL	25,994,759	24,895,190	23,795,622	22,696,054	21,596,486	20,496,917	19,397,349	18,297,781	17,198,213	16,098,645	14,999,076	13,899,508
	4 Plus: ADITA - PTC	17,055,262	17,263,895	17,533,455	17,815,596	18,063,835	18,254,942	18,415,321	18,565,925	18,765,680	19,043,290	19,297,532	19,498,598
	5 Rate Base	80,055,879	79,057,883	78,120,815	77,196,327	76,237,938	75,222,416	74,176,167	73,120,143	72,113,269	71,184,251	70,231,864	69,226,302
	6 Average Rate Base	80,509,946	79,556,881	78,589,349	77,658,571	76,717,133	75,730,177	74,699,292	73,648,155	72,616,706	71,648,760	70,708,057	69,729,083
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	378,017	373,542	368,999	364,629	360,209	355,575	350,734	345,799	340,956	336,411	331,994	327,398
	10 Income Tax Component	266,733	263,576	260,370	257,287	254,168	250,898	247,482	244,000	240,583	237,376	234,259	231,016
	11 Interest Expense Component	170,413	168,395	166,347	164,377	162,385	160,296	158,114	155,889	153,705	151,657	149,665	147,593
	12 Total Return on Average Rate Base	815,163	805,513	795,717	786,293	776,761	766,768	756,330	745,688	735,244	725,444	715,919	706,007
	13 Operation & Maintenance Expense	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821
	14 Depreciation Expense	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617
	15 Property Tax	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856
	16 Federal Production Tax Credit 5/	(509,115)	(355,847)	(459,765)	(481,223)	(423,399)	(325,954)	(273,544)	(256,872)	(340,704)	(473,495)	(433,638)	(342,940)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	599,343	742,961	629,247	598,365	646,656	734,108	776,081	782,110	687,834	545,243	575,576	656,361

1/ Minnesota Composite Income Tax Rate.
 2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
 3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
 4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
 (Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
 Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
 5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
 6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1A: 36.8MW

Bison 1 Wind Phase 1A: 36.8 MW

Project ID # 104049
In Service 11/19/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	63,117,773	62,935,156	62,752,538	62,569,921	62,387,303	62,204,686	62,022,068	61,839,451	61,656,833	61,474,216	61,291,599	61,108,981
	2 Less: ADITL - Def Taxes	(26,111,915)	(26,036,358)	(25,960,801)	(25,885,243)	(25,809,686)	(25,734,129)	(25,658,572)	(25,583,014)	(25,507,457)	(25,431,900)	(25,356,343)	(25,280,786)
	3 Plus: ADITA - NOL (Stand Alone)	18,605,593	18,436,613	18,310,675	18,193,458	18,052,223	17,870,837	17,668,177	17,459,142	17,285,196	17,166,235	17,030,681	16,857,717
	4 Plus: ADITA - PTC	17,055,262	17,263,895	17,533,455	17,815,596	18,063,835	18,254,942	18,415,321	18,565,925	18,765,680	19,043,290	19,297,532	19,498,598
	5 Rate Base	72,666,713	72,599,306	72,635,868	72,693,732	72,693,675	72,596,336	72,446,995	72,281,503	72,200,252	72,251,841	72,263,469	72,184,510
	6 Average Rate Base	72,623,767	72,633,010	72,617,587	72,664,800	72,693,703	72,645,006	72,521,665	72,364,249	72,240,878	72,226,047	72,257,655	72,223,990
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	340,989	341,033	340,960	341,182	341,318	341,089	340,510	339,771	339,191	339,122	339,270	339,112
	10 Income Tax Component	240,606	240,637	240,586	240,742	240,838	240,677	240,268	239,746	239,338	239,289	239,393	239,282
	11 Interest Expense Component	153,720	153,740	153,707	153,807	153,868	153,765	153,504	153,171	152,910	152,878	152,945	152,874
	12 Total Return on Average Rate Base	735,316	735,409	735,253	735,731	736,024	735,531	734,282	732,688	731,439	731,289	731,609	731,268
	13 Operation & Maintenance Expense	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821
	14 Depreciation Expense	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617	182,617
	15 Property Tax	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856
	16 Federal Production Tax Credit 5/	(509,115)	(355,847)	(459,765)	(481,223)	(423,399)	(325,954)	(273,544)	(256,872)	(340,704)	(473,495)	(433,638)	(342,940)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	519,495	672,857	568,783	547,803	605,919	702,871	754,032	769,111	684,029	551,088	591,265	681,622
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	519,495	672,857	568,783	547,803	605,919	702,871	754,032	769,111	684,029	551,088	591,265	681,622
	2 Tax Depreciation	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
	3 Property Tax	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856	12,856
	4 Interest Expense (including on CWIP)	153,720	153,740	153,707	153,807	153,868	153,765	153,504	153,171	152,910	152,878	152,945	152,874
	5 Operation & Maintenance Expense	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821	97,821
	6 Total Tax Deduction	264,377	264,397	264,364	264,464	264,525	264,422	264,161	263,828	263,567	263,535	263,602	263,531
	7 Taxable Income (NOL)	255,118	408,460	304,419	283,339	341,394	438,449	489,871	505,283	420,462	287,553	327,663	418,091
	8 Current tax expense	105,542	168,980	125,938	117,217	141,235	181,386	202,660	209,036	173,945	118,961	135,554	172,964
	9 Taxable Income (NOL)	255,118	408,460	304,419	283,339	341,394	438,449	489,871	505,283	420,462	287,553	327,663	418,091
	10 NOL carryforward	(45,228,754)	(44,973,636)	(44,565,175)	(44,260,756)	(43,977,418)	(43,636,024)	(43,197,575)	(42,707,704)	(42,202,421)	(41,781,959)	(41,494,405)	(41,166,742)
	11 Taxable Income after NOL carryforward 7/	(44,973,636)	(44,565,175)	(44,260,756)	(43,977,418)	(43,636,024)	(43,197,575)	(42,707,704)	(42,202,421)	(41,781,959)	(41,494,405)	(41,166,742)	(40,748,651)
	12 Expected stand alone ADITA NOL	18,605,593	18,436,613	18,310,675	18,193,458	18,052,223	17,870,837	17,668,177	17,459,142	17,285,196	17,166,235	17,030,681	16,857,717
	13 Annual Fed Production Tax Credit (\$)	298,494	208,633	269,560	282,141	248,239	191,107	160,379	150,604	199,755	277,610	254,242	201,066
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	17,055,262	17,263,895	17,533,455	17,815,596	18,063,835	18,254,942	18,415,321	18,565,925	18,765,680	19,043,290	19,297,532	19,498,598
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	599,343	742,961	629,247	598,365	646,656	734,108	776,081	782,110	687,834	545,243	575,576	656,361
	2 Revenue Requirement: Stand Alone	519,495	672,857	568,783	547,803	605,919	702,871	754,032	769,111	684,029	551,088	591,265	681,622
	3 Revenue Requirement: Rider 9/	519,495	672,857	568,783	547,803	605,919	702,871	754,032	769,111	684,029	545,243	575,576	656,361
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	426,075	551,857	466,499	449,291	496,957	576,474	618,435	630,801	561,020	447,192	472,070	538,328

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).

6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.

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

8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.

9/ Lesser of E1 or E2.

10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1B 2011: 7 Turbines

Bison 1 Wind Phase 1B 2011: 7 Turbines

Project ID # 104432
In Service 12/28/2011

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379
	2 Total Accumulated Depreciation	5,631,109	5,722,545	5,813,982	5,905,418	5,996,855	6,088,292	6,179,728	6,271,165	6,362,602	6,454,038	6,545,475	6,636,911
	3 Net Plant	32,772,271	32,680,834	32,589,398	32,497,961	32,406,524	32,315,088	32,223,651	32,132,214	32,040,778	31,949,341	31,857,905	31,766,468
	4 Total Depreciation	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379	38,403,379
	2 Accumulated Depreciation	38,409,570	38,409,170	38,408,769	38,408,368	38,407,967	38,407,566	38,407,165	38,406,765	38,406,364	38,405,963	38,405,562	38,405,161
	3 Net Plant	(6,191)	(5,790)	(5,389)	(4,989)	(4,588)	(4,187)	(3,786)	(3,385)	(2,984)	(2,584)	(2,183)	(1,782)
	4 Bonus Depreciation (100% 2011, 50% 2012-14)												
	5 Total Tax Depreciation (including bonus)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)
	6 Tax Book Difference	32,778,462	32,686,624	32,594,787	32,502,949	32,411,112	32,319,275	32,227,437	32,135,600	32,043,762	31,951,925	31,860,087	31,768,250
	7 Income Tax Rate 1/	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	13,560,450	13,522,457	13,484,463	13,446,470	13,408,477	13,370,484	13,332,491	13,294,498	13,256,504	13,218,511	13,180,518	13,142,525
	9 Deferred Tax Expense debit / (Credit)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)	(37,993)
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051
	13 Energy (MWh)	6,476	4,526	5,848	6,121	5,385	4,146	3,480	3,267	4,333	6,023	5,515	4,362
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	148,938	104,089	134,506	140,774	123,861	95,352	80,029	75,139	99,670	138,523	126,853	100,332
	16 Utilized PTC /3												
	17 ADITA for PTC	6,990,133	7,094,223	7,228,729	7,369,503	7,493,364	7,588,715	7,668,744	7,743,883	7,843,552	7,982,075	8,108,928	8,209,260
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	32,772,271	32,680,834	32,589,398	32,497,961	32,406,524	32,315,088	32,223,651	32,132,214	32,040,778	31,949,341	31,857,905	31,766,468
	2 Less: ADITL - Def Taxes	(13,560,450)	(13,522,457)	(13,484,463)	(13,446,470)	(13,408,477)	(13,370,484)	(13,332,491)	(13,294,498)	(13,256,504)	(13,218,511)	(13,180,518)	(13,142,525)
	3 Plus: ADITA - NOL	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051	14,064,051
	4 Plus: ADITA - PTC	6,990,133	7,094,223	7,228,729	7,369,503	7,493,364	7,588,715	7,668,744	7,743,883	7,843,552	7,982,075	8,108,928	8,209,260
	5 Rate Base	40,266,006	40,316,651	40,397,714	40,485,045	40,555,462	40,597,370	40,623,955	40,645,651	40,691,877	40,776,957	40,850,366	40,897,254
	6 Average Rate Base	40,218,258	40,291,328	40,357,183	40,441,379	40,520,253	40,576,416	40,610,663	40,634,803	40,668,764	40,734,417	40,813,661	40,873,810
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	188,836	189,179	189,488	189,884	190,254	190,518	190,679	190,792	190,951	191,260	191,632	191,914
	10 Income Tax Component	133,245	133,487	133,705	133,984	134,246	134,432	134,545	134,625	134,738	134,955	135,218	135,417
	11 Interest Expense Component	85,129	85,283	85,423	85,601	85,768	85,887	85,959	86,010	86,082	86,221	86,389	86,516
	12 Total Return on Average Rate Base	407,210	407,950	408,616	409,469	410,268	410,836	411,183	411,427	411,771	412,436	413,238	413,847
	13 Operation & Maintenance Expense	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821
	14 Depreciation Expense	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437
	15 Property Tax	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336
	16 Federal Production Tax Credit 5/	(254,031)	(177,535)	(229,415)	(240,106)	(211,258)	(162,633)	(136,498)	(128,157)	(169,998)	(236,267)	(216,361)	(171,127)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	307,773	385,008	333,795	323,957	353,603	402,797	429,278	437,864	396,367	330,763	351,471	397,313

1/ Minnesota Composite Income Tax Rate.
2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1B 2011: 7 Turbines

Bison 1 Wind Phase 1B 2011: 7 Turbines

Project ID # 104432
In Service 12/28/2011

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	32,772,271	32,680,834	32,589,398	32,497,961	32,406,524	32,315,088	32,223,651	32,132,214	32,040,778	31,949,341	31,857,905	31,766,468
	2 Less: ADITL - Def Taxes	(13,560,450)	(13,522,457)	(13,484,463)	(13,446,470)	(13,408,477)	(13,370,484)	(13,332,491)	(13,294,498)	(13,256,504)	(13,218,511)	(13,180,518)	(13,142,525)
	3 Plus: ADITA - NOL (Stand Alone)	9,514,837	9,432,013	9,370,671	9,313,669	9,244,681	9,155,651	9,056,009	8,953,172	8,867,843	8,809,950	8,743,764	8,658,917
	4 Plus: ADITA - PTC	6,990,133	7,094,223	7,228,729	7,369,503	7,493,364	7,588,715	7,668,744	7,743,883	7,843,552	7,982,075	8,108,928	8,209,260
	5 Rate Base	35,716,792	35,684,613	35,704,334	35,734,662	35,736,092	35,688,970	35,615,913	35,534,771	35,495,669	35,522,855	35,530,078	35,492,120
	6 Average Rate Base	35,694,624	35,700,702	35,694,474	35,719,498	35,735,377	35,712,531	35,652,442	35,575,342	35,515,220	35,509,262	35,526,467	35,511,099
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	167,596	167,625	167,596	167,713	167,788	167,680	167,398	167,036	166,754	166,726	166,807	166,735
	10 Income Tax Component	118,258	118,278	118,258	118,340	118,393	118,317	118,118	117,863	117,664	117,644	117,701	117,650
	11 Interest Expense Component	75,554	75,566	75,553	75,606	75,640	75,592	75,464	75,301	75,174	75,161	75,198	75,165
	12 Total Return on Average Rate Base	361,408	361,470	361,407	361,660	361,821	361,589	360,981	360,200	359,592	359,531	359,705	359,550
	13 Operation & Maintenance Expense	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821
	14 Depreciation Expense	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437	91,437
	15 Property Tax	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336
	16 Federal Production Tax Credit 5/	(254,031)	(177,535)	(229,415)	(240,106)	(211,258)	(162,633)	(136,498)	(128,157)	(169,998)	(236,267)	(216,361)	(171,127)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	261,971	338,528	286,585	276,148	305,156	353,550	379,076	386,637	344,188	277,858	297,938	343,016
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	261,971	338,528	286,585	276,148	305,156	353,550	379,076	386,637	344,188	277,858	297,938	343,016
	2 Tax Depreciation	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)	(401)
	3 Property Tax	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336	7,336
	4 Interest Expense (including on CWIP)	75,554	75,566	75,553	75,606	75,640	75,592	75,464	75,301	75,174	75,161	75,198	75,165
	5 Operation & Maintenance Expense	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821	55,821
	6 Total Tax Deduction	138,310	138,323	138,309	138,362	138,396	138,348	138,220	138,057	137,930	137,917	137,954	137,921
	7 Taxable Income (NOL)	128,661	200,205	148,275	137,785	166,760	215,203	240,856	248,579	206,258	139,941	159,984	205,095
	8 Current tax expense	51,159	82,825	61,341	57,002	68,989	89,029	99,642	102,837	85,329	57,893	66,185	84,848
	9 Taxable Income (NOL)	123,661	200,205	148,275	137,785	166,760	215,203	240,856	248,579	206,258	139,941	159,984	205,095
	10 NOL carryforward	(23,123,026)	(22,999,365)	(22,799,160)	(22,650,885)	(22,513,099)	(22,346,340)	(22,131,137)	(21,890,281)	(21,641,702)	(21,435,444)	(21,295,503)	(21,135,519)
	11 Taxable Income after NOL carryforward 7/	(22,999,365)	(22,799,160)	(22,650,885)	(22,513,099)	(22,346,340)	(22,131,137)	(21,890,281)	(21,641,702)	(21,435,444)	(21,295,503)	(21,135,519)	(20,930,425)
	12 Expected stand alone ADITA NOL	9,514,837	9,432,013	9,370,671	9,313,669	9,244,681	9,155,651	9,056,009	8,953,172	8,867,843	8,809,950	8,743,764	8,658,917
	13 Annual Fed Production Tax Credit (\$)	148,938	104,089	134,506	140,774	123,861	95,352	80,029	75,139	99,670	138,523	126,853	100,332
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	6,990,133	7,094,223	7,228,729	7,369,503	7,493,364	7,588,715	7,668,744	7,743,883	7,843,552	7,982,075	8,108,928	8,209,260
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	307,773	385,008	333,795	323,957	353,603	402,797	429,278	437,864	396,367	330,763	351,471	397,313
	2 Revenue Requirement: Stand Alone	261,971	338,528	286,585	276,148	305,156	353,550	379,076	386,637	344,188	277,858	297,938	343,016
	3 Revenue Requirement: Rider 9/	261,971	338,528	286,585	276,148	305,156	353,550	379,076	386,637	344,188	277,858	297,938	343,016
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	214,861	277,650	235,048	226,488	250,280	289,971	310,907	317,108	282,292	227,891	244,360	281,331

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).

6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.

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

8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.

9/ Lesser of E1 or E2.

10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1B 2012: 8 Turbines

Exhibit B-2
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Bison 1 Wind Phase 1B 2012: 8 Turbines

Project ID # 105492
In Service 1/31/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616
	2 Total Accumulated Depreciation	4,768,693	4,847,697	4,926,701	5,005,704	5,084,708	5,163,712	5,242,716	5,321,720	5,400,724	5,479,728	5,558,731	5,637,735
	3 Net Plant	28,412,923	28,333,919	28,254,915	28,175,911	28,096,908	28,017,904	27,938,900	27,859,896	27,780,892	27,701,888	27,622,885	27,543,881
	4 Total Depreciation	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616	33,181,616
	2 Accumulated Depreciation	32,966,897	32,986,417	33,005,937	33,025,457	33,044,977	33,064,497	33,084,016	33,103,536	33,123,056	33,142,576	33,162,096	33,181,616
	3 Net Plant	214,719	195,199	175,679	156,159	136,639	117,119	97,599	78,080	58,560	39,040	19,520	0
	4 Bonus Depreciation (50%-2012/13)												
	5 Total Tax Depreciation (including bonus)	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520
	6 Tax Book Difference	28,198,204	28,138,720	28,079,236	28,019,752	27,960,268	27,900,784	27,841,301	27,781,817	27,722,333	27,662,849	27,603,365	27,543,881
	7 Income Tax Rate 1/	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	11,665,597	11,640,989	11,616,380	11,591,772	11,567,163	11,542,555	11,517,946	11,493,338	11,468,729	11,444,120	11,419,512	11,394,903
	9 Deferred Tax Expense debit / (Credit)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)	(24,609)
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611
	13 Energy (MWh)	7,400	5,171	6,683	6,994	6,154	4,737	3,976	3,733	4,952	6,882	6,302	4,985
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	170,192	118,943	153,701	160,863	141,536	108,959	91,449	85,861	113,893	158,291	144,955	114,650
	16 Utilized PTC /3												
	17 ADITA for PTC	7,987,608	8,106,551	8,260,252	8,421,115	8,562,651	8,671,610	8,763,059	8,848,920	8,962,813	9,121,104	9,266,059	9,380,709
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	28,412,923	28,333,919	28,254,915	28,175,911	28,096,908	28,017,904	27,938,900	27,859,896	27,780,892	27,701,888	27,622,885	27,543,881
	2 Less: ADITL - Def Taxes	(11,665,597)	(11,640,989)	(11,616,380)	(11,591,772)	(11,567,163)	(11,542,555)	(11,517,946)	(11,493,338)	(11,468,729)	(11,444,120)	(11,419,512)	(11,394,903)
	3 Plus: ADITA - NOL	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611	11,326,611
	4 Plus: ADITA - PTC	7,987,608	8,106,551	8,260,252	8,421,115	8,562,651	8,671,610	8,763,059	8,848,920	8,962,813	9,121,104	9,266,059	9,380,709
	5 Rate Base	36,061,546	36,126,093	36,225,399	36,331,866	36,419,007	36,473,571	36,510,625	36,542,090	36,601,588	36,705,484	36,796,043	36,856,298
	6 Average Rate Base	36,003,647	36,093,819	36,175,746	36,278,633	36,375,437	36,446,289	36,492,098	36,526,358	36,571,839	36,653,536	36,750,763	36,826,171
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	169,047	169,471	169,855	170,338	170,793	171,126	171,341	171,502	171,715	172,099	172,555	172,909
	10 Income Tax Component	119,282	119,581	119,852	120,193	120,514	120,748	120,900	121,014	121,164	121,435	121,757	122,007
	11 Interest Expense Component	76,208	76,399	76,572	76,790	76,995	77,145	77,242	77,314	77,410	77,583	77,789	77,949
	12 Total Return on Average Rate Base	364,537	365,450	366,279	367,321	368,301	369,019	369,482	369,829	370,290	371,117	372,101	372,865
	13 Operation & Maintenance Expense	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796
	14 Depreciation Expense	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004
	15 Property Tax	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384
	16 Federal Production Tax Credit 5/	(290,282)	(202,871)	(262,154)	(274,370)	(241,406)	(185,841)	(155,977)	(146,446)	(194,257)	(269,983)	(247,237)	(195,548)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	225,439	313,763	255,309	244,135	278,079	334,361	364,689	374,567	327,217	252,318	276,049	328,501

1/ Minnesota Composite Income Tax Rate.
2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 1 Wind Phase 1B 2012: 8 Turbines

Bison 1 Wind Phase 1B 2012: 8 Turbines

Project ID # 105492
In Service 1/31/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	28,412,923	28,333,919	28,254,915	28,175,911	28,096,908	28,017,904	27,938,900	27,859,896	27,780,892	27,701,888	27,622,885	27,543,881
	2 Less: ADITL - Def Taxes	(11,665,597)	(11,640,989)	(11,616,380)	(11,591,772)	(11,567,163)	(11,542,555)	(11,517,946)	(11,493,338)	(11,468,729)	(11,444,120)	(11,419,512)	(11,394,903)
	3 Plus: ADITA - NOL (Stand Alone)	10,427,074	10,369,887	10,337,104	10,309,134	10,267,321	10,202,464	10,125,335	10,044,412	9,983,352	9,953,500	9,914,031	9,853,095
	4 Plus: ADITA - PTC	7,987,608	8,106,551	8,260,252	8,421,115	8,562,651	8,671,610	8,763,059	8,848,920	8,962,813	9,121,104	9,266,059	9,380,709
	5 Rate Base	35,162,008	35,169,369	35,235,891	35,314,389	35,359,717	35,349,423	35,309,348	35,259,891	35,258,329	35,332,372	35,383,463	35,382,781
	6 Average Rate Base	35,114,537	35,165,688	35,202,630	35,275,140	35,337,053	35,354,570	35,329,386	35,284,620	35,259,110	35,295,350	35,357,918	35,383,122
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	164,873	165,113	165,286	165,627	165,917	166,000	165,881	165,671	165,552	165,722	166,015	166,134
	10 Income Tax Component	116,336	116,506	116,628	116,868	117,073	117,131	117,048	116,900	116,815	116,935	117,143	117,226
	11 Interest Expense Component	74,326	74,434	74,512	74,666	74,797	74,834	74,781	74,686	74,632	74,708	74,841	74,894
	12 Total Return on Average Rate Base	355,535	356,053	356,427	357,161	357,788	357,965	357,710	357,257	356,998	357,365	357,999	358,254
	13 Operation & Maintenance Expense	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796
	14 Depreciation Expense	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004	79,004
	15 Property Tax	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384
	16 Federal Production Tax Credit 5/	(290,282)	(202,871)	(262,154)	(274,370)	(241,406)	(185,841)	(155,977)	(146,446)	(194,257)	(269,983)	(247,237)	(195,548)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	216,437	304,366	245,456	233,975	267,566	323,308	352,917	361,995	313,925	238,566	261,946	313,890
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	216,437	304,366	245,456	233,975	267,566	323,308	352,917	361,995	313,925	238,566	261,946	313,890
	2 Tax Depreciation	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520	19,520
	3 Property Tax	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384	8,384
	4 Interest Expense (including on CWIP)	74,326	74,434	74,512	74,666	74,797	74,834	74,781	74,686	74,632	74,708	74,841	74,894
	5 Operation & Maintenance Expense	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796	63,796
	6 Total Tax Deduction	166,026	166,134	166,212	166,366	166,497	166,534	166,480	166,386	166,332	166,408	166,541	166,594
	7 Taxable Income (NOL)	50,411	138,232	79,244	67,609	101,069	156,774	186,436	195,609	147,594	72,158	95,405	147,296
	8 Current tax expense	20,855	57,187	32,783	27,970	41,812	64,857	77,129	80,924	61,059	29,852	39,469	60,936
	9 Taxable Income (NOL)	50,411	138,232	79,244	67,609	101,069	156,774	186,436	195,609	147,594	72,158	95,405	147,296
	10 NOL carryforward	(25,254,843)	(25,204,432)	(25,066,200)	(24,986,956)	(24,919,346)	(24,818,277)	(24,661,503)	(24,475,067)	(24,279,458)	(24,131,864)	(24,059,706)	(23,964,301)
	11 Taxable Income after NOL carryforward 7/	(25,204,432)	(25,066,200)	(24,986,956)	(24,919,346)	(24,818,277)	(24,661,503)	(24,475,067)	(24,279,458)	(24,131,864)	(24,059,706)	(23,964,301)	(23,817,005)
	12 Expected stand alone ADITA NOL	10,427,074	10,369,887	10,337,104	10,309,134	10,267,321	10,202,464	10,125,335	10,044,412	9,983,352	9,953,500	9,914,031	9,853,095
	13 Annual Fed Production Tax Credit (\$)	170,192	118,943	153,701	160,863	141,536	108,959	91,449	85,861	113,893	158,291	144,955	114,650
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	7,987,608	8,106,551	8,260,252	8,421,115	8,562,651	8,671,610	8,763,059	8,848,920	8,962,813	9,121,104	9,266,059	9,380,709
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	225,439	313,763	255,309	244,135	278,079	334,361	364,689	374,567	327,217	252,318	276,049	328,501
	2 Revenue Requirement: Stand Alone	216,437	304,366	245,456	233,975	267,566	323,308	352,917	361,995	313,925	238,566	261,946	313,890
	3 Revenue Requirement: Rider 9/	216,437	304,366	245,456	233,975	267,566	323,308	352,917	361,995	313,925	238,566	261,946	313,890
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	177,515	249,632	201,316	191,899	219,449	265,167	289,452	296,897	257,472	195,665	214,840	257,443

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).

6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.

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

8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.

9/ Lesser of E1 or E2.

10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Collector Transmission Components

Bison 1 Wind - Collector Transmission Components 1/

In Service 9/23/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735
	2 Total Accumulated Depreciation	2,765,888	2,802,086	2,838,284	2,874,481	2,910,679	2,946,877	2,983,074	3,019,272	3,055,470	3,091,667	3,127,865	3,164,063
	3 Net Plant	15,257,846	15,221,649	15,185,451	15,149,253	15,113,056	15,076,858	15,040,660	15,004,463	14,968,265	14,932,067	14,895,870	14,859,672
	4 Total Depreciation	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198
	5 Book Depreciation Rate (2.41% pa)	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%	0.201%
B	Tax Basis of Property												
	1 Plant in Service	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735	18,023,735
	2 Accumulated Depreciation	13,627,739	13,671,240	13,714,740	13,758,241	13,801,741	13,845,241	13,888,742	13,932,242	13,975,743	14,019,243	14,062,743	14,106,244
	3 Net Plant	4,395,995	4,352,495	4,308,994	4,265,494	4,221,994	4,178,493	4,134,993	4,091,492	4,047,992	4,004,492	3,960,991	3,917,491
	4 Bonus Depreciation (50%-2010, 100%-2011, 50%-2012-14)												
	5 Total Tax Depreciation (including bonus)	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500
	6 Tax Book Difference	10,861,851	10,869,154	10,876,456	10,883,759	10,891,062	10,898,365	10,905,667	10,912,970	10,920,273	10,927,576	10,934,878	10,942,181
	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	4,493,548	4,496,569	4,499,590	4,502,611	4,505,632	4,508,653	4,511,675	4,514,696	4,517,717	4,520,738	4,523,759	4,526,780
	9 Deferred Tax Expense debit / (Credit)	3,021	3,021	3,021	3,021	3,021	3,021	3,021	3,021	3,021	3,021	3,021	3,021
	10 ADITA for NOL Carryforward 3/												
	11 Carryforward utilized	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)	(367,169)
	12 ADITA - NOL	4,038,858	3,671,689	3,304,520	2,937,351	2,570,183	2,203,014	1,835,845	1,468,676	1,101,507	734,338	367,169	0
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	15,257,846	15,221,649	15,185,451	15,149,253	15,113,056	15,076,858	15,040,660	15,004,463	14,968,265	14,932,067	14,895,870	14,859,672
	2 Less: ADITL - Def Taxes	(4,493,548)	(4,496,569)	(4,499,590)	(4,502,611)	(4,505,632)	(4,508,653)	(4,511,675)	(4,514,696)	(4,517,717)	(4,520,738)	(4,523,759)	(4,526,780)
	3 Plus: ADITA - NOL	4,038,858	3,671,689	3,304,520	2,937,351	2,570,183	2,203,014	1,835,845	1,468,676	1,101,507	734,338	367,169	0
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	14,803,157	14,396,769	13,990,381	13,583,994	13,177,606	12,771,218	12,364,830	11,958,443	11,552,055	11,145,667	10,739,279	10,332,892
	5 Average Rate Base	15,006,351	14,599,963	14,193,575	13,787,187	13,380,800	12,974,412	12,568,024	12,161,636	11,755,249	11,348,861	10,942,473	10,536,085
	6 Current Return on CWIP 4/												
	7 Return on Average Rate Base 4/												
	8 After Tax Return on Equity	70,459	68,551	66,643	64,735	62,827	60,919	59,010	57,102	55,194	53,286	51,378	49,470
	9 Income Tax Component	49,717	48,370	47,024	45,678	44,331	42,985	41,638	40,292	38,946	37,599	36,253	34,907
	10 Interest Expense Component	31,763	30,903	30,043	29,183	28,323	27,463	26,602	25,742	24,882	24,022	23,162	22,301
	11 Total Return on Average Rate Base	151,939	147,825	143,710	139,595	135,481	131,366	127,251	123,137	119,022	114,907	110,793	106,678
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198
	14 Property Tax	554	554	554	554	554	554	554	554	554	554	554	554
	15 Revenue Requirements	188,691	184,576	180,462	176,347	172,232	168,118	164,003	159,888	155,774	151,659	147,544	143,430

1/ Includes the following sub-projects: ID# 104429, 230kV Transmission Line, ID#104430, 34.5/230kV Collector Substation,

ID#104431, Square Butte 230kV Sub modification.

2/ Minnesota Composite Income Tax Rate.

3/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Collector Transmission Components

Bison 1 Wind - Collector Transmission Components 1/

In Service 9/23/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	15,257,846	15,221,649	15,185,451	15,149,253	15,113,056	15,076,858	15,040,660	15,004,463	14,968,265	14,932,067	14,895,870	14,859,672
	2 Less: ADITL - Def Taxes	(4,493,548)	(4,496,569)	(4,499,590)	(4,502,611)	(4,505,632)	(4,508,653)	(4,511,675)	(4,514,696)	(4,517,717)	(4,520,738)	(4,523,759)	(4,526,780)
	3 Plus: ADITA - NOL (Stand Alone)	631,024	596,414	562,049	527,927	494,047	460,409	427,012	393,855	360,938	328,259	295,818	263,615
	4 Rate Base	11,395,323	11,321,494	11,247,910	11,174,569	11,101,470	11,028,613	10,955,998	10,883,622	10,811,486	10,739,588	10,667,928	10,596,507
	5 Average Rate Base	11,432,359	11,358,408	11,284,702	11,211,240	11,138,020	11,065,042	10,992,306	10,919,810	10,847,554	10,775,537	10,703,758	10,632,218
	6 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	53,678	53,331	52,985	52,640	52,296	51,954	51,612	51,272	50,932	50,594	50,257	49,921
	9 Income Tax Component	37,876	37,631	37,387	37,143	36,901	36,659	36,418	36,178	35,938	35,700	35,462	35,225
	10 Interest Expense Component	24,198	24,042	23,886	23,730	23,575	23,421	23,267	23,114	22,961	22,808	22,656	22,505
	11 Total Return on Average Rate Base	115,753	115,004	114,258	113,514	112,772	112,034	111,297	110,563	109,831	109,102	108,376	107,651
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198	36,198
	14 Property Tax	554	554	554	554	554	554	554	554	554	554	554	554
	15 Revenue Requirements	152,504	151,756	151,009	150,265	149,524	148,785	148,049	147,315	146,583	145,854	145,127	144,403
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	152,504	151,756	151,009	150,265	149,524	148,785	148,049	147,315	146,583	145,854	145,127	144,403
	2 Tax Depreciation	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500
	3 Property Tax	554	554	554	554	554	554	554	554	554	554	554	554
	4 Interest Expense (including on CWIP)	24,198	24,042	23,886	23,730	23,575	23,421	23,267	23,114	22,961	22,808	22,656	22,505
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	68,253	68,096	67,940	67,785	67,630	67,475	67,321	67,168	67,015	66,863	66,711	66,559
	7 Taxable Income (NOL)	84,251	83,659	83,069	82,481	81,894	81,310	80,727	80,147	79,568	78,991	78,417	77,844
	8 Current tax expense	34,855	34,610	34,366	34,122	33,880	33,638	33,397	33,157	32,917	32,679	32,441	32,204
	9 Taxable Income (NOL)	84,251	83,659	83,069	82,481	81,894	81,310	80,727	80,147	79,568	78,991	78,417	77,844
	10 NOL carryforward 5/	(1,609,570)	(1,525,318)	(1,441,659)	(1,358,590)	(1,276,110)	(1,194,215)	(1,112,906)	(1,032,178)	(952,031)	(872,463)	(793,472)	(715,055)
	11 Taxable Income after NOL carryforward	(1,525,318)	(1,441,659)	(1,358,590)	(1,276,110)	(1,194,215)	(1,112,906)	(1,032,178)	(952,031)	(872,463)	(793,472)	(715,055)	(637,212)
	12 Expected stand alone ADITA NOL	631,024	596,414	562,049	527,927	494,047	460,409	427,012	393,855	360,938	328,259	295,818	263,615
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	188,691	184,576	180,462	176,347	172,232	168,118	164,003	159,888	155,774	151,659	147,544	143,430
	2 Revenue Requirement: Stand Alone	152,504	151,756	151,009	150,265	149,524	148,785	148,049	147,315	146,583	145,854	145,127	144,403
	3 Revenue Requirement: Rider 6/	152,504	151,756	151,009	150,265	149,524	148,785	148,049	147,315	146,583	145,854	145,127	143,430
	4 MN Jurisdictional Allocator 7/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	118,298	117,717	117,138	116,561	115,986	115,413	114,841	114,272	113,705	113,139	112,575	111,258

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 1

50MW DC Line Upgrade Phase 1 Group 1

Note 1/
In Service 11/15/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885
	2 Total Accumulated Depreciation	272,524	276,230	279,936	283,642	287,348	291,054	294,760	298,466	302,172	305,878	309,584	313,290
	3 Net Plant	1,506,361	1,502,655	1,498,949	1,495,243	1,491,537	1,487,831	1,484,125	1,480,419	1,476,713	1,473,007	1,469,301	1,465,595
	4 Total Depreciation	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706
	5 Book Depreciation Rate (2.5% pa)	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%	0.208%
B	Tax Basis of Property												
	1 Plant in Service	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885	1,778,885
	2 Accumulated Depreciation	1,336,878	1,341,251	1,345,623	1,349,996	1,354,369	1,358,742	1,363,115	1,367,487	1,371,860	1,376,233	1,380,606	1,384,978
	3 Net Plant	442,007	437,634	433,261	428,889	424,516	420,143	415,770	411,397	407,025	402,652	398,279	393,906
	4 Bonus Depreciation (50%-2010, 100%-2011)												
	5 Total Tax Depreciation (including bonus)	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373
	6 Tax Book Difference	1,064,354	1,065,021	1,065,688	1,066,354	1,067,021	1,067,688	1,068,355	1,069,021	1,069,688	1,070,355	1,071,022	1,071,689
	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	440,323	440,599	440,875	441,151	441,427	441,702	441,978	442,254	442,530	442,806	443,082	443,358
	9 Deferred Tax Expense debit / (Credit)	276	276	276	276	276	276	276	276	276	276	276	276
	10 ADITA for NOL Carryforward 3/												
	11 Carryforward utilized	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)	(36,395)
	12 ADITA - NOL	400,343	363,948	327,553	291,158	254,763	218,369	181,974	145,579	109,184	72,790	36,395	-
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	1,506,361	1,502,655	1,498,949	1,495,243	1,491,537	1,487,831	1,484,125	1,480,419	1,476,713	1,473,007	1,469,301	1,465,595
	2 Less: ADITL - Def Taxes	(440,323)	(440,599)	(440,875)	(441,151)	(441,427)	(441,702)	(441,978)	(442,254)	(442,530)	(442,806)	(443,082)	(443,358)
	3 Plus: ADITA - NOL	400,343	363,948	327,553	291,158	254,763	218,369	181,974	145,579	109,184	72,790	36,395	-
	4 Rate Base	1,466,380	1,426,004	1,385,627	1,345,250	1,304,874	1,264,497	1,224,120	1,183,744	1,143,367	1,102,991	1,062,614	1,022,237
	5 Average Rate Base	1,486,569	1,446,192	1,405,815	1,365,439	1,325,062	1,284,685	1,244,309	1,203,932	1,163,555	1,123,179	1,082,802	1,042,426
	6 Current Return on CWIP 4/												
	7 Return on Average Rate Base 4/												
	8 After Tax Return on Equity	6,980	6,790	6,601	6,411	6,222	6,032	5,842	5,653	5,463	5,274	5,084	4,894
	9 Income Tax Component	4,925	4,791	4,658	4,524	4,390	4,256	4,122	3,989	3,855	3,721	3,587	3,454
	10 Interest Expense Component	3,147	3,061	2,976	2,890	2,805	2,719	2,634	2,548	2,463	2,377	2,292	2,206
	11 Total Return on Average Rate Base	15,052	14,643	14,234	13,825	13,416	13,007	12,599	12,190	11,781	11,372	10,963	10,555
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706
	14 Property Tax	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666
	15 Revenue Requirements	21,424	21,015	20,606	20,197	19,788	19,379	18,971	18,562	18,153	17,744	17,335	16,927

1/ Includes the following sub-projects: ID# 104508 Arrowhead DC Substation Replace Converter Transformer Heat Exchangers, ID# 104509 Arrowhead DC

DC Substation Upgrade Smoothing Reactor, ID# 104510 Square Butte DC Substation Replace Converter Transformer Heat Exchangers.

2/ Minnesota Composite Income Tax Rate.

3/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 1

50MW DC Line Upgrade Phase 1 Group 1

Note 1/
In Service 11/15/2010

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	1,506,361	1,502,655	1,498,949	1,495,243	1,491,537	1,487,831	1,484,125	1,480,419	1,476,713	1,473,007	1,469,301	1,465,595
	2 Less: ADITL - Def Taxes	(440,323)	(440,599)	(440,875)	(441,151)	(441,427)	(441,702)	(441,978)	(442,254)	(442,530)	(442,806)	(443,082)	(443,358)
	3 Plus: ADITA - NOL (Stand Alone)	85,415	81,888	78,387	74,910	71,457	68,030	64,626	61,248	57,893	54,563	51,257	47,975
	4 Rate Base	1,151,453	1,143,944	1,136,461	1,129,002	1,121,567	1,114,158	1,106,773	1,099,413	1,092,076	1,084,764	1,077,476	1,070,212
	5 Average Rate Base	1,155,219	1,147,698	1,140,202	1,132,732	1,125,285	1,117,863	1,110,465	1,103,093	1,095,744	1,088,420	1,081,120	1,073,844
	6 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	5,424	5,389	5,354	5,318	5,284	5,249	5,214	5,179	5,145	5,110	5,076	5,042
	9 Income Tax Component	3,827	3,802	3,778	3,753	3,728	3,704	3,679	3,655	3,630	3,606	3,582	3,558
	10 Interest Expense Component	2,445	2,429	2,413	2,398	2,382	2,366	2,350	2,335	2,319	2,304	2,288	2,273
	11 Total Return on Average Rate Base	11,697	11,620	11,545	11,469	11,394	11,318	11,243	11,169	11,094	11,020	10,946	10,873
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706	3,706
	14 Property Tax	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666
	15 Revenue Requirements	18,069	17,992	17,917	17,841	17,766	17,690	17,615	17,541	17,466	17,392	17,318	17,245
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	18,069	17,992	17,917	17,841	17,766	17,690	17,615	17,541	17,466	17,392	17,318	17,245
	2 Tax Depreciation	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373	4,373
	3 Property Tax	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666	2,666
	4 Interest Expense (including on CWIP)	2,445	2,429	2,413	2,398	2,382	2,366	2,350	2,335	2,319	2,304	2,288	2,273
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	9,484	9,468	9,452	9,436	9,421	9,405	9,389	9,374	9,358	9,343	9,327	9,312
	7 Taxable Income (NOL)	8,585	8,524	8,464	8,405	8,345	8,285	8,226	8,167	8,108	8,050	7,991	7,933
	8 Current tax expense	3,551	3,527	3,502	3,477	3,452	3,428	3,403	3,379	3,354	3,330	3,306	3,282
	9 Taxable Income (NOL)	8,585	8,524	8,464	8,405	8,345	8,285	8,226	8,167	8,108	8,050	7,991	7,933
	10 NOL carryforward	(215,050)	(206,465)	(197,941)	(189,477)	(181,072)	(172,727)	(164,442)	(156,216)	(148,049)	(139,940)	(131,891)	(123,899)
	11 Taxable Income after NOL carryforward 5/	(206,465)	(197,941)	(189,477)	(181,072)	(172,727)	(164,442)	(156,216)	(148,049)	(139,940)	(131,891)	(123,899)	(115,966)
	12 Expected stand alone ADITA NOL	85,415	81,888	78,387	74,910	71,457	68,030	64,626	61,248	57,893	54,563	51,257	47,975
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	21,424	21,015	20,606	20,197	19,788	19,379	18,971	18,562	18,153	17,744	17,335	16,927
	2 Revenue Requirement: Stand Alone	18,069	17,992	17,917	17,841	17,766	17,690	17,615	17,541	17,466	17,392	17,318	17,245
	3 Revenue Requirement: Rider 6/	18,069	17,992	17,917	17,841	17,766	17,690	17,615	17,541	17,466	17,392	17,318	16,927
	4 MN Jurisdictional Allocator 7/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	14,016	13,957	13,898	13,839	13,781	13,722	13,664	13,606	13,549	13,491	13,434	13,130

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
6/ Lesser of E1 or E2.
7/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 2

50MW DC Line Upgrade Phase 1 Group 2

Note 1/
In Service 12/20/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749
	2 Total Accumulated Depreciation	78,130	79,683	81,236	82,789	84,342	85,895	87,448	89,001	90,553	92,106	93,659	95,212
	3 Net Plant	614,619	613,066	611,513	609,960	608,407	606,854	605,301	603,748	602,195	600,643	599,090	597,537
	4 Total Depreciation	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553
	5 Book Depreciation Rate (2.69% pa)	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
B	Tax Basis of Property												
	1 Plant in Service	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749	692,749
	2 Accumulated Depreciation	472,053	473,908	475,763	477,618	479,473	481,329	483,184	485,039	486,894	488,749	490,605	492,460
	3 Net Plant	220,696	218,841	216,986	215,131	213,275	211,420	209,565	207,710	205,855	204,000	202,144	200,289
	4 Bonus Depreciation (50% 2012-15)												
	5 Total Tax Depreciation (including bonus)	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855
	6 Tax Book Difference	393,923	394,225	394,527	394,829	395,132	395,434	395,736	396,038	396,341	396,643	396,945	397,247
	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	162,966	163,091	163,216	163,341	163,466	163,591	163,716	163,841	163,966	164,091	164,216	164,341
	9 Deferred Tax Expense debit / (Credit)	125	125	125	125	125	125	125	125	125	125	125	125
	10 ADITA for NOL Carryforward 3/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	614,619	613,066	611,513	609,960	608,407	606,854	605,301	603,748	602,195	600,643	599,090	597,537
	2 Less: ADITL - Def Taxes	(162,966)	(163,091)	(163,216)	(163,341)	(163,466)	(163,591)	(163,716)	(163,841)	(163,966)	(164,091)	(164,216)	(164,341)
	3 Plus: ADITA - NOL	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317	160,317
	4 Rate Base	611,970	610,292	608,614	606,936	605,258	603,580	601,902	600,224	598,546	596,868	595,190	593,512
	5 Average Rate Base	612,809	611,131	609,453	607,775	606,097	604,419	602,741	601,063	599,385	597,707	596,029	594,351
	6 Current Return on CWIP 4/												
	7 Return on Average Rate Base 4/												
	8 After Tax Return on Equity	2,877	2,869	2,862	2,854	2,846	2,838	2,830	2,822	2,814	2,806	2,799	2,791
	9 Income Tax Component	2,030	2,025	2,019	2,014	2,008	2,002	1,997	1,991	1,986	1,980	1,975	1,969
	10 Interest Expense Component	1,297	1,294	1,290	1,286	1,283	1,279	1,276	1,272	1,269	1,265	1,262	1,258
	11 Total Return on Average Rate Base	6,205	6,188	6,171	6,154	6,137	6,120	6,103	6,086	6,069	6,052	6,035	6,018
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553
	14 Property Tax	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805
	15 Revenue Requirements	10,563	10,546	10,529	10,512	10,495	10,478	10,461	10,444	10,427	10,410	10,393	10,376

1/ Includes the following project: Project ID #105109 Arrowhead DC Substation - Install 40 Mvar Capacitor Bank

2/ Minnesota Composite Income Tax Rate.

3/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 2

50MW DC Line Upgrade Phase 1 Group 2

Note 1/
In Service 12/20/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	614,619	613,066	611,513	609,960	608,407	606,854	605,301	603,748	602,195	600,643	599,090	597,537
	2 Less: ADITL - Def Taxes	(162,966)	(163,091)	(163,216)	(163,341)	(163,466)	(163,591)	(163,716)	(163,841)	(163,966)	(164,091)	(164,216)	(164,341)
	3 Plus: ADITA - NOL (Stand Alone)	50,274	48,741	47,219	45,708	44,207	42,717	41,237	39,768	38,309	36,860	35,422	33,994
	4 Rate Base	501,927	498,716	495,516	492,327	489,148	485,980	482,822	479,675	476,538	473,411	470,295	467,189
	5 Average Rate Base	503,537	500,321	497,116	493,922	490,738	487,564	484,401	481,249	478,107	474,975	471,853	468,742
	6 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	2,364	2,349	2,334	2,319	2,304	2,289	2,274	2,260	2,245	2,230	2,215	2,201
	9 Income Tax Component	1,668	1,658	1,647	1,636	1,626	1,615	1,605	1,594	1,584	1,574	1,563	1,553
	10 Interest Expense Component	1,066	1,059	1,052	1,045	1,039	1,032	1,025	1,019	1,012	1,005	999	992
	11 Total Return on Average Rate Base	5,098	5,066	5,033	5,001	4,969	4,937	4,905	4,873	4,841	4,809	4,778	4,746
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553
	14 Property Tax	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805
	15 Revenue Requirements	9,456	9,424	9,391	9,359	9,327	9,294	9,262	9,231	9,199	9,167	9,135	9,104
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	9,456	9,424	9,391	9,359	9,327	9,294	9,262	9,231	9,199	9,167	9,135	9,104
	2 Tax Depreciation	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855
	3 Property Tax	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805	2,805
	4 Interest Expense (including on CWIP)	1,066	1,059	1,052	1,045	1,039	1,032	1,025	1,019	1,012	1,005	999	992
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	5,726	5,719	5,712	5,706	5,699	5,692	5,685	5,679	5,672	5,666	5,659	5,652
	7 Taxable Income (NOL)	3,730	3,704	3,679	3,653	3,628	3,602	3,577	3,552	3,527	3,501	3,476	3,452
	8 Current tax expense	1,543	1,533	1,522	1,511	1,501	1,490	1,480	1,469	1,459	1,449	1,438	1,428
	9 Taxable Income (NOL)	3,730	3,704	3,679	3,653	3,628	3,602	3,577	3,552	3,527	3,501	3,476	3,452
	10 NOL carryforward	(125,252)	(121,522)	(117,817)	(114,139)	(110,485)	(106,858)	(103,255)	(99,678)	(96,127)	(92,600)	(89,098)	(85,622)
	11 Taxable Income after NOL carryforward 5/	(121,522)	(117,817)	(114,139)	(110,485)	(106,858)	(103,255)	(99,678)	(96,127)	(92,600)	(89,098)	(85,622)	(82,170)
	12 Expected stand alone ADITA NOL	50,274	48,741	47,219	45,708	44,207	42,717	41,237	39,768	38,309	36,860	35,422	33,994
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	10,563	10,546	10,529	10,512	10,495	10,478	10,461	10,444	10,427	10,410	10,393	10,376
	2 Revenue Requirement: Stand Alone	9,456	9,424	9,391	9,359	9,327	9,294	9,262	9,231	9,199	9,167	9,135	9,104
	3 Revenue Requirement: Rider 6/	9,456	9,424	9,391	9,359	9,327	9,294	9,262	9,231	9,199	9,167	9,135	9,104
	4 MN Jurisdictional Allocator 7/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	7,335	7,310	7,285	7,260	7,235	7,210	7,185	7,160	7,135	7,110	7,085	7,060

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 3

50MW DC Line Upgrade Phase 1 Group 3

Note 1/
In Service 11/15/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337
	2 Total Accumulated Depreciation	59,480	60,768	62,055	63,343	64,630	65,918	67,205	68,493	69,780	71,068	72,355	73,642
	3 Net Plant	514,857	513,570	512,282	510,995	509,707	508,420	507,132	505,845	504,557	503,270	501,982	500,695
	4 Total Depreciation	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287
	5 Book Depreciation Rate (2.69% pa)	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
B	Tax Basis of Property												
	1 Plant in Service	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337	574,337
	2 Accumulated Depreciation	381,471	383,092	384,713	386,334	387,955	389,576	391,197	392,818	394,439	396,060	397,681	399,302
	3 Net Plant	192,867	191,246	189,625	188,004	186,383	184,762	183,141	181,520	179,899	178,278	176,657	175,036
	4 Bonus Depreciation (50%-2012-16)												
	5 Total Tax Depreciation (including bonus)	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621
	6 Tax Book Difference	321,990	322,324	322,657	322,991	323,325	323,658	323,992	324,325	324,659	324,992	325,326	325,659
	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	133,207	133,345	133,483	133,621	133,759	133,897	134,035	134,173	134,311	134,449	134,587	134,725
	9 Deferred Tax Expense debit / (Credit)	138	138	138	138	138	138	138	138	138	138	138	138
	10 ADITA for NOL Carryforward 3/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	514,857	513,570	512,282	510,995	509,707	508,420	507,132	505,845	504,557	503,270	501,982	500,695
	2 Less: ADITL - Def Taxes	(133,207)	(133,345)	(133,483)	(133,621)	(133,759)	(133,897)	(134,035)	(134,173)	(134,311)	(134,449)	(134,587)	(134,725)
	3 Plus: ADITA - NOL	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502	130,502
	4 Rate Base	512,152	510,727	509,301	507,876	506,450	505,025	503,599	502,174	500,748	499,323	497,897	496,472
	5 Average Rate Base	512,865	511,439	510,014	508,588	507,163	505,737	504,312	502,886	501,461	500,036	498,610	497,185
	6 Current Return on CWIP 4/												
	7 Return on Average Rate Base 4/												
	8 After Tax Return on Equity	2,408	2,401	2,395	2,388	2,381	2,375	2,368	2,361	2,355	2,348	2,341	2,334
	9 Income Tax Component	1,699	1,694	1,690	1,685	1,680	1,676	1,671	1,666	1,661	1,657	1,652	1,647
	10 Interest Expense Component	1,086	1,083	1,080	1,077	1,073	1,070	1,067	1,064	1,061	1,058	1,055	1,052
	11 Total Return on Average Rate Base	5,193	5,178	5,164	5,149	5,135	5,121	5,106	5,092	5,077	5,063	5,048	5,034
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	6,480	6,466	6,451	6,437	6,422	6,408	6,394	6,379	6,365	6,350	6,336	6,321

1/ Includes the following project ID# 105422: Bison 230 kV Substation - Install 25 Mvar Capacitor Bank
2/ Minnesota Composite Income Tax Rate.
3/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 1 Group 3

50MW DC Line Upgrade Phase 1 Group 3

Note 1/
In Service 11/15/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	514,857	513,570	512,282	510,995	509,707	508,420	507,132	505,845	504,557	503,270	501,982	500,695
	2 Less: ADITL - Def Taxes	(133,207)	(133,345)	(133,483)	(133,621)	(133,759)	(133,897)	(134,035)	(134,173)	(134,311)	(134,449)	(134,587)	(134,725)
	3 Plus: ADITA - NOL (Stand Alone)	50,662	49,372	48,092	46,820	45,557	44,303	43,058	41,821	40,594	39,375	38,165	36,964
	4 Rate Base	432,312	429,596	426,891	424,193	421,505	418,825	416,155	413,493	410,840	408,196	405,560	402,934
	5 Average Rate Base	433,674	430,954	428,244	425,542	422,849	420,165	417,490	414,824	412,166	409,518	406,878	404,247
	6 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	2,036	2,023	2,011	1,998	1,985	1,973	1,960	1,948	1,935	1,923	1,910	1,898
	9 Income Tax Component	1,437	1,428	1,419	1,410	1,401	1,392	1,383	1,374	1,366	1,357	1,348	1,339
	10 Interest Expense Component	918	912	906	901	895	889	884	878	872	867	861	856
	11 Total Return on Average Rate Base	4,391	4,363	4,336	4,309	4,281	4,254	4,227	4,200	4,173	4,146	4,120	4,093
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	5,678	5,651	5,623	5,596	5,569	5,542	5,515	5,488	5,461	5,434	5,407	5,380
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	5,678	5,651	5,623	5,596	5,569	5,542	5,515	5,488	5,461	5,434	5,407	5,380
	2 Tax Depreciation	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	918	912	906	901	895	889	884	878	872	867	861	856
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	2,539	2,533	2,527	2,522	2,516	2,510	2,505	2,499	2,493	2,488	2,482	2,477
	7 Taxable Income (NOL)	3,139	3,118	3,096	3,074	3,053	3,031	3,010	2,988	2,967	2,946	2,925	2,904
	8 Current tax expense	1,299	1,290	1,281	1,272	1,263	1,254	1,245	1,236	1,228	1,219	1,210	1,201
	9 Taxable Income (NOL)	3,139	3,118	3,096	3,074	3,053	3,031	3,010	2,988	2,967	2,946	2,925	2,904
	10 NOL carryforward	(125,601)	(122,461)	(119,344)	(116,248)	(113,173)	(110,121)	(107,089)	(104,080)	(101,091)	(98,124)	(95,178)	(92,253)
	11 Taxable Income after NOL carryforward 5/	(122,461)	(119,344)	(116,248)	(113,173)	(110,121)	(107,089)	(104,080)	(101,091)	(98,124)	(95,178)	(92,253)	(89,349)
	12 Expected stand alone ADITA NOL	50,662	49,372	48,092	46,820	45,557	44,303	43,058	41,821	40,594	39,375	38,165	36,964
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	6,480	6,466	6,451	6,437	6,422	6,408	6,394	6,379	6,365	6,350	6,336	6,321
	2 Revenue Requirement: Stand Alone	5,678	5,651	5,623	5,596	5,569	5,542	5,515	5,488	5,461	5,434	5,407	5,380
	3 Revenue Requirement: Rider 6/	5,678	5,651	5,623	5,596	5,569	5,542	5,515	5,488	5,461	5,434	5,407	5,380
	4 MN Jurisdictional Allocator 7/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	4,405	4,383	4,362	4,341	4,320	4,299	4,278	4,257	4,236	4,215	4,194	4,174

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 2

50MW DC Line Upgrade Phase 2

Note 1/
In Service 11/22/2013

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116	2,622,116
	2 Total Accumulated Depreciation	226,183	232,061	237,938	243,816	249,694	255,572	261,450	267,328	273,206	279,084	284,962	290,840
	3 Net Plant	2,395,934	2,390,056	2,384,178	2,378,300	2,372,422	2,366,544	2,360,666	2,354,789	2,348,911	2,343,033	2,337,155	2,331,277
	4 Total Depreciation	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878
	5 Book Depreciation Rate (2.69% pa)	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
B	Tax Basis of Property												
	1 Plant in Service	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117	2,622,117
	2 Accumulated Depreciation	1,724,650	1,732,197	1,739,745	1,747,292	1,754,840	1,762,387	1,769,935	1,777,482	1,785,030	1,792,578	1,800,125	1,807,673
	3 Net Plant	897,467	889,919	882,372	874,824	867,277	859,729	852,182	844,634	837,087	829,539	821,991	814,444
	4 Bonus Depreciation (50% 2013-14)												
	5 Total Tax Depreciation (including bonus)	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548
	6 Tax Book Difference	1,498,467	1,500,137	1,501,806	1,503,476	1,505,146	1,506,815	1,508,485	1,510,154	1,511,824	1,513,494	1,515,163	1,516,833
	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	619,916	620,607	621,297	621,988	622,679	623,369	624,060	624,751	625,442	626,132	626,823	627,514
	9 Deferred Tax Expense debit / (Credit)	691	691	691	691	691	691	691	691	691	691	691	691
	10 ADITA for NOL Carryforward 3/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	2,395,934	2,390,056	2,384,178	2,378,300	2,372,422	2,366,544	2,360,666	2,354,789	2,348,911	2,343,033	2,337,155	2,331,277
	2 Less: ADITL - Def Taxes	(619,916)	(620,607)	(621,297)	(621,988)	(622,679)	(623,369)	(624,060)	(624,751)	(625,442)	(626,132)	(626,823)	(627,514)
	3 Plus: ADITA - NOL	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773	606,773
	4 Rate Base	2,382,792	2,376,223	2,369,654	2,363,086	2,356,517	2,349,948	2,343,380	2,336,811	2,330,242	2,323,674	2,317,105	2,310,536
	5 Average Rate Base	2,386,076	2,379,507	2,372,939	2,366,370	2,359,801	2,353,233	2,346,664	2,340,095	2,333,527	2,326,958	2,320,389	2,313,821
	6 Current Return on CWIP 4/												
	7 Return on Average Rate Base 4/												
	8 After Tax Return on Equity	11,203	11,172	11,142	11,111	11,080	11,049	11,018	10,987	10,957	10,926	10,895	10,864
	9 Income Tax Component	7,905	7,883	7,862	7,840	7,818	7,796	7,775	7,753	7,731	7,709	7,688	7,666
	10 Interest Expense Component	5,051	5,037	5,023	5,009	4,995	4,981	4,967	4,953	4,939	4,925	4,911	4,898
	11 Total Return on Average Rate Base	24,159	24,093	24,026	23,959	23,893	23,826	23,760	23,693	23,627	23,560	23,494	23,427
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878
	14 Property Tax	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826
	15 Revenue Requirements	33,863	33,796	33,730	33,663	33,597	33,530	33,464	33,397	33,331	33,264	33,198	33,131

1/ Includes the following project ID#s 106273, 106275, 106274, 106276.

2/ Minnesota Composite Income Tax Rate.

3/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docekt No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: 50MW DC Line Upgrade Phase 2

50MW DC Line Upgrade Phase 2

Note 1/
In Service 11/22/2013

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	2,395,934	2,390,056	2,384,178	2,378,300	2,372,422	2,366,544	2,360,666	2,354,789	2,348,911	2,343,033	2,337,155	2,331,277
	2 Less: ADITL - Def Taxes	(619,916)	(620,607)	(621,297)	(621,988)	(622,679)	(623,369)	(624,060)	(624,751)	(625,442)	(626,132)	(626,823)	(627,514)
	3 Plus: ADITA - NOL (Stand Alone)	319,885	313,653	307,464	301,316	295,211	289,148	283,126	277,146	271,208	265,311	259,455	253,640
	4 Rate Base	2,095,903	2,083,103	2,070,345	2,057,628	2,044,955	2,032,323	2,019,732	2,007,184	1,994,677	1,982,211	1,969,787	1,957,403
	5 Average Rate Base	2,102,324	2,089,503	2,076,724	2,063,987	2,051,291	2,038,639	2,026,028	2,013,458	2,000,930	1,988,444	1,975,999	1,963,595
	6 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	9,871	9,811	9,751	9,691	9,631	9,572	9,513	9,454	9,395	9,336	9,278	9,220
	9 Income Tax Component	6,965	6,923	6,880	6,838	6,796	6,754	6,712	6,671	6,629	6,588	6,547	6,505
	10 Interest Expense Component	4,450	4,423	4,396	4,369	4,342	4,315	4,288	4,262	4,235	4,209	4,183	4,156
	11 Total Return on Average Rate Base	21,286	21,156	21,027	20,898	20,769	20,641	20,514	20,386	20,259	20,133	20,007	19,881
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878	5,878
	14 Property Tax	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826
	15 Revenue Requirements	30,990	30,860	30,731	30,602	30,473	30,345	30,217	30,090	29,963	29,837	29,711	29,585
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	30,990	30,860	30,731	30,602	30,473	30,345	30,217	30,090	29,963	29,837	29,711	29,585
	2 Tax Depreciation	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548	7,548
	3 Property Tax	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826	3,826
	4 Interest Expense (including on CWIP)	4,450	4,423	4,396	4,369	4,342	4,315	4,288	4,262	4,235	4,209	4,183	4,156
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	15,823	15,796	15,769	15,742	15,715	15,689	15,662	15,635	15,609	15,582	15,556	15,530
	7 Taxable Income (NOL)	15,166	15,064	14,961	14,859	14,758	14,656	14,555	14,455	14,354	14,254	14,155	14,055
	8 Current tax expense	6,274	6,232	6,190	6,147	6,105	6,063	6,022	5,980	5,938	5,897	5,856	5,815
	9 Taxable Income (NOL)	15,166	15,064	14,961	14,859	14,758	14,656	14,555	14,455	14,354	14,254	14,155	14,055
	10 NOL carryforward	(788,396)	(773,230)	(758,166)	(743,204)	(728,345)	(713,587)	(698,931)	(684,375)	(669,920)	(655,566)	(641,312)	(627,157)
	11 Taxable Income after NOL carryforward 5/	(773,230)	(758,166)	(743,204)	(728,345)	(713,587)	(698,931)	(684,375)	(669,920)	(655,566)	(641,312)	(627,157)	(613,101)
	12 Expected stand alone ADITA NOL	319,885	313,653	307,464	301,316	295,211	289,148	283,126	277,146	271,208	265,311	259,455	253,640
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	33,863	33,796	33,730	33,663	33,597	33,530	33,464	33,397	33,331	33,264	33,198	33,131
	2 Revenue Requirement: Stand Alone	30,990	30,860	30,731	30,602	30,473	30,345	30,217	30,090	29,963	29,837	29,711	29,585
	3 Revenue Requirement: Rider 6/	30,990	30,860	30,731	30,602	30,473	30,345	30,217	30,090	29,963	29,837	29,711	29,585
	4 MN Jurisdictional Allocator 7/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	24,039	23,938	23,838	23,738	23,638	23,539	23,440	23,341	23,243	23,144	23,047	22,949

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

6/ Lesser of E1 or E2.

7/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 2 Wind 105MW

Bison 2 Wind 105 MW
Project ID#105110
In Service 12/18/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898
	2 Total Accumulated Depreciation	16,695,388	17,032,814	17,370,240	17,707,666	18,045,092	18,382,518	18,719,944	19,057,370	19,394,795	19,732,221	20,069,647	20,407,073
	3 Net Plant	125,023,510	124,686,084	124,348,659	124,011,233	123,673,807	123,336,381	122,998,955	122,661,529	122,324,103	121,986,677	121,649,251	121,311,825
	4 Total Depreciation	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898	141,718,898
	2 Accumulated Depreciation	135,613,249	136,175,270	136,737,292	137,299,313	137,861,334	138,423,356	138,985,377	139,547,399	140,109,420	140,671,441	141,233,463	141,795,484
	3 Net Plant	6,105,649	5,543,628	4,981,607	4,419,585	3,857,564	3,295,543	2,733,521	2,171,500	1,609,478	1,047,457	485,436	(76,586)
	4 Bonus Depreciation (50% 2012-15)												
	5 Total Tax Depreciation (including bonus)	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021
	6 Tax Book Difference	118,917,861	119,142,457	119,367,052	119,591,647	119,816,243	120,040,838	120,265,434	120,490,029	120,714,624	120,939,220	121,163,815	121,388,411
	7 Income Tax Rate 1/	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	49,196,319	49,289,234	49,382,149	49,475,065	49,567,980	49,660,895	49,753,810	49,846,725	49,939,640	50,032,555	50,125,470	50,218,386
	9 Deferred Tax Expense debit / (Credit)	92,915	92,915	92,915	92,915	92,915	92,915	92,915	92,915	92,915	92,915	92,915	92,915
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878
	13 Energy (MWh)	30,809	22,745	28,618	31,022	26,526	20,529	18,240	16,628	21,215	30,632	29,243	22,540
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	708,601	523,141	658,220	713,509	610,109	472,178	419,521	382,444	487,943	704,541	672,589	518,426
	16 Utilized PTC /3												
	17 ADITA for PTC	29,058,706	29,581,846	30,240,067	30,953,575	31,563,684	32,035,862	32,455,383	32,837,826	33,325,769	34,030,310	34,702,899	35,221,325
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	125,023,510	124,686,084	124,348,659	124,011,233	123,673,807	123,336,381	122,998,955	122,661,529	122,324,103	121,986,677	121,649,251	121,311,825
	2 Less: ADITL - Def Taxes	(49,196,319)	(49,289,234)	(49,382,149)	(49,475,065)	(49,567,980)	(49,660,895)	(49,753,810)	(49,846,725)	(49,939,640)	(50,032,555)	(50,125,470)	(50,218,386)
	3 Plus: ADITA - NOL	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878	47,578,878
	4 Plus: ADITA - PTC	29,058,706	29,581,846	30,240,067	30,953,575	31,563,684	32,035,862	32,455,383	32,837,826	33,325,769	34,030,310	34,702,899	35,221,325
	5 Rate Base	152,464,774	152,557,574	152,785,453	153,068,621	153,248,389	153,290,225	153,279,405	153,231,508	153,289,110	153,563,310	153,805,557	153,893,642
	6 Average Rate Base	152,325,644	152,511,174	152,671,514	152,927,037	153,158,505	153,269,307	153,284,815	153,255,456	153,260,309	153,426,210	153,684,434	153,849,600
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	715,212	716,083	716,836	718,036	719,123	719,643	719,716	719,578	719,601	720,380	721,592	722,367
	10 Income Tax Component	504,662	505,277	505,808	506,655	507,422	507,789	507,840	507,743	507,759	508,309	509,164	509,711
	11 Interest Expense Component	322,423	322,815	323,155	323,696	324,186	324,420	324,453	324,391	324,401	324,752	325,299	325,648
	12 Total Return on Average Rate Base	1,542,297	1,544,176	1,545,799	1,548,386	1,550,730	1,551,852	1,552,009	1,551,711	1,551,761	1,553,440	1,556,055	1,557,727
	13 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	14 Depreciation Expense	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426
	15 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	16 Federal Production Tax Credit 5/	(1,208,598)	(892,275)	(1,122,668)	(1,216,968)	(1,040,609)	(805,351)	(715,540)	(652,300)	(832,241)	(1,201,673)	(1,147,175)	(884,233)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	982,776	1,300,978	1,072,208	980,495	1,159,198	1,395,577	1,485,546	1,548,488	1,368,596	1,000,844	1,057,957	1,322,571

1/ Minnesota Composite Income Tax Rate.
2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 2 Wind 105MW

Bison 2 Wind 105 MW
Project ID#105110
In Service 12/18/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	125,023,510	124,686,084	124,348,659	124,011,233	123,673,807	123,336,381	122,998,955	122,661,529	122,324,103	121,986,677	121,649,251	121,311,825
	2 Less: ADITL - Def Taxes	(49,196,319)	(49,289,234)	(49,382,149)	(49,475,065)	(49,567,980)	(49,660,895)	(49,753,810)	(49,846,725)	(49,939,640)	(50,032,555)	(50,125,470)	(50,218,386)
	3 Plus: ADITA - NOL (Stand Alone)	42,792,295	42,764,970	42,832,362	42,937,634	42,968,952	42,902,636	42,799,393	42,670,471	42,616,277	42,714,295	42,788,626	42,753,566
	4 Plus: ADITA - PTC	29,058,706	29,581,846	30,240,067	30,953,575	31,563,684	32,035,862	32,455,383	32,837,826	33,325,769	34,030,310	34,702,899	35,221,325
	5 Rate Base	147,678,192	147,743,667	148,038,938	148,427,377	148,638,463	148,613,984	148,499,920	148,323,101	148,326,509	148,698,727	149,015,306	149,068,331
	6 Average Rate Base	147,486,921	147,710,929	147,891,302	148,233,158	148,532,920	148,626,223	148,556,952	148,411,511	148,324,805	148,512,618	148,857,016	149,041,818
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	692,493	693,545	694,392	695,997	697,404	697,842	697,517	696,834	696,427	697,309	698,926	699,794
	10 Income Tax Component	488,632	489,374	489,971	491,104	492,097	492,406	492,177	491,695	491,407	492,030	493,171	493,783
	11 Interest Expense Component	312,181	312,655	313,037	313,760	314,395	314,592	314,446	314,138	313,954	314,352	315,081	315,472
	12 Total Return on Average Rate Base	1,493,305	1,495,573	1,497,399	1,500,861	1,503,896	1,504,841	1,504,139	1,502,667	1,501,789	1,503,690	1,507,177	1,509,048
	13 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	14 Depreciation Expense	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426	337,426
	15 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	16 Federal Production Tax Credit 5/	(1,208,598)	(892,275)	(1,122,668)	(1,216,968)	(1,040,609)	(805,351)	(715,540)	(652,300)	(832,241)	(1,201,673)	(1,147,175)	(884,233)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	933,784	1,252,375	1,023,808	932,969	1,112,364	1,348,566	1,437,676	1,499,443	1,318,624	951,094	1,009,079	1,273,892
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	933,784	1,252,375	1,023,808	932,969	1,112,364	1,348,566	1,437,676	1,499,443	1,318,624	951,094	1,009,079	1,273,892
	2 Tax Depreciation	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021	562,021
	3 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	4 Interest Expense (including on CWIP)	312,181	312,655	313,037	313,760	314,395	314,592	314,446	314,138	313,954	314,352	315,081	315,472
	5 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	6 Total Tax Deduction	1,185,853	1,186,327	1,186,709	1,187,433	1,188,067	1,188,265	1,188,118	1,187,810	1,187,627	1,188,024	1,188,753	1,189,144
	7 Taxable Income (NOL)	(252,069)	66,048	(162,901)	(254,463)	(75,703)	160,301	249,559	311,633	130,998	(236,930)	(179,674)	84,748
	8 Current tax expense	(104,281)	27,324	(67,392)	(105,271)	(31,318)	66,317	103,242	128,923	54,194	(98,018)	(74,331)	35,600
	9 Taxable Income (NOL)	(252,069)	66,048	(162,901)	(254,463)	(75,703)	160,301	249,559	311,633	130,998	(236,930)	(179,674)	84,748
	10 NOL carryforward	(103,185,916)	(103,437,985)	(103,371,937)	(103,534,838)	(103,789,301)	(103,865,004)	(103,704,703)	(103,455,144)	(103,143,511)	(103,012,513)	(103,249,444)	(103,429,118)
	11 Taxable Income after NOL carryforward 7/	(103,437,985)	(103,371,937)	(103,534,838)	(103,789,301)	(103,865,004)	(103,704,703)	(103,455,144)	(103,143,511)	(103,012,513)	(103,249,444)	(103,429,118)	(103,344,370)
	12 Expected stand alone ADITA NOL	42,792,295	42,764,970	42,832,362	42,937,634	42,968,952	42,902,636	42,799,393	42,670,471	42,616,277	42,714,295	42,788,626	42,753,566
	13 Annual Fed Production Tax Credit (\$)	708,601	523,141	658,220	713,509	610,109	472,178	419,521	382,444	487,943	704,541	672,589	518,426
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	29,058,706	29,581,846	30,240,067	30,953,575	31,563,684	32,035,862	32,455,383	32,837,826	33,325,769	34,030,310	34,702,899	35,221,325
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	982,776	1,300,978	1,072,208	980,495	1,159,198	1,395,577	1,485,546	1,548,488	1,368,596	1,000,844	1,057,957	1,322,571
	2 Revenue Requirement: Stand Alone	933,784	1,252,375	1,023,808	932,969	1,112,364	1,348,566	1,437,676	1,499,443	1,318,624	951,094	1,009,079	1,273,892
	3 Revenue Requirement: Rider 9/	933,784	1,252,375	1,023,808	932,969	1,112,364	1,348,566	1,437,676	1,499,443	1,318,624	951,094	1,009,079	1,273,892
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	765,861	1,027,161	839,697	765,193	912,328	1,106,053	1,179,139	1,229,798	1,081,496	780,059	827,616	1,044,808

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.
7/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.
9/ Lesser of E1 or E2.
10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 2 Substation Addition

Bison Substation Additions for Bison 2 Wind

Project ID#105111
In Service 7/24/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952
	2 Total Accumulated Depreciation	517,198	526,440	535,682	544,925	554,167	563,409	572,651	581,894	591,136	600,378	609,621	618,863
	3 Net Plant	3,605,754	3,596,512	3,587,269	3,578,027	3,568,785	3,559,542	3,550,300	3,541,058	3,531,816	3,522,573	3,513,331	3,504,089
	4 Total Depreciation	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952	4,122,952
	2 Accumulated Depreciation	2,856,418	2,867,055	2,877,691	2,888,328	2,898,965	2,909,602	2,920,238	2,930,875	2,941,512	2,952,149	2,962,785	2,973,422
	3 Net Plant	1,266,534	1,255,897	1,245,260	1,234,623	1,223,987	1,213,350	1,202,713	1,192,076	1,181,440	1,170,803	1,160,166	1,149,529
	4 Bonus Depreciation (50% 2012-15)												
	5 Total Tax Depreciation (including bonus)	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637
	6 Tax Book Difference	2,339,220	2,340,615	2,342,009	2,343,404	2,344,798	2,346,193	2,347,587	2,348,981	2,350,376	2,351,770	2,353,165	2,354,559
	7 Income Tax Rate 1/	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	967,735	968,312	968,889	969,466	970,043	970,620	971,197	971,774	972,351	972,927	973,504	974,081
	9 Deferred Tax Expense debit / (Credit)	577	577	577	577	577	577	577	577	577	577	577	577
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	3,605,754	3,596,512	3,587,269	3,578,027	3,568,785	3,559,542	3,550,300	3,541,058	3,531,816	3,522,573	3,513,331	3,504,089
	2 Less: ADITL - Def Taxes	(967,735)	(968,312)	(968,889)	(969,466)	(970,043)	(970,620)	(971,197)	(971,774)	(972,351)	(972,927)	(973,504)	(974,081)
	3 Plus: ADITA - NOL	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298	954,298
	4 Rate Base	3,592,317	3,582,497	3,572,678	3,562,859	3,553,040	3,543,221	3,533,402	3,523,582	3,513,763	3,503,944	3,494,125	3,484,306
	5 Average Rate Base	3,597,226	3,587,407	3,577,588	3,567,769	3,557,949	3,548,130	3,538,311	3,528,492	3,518,673	3,508,854	3,499,034	3,489,215
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	16,890	16,844	16,798	16,752	16,706	16,659	16,613	16,567	16,521	16,475	16,429	16,383
	9 Income Tax Component	11,918	11,885	11,853	11,820	11,788	11,755	11,723	11,690	11,658	11,625	11,592	11,560
	10 Interest Expense Component	7,614	7,593	7,573	7,552	7,531	7,510	7,489	7,469	7,448	7,427	7,406	7,386
	11 Total Return on Average Rate Base	36,422	36,322	36,223	36,124	36,024	35,925	35,825	35,726	35,627	35,527	35,428	35,328
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	45,664	45,565	45,465	45,366	45,267	45,167	45,068	44,968	44,869	44,769	44,670	44,571

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 2 Substation Addition

Bison Substation Additions for Bison 2 Wind

Project ID#105111
In Service 7/24/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	3,605,754	3,596,512	3,587,269	3,578,027	3,568,785	3,559,542	3,550,300	3,541,058	3,531,816	3,522,573	3,513,331	3,504,089
	2 Less: ADITL - Def Taxes	(967,735)	(968,312)	(968,889)	(969,466)	(970,043)	(970,620)	(971,197)	(971,774)	(972,351)	(972,927)	(973,504)	(974,081)
	3 Plus: ADITA - NOL (Stand Alone)	274,298	265,258	256,280	247,364	238,510	229,718	220,987	212,318	203,709	195,162	186,676	178,250
	4 Rate Base	2,912,317	2,893,457	2,874,660	2,855,925	2,837,252	2,818,641	2,800,090	2,781,602	2,763,174	2,744,808	2,726,503	2,708,258
	5 Average Rate Base	2,921,778	2,902,887	2,884,059	2,865,293	2,846,588	2,827,946	2,809,366	2,790,846	2,772,388	2,753,991	2,735,655	2,717,380
	6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	13,719	13,630	13,541	13,453	13,366	13,278	13,191	13,104	13,017	12,931	12,845	12,759
	9 Income Tax Component	9,680	9,617	9,555	9,493	9,431	9,369	9,308	9,246	9,185	9,124	9,063	9,003
	10 Interest Expense Component	6,184	6,144	6,105	6,065	6,025	5,986	5,946	5,907	5,868	5,829	5,790	5,752
	11 Total Return on Average Rate Base	29,583	29,392	29,201	29,011	28,822	28,633	28,445	28,257	28,070	27,884	27,699	27,513
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242	9,242
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	38,825	38,634	38,443	38,253	38,064	37,875	37,687	37,500	37,313	37,126	36,941	36,756
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	38,825	38,634	38,443	38,253	38,064	37,875	37,687	37,500	37,313	37,126	36,941	36,756
	2 Tax Depreciation	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637	10,637
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	6,184	6,144	6,105	6,065	6,025	5,986	5,946	5,907	5,868	5,829	5,790	5,752
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	16,821	16,781	16,741	16,702	16,662	16,623	16,583	16,544	16,505	16,466	16,427	16,389
	7 Taxable Income (NOL)	22,004	21,853	21,702	21,552	21,402	21,253	21,104	20,956	20,808	20,660	20,514	20,367
	8 Current tax expense	9,103	9,041	8,978	8,916	8,854	8,792	8,731	8,669	8,608	8,547	8,486	8,426
	9 Taxable Income (NOL)	22,004	21,853	21,702	21,552	21,402	21,253	21,104	20,956	20,808	20,660	20,514	20,367
	10 NOL carryforward 4/	(685,041)	(663,037)	(641,184)	(619,482)	(597,930)	(576,528)	(555,276)	(534,172)	(513,216)	(492,409)	(471,748)	(451,235)
	11 Taxable Income after NOL carryforward	(663,037)	(641,184)	(619,482)	(597,930)	(576,528)	(555,276)	(534,172)	(513,216)	(492,409)	(471,748)	(451,235)	(430,867)
	12 Expected stand alone ADITA NOL	274,298	265,258	256,280	247,364	238,510	229,718	220,987	212,318	203,709	195,162	186,676	178,250
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	45,664	45,565	45,465	45,366	45,267	45,167	45,068	44,968	44,869	44,769	44,670	44,571
	2 Revenue Requirement: Stand Alone	38,825	38,634	38,443	38,253	38,064	37,875	37,687	37,500	37,313	37,126	36,941	36,756
	3 Revenue Requirement: Rider 5/	38,825	38,634	38,443	38,253	38,064	37,875	37,687	37,500	37,313	37,126	36,941	36,756
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	30,117	29,968	29,821	29,673	29,526	29,380	29,234	29,088	28,943	28,799	28,655	28,511

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
4/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
5/ Lesser of E1 or E2.
6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 3 Wind 105MW

Bison 3 Wind 105 MW
ProjectID# 105441
In Service 12/18/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741
	2 Total Accumulated Depreciation	16,810,711	17,150,634	17,490,558	17,830,481	18,170,404	18,510,327	18,850,250	19,190,174	19,530,097	19,870,020	20,209,943	20,549,866
	3 Net Plant	125,957,029	125,617,106	125,277,183	124,937,260	124,597,337	124,257,413	123,917,490	123,577,567	123,237,644	122,897,721	122,557,797	122,217,874
	4 Total Depreciation	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741	142,767,741
	2 Accumulated Depreciation	136,338,521	136,911,808	137,485,094	138,058,381	138,631,667	139,204,954	139,778,240	140,351,527	140,924,813	141,498,100	142,071,386	142,644,673
	3 Net Plant	6,429,219	5,855,933	5,282,646	4,709,360	4,136,073	3,562,787	2,989,500	2,416,214	1,842,927	1,269,641	696,354	123,068
	4 Bonus Depreciation (50%-2012-15)												
	5 Total Tax Depreciation (including bonus)	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287
	6 Tax Book Difference	119,527,810	119,761,173	119,994,537	120,227,900	120,461,263	120,694,627	120,927,990	121,161,353	121,394,717	121,628,080	121,861,443	122,094,807
	7 Income Tax Rate 1/	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	49,448,655	49,545,197	49,641,740	49,738,282	49,834,825	49,931,367	50,027,909	50,124,452	50,220,994	50,317,537	50,414,079	50,510,621
	9 Deferred Tax Expense debit / (Credit)	96,542	96,542	96,542	96,542	96,542	96,542	96,542	96,542	96,542	96,542	96,542	96,542
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340
	13 Energy (MWh)	30,941	23,008	29,195	30,894	26,598	19,829	17,082	16,141	20,967	31,350	30,711	23,500
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	711,643	529,177	671,494	710,571	611,757	456,064	392,877	371,244	482,235	721,056	706,344	540,492
	16 Utilized PTC /3												
	17 ADITA for PTC	28,874,301	29,403,478	30,074,972	30,785,543	31,397,300	31,853,364	32,246,241	32,617,485	33,099,721	33,820,777	34,527,121	35,067,613
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	125,957,029	125,617,106	125,277,183	124,937,260	124,597,337	124,257,413	123,917,490	123,577,567	123,237,644	122,897,721	122,557,797	122,217,874
	2 Less: ADITL - Def Taxes	(49,448,655)	(49,545,197)	(49,641,740)	(49,738,282)	(49,834,825)	(49,931,367)	(50,027,909)	(50,124,452)	(50,220,994)	(50,317,537)	(50,414,079)	(50,510,621)
	3 Plus: ADITA - NOL	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340	47,806,340
	4 Plus: ADITA - PTC	28,874,301	29,403,478	30,074,972	30,785,543	31,397,300	31,853,364	32,246,241	32,617,485	33,099,721	33,820,777	34,527,121	35,067,613
	5 Rate Base	153,189,015	153,281,727	153,516,755	153,790,861	153,966,152	153,985,751	153,942,162	153,876,941	153,922,710	154,207,301	154,477,180	154,581,206
	6 Average Rate Base	153,051,426	153,235,371	153,399,241	153,653,808	153,878,506	153,975,952	153,963,956	153,909,551	153,899,826	154,065,006	154,342,240	154,529,193
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	718,620	719,483	720,253	721,448	722,503	722,961	722,904	722,649	722,603	723,379	724,681	725,558
	10 Income Tax Component	507,067	507,676	508,219	509,063	509,807	510,130	510,090	509,910	509,878	510,425	511,344	511,963
	11 Interest Expense Component	323,959	324,348	324,695	325,234	325,710	325,916	325,890	325,775	325,755	326,104	326,691	327,087
	12 Total Return on Average Rate Base	1,549,646	1,551,508	1,553,167	1,555,745	1,558,020	1,559,007	1,558,885	1,558,334	1,558,236	1,559,908	1,562,715	1,564,608
	13 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	14 Depreciation Expense	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923
	15 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	16 Federal Production Tax Credit 5/	(1,213,786)	(902,571)	(1,145,307)	(1,211,958)	(1,043,421)	(777,868)	(670,096)	(633,198)	(822,506)	(1,229,842)	(1,204,748)	(921,870)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	987,434	1,300,511	1,059,434	995,361	1,166,174	1,432,713	1,540,363	1,576,710	1,387,304	981,640	1,009,541	1,294,313

1/ Minnesota Composite Income Tax Rate.
2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 3 Wind 105MW

Bison 3 Wind 105 MW
ProjectID# 105441
In Service 12/18/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	125,957,029	125,617,106	125,277,183	124,937,260	124,597,337	124,257,413	123,917,490	123,577,567	123,237,644	122,897,721	122,557,797	122,217,874
	2 Less: ADITL - Def Taxes	(49,448,655)	(49,545,197)	(49,641,740)	(49,738,282)	(49,834,825)	(49,931,367)	(50,027,909)	(50,124,452)	(50,220,994)	(50,317,537)	(50,414,079)	(50,510,621)
	3 Plus: ADITA - NOL (Stand Alone)	43,793,485	43,769,080	43,844,468	43,946,292	43,977,428	43,898,460	43,775,283	43,637,453	43,578,298	43,687,029	43,784,120	43,763,437
	4 Plus: ADITA - PTC	28,874,301	29,403,478	30,074,972	30,785,543	31,397,300	31,853,364	32,246,241	32,617,485	33,099,721	33,820,777	34,527,121	35,067,613
	5 Rate Base	149,176,160	149,244,467	149,554,883	149,930,812	150,137,240	150,077,871	149,911,105	149,708,053	149,694,668	150,087,990	150,454,959	150,538,303
	6 Average Rate Base	148,986,027	149,210,313	149,399,675	149,742,848	150,034,026	150,107,555	149,994,488	149,809,579	149,701,361	149,891,329	150,271,475	150,496,631
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	699,532	700,585	701,474	703,085	704,452	704,798	704,267	703,398	702,890	703,782	705,567	706,624
	10 Income Tax Component	493,598	494,341	494,969	496,106	497,070	497,314	496,939	496,327	495,968	496,597	497,857	498,603
	11 Interest Expense Component	315,354	315,828	316,229	316,956	317,572	317,728	317,488	317,097	316,868	317,270	318,075	318,551
	12 Total Return on Average Rate Base	1,508,484	1,510,754	1,512,672	1,516,146	1,519,095	1,519,839	1,518,694	1,516,822	1,515,726	1,517,650	1,521,499	1,523,778
	13 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	14 Depreciation Expense	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923	339,923
	15 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	16 Federal Production Tax Credit 5/	(1,213,786)	(902,571)	(1,145,307)	(1,211,958)	(1,043,421)	(777,868)	(670,096)	(633,198)	(822,506)	(1,229,842)	(1,204,748)	(921,870)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	946,271	1,259,758	1,018,938	955,762	1,127,248	1,393,545	1,500,173	1,535,198	1,344,794	939,382	968,325	1,253,483
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	946,271	1,259,758	1,018,938	955,762	1,127,248	1,393,545	1,500,173	1,535,198	1,344,794	939,382	968,325	1,253,483
	2 Tax Depreciation	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287	573,287
	3 Property Tax	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680	36,680
	4 Interest Expense (including on CWIP)	315,354	315,828	316,229	316,956	317,572	317,728	317,488	317,097	316,868	317,270	318,075	318,551
	5 Operation & Maintenance Expense	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971	274,971
	6 Total Tax Deduction	1,200,291	1,200,766	1,201,167	1,201,893	1,202,510	1,202,665	1,202,426	1,202,034	1,201,805	1,202,208	1,203,012	1,203,489
	7 Taxable Income (NOL)	(254,020)	58,991	(182,228)	(246,131)	(75,261)	190,880	297,747	333,164	142,989	(262,826)	(234,688)	49,994
	8 Current tax expense	(105,088)	24,405	(75,388)	(101,824)	(31,136)	78,967	123,178	137,830	59,154	(108,731)	(97,090)	20,683
	9 Taxable Income (NOL)	(254,020)	58,991	(182,228)	(246,131)	(75,261)	190,880	297,747	333,164	142,989	(262,826)	(234,688)	49,994
	10 NOL carryforward	(105,604,052)	(105,858,072)	(105,799,081)	(105,981,309)	(106,227,440)	(106,302,701)	(106,111,821)	(105,814,074)	(105,480,911)	(105,337,922)	(105,600,748)	(105,835,435)
	11 Taxable Income after NOL carryforward 7/	(105,858,072)	(105,799,081)	(105,981,309)	(106,227,440)	(106,302,701)	(106,111,821)	(105,814,074)	(105,480,911)	(105,337,922)	(105,600,748)	(105,835,435)	(105,785,441)
	12 Expected stand alone ADITA NOL	43,793,485	43,769,080	43,844,468	43,946,292	43,977,428	43,898,460	43,775,283	43,637,453	43,578,298	43,687,029	43,784,120	43,763,437
	13 Annual Fed Production Tax Credit (\$)	711,643	529,177	671,494	710,571	611,757	456,064	392,877	371,244	482,235	721,056	706,344	540,492
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	28,874,301	29,403,478	30,074,972	30,785,543	31,397,300	31,853,364	32,246,241	32,617,485	33,099,721	33,820,777	34,527,121	35,067,613
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	987,434	1,300,511	1,059,434	995,361	1,166,174	1,432,713	1,540,363	1,576,710	1,387,304	981,640	1,009,541	1,294,313
	2 Revenue Requirement: Stand Alone	946,271	1,259,758	1,018,938	955,762	1,127,248	1,393,545	1,500,173	1,535,198	1,344,794	939,382	968,325	1,253,483
	3 Revenue Requirement: Rider 9/	946,271	1,259,758	1,018,938	955,762	1,127,248	1,393,545	1,500,173	1,535,198	1,344,794	939,382	968,325	1,253,483
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	776,103	1,033,215	835,703	783,888	924,535	1,142,944	1,230,397	1,259,123	1,102,960	770,453	794,191	1,028,069

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.
7/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.
9/ Lesser of E1 or E2.
10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 3 Substation Addition

Bison Substation Additions for Bison 3 Wind

Project ID# 105440
In Service 8/1/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878
	2 Total Accumulated Depreciation	571,131	581,990	592,848	603,707	614,565	625,423	636,282	647,140	657,998	668,857	679,715	690,573
	3 Net Plant	4,272,746	4,261,888	4,251,029	4,240,171	4,229,313	4,218,454	4,207,596	4,196,738	4,185,879	4,175,021	4,164,163	4,153,304
	4 Total Depreciation	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878	4,843,878
	2 Accumulated Depreciation	3,309,277	3,322,165	3,335,054	3,347,942	3,360,831	3,373,719	3,386,607	3,399,496	3,412,384	3,425,272	3,438,161	3,451,049
	3 Net Plant	1,534,601	1,521,712	1,508,824	1,495,935	1,483,047	1,470,159	1,457,270	1,444,382	1,431,494	1,418,605	1,405,717	1,392,828
	4 Bonus Depreciation (50% 2012-15)												
	5 Total Tax Depreciation (including bonus)	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888
	6 Tax Book Difference	2,738,146	2,740,176	2,742,206	2,744,236	2,746,266	2,748,296	2,750,326	2,752,356	2,754,386	2,756,416	2,758,446	2,760,476
	7 Income Tax Rate 1/	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	1,132,771	1,133,611	1,134,450	1,135,290	1,136,130	1,136,970	1,137,810	1,138,650	1,139,489	1,140,329	1,141,169	1,142,009
	9 Deferred Tax Expense debit / (Credit)	840	840	840	840	840	840	840	840	840	840	840	840
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	4,272,746	4,261,888	4,251,029	4,240,171	4,229,313	4,218,454	4,207,596	4,196,738	4,185,879	4,175,021	4,164,163	4,153,304
	2 Less: ADITL - Def Taxes	(1,132,771)	(1,133,611)	(1,134,450)	(1,135,290)	(1,136,130)	(1,136,970)	(1,137,810)	(1,138,650)	(1,139,489)	(1,140,329)	(1,141,169)	(1,142,009)
	3 Plus: ADITA - NOL	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658	1,114,658
	4 Rate Base	4,254,633	4,242,935	4,231,237	4,219,539	4,207,841	4,196,142	4,184,444	4,172,746	4,161,048	4,149,350	4,137,651	4,125,953
	5 Average Rate Base	4,260,482	4,248,784	4,237,086	4,225,388	4,213,690	4,201,991	4,190,293	4,178,595	4,166,897	4,155,199	4,143,501	4,131,802
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	20,004	19,949	19,894	19,839	19,784	19,730	19,675	19,620	19,565	19,510	19,455	19,400
	9 Income Tax Component	14,115	14,076	14,038	13,999	13,960	13,921	13,883	13,844	13,805	13,766	13,728	13,689
	10 Interest Expense Component	9,018	8,993	8,968	8,944	8,919	8,894	8,869	8,845	8,820	8,795	8,770	8,746
	11 Total Return on Average Rate Base	43,137	43,019	42,900	42,782	42,664	42,545	42,427	42,308	42,190	42,071	41,953	41,834
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	53,996	53,877	53,759	53,640	53,522	53,404	53,285	53,167	53,048	52,930	52,811	52,693

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 3 Substation Addition

Bison Substation Additions for Bison 3 Wind

Project ID# 105440
In Service 8/1/2012

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	4,272,746	4,261,888	4,251,029	4,240,171	4,229,313	4,218,454	4,207,596	4,196,738	4,185,879	4,175,021	4,164,163	4,153,304
	2 Less: ADITL - Def Taxes	(1,132,771)	(1,133,611)	(1,134,450)	(1,135,290)	(1,136,130)	(1,136,970)	(1,137,810)	(1,138,650)	(1,139,489)	(1,140,329)	(1,141,169)	(1,142,009)
	3 Plus: ADITA - NOL (Stand Alone)	355,831	345,126	334,495	323,938	313,455	303,045	292,708	282,445	272,253	262,134	252,088	242,113
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	5 Rate Base	3,495,806	3,473,403	3,451,074	3,428,819	3,406,638	3,384,529	3,362,494	3,340,533	3,318,643	3,296,826	3,275,082	3,253,408
	6 Average Rate Base	3,507,045	3,484,605	3,462,239	3,439,946	3,417,728	3,395,584	3,373,512	3,351,514	3,329,588	3,307,734	3,285,954	3,264,245
	7 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	16,467	16,361	16,256	16,152	16,047	15,943	15,840	15,736	15,633	15,531	15,428	15,327
	10 Income Tax Component	11,619	11,545	11,471	11,397	11,323	11,250	11,177	11,104	11,031	10,959	10,887	10,815
	11 Interest Expense Component	7,423	7,376	7,328	7,281	7,234	7,187	7,141	7,094	7,048	7,001	6,955	6,909
	12 Total Return on Average Rate Base	35,509	35,282	35,055	34,829	34,604	34,380	34,157	33,934	33,712	33,491	33,270	33,050
	13 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	14 Depreciation Expense	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858	10,858
	15 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	46,367	46,140	45,914	45,688	45,463	45,239	45,015	44,792	44,570	44,349	44,129	43,909
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	46,367	46,140	45,914	45,688	45,463	45,239	45,015	44,792	44,570	44,349	44,129	43,909
	2 Tax Depreciation	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888	12,888
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	7,423	7,376	7,328	7,281	7,234	7,187	7,141	7,094	7,048	7,001	6,955	6,909
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	20,312	20,264	20,217	20,170	20,123	20,076	20,029	19,982	19,936	19,890	19,844	19,798
	7 Taxable Income (NOL)	26,056	25,876	25,697	25,518	25,340	25,163	24,986	24,810	24,634	24,459	24,285	24,111
	8 Current tax expense	10,779	10,705	10,631	10,557	10,483	10,410	10,337	10,264	10,191	10,119	10,047	9,975
	9 Taxable Income (NOL)	26,056	25,876	25,697	25,518	25,340	25,163	24,986	24,810	24,634	24,459	24,285	24,111
	10 NOL carryforward 4/	(886,174)	(860,118)	(834,242)	(808,546)	(783,027)	(757,687)	(732,524)	(707,538)	(682,728)	(658,093)	(633,634)	(609,349)
	11 Taxable Income after NOL carryforward	(860,118)	(834,242)	(808,546)	(783,027)	(757,687)	(732,524)	(707,538)	(682,728)	(658,093)	(633,634)	(609,349)	(585,238)
	12 Expected stand alone ADITA NOL	355,831	345,126	334,495	323,938	313,455	303,045	292,708	282,445	272,253	262,134	252,088	242,113
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	53,996	53,877	53,759	53,640	53,522	53,404	53,285	53,167	53,048	52,930	52,811	52,693
	2 Revenue Requirement: Stand Alone	46,367	46,140	45,914	45,688	45,463	45,239	45,015	44,792	44,570	44,349	44,129	43,909
	3 Revenue Requirement: Rider 5/	46,367	46,140	45,914	45,688	45,463	45,239	45,015	44,792	44,570	44,349	44,129	43,909
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	35,967	35,791	35,615	35,440	35,266	35,092	34,918	34,745	34,573	34,402	34,231	34,060

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

5/ Lesser of E1 or E2.

6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Wind

Bison 4 Wind
ProjectID# 106828
In Service 12/31/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656
	2 Total Accumulated Depreciation	18,994,610	19,729,050	20,463,489	21,197,929	21,932,369	22,666,808	23,401,248	24,135,688	24,870,127	25,604,567	26,339,007	27,073,446
	3 Net Plant	289,470,046	288,735,607	288,001,167	287,266,727	286,532,288	285,797,848	285,063,408	284,328,969	283,594,529	282,860,089	282,125,650	281,391,210
	4 Total Depreciation	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440
	5 Book Depreciation Rate (35 year book life)	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
B	Tax Basis of Property												
	1 Plant in Service	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656	308,464,656
	2 Accumulated Depreciation	257,395,486	259,156,492	260,917,498	262,678,504	264,439,510	266,200,516	267,961,522	269,722,527	271,483,533	273,244,539	275,005,545	276,766,551
	3 Net Plant	51,069,170	49,308,164	47,547,158	45,786,152	44,025,146	42,264,141	40,503,135	38,742,129	36,981,123	35,220,117	33,459,111	31,698,105
	4 Bonus Depreciation (50% 2014-2016)												
	5 Total Tax Depreciation (including bonus)	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006
	6 Tax Book Difference	238,400,876	239,427,443	240,454,009	241,480,575	242,507,141	243,533,707	244,560,274	245,586,840	246,613,406	247,639,972	248,666,538	249,693,105
	7 Income Tax Rate 1/	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	98,626,443	99,051,133	99,475,823	99,900,514	100,325,204	100,749,895	101,174,585	101,599,276	102,023,966	102,448,657	102,873,347	103,298,037
	9 Deferred Tax Expense debit / (Credit)	424,690	424,690	424,690	424,690	424,690	424,690	424,690	424,690	424,690	424,690	424,690	424,690
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized												
	12 ADITA - NOL	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308
	13 Energy (MWh)	87,706	63,764	81,197	86,181	74,539	56,854	49,156	45,691	59,420	85,698	81,504	63,187
	14 Fed Production Tax Credit (\$/MWh)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
	15 Fed Production Tax Credit (\$)	2,017,246	1,466,582	1,867,520	1,982,163	1,714,401	1,307,637	1,130,594	1,050,900	1,366,664	1,971,043	1,874,581	1,453,293
	16 Utilized PTC /3												
	17 ADITA for PTC	38,152,164	39,618,746	41,486,267	43,468,430	45,182,832	46,490,469	47,621,063	48,671,963	50,038,628	52,009,670	53,884,251	55,337,545
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	289,470,046	288,735,607	288,001,167	287,266,727	286,532,288	285,797,848	285,063,408	284,328,969	283,594,529	282,860,089	282,125,650	281,391,210
	2 Less: ADITL - Def Taxes	(98,626,443)	(99,051,133)	(99,475,823)	(99,900,514)	(100,325,204)	(100,749,895)	(101,174,585)	(101,599,276)	(102,023,966)	(102,448,657)	(102,873,347)	(103,298,037)
	3 Plus: ADITA - NOL	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308	13,946,308
	4 Plus: ADITA - PTC	38,152,164	39,618,746	41,486,267	43,468,430	45,182,832	46,490,469	47,621,063	48,671,963	50,038,628	52,009,670	53,884,251	55,337,545
	5 Rate Base	242,942,076	243,249,528	243,957,919	244,780,952	245,336,223	245,484,731	245,456,195	245,347,965	245,555,499	246,367,411	247,082,863	247,377,026
	6 Average Rate Base	242,513,018	243,095,802	243,603,724	244,369,435	245,058,588	245,410,477	245,470,463	245,402,080	245,451,732	245,961,455	246,725,137	247,229,944
	7 Current Return on CWIP 4/												
	8 Return on Average Rate Base 4/												
	9 After Tax Return on Equity	1,138,667	1,141,404	1,143,789	1,147,384	1,150,620	1,152,272	1,152,553	1,152,232	1,152,465	1,154,859	1,158,444	1,160,815
	10 Income Tax Component	803,458	805,389	807,071	809,608	811,891	813,057	813,256	813,029	813,194	814,883	817,413	819,085
	11 Interest Expense Component	513,319	514,553	515,628	517,249	518,707	519,452	519,579	519,434	519,539	520,618	522,235	523,303
	12 Total Return on Average Rate Base	2,455,444	2,461,345	2,466,488	2,474,241	2,481,218	2,484,781	2,485,388	2,484,696	2,485,199	2,490,360	2,498,092	2,503,203
	13 Operation & Maintenance Expense	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464
	14 Depreciation Expense	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440
	15 Property Tax	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544
	16 Federal Production Tax Credit 5/	(3,440,638)	(2,501,420)	(3,185,264)	(3,380,801)	(2,924,103)	(2,230,321)	(1,928,354)	(1,792,428)	(2,330,998)	(3,361,833)	(3,197,307)	(2,478,754)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	368,254	1,313,373	634,671	446,888	910,563	1,607,907	1,910,482	2,045,716	1,507,648	481,974	654,232	1,377,897

1/ Minnesota Composite Income Tax Rate.
2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.
3/ ADITA for PTCs are utilized after all ADITA NOL are utilized, both on a FIFO basis.
4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).
6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. The ITC will be credited to revenue requirements as utilized.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Wind

Bison 4 Wind
ProjectID# 106828
In Service 12/31/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	289,470,046	288,735,607	288,001,167	287,266,727	286,532,288	285,797,848	285,063,408	284,328,969	283,594,529	282,860,089	282,125,650	281,391,210
	2 Less: ADITL - Def Taxes	(98,626,443)	(99,051,133)	(99,475,823)	(99,900,514)	(100,325,204)	(100,749,895)	(101,174,585)	(101,599,276)	(102,023,966)	(102,448,657)	(102,873,347)	(103,298,037)
	3 Plus: ADITA - NOL (Stand Alone)	91,938,132	92,333,227	93,007,774	93,758,316	94,315,473	94,583,081	94,724,888	94,810,312	95,117,728	95,848,191	96,505,762	96,862,713
	4 Plus: ADITA - PTC	38,152,164	39,618,746	41,486,267	43,468,430	45,182,832	46,490,469	47,621,063	48,671,963	50,038,628	52,009,670	53,884,251	55,337,545
	5 Rate Base	320,933,900	321,636,447	323,019,384	324,592,960	325,705,388	326,121,503	326,234,774	326,211,969	326,726,919	328,269,294	329,642,316	330,293,431
	6 Average Rate Base	320,111,072	321,285,173	322,327,916	323,806,172	325,149,174	325,913,446	326,178,139	326,223,371	326,469,444	327,498,106	328,955,805	329,967,873
	7 Current Return on CWIP 4/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 4/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	1,503,012	1,508,525	1,513,421	1,520,362	1,526,667	1,530,256	1,531,499	1,531,711	1,532,867	1,537,696	1,544,541	1,549,293
	10 Income Tax Component	1,060,544	1,064,434	1,067,889	1,072,786	1,077,235	1,079,768	1,080,644	1,080,794	1,081,610	1,085,018	1,089,847	1,093,200
	11 Interest Expense Component	677,568	680,054	682,261	685,390	688,232	689,850	690,410	690,506	691,027	693,204	696,290	698,432
	12 Total Return on Average Rate Base	3,241,125	3,253,012	3,263,570	3,278,537	3,292,135	3,299,874	3,302,554	3,303,012	3,305,503	3,315,918	3,330,678	3,340,925
	13 Operation & Maintenance Expense	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464
	14 Depreciation Expense	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440	734,440
	15 Property Tax	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544
	16 Federal Production Tax Credit 5/	(3,440,638)	(2,501,420)	(3,185,264)	(3,380,801)	(2,924,103)	(2,230,321)	(1,928,354)	(1,792,428)	(2,330,998)	(3,361,833)	(3,197,307)	(2,478,754)
	17 ND Investment Tax Credit 6/	-	-	-	-	-	-	-	-	-	-	-	-
	18 Revenue Requirements	1,153,934	2,105,040	1,431,754	1,251,185	1,721,481	2,423,000	2,727,647	2,864,032	2,327,953	1,307,533	1,486,818	2,215,619
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	1,153,934	2,105,040	1,431,754	1,251,185	1,721,481	2,423,000	2,727,647	2,864,032	2,327,953	1,307,533	1,486,818	2,215,619
	2 Tax Depreciation	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006	1,761,006
	3 Property Tax	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544	71,544
	4 Interest Expense (including on CWIP)	677,568	680,054	682,261	685,390	688,232	689,850	690,410	690,506	691,027	693,204	696,290	698,432
	5 Operation & Maintenance Expense	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464	547,464
	6 Total Tax Deduction	3,057,582	3,060,067	3,062,275	3,065,404	3,068,246	3,069,864	3,070,424	3,070,520	3,071,041	3,073,218	3,076,304	3,078,446
	7 Taxable Income (NOL)	(1,903,648)	(955,027)	(1,630,521)	(1,814,219)	(1,346,766)	(646,864)	(342,777)	(206,488)	(743,088)	(1,765,685)	(1,589,486)	(862,827)
	8 Current tax expense	(787,539)	(395,095)	(674,547)	(750,542)	(557,157)	(267,608)	(141,807)	(85,424)	(307,416)	(730,464)	(657,570)	(356,952)
	9 Taxable Income (NOL)	(1,903,648)	(955,027)	(1,630,521)	(1,814,219)	(1,346,766)	(646,864)	(342,777)	(206,488)	(743,088)	(1,765,685)	(1,589,486)	(862,827)
	10 NOL carryforward	(220,330,175)	(222,233,823)	(223,188,850)	(224,819,371)	(226,633,590)	(227,980,356)	(228,627,220)	(228,969,997)	(229,176,485)	(229,919,573)	(231,685,259)	(233,274,744)
	11 Taxable Income after NOL carryforward 7/	(222,233,823)	(223,188,850)	(224,819,371)	(226,633,590)	(227,980,356)	(228,627,220)	(228,969,997)	(229,176,485)	(229,919,573)	(231,685,259)	(233,274,744)	(234,137,572)
	12 Expected stand alone ADITA NOL	91,938,132	92,333,227	93,007,774	93,758,316	94,315,473	94,583,081	94,724,888	94,810,312	95,117,728	95,848,191	96,505,762	96,862,713
	13 Annual Fed Production Tax Credit (\$)	2,017,246	1,466,582	1,867,520	1,982,163	1,714,401	1,307,637	1,130,594	1,050,900	1,366,664	1,971,043	1,874,581	1,453,293
	14 Utilized PTC 8/	-	-	-	-	-	-	-	-	-	-	-	-
	15 ADITA for PTC	38,152,164	39,618,746	41,486,267	43,468,430	45,182,832	46,490,469	47,621,063	48,671,963	50,038,628	52,009,670	53,884,251	55,337,545
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	368,254	1,313,373	634,671	446,888	910,563	1,607,907	1,910,482	2,045,716	1,507,648	481,974	654,232	1,377,897
	2 Revenue Requirement: Stand Alone	1,153,934	2,105,040	1,431,754	1,251,185	1,721,481	2,423,000	2,727,647	2,864,032	2,327,953	1,307,533	1,486,818	2,215,619
	3 Revenue Requirement: Rider 9/	368,254	1,313,373	634,671	446,888	910,563	1,607,907	1,910,482	2,045,716	1,507,648	481,974	654,232	1,377,897
	4 MN Jurisdictional Allocator 10/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	302,031	1,077,189	520,538	366,524	746,817	1,318,757	1,566,920	1,677,835	1,236,528	395,301	536,582	1,130,110

4/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

5/ Current PTCs are grossed up by dividing by a factor of (1-MP Composite Income Tax rate of 41.37%).

6/ Eligible for 3% ND ITC per year for 5 years for a total of 15%. Will credit to revenue requirements as utilized.

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

8/ PTC utilization limited to 75% of annual Federal tax liability calculated at 35% times Taxable Income after NOL carryforward.

9/ Lesser of E1 or E2.

10/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Substation Addition

Bison Substation Additions for Bison 4 Wind

Project ID# 106799
In Service 6/24/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728
	2 Total Accumulated Depreciation	377,704	389,824	401,944	414,065	426,185	438,305	450,425	462,545	474,665	486,785	498,905	511,025
	3 Net Plant	5,029,024	5,016,904	5,004,784	4,992,663	4,980,543	4,968,423	4,956,303	4,944,183	4,932,063	4,919,943	4,907,823	4,895,703
	4 Total Depreciation	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728	5,406,728
	2 Accumulated Depreciation	3,363,432	3,380,597	3,397,761	3,414,926	3,432,090	3,449,255	3,466,419	3,483,584	3,500,748	3,517,913	3,535,077	3,552,242
	3 Net Plant	2,043,296	2,026,131	2,008,967	1,991,802	1,974,638	1,957,473	1,940,309	1,923,144	1,905,980	1,888,815	1,871,651	1,854,486
	4 Bonus Depreciation (50% 2014-2016)												
	5 Total Tax Depreciation (including bonus)	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164
	6 Tax Book Difference	2,985,728	2,990,772	2,995,817	3,000,861	3,005,906	3,010,950	3,015,995	3,021,039	3,026,083	3,031,128	3,036,172	3,041,217
	7 Income Tax Rate 1/	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	1,235,196	1,237,283	1,239,369	1,241,456	1,243,543	1,245,630	1,247,717	1,249,804	1,251,891	1,253,978	1,256,064	1,258,151
	9 Deferred Tax Expense debit / (Credit)	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	5,029,024	5,016,904	5,004,784	4,992,663	4,980,543	4,968,423	4,956,303	4,944,183	4,932,063	4,919,943	4,907,823	4,895,703
	2 Less: ADITL - Def Taxes	(1,235,196)	(1,237,283)	(1,239,369)	(1,241,456)	(1,243,543)	(1,245,630)	(1,247,717)	(1,249,804)	(1,251,891)	(1,253,978)	(1,256,064)	(1,258,151)
	3 Plus: ADITA - NOL	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149	1,198,149
	4 Rate Base	4,991,977	4,977,770	4,963,563	4,949,356	4,935,149	4,920,942	4,906,735	4,892,528	4,878,321	4,864,114	4,849,907	4,835,700
	5 Average Rate Base	4,999,080	4,984,873	4,970,666	4,956,459	4,942,252	4,928,045	4,913,838	4,899,631	4,885,424	4,871,218	4,857,011	4,842,804
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	23,472	23,405	23,339	23,272	23,205	23,139	23,072	23,005	22,938	22,872	22,805	22,738
	9 Income Tax Component	16,562	16,515	16,468	16,421	16,374	16,327	16,280	16,233	16,186	16,139	16,092	16,044
	10 Interest Expense Component	10,581	10,551	10,521	10,491	10,461	10,431	10,401	10,371	10,341	10,311	10,281	10,251
	11 Total Return on Average Rate Base	50,616	50,472	50,328	50,184	50,040	49,896	49,753	49,609	49,465	49,321	49,177	49,033
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	62,736	62,592	62,448	62,304	62,160	62,017	61,873	61,729	61,585	61,441	61,297	61,153

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Substation Addition

Bison Substation Additions for Bison 4 Wind

Project ID# 106799
In Service 6/24/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	5,029,024	5,016,904	5,004,784	4,992,663	4,980,543	4,968,423	4,956,303	4,944,183	4,932,063	4,919,943	4,907,823	4,895,703
	2 Less: ADITL - Def Taxes	(1,235,196)	(1,237,283)	(1,239,369)	(1,241,456)	(1,243,543)	(1,245,630)	(1,247,717)	(1,249,804)	(1,251,891)	(1,253,978)	(1,256,064)	(1,258,151)
	3 Plus: ADITA - NOL (Stand Alone)	672,367	659,702	647,125	634,637	622,238	609,926	597,702	585,566	573,517	561,554	549,678	537,889
	4 Rate Base	4,466,195	4,439,323	4,412,539	4,385,844	4,359,238	4,332,719	4,306,288	4,279,945	4,253,689	4,227,519	4,201,436	4,175,440
	5 Average Rate Base	4,479,676	4,452,759	4,425,931	4,399,192	4,372,541	4,345,979	4,319,504	4,293,117	4,266,817	4,240,604	4,214,478	4,188,438
	6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	21,033	20,907	20,781	20,655	20,530	20,406	20,281	20,157	20,034	19,911	19,788	19,666
	9 Income Tax Component	14,841	14,752	14,663	14,575	14,486	14,398	14,311	14,223	14,136	14,049	13,963	13,877
	10 Interest Expense Component	9,482	9,425	9,368	9,312	9,255	9,199	9,143	9,087	9,031	8,976	8,921	8,866
	11 Total Return on Average Rate Base	45,357	45,084	44,813	44,542	44,272	44,003	43,735	43,468	43,202	42,936	42,672	42,408
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120	12,120
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	57,477	57,204	56,933	56,662	56,392	56,123	55,855	55,588	55,322	55,056	54,792	54,528
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	57,477	57,204	56,933	56,662	56,392	56,123	55,855	55,588	55,322	55,056	54,792	54,528
	2 Tax Depreciation	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164	17,164
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	9,482	9,425	9,368	9,312	9,255	9,199	9,143	9,087	9,031	8,976	8,921	8,866
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	26,646	26,589	26,533	26,476	26,420	26,363	26,307	26,252	26,196	26,140	26,085	26,030
	7 Taxable Income (NOL)	30,830	30,615	30,400	30,186	29,972	29,760	29,548	29,336	29,126	28,916	28,707	28,498
	8 Current tax expense	12,755	12,665	12,576	12,488	12,400	12,312	12,224	12,136	12,049	11,962	11,876	11,790
	9 Taxable Income (NOL)	30,830	30,615	30,400	30,186	29,972	29,760	29,548	29,336	29,126	28,916	28,707	28,498
	10 NOL carryforward 4/	(1,656,083)	(1,625,253)	(1,594,638)	(1,564,238)	(1,534,052)	(1,504,080)	(1,474,320)	(1,444,773)	(1,415,436)	(1,386,311)	(1,357,395)	(1,328,688)
	11 Taxable Income after NOL carryforward	(1,625,253)	(1,594,638)	(1,564,238)	(1,534,052)	(1,504,080)	(1,474,320)	(1,444,773)	(1,415,436)	(1,386,311)	(1,357,395)	(1,328,688)	(1,300,190)
	12 Expected stand alone ADITA NOL	672,367	659,702	647,125	634,637	622,238	609,926	597,702	585,566	573,517	561,554	549,678	537,889
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	62,736	62,592	62,448	62,304	62,160	62,017	61,873	61,729	61,585	61,441	61,297	61,153
	2 Revenue Requirement: Stand Alone	57,477	57,204	56,933	56,662	56,392	56,123	55,855	55,588	55,322	55,056	54,792	54,528
	3 Revenue Requirement: Rider 5/	57,477	57,204	56,933	56,662	56,392	56,123	55,855	55,588	55,322	55,056	54,792	54,528
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	44,585	44,373	44,163	43,953	43,743	43,535	43,327	43,120	42,913	42,707	42,502	42,297

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
4/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
5/ Lesser of E1 or E2.
6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Tri-County Substation

Bison Tri-County Sub
Project ID# 106805
In Service 6/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256
	2 Total Accumulated Depreciation	429,438	443,106	456,774	470,442	484,110	497,778	511,446	525,114	538,782	552,450	566,118	579,786
	3 Net Plant	5,667,818	5,654,150	5,640,482	5,626,814	5,613,146	5,599,478	5,585,810	5,572,142	5,558,474	5,544,806	5,531,138	5,517,470
	4 Total Depreciation	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256	6,097,256
	2 Accumulated Depreciation	3,798,566	3,817,876	3,837,186	3,856,495	3,875,805	3,895,115	3,914,424	3,933,734	3,953,044	3,972,353	3,991,663	4,010,973
	3 Net Plant	2,298,690	2,279,380	2,260,071	2,240,761	2,221,451	2,202,142	2,182,832	2,163,522	2,144,213	2,124,903	2,105,593	2,086,283
	4 Bonus Depreciation (50% 2014-2016)												
	5 Total Tax Depreciation (including bonus)	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310
	6 Tax Book Difference	3,369,128	3,374,770	3,380,412	3,386,053	3,391,695	3,397,337	3,402,978	3,408,620	3,414,262	3,419,903	3,425,545	3,431,187
	7 Income Tax Rate 1/	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	1,393,808	1,396,142	1,398,476	1,400,810	1,403,144	1,405,478	1,407,812	1,410,146	1,412,480	1,414,814	1,417,148	1,419,482
	9 Deferred Tax Expense debit / (Credit)	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	5,667,818	5,654,150	5,640,482	5,626,814	5,613,146	5,599,478	5,585,810	5,572,142	5,558,474	5,544,806	5,531,138	5,517,470
	2 Less: ADITL - Def Taxes	(1,393,808)	(1,396,142)	(1,398,476)	(1,400,810)	(1,403,144)	(1,405,478)	(1,407,812)	(1,410,146)	(1,412,480)	(1,414,814)	(1,417,148)	(1,419,482)
	3 Plus: ADITA - NOL	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474	1,391,474
	4 Rate Base	5,665,484	5,649,482	5,633,480	5,617,478	5,601,477	5,585,475	5,569,473	5,553,471	5,537,469	5,521,467	5,505,465	5,489,463
	5 Average Rate Base	5,673,485	5,657,483	5,641,481	5,625,479	5,609,478	5,593,476	5,577,474	5,561,472	5,545,470	5,529,468	5,513,466	5,497,464
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	26,639	26,563	26,488	26,413	26,338	26,263	26,188	26,113	26,038	25,962	25,887	25,812
	9 Income Tax Component	18,797	18,744	18,691	18,637	18,584	18,531	18,478	18,425	18,372	18,319	18,266	18,213
	10 Interest Expense Component	12,009	11,975	11,941	11,907	11,873	11,840	11,806	11,772	11,738	11,704	11,670	11,636
	11 Total Return on Average Rate Base	57,444	57,282	57,120	56,958	56,796	56,634	56,472	56,310	56,148	55,986	55,824	55,662
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	71,112	70,950	70,788	70,626	70,464	70,302	70,140	69,978	69,816	69,654	69,492	69,330

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 Tri-County Substation

Bison Tri-County Sub
Project ID# 106805
In Service 6/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	5,667,818	5,654,150	5,640,482	5,626,814	5,613,146	5,599,478	5,585,810	5,572,142	5,558,474	5,544,806	5,531,138	5,517,470
	2 Less: ADITL - Def Taxes	(1,393,808)	(1,396,142)	(1,398,476)	(1,400,810)	(1,403,144)	(1,405,478)	(1,407,812)	(1,410,146)	(1,412,480)	(1,414,814)	(1,417,148)	(1,419,482)
	3 Plus: ADITA - NOL (Stand Alone)	755,126	740,848	726,671	712,593	698,615	684,736	670,956	657,274	643,691	630,205	616,817	603,526
	4 Rate Base	5,029,136	4,998,856	4,968,677	4,938,597	4,908,617	4,878,736	4,848,954	4,819,270	4,789,685	4,760,197	4,730,807	4,701,514
	5 Average Rate Base	5,044,326	5,013,996	4,983,767	4,953,637	4,923,607	4,893,677	4,863,845	4,834,112	4,804,478	4,774,941	4,745,502	4,716,161
	7 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	9 After Tax Return on Equity	23,685	23,542	23,400	23,259	23,118	22,977	22,837	22,698	22,558	22,420	22,281	22,144
	10 Income Tax Component	16,712	16,612	16,511	16,412	16,312	16,213	16,114	16,016	15,917	15,820	15,722	15,625
	11 Interest Expense Component	10,677	10,613	10,549	10,485	10,422	10,358	10,295	10,232	10,169	10,107	10,045	9,983
	12 Total Return on Average Rate Base	51,074	50,767	50,461	50,156	49,852	49,548	49,246	48,945	48,645	48,346	48,048	47,751
	13 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	14 Depreciation Expense	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668	13,668
	15 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	64,742	64,435	64,129	63,824	63,520	63,216	62,914	62,613	62,313	62,014	61,716	61,419
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	64,742	64,435	64,129	63,824	63,520	63,216	62,914	62,613	62,313	62,014	61,716	61,419
	2 Tax Depreciation	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310	19,310
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	10,677	10,613	10,549	10,485	10,422	10,358	10,295	10,232	10,169	10,107	10,045	9,983
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	29,987	29,923	29,859	29,795	29,731	29,668	29,605	29,542	29,479	29,417	29,354	29,292
	7 Taxable Income (NOL)	34,755	34,512	34,270	34,029	33,788	33,549	33,310	33,072	32,834	32,598	32,362	32,127
	8 Current tax expense	14,378	14,278	14,177	14,078	13,978	13,879	13,780	13,682	13,584	13,486	13,388	13,291
	9 Taxable Income (NOL)	34,755	34,512	34,270	34,029	33,788	33,549	33,310	33,072	32,834	32,598	32,362	32,127
	10 NOL carryforward 4/	(1,860,054)	(1,825,299)	(1,790,787)	(1,756,517)	(1,722,488)	(1,688,700)	(1,655,151)	(1,621,842)	(1,588,770)	(1,555,936)	(1,523,338)	(1,490,977)
	11 Taxable Income after NOL carryforward	(1,825,299)	(1,790,787)	(1,756,517)	(1,722,488)	(1,688,700)	(1,655,151)	(1,621,842)	(1,588,770)	(1,555,936)	(1,523,338)	(1,490,977)	(1,458,850)
	12 Expected stand alone ADITA NOL	755,126	740,848	726,671	712,593	698,615	684,736	670,956	657,274	643,691	630,205	616,817	603,526
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	71,112	70,950	70,788	70,626	70,464	70,302	70,140	69,978	69,816	69,654	69,492	69,330
	2 Revenue Requirement: Stand Alone	64,742	64,435	64,129	63,824	63,520	63,216	62,914	62,613	62,313	62,014	61,716	61,419
	3 Revenue Requirement: Rider 5/	64,742	64,435	64,129	63,824	63,520	63,216	62,914	62,613	62,313	62,014	61,716	61,419
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	50,220	49,982	49,745	49,508	49,272	49,037	48,803	48,569	48,336	48,104	47,873	47,643

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
4/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
5/ Lesser of E1 or E2.
6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 230kV Line Extension

Bison 230 kV Line Ext
Project ID# 105476
In Service 6/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690
	2 Total Accumulated Depreciation	538,961	555,692	572,423	589,154	605,885	622,616	639,348	656,079	672,810	689,541	706,272	723,003
	3 Net Plant	6,924,729	6,907,998	6,891,267	6,874,536	6,857,805	6,841,074	6,824,343	6,807,612	6,790,880	6,774,149	6,757,418	6,740,687
	4 Total Depreciation	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690	7,463,690
	2 Accumulated Depreciation	4,675,504	4,698,924	4,722,344	4,745,764	4,769,183	4,792,603	4,816,023	4,839,443	4,862,862	4,886,282	4,909,702	4,933,122
	3 Net Plant	2,788,186	2,764,766	2,741,347	2,717,927	2,694,507	2,671,087	2,647,667	2,624,248	2,600,828	2,577,408	2,553,988	2,530,569
	4 Bonus Depreciation (50% 2014-2015)												
	5 Total Tax Depreciation (including bonus)	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420
	6 Tax Book Difference	4,136,543	4,143,232	4,149,921	4,156,609	4,163,298	4,169,987	4,176,675	4,183,364	4,190,053	4,196,741	4,203,430	4,210,119
	7 Income Tax Rate 1/	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	1,711,288	1,714,055	1,716,822	1,719,589	1,722,356	1,725,123	1,727,891	1,730,658	1,733,425	1,736,192	1,738,959	1,741,726
	9 Deferred Tax Expense debit / (Credit)	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	6,924,729	6,907,998	6,891,267	6,874,536	6,857,805	6,841,074	6,824,343	6,807,612	6,790,880	6,774,149	6,757,418	6,740,687
	2 Less: ADITL - Def Taxes	(1,711,288)	(1,714,055)	(1,716,822)	(1,719,589)	(1,722,356)	(1,725,123)	(1,727,891)	(1,730,658)	(1,733,425)	(1,736,192)	(1,738,959)	(1,741,726)
	3 Plus: ADITA - NOL	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521	1,708,521
	4 Rate Base	6,921,962	6,902,464	6,882,966	6,863,468	6,843,969	6,824,471	6,804,973	6,785,475	6,765,977	6,746,478	6,726,980	6,707,482
	5 Average Rate Base	6,931,711	6,912,213	6,892,715	6,873,217	6,853,719	6,834,220	6,814,722	6,795,224	6,775,726	6,756,228	6,736,729	6,717,231
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	32,546	32,455	32,363	32,272	32,180	32,089	31,997	31,906	31,814	31,722	31,631	31,539
	9 Income Tax Component	22,965	22,901	22,836	22,771	22,707	22,642	22,578	22,513	22,448	22,384	22,319	22,255
	10 Interest Expense Component	14,672	14,631	14,590	14,548	14,507	14,466	14,424	14,383	14,342	14,301	14,259	14,218
	11 Total Return on Average Rate Base	70,184	69,986	69,789	69,591	69,394	69,196	68,999	68,802	68,604	68,407	68,209	68,012
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731
	14 Property Tax	138	138	138	138	138	138	138	138	138	138	138	138
	15 Revenue Requirements	87,053	86,855	86,658	86,460	86,263	86,066	85,868	85,671	85,473	85,276	85,078	84,881

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Bison 4 230kV Line Extension

Bison 230 kV Line Ext
Project ID# 105476
In Service 6/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	6,924,729	6,907,998	6,891,267	6,874,536	6,857,805	6,841,074	6,824,343	6,807,612	6,790,880	6,774,149	6,757,418	6,740,687
	2 Less: ADITL - Def Taxes	(1,711,288)	(1,714,055)	(1,716,822)	(1,719,589)	(1,722,356)	(1,725,123)	(1,727,891)	(1,730,658)	(1,733,425)	(1,736,192)	(1,738,959)	(1,741,726)
	3 Plus: ADITA - NOL (Stand Alone)	888,871	871,482	854,215	837,070	820,046	803,142	786,359	769,696	753,153	736,728	720,423	704,236
	4 Rate Base	6,102,312	6,065,425	6,028,660	5,992,017	5,955,495	5,919,092	5,882,811	5,846,650	5,810,609	5,774,686	5,738,882	5,703,197
	5 Average Rate Base	6,120,817	6,083,869	6,047,043	6,010,338	5,973,756	5,937,293	5,900,952	5,864,731	5,828,629	5,792,647	5,756,784	5,721,040
	6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	28,739	28,565	28,393	28,220	28,048	27,877	27,707	27,537	27,367	27,198	27,030	26,862
	9 Income Tax Component	20,279	20,156	20,034	19,913	19,791	19,671	19,550	19,430	19,311	19,191	19,073	18,954
	10 Interest Expense Component	12,956	12,878	12,800	12,722	12,644	12,567	12,490	12,414	12,337	12,261	12,185	12,110
	11 Total Return on Average Rate Base	61,973	61,599	61,226	60,855	60,484	60,115	59,747	59,380	59,015	58,651	58,287	57,926
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731	16,731
	14 Property Tax	138	138	138	138	138	138	138	138	138	138	138	138
	15 Revenue Requirements	78,842	78,468	78,095	77,724	77,353	76,984	76,616	76,250	75,884	75,520	75,157	74,795
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	78,842	78,468	78,095	77,724	77,353	76,984	76,616	76,250	75,884	75,520	75,157	74,795
	2 Tax Depreciation	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420	23,420
	3 Property Tax	138	138	138	138	138	138	138	138	138	138	138	138
	4 Interest Expense (including on CWIP)	12,956	12,878	12,800	12,722	12,644	12,567	12,490	12,414	12,337	12,261	12,185	12,110
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	36,513	36,435	36,357	36,280	36,202	36,125	36,048	35,971	35,895	35,819	35,743	35,667
	7 Taxable Income (NOL)	42,329	42,033	41,738	41,444	41,151	40,859	40,568	40,278	39,989	39,701	39,414	39,127
	8 Current tax expense	17,511	17,389	17,267	17,145	17,024	16,903	16,783	16,663	16,543	16,424	16,305	16,187
	9 Taxable Income (NOL)	42,329	42,033	41,738	41,444	41,151	40,859	40,568	40,278	39,989	39,701	39,414	39,127
	10 NOL carryforward 4/	(2,190,918)	(2,148,589)	(2,106,556)	(2,064,818)	(2,023,374)	(1,982,223)	(1,941,364)	(1,900,796)	(1,860,517)	(1,820,529)	(1,780,828)	(1,741,414)
	11 Taxable Income after NOL carryforward	(2,148,589)	(2,106,556)	(2,064,818)	(2,023,374)	(1,982,223)	(1,941,364)	(1,900,796)	(1,860,517)	(1,820,529)	(1,780,828)	(1,741,414)	(1,702,287)
	12 Expected stand alone ADITA NOL	888,871	871,482	854,215	837,070	820,046	803,142	786,359	769,696	753,153	736,728	720,423	704,236
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	87,053	86,855	86,658	86,460	86,263	86,066	85,868	85,671	85,473	85,276	85,078	84,881
	2 Revenue Requirement: Stand Alone	78,842	78,468	78,095	77,724	77,353	76,984	76,616	76,250	75,884	75,520	75,157	74,795
	3 Revenue Requirement: Rider 5/	78,842	78,468	78,095	77,724	77,353	76,984	76,616	76,250	75,884	75,520	75,157	74,795
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	61,158	60,868	60,579	60,290	60,003	59,717	59,431	59,147	58,863	58,581	58,299	58,018

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
4/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
5/ Lesser of E1 or E2.
6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Center-Hesket Line

Center-Hesket Line
Project ID# 106277
In Service 10/31/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716
	2 Total Accumulated Depreciation	127,648	132,519	137,389	142,260	147,130	152,001	156,871	161,742	166,612	171,483	176,353	181,224
	3 Net Plant	2,045,068	2,040,197	2,035,327	2,030,456	2,025,586	2,020,715	2,015,845	2,010,974	2,006,104	2,001,233	1,996,363	1,991,492
	4 Total Depreciation	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871
	5 Book Depreciation Rate (2.69% pa)	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%	0.224%
B	Tax Basis of Property												
	1 Plant in Service	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716	2,172,716
	2 Accumulated Depreciation	1,310,033	1,317,284	1,324,536	1,331,787	1,339,038	1,346,290	1,353,541	1,360,792	1,368,043	1,375,295	1,382,546	1,389,797
	3 Net Plant	862,683	855,432	848,180	840,929	833,678	826,426	819,175	811,924	804,673	797,421	790,170	782,919
	4 Bonus Depreciation (50% 2014-15)												
	5 Total Tax Depreciation (including bonus)	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251
	6 Tax Book Difference	1,182,385	1,184,766	1,187,146	1,189,527	1,191,908	1,194,289	1,196,670	1,199,050	1,201,431	1,203,812	1,206,193	1,208,573
	7 Income Tax Rate 1/	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	489,153	490,138	491,122	492,107	493,092	494,077	495,062	496,047	497,032	498,017	499,002	499,987
	9 Deferred Tax Expense debit / (Credit)	985	985	985	985	985	985	985	985	985	985	985	985
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	2,045,068	2,040,197	2,035,327	2,030,456	2,025,586	2,020,715	2,015,845	2,010,974	2,006,104	2,001,233	1,996,363	1,991,492
	2 Less: ADITL - Def Taxes	(489,153)	(490,138)	(491,122)	(492,107)	(493,092)	(494,077)	(495,062)	(496,047)	(497,032)	(498,017)	(499,002)	(499,987)
	3 Plus: ADITA - NOL	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168	488,168
	4 Rate Base	2,044,083	2,038,227	2,032,372	2,026,517	2,020,661	2,014,806	2,008,950	2,003,095	1,997,239	1,991,384	1,985,529	1,979,673
	5 Average Rate Base	2,047,011	2,041,155	2,035,300	2,029,444	2,023,589	2,017,733	2,011,878	2,006,023	2,000,167	1,994,312	1,988,456	1,982,601
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	9,611	9,584	9,556	9,529	9,501	9,474	9,446	9,419	9,391	9,364	9,336	9,309
	9 Income Tax Component	6,782	6,762	6,743	6,724	6,704	6,685	6,665	6,646	6,627	6,607	6,588	6,568
	10 Interest Expense Component	4,333	4,320	4,308	4,296	4,283	4,271	4,258	4,246	4,234	4,221	4,209	4,197
	11 Total Return on Average Rate Base	20,726	20,667	20,607	20,548	20,489	20,430	20,370	20,311	20,252	20,192	20,133	20,074
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	25,596	25,537	25,478	25,419	25,359	25,300	25,241	25,181	25,122	25,063	25,004	24,944

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415. Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: Center-Hesket Line

Center-Hesket Line
Project ID# 106277
In Service 10/31/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	2,045,068	2,040,197	2,035,327	2,030,456	2,025,586	2,020,715	2,015,845	2,010,974	2,006,104	2,001,233	1,996,363	1,991,492
	2 Less: ADITL - Def Taxes	(489,153)	(490,138)	(491,122)	(492,107)	(493,092)	(494,077)	(495,062)	(496,047)	(497,032)	(498,017)	(499,002)	(499,987)
	3 Plus: ADITA - NOL (Stand Alone)	290,859	285,744	280,665	275,622	270,615	265,644	260,709	255,810	250,946	246,117	241,324	236,567
	4 Rate Base	1,846,774	1,835,804	1,824,869	1,813,971	1,803,108	1,792,282	1,781,492	1,770,737	1,760,018	1,749,333	1,738,685	1,728,072
	5 Average Rate Base	1,852,278	1,841,289	1,830,336	1,819,420	1,808,540	1,797,695	1,786,887	1,776,114	1,765,377	1,754,675	1,744,009	1,733,379
	6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	8,697	8,645	8,594	8,543	8,492	8,441	8,390	8,339	8,289	8,239	8,189	8,139
	9 Income Tax Component	6,137	6,100	6,064	6,028	5,992	5,956	5,920	5,884	5,849	5,813	5,778	5,743
	10 Interest Expense Component	3,921	3,897	3,874	3,851	3,828	3,805	3,782	3,759	3,737	3,714	3,691	3,669
	11 Total Return on Average Rate Base	18,754	18,643	18,532	18,422	18,311	18,202	18,092	17,983	17,874	17,766	17,658	17,550
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871	4,871
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	23,625	23,514	23,403	23,292	23,182	23,072	22,963	22,854	22,745	22,637	22,529	22,421
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	23,625	23,514	23,403	23,292	23,182	23,072	22,963	22,854	22,745	22,637	22,529	22,421
	2 Tax Depreciation	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	3,921	3,897	3,874	3,851	3,828	3,805	3,782	3,759	3,737	3,714	3,691	3,669
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	11,172	11,149	11,125	11,102	11,079	11,056	11,034	11,011	10,988	10,965	10,943	10,920
	7 Taxable Income (NOL)	12,453	12,365	12,277	12,190	12,103	12,016	11,929	11,843	11,757	11,671	11,586	11,501
	8 Current tax expense	5,152	5,115	5,079	5,043	5,007	4,971	4,935	4,899	4,864	4,828	4,793	4,758
	9 Taxable Income (NOL)	12,453	12,365	12,277	12,190	12,103	12,016	11,929	11,843	11,757	11,671	11,586	11,501
	10 NOL carryforward 4/	(715,521)	(703,068)	(690,703)	(678,426)	(666,237)	(654,134)	(642,118)	(630,189)	(618,346)	(606,589)	(594,918)	(583,332)
	11 Taxable Income after NOL carryforward	(703,068)	(690,703)	(678,426)	(666,237)	(654,134)	(642,118)	(630,189)	(618,346)	(606,589)	(594,918)	(583,332)	(571,831)
	12 Expected stand alone ADITA NOL	290,859	285,744	280,665	275,622	270,615	265,644	260,709	255,810	250,946	246,117	241,324	236,567
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	25,596	25,537	25,478	25,419	25,359	25,300	25,241	25,181	25,122	25,063	25,004	24,944
	2 Revenue Requirement: Stand Alone	23,625	23,514	23,403	23,292	23,182	23,072	22,963	22,854	22,745	22,637	22,529	22,421
	3 Revenue Requirement: Rider 5/	23,625	23,514	23,403	23,292	23,182	23,072	22,963	22,854	22,745	22,637	22,529	22,421
	4 MN Jurisdictional Allocator 6/	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570	0.77570
	5 MN Jurisdictional Revenue Requirement	18,326	18,239	18,153	18,068	17,982	17,897	17,812	17,728	17,643	17,559	17,475	17,392

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12). Refer to Exhibit B-3 for CWIP calculations.
(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.
Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.
4/ For in-service year, any positive taxable income from return on CWIP is added to first month of taxable loss to establish the correct first month NOL ADITA.
5/ Lesser of E1 or E2.
6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: V-Mode Software

Bison Software

ID# 108487 r3

In Service 1/31/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP (net of contra AFDC & internal costs)												
	1 Plant in Service (net of contra AFDC & Internal costs)	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693
	2 Total Accumulated Depreciation	40,346	43,574	46,801	50,029	53,257	56,485	59,712	62,940	66,168	69,395	72,623	75,851
	3 Net Plant	540,347	537,119	533,892	530,664	527,436	524,209	520,981	517,753	514,526	511,298	508,070	504,843
	4 Total Depreciation	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228
	5 Book Depreciation Rate (6.67% pa)	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%	0.556%
B	Tax Basis of Property												
	1 Plant in Service	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693	580,693
	2 Accumulated Depreciation	356,158	363,901	371,644	379,386	387,129	394,871	402,614	410,357	418,099	425,842	433,584	441,327
	3 Net Plant	224,535	216,792	209,050	201,307	193,564	185,822	178,079	170,337	162,594	154,852	147,109	139,366
	4 Bonus Depreciation (50% 2016)												
	5 Total Tax Depreciation (including bonus)	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743
	6 Tax Book Difference	315,812	320,327	324,842	329,357	333,872	338,387	342,902	347,417	351,932	356,446	360,961	365,476
	7 Income Tax Rate 1/	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	130,652	132,519	134,387	136,255	138,123	139,991	141,858	143,726	145,594	147,462	149,330	151,197
	9 Deferred Tax Expense debit / (Credit)	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
	10 ADITA for NOL Carryforward 2/												
	11 Carryforward utilized	-	-	-	-	-	-	-	-	-	-	-	-
	12 ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
C-1	Revenue Requirements - Consolidated NOL												
	1 Net Plant	540,347	537,119	533,892	530,664	527,436	524,209	520,981	517,753	514,526	511,298	508,070	504,843
	2 Less: ADITL - Def Taxes	(130,652)	(132,519)	(134,387)	(136,255)	(138,123)	(139,991)	(141,858)	(143,726)	(145,594)	(147,462)	(149,330)	(151,197)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	409,696	404,600	399,505	394,409	389,314	384,218	379,123	374,027	368,932	363,836	358,741	353,645
	5 Average Rate Base	412,243	407,148	402,052	396,957	391,861	386,766	381,670	376,575	371,479	366,384	361,288	356,193
	6 Current Return on CWIP 3/												
	7 Return on Average Rate Base 3/												
	8 After Tax Return on Equity	1,936	1,912	1,888	1,864	1,840	1,816	1,792	1,768	1,744	1,720	1,696	1,672
	9 Income Tax Component	1,366	1,349	1,332	1,315	1,298	1,281	1,264	1,248	1,231	1,214	1,197	1,180
	10 Interest Expense Component	873	862	851	840	829	819	808	797	786	776	765	754
	11 Total Return on Average Rate Base	4,174	4,122	4,071	4,019	3,968	3,916	3,864	3,813	3,761	3,710	3,658	3,606
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	7,402	7,350	7,298	7,247	7,195	7,144	7,092	7,041	6,989	6,937	6,886	6,834

1/ Minnesota Composite Income Tax Rate.

2/ All MP rider NOL computations use FIFO for NOL, with all Transmission Cost Recovery Rider (TCR) projects computed first.

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Minnesota Power
Renewable Resources Rider
Revenue Requirements: V-Mode Software

Bison Software

ID# 108487 r3

In Service 1/31/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	540,347	537,119	533,892	530,664	527,436	524,209	520,981	517,753	514,526	511,298	508,070	504,843
	2 Less: ADITL - Def Taxes	(130,652)	(132,519)	(134,387)	(136,255)	(138,123)	(139,991)	(141,858)	(143,726)	(145,594)	(147,462)	(149,330)	(151,197)
	3 Plus: ADITA - NOL (Stand Alone)	106,998	107,162	107,342	107,539	107,752	107,981	108,226	108,487	108,764	109,058	109,367	109,691
	4 Rate Base	516,694	511,762	506,847	501,948	497,066	492,199	487,349	482,514	477,696	472,894	468,108	463,336
	5 Average Rate Base	519,167	514,228	509,304	504,397	499,507	494,632	489,774	484,931	480,105	475,295	470,501	465,722
	6 Current Return on CWIP 3/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	2,438	2,414	2,391	2,368	2,345	2,322	2,300	2,277	2,254	2,232	2,209	2,187
	9 Income Tax Component	1,720	1,704	1,687	1,671	1,655	1,639	1,623	1,607	1,591	1,575	1,559	1,543
	10 Interest Expense Component	1,099	1,088	1,078	1,068	1,057	1,047	1,037	1,026	1,016	1,006	996	986
	11 Total Return on Average Rate Base	5,257	5,207	5,157	5,107	5,058	5,008	4,959	4,910	4,861	4,812	4,764	4,715
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228	3,228
	14 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	8,484	8,434	8,384	8,335	8,285	8,236	8,187	8,138	8,089	8,040	7,992	7,943
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	8,484	8,434	8,384	8,335	8,285	8,236	8,187	8,138	8,089	8,040	7,992	7,943
	2 Tax Depreciation	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743	7,743
	3 Property Tax	-	-	-	-	-	-	-	-	-	-	-	-
	4 Interest Expense (including on CWIP)	1,099	1,088	1,078	1,068	1,057	1,047	1,037	1,026	1,016	1,006	996	986
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	8,841	8,831	8,821	8,810	8,800	8,790	8,779	8,769	8,759	8,749	8,738	8,728
	7 Taxable Income (NOL)	(357)	(397)	(436)	(476)	(515)	(554)	(593)	(631)	(670)	(709)	(747)	(785)
	8 Current tax expense	(148)	(164)	(180)	(197)	(213)	(229)	(245)	(261)	(277)	(293)	(309)	(325)
	9 Taxable Income (NOL)	(357)	(397)	(436)	(476)	(515)	(554)	(593)	(631)	(670)	(709)	(747)	(785)
	10 NOL carryforward 4/	(258,278)	(258,636)	(259,032)	(259,469)	(259,944)	(260,459)	(261,012)	(261,605)	(262,236)	(262,907)	(263,615)	(264,362)
	11 Taxable Income after NOL carryforward	(258,636)	(259,032)	(259,469)	(259,944)	(260,459)	(261,012)	(261,605)	(262,236)	(262,907)	(263,615)	(264,362)	(265,147)
	12 Expected stand alone ADITA NOL	106,998	107,162	107,342	107,539	107,752	107,981	108,226	108,487	108,764	109,058	109,367	109,691
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	7,402	7,350	7,298	7,247	7,195	7,144	7,092	7,041	6,989	6,937	6,886	6,834
	2 Revenue Requirement: Stand Alone	8,484	8,434	8,384	8,335	8,285	8,236	8,187	8,138	8,089	8,040	7,992	7,943
	3 Revenue Requirement: Rider 5/	7,402	7,350	7,298	7,247	7,195	7,144	7,092	7,041	6,989	6,937	6,886	6,834
	4 MN Jurisdictional Allocator 6/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	6,071	6,028	5,986	5,944	5,901	5,859	5,817	5,774	5,732	5,690	5,647	5,605

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

(Avg Rate Base x ROR% / 12). Prior to 4/1/11 pre-tax ROR is 12.61% from 2008 MPUC rate case, Docket No E-015/GR-08-415.

Beginning 4/1/11, pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

5/ Lesser of E1 or E2.

6/ Refer to Exhibit B-8.

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	
50MW DC Line Upgrade Ph 1 G2 In Service 12/20/2012	692,749																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	26,270	149,536	192,139	192,139	
CapEx	906,247	0	0	0	0	0	0	0	0	0	0	172	1,645	2,368	2,141	27,226	124,573	43,058	1,839	126,759	
Less Internal Cost	-213,498	0	0	0	0	0	0	0	0	0	0	-172	-1,645	-2,368	-2,127	-970	-1,307	-455	-1,839	-3,489	
AFUDC	65	0	0	0	0	0	0	0	0	0	0	1	7	21	36	0	0	0	0	0	
Less AFUDC on Internal Cost	-65	0	0	0	0	0	0	0	0	0	0	-1	-7	-21	-36	0	0	0	0	0	
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	14	26,270	149,536	192,139	192,139	315,409	
Return on CWIP																					
After Tax Return on Equity												0	0	0	0	62	413	802	902	1,192	
Income Tax Component												0	0	0	0	44	291	566	637	841	
Interest Expense Component												0	0	0	0	28	186	362	407	537	
Total Return on CWIP												0	0	0	0	133	890	1,730	1,945	2,569	
50MW DC Line Upgrade Ph 1 G3 In Service 11/15/2012	574,337																				
BOM		273	31,107	31,107	31,107	35,157	36,663	289,502	333,405	42,570	2,664	2,664	2,664	2,664	10,918	18,090	21,297	21,297	21,297	21,297	
CapEx	604,029	30,863	0	1,056	4,590	3,120	256,314	38,478	-290,960	-39,986	0	0	0	35,885	7,187	3,209	0	0	0	344	
Less Internal Cost	-29,694	-29	0	-1,056	-540	-1,614	-3,475	5,425	125	80	0	0	0	-27,631	-15	-2	0	0	0	-344	
AFUDC	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Less AFUDC on Internal Cost	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	
EOM		31,107	31,107	31,107	35,157	36,663	289,502	333,405	42,570	2,664	2,664	2,664	2,664	10,918	18,090	21,297	21,297	21,297	21,297	21,297	
Return on CWIP																					
After Tax Return on Equity		77	153	153	163	176	800	1,528	922	111	13	13	13	32	68	92	100	100	100	100	
Income Tax Component		54	108	108	115	124	564	1,078	651	78	9	9	9	22	48	65	71	71	71	71	
Interest Expense Component		34	67	67	71	77	349	667	403	48	6	6	6	14	31	42	45	45	45	45	
Total Return on CWIP		165	327	327	348	377	1,714	3,273	1,975	238	28	27	27	69	147	199	216	216	216	216	
50MW DC Line Upgrade Ph 2 In Service 11/22/2013	2,622,116																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,753,614	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	-131,497	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-1	0	0	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	0	0	0
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Bison 2 Wind, 105 MW In Service 12/18/2012	141,718,898																				
BOM		0	0	0	0	0	0	0	0	0	0	1,003,460	1,023,902	1,132,368	1,404,087	1,428,263	1,674,493	9,597,329	23,312,020	27,141,242	
CapEx	142,906,940	0	0	0	0	0	0	0	0	0	1,008,584	30,784	138,593	306,770	89,660	302,612	7,983,962	13,776,397	3,876,535	8,579,102	
Less Internal Cost	-1,234,847	0	0	0	0	0	0	0	0	0	-8,584	-17,308	-37,489	-43,795	-75,189	-66,952	-61,126	-61,706	-47,313	-39,364	
AFUDC	50,358	0	0	0	0	0	0	0	0	0	3,489	7,085	7,671	9,338	10,709	12,066	0	0	0	0	
Less AFUDC on Internal Cost	-3,552	0	0	0	0	0	0	0	0	0	-30	-119	-309	-593	-1,005	-1,497	0	0	0	0	
EOM		0	0	0	0	0	0	0	0	0	1,003,460	1,023,902	1,132,368	1,404,087	1,428,263	1,674,493	9,597,329	23,312,020	27,141,242	35,680,980	
Return on CWIP																					
After Tax Return on Equity																		26,462	77,259	118,446	147,484
Income Tax Component																		18,672	54,515	83,577	104,067
Interest Expense Component																		11,929	34,829	53,996	66,487
Total Return on CWIP																		57,064	166,604	255,420	318,038
Bison 2 Substation Addition In Service 7/24/2012	4,122,952																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	904	44,670	128,142	138,310	74,956	82,232	271,703	
CapEx	4,653,753	0	0	0	0	0	0	0	0	0	383	7,647	1,863	46,851	95,309	15,118	-54,803	13,791	203,055	403,707	
Less Internal Cost	-532,470	0	0	0	0	0	0	0	0	0	-383	-7,647	-962	-3,243	-12,432	-5,863	-8,552	-6,514	-13,584	-21,636	
AFUDC	2,152	0	0	0	0	0	0	0	0	0	1	29	62	231	723	1,105	0	0	0	0	
Less AFUDC on Internal Cost	-483	0	0	0	0	0	0	0	0	0	-1	-29	-59	-74	-128	-192	0	0	0	0	
EOM		0	0	0	0	0	0	0	0	0	0	0	904	44,670	128,142	138,310	74,956	82,232	271,703	653,774	
Return on CWIP																					
After Tax Return on Equity																		501	369	831	2,173
Income Tax Component																		353	260	586	1,533
Interest Expense Component																		226	166	375	979
Total Return on CWIP																		1,080	796	1,792	4,685

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	
Bison 3 Wind, 105 MW In Service 12/18/2012	142,767,741																			
BOM		142,841,264	142,841,264	142,841,264	142,841,264	142,841,264	142,841,264	142,841,264	142,776,350	142,774,994	142,774,994	142,774,994	142,767,222							
CapEx	143,589,205	0	0	0	0	0	0	-65,010	-1,357	0	0	-7,785	519							
Less Internal Cost	-875,480	0	0	0	0	0	0	96	0	0	0	14	-1							
AFUDC	55,306	0	0	0	0	0	0	0	0	0	0	0	0							
Less AFUDC on Internal Cost	-1,290	0	0	0	0	0	0	0	0	0	0	0	0							
EOM		142,841,264	142,841,264	142,841,264	142,841,264	142,841,264	142,841,264	142,776,350	142,774,994	142,774,994	142,774,994	142,767,222	142,767,741							
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Bison 3 Substation Addition	4,843,878																			
In Service 8/1/2012		4,580,626																		
BOM		4,580,626																		
CapEx	5,178,108	263,686																		
Less Internal Cost	-334,417	-434																		
AFUDC	247	0																		
Less AFUDC on Internal Cost	-60	0																		
EOM		4,843,878																		
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Bison 4 Wind	308,464,656																			
In Service 12/31/2014		306,417,703	306,799,909	307,344,610	307,492,701	307,571,750	307,884,793	308,315,866	308,624,803	308,516,262	308,534,903	308,510,950	308,471,579	308,446,590	308,446,676	308,453,404	308,460,082	308,460,087	308,460,087	308,463,666
BOM		306,417,703	306,799,909	307,344,610	307,492,701	307,571,750	307,884,793	308,315,866	308,624,803	308,516,262	308,534,903	308,510,950	308,471,579	308,446,590	308,446,676	308,453,404	308,460,082	308,460,087	308,460,087	308,463,666
CapEx	309,119,206	533,006	570,235	181,965	105,183	341,936	455,839	321,280	-97,085	28,408	-13,361	-37,465	-23,792	504	6,889	6,704	519	3,586	991	
Less Internal Cost	-1,743,184	-150,799	-25,535	-33,874	-26,134	-28,892	-24,767	-12,343	-11,456	-9,767	-10,592	-1,905	-1,197	-418	-161	-26	-514	-7	-1	
AFUDC	1,096,006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-7,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM		306,799,909	307,344,610	307,492,701	307,571,750	307,884,793	308,315,866	308,624,803	308,516,262	308,534,903	308,510,950	308,471,579	308,446,590	308,446,676	308,453,404	308,460,082	308,460,087	308,460,087	308,463,666	308,464,656
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Bison 4 Substation Addition	5,406,728																			
In Service 6/24/2014		5,332,373	5,333,486	5,335,342	5,337,488	5,339,029	5,339,032	5,339,454	5,339,729	5,339,732	5,340,937	5,403,247	5,403,511	5,404,804	5,404,804	5,405,999	5,405,999	5,405,999	5,405,999	5,406,728
BOM		5,332,373	5,333,486	5,335,342	5,337,488	5,339,029	5,339,032	5,339,454	5,339,729	5,339,732	5,340,937	5,403,247	5,403,511	5,404,804	5,404,804	5,405,999	5,405,999	5,405,999	5,405,999	5,406,728
CapEx	5,951,595	5,293	5,323	4,515	4,983	863	1,059	906	786	1,938	84,706	1,459	2,358	0	1,200	0	0	0	731	
Less Internal Cost	-568,873	-4,181	-3,467	-2,369	-3,442	-860	-637	-631	-784	-733	-22,397	-1,194	-1,065	0	-5	0	0	0	-2	
AFUDC	25,174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-1,168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM		5,333,486	5,335,342	5,337,488	5,339,029	5,339,032	5,339,454	5,339,729	5,339,732	5,340,937	5,403,247	5,403,511	5,404,804	5,404,804	5,405,999	5,405,999	5,405,999	5,405,999	5,406,728	
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Tri-County Substation	6,097,256																			
In Service 6/25/2014		6,069,772	6,077,482	6,093,731	6,095,522	6,095,522	6,095,522	6,095,555	6,095,555	6,095,555	6,096,060	6,096,358	6,096,511	6,096,939	6,096,939					
BOM		6,069,772	6,077,482	6,093,731	6,095,522	6,095,522	6,095,522	6,095,555	6,095,555	6,095,555	6,096,060	6,096,358	6,096,511	6,096,939	6,096,939					
CapEx	6,558,002	10,741	19,150	2,632	0	0	742	0	0	506	3,083	414	1,097	0	319					
Less Internal Cost	-487,186	-3,031	-2,902	-841	0	0	-709	0	0	-1	-2,785	-261	-670	0	-1					
AFUDC	27,880	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Less AFUDC on Internal Cost	-1,440	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
EOM		6,077,482	6,093,731	6,095,522	6,095,522	6,095,522	6,095,555	6,095,555	6,095,555	6,096,060	6,096,358	6,096,511	6,096,939	6,096,939	6,097,256					
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	to date Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10		
230 kV Transmission Line Ext. In Service 6/25/2014	7,463,690																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	7,636,839	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost	-233,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	61,548	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-1,194	0	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	0	0	
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Center-Hesket Line In Service 10/22/2014	2,172,716																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	2,131,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost	-2,045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	43,467	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-78	0	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	0	0	
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Bison Software In Service 1/31/2016	580,693																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	579,674	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost	-831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	1,852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-3	0	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	0	0	
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Total	795,615,372																				
BOM		0	676,763	14,672,007	14,821,975	15,333,562	21,568,549	21,849,880	22,390,623	22,735,202	23,377,810	24,288,244	25,063,594	25,724,372	27,696,674	47,341,825	48,160,722	48,712,617	49,640,401		
CapEx	801,908,370	868,707	14,174,856	82,921	454,915	6,196,171	172,529	438,718	291,077	556,652	833,042	721,808	589,754	1,902,038	19,732,156	644,606	380,318	1,015,417	1,861,928		
Less Internal Cost	-10,255,336	-206,128	-177,452	-38,792	-50,784	-92,104	-44,588	-56,766	-107,330	-77,266	-90,237	-118,938	-105,376	-121,509	-344,948	-152,614	-157,807	-87,633	-123,236		
AFUDC	4,085,187	20,132	0	108,778	110,717	134,698	157,660	163,555	166,186	169,243	174,253	179,859	184,588	201,055	268,492	339,179	342,735	0	0		
Less AFUDC on Internal Cost	-122,849	-5,948	-2,159	-2,939	-3,262	-3,777	-4,270	-4,763	-5,355	-6,021	-6,625	-7,379	-8,188	-9,282	-10,549	-12,275	-13,352	0	0		
EOM		676,763	14,672,007	14,821,975	15,333,562	21,568,549	21,849,880	22,390,623	22,735,202	23,377,810	24,288,244	25,063,594	25,724,372	27,696,674	47,341,825	48,160,722	48,712,617	49,640,401	51,379,094		
Return on CWIP																					
After Tax Return on Equity	25,433,539	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241,229	247,769	
Income Tax Component	17,946,218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170,214	174,829	
Interest Expense Component	11,420,577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105,320	108,175	
Total Return on CWIP	54,800,334	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	516,763	530,773	

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	
230 kV Transmission Line Ext. In Service 6/25/2014	7,463,690																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50,000	57,578
CapEx	7,636,839	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52,584	16,468
Less Internal Cost	-233,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2,584	-8,890
AFUDC	61,548	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-1,194	0	0	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	50,000	57,578	106,640
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Center-Hesket Line In Service 10/22/2014	2,172,716																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	2,131,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	-2,045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	43,467	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-78	0	0	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	0	0	0
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Bison Software In Service 1/31/2016	580,693																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	579,674	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Internal Cost	-831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	1,852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-3	0	0	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	0	0	0
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Total	795,615,372																				
BOM		51,379,094	60,874,995	86,414,942	93,369,531	98,248,207	99,974,313	100,562,752	117,420,486	128,355,654	128,508,946	129,689,944	130,559,042	131,590,951	135,352,564	138,102,529	153,957,770	165,023,751	184,455,091	201,766,042	
CapEx	801,908,370	9,659,812	25,753,932	7,128,049	5,061,617	1,841,623	701,021	16,896,973	10,985,374	243,918	1,234,516	946,506	1,132,550	3,887,850	2,906,597	15,993,088	11,185,919	19,541,041	17,453,384	15,596,732	
Less Internal Cost	-10,255,336	-163,911	-213,984	-173,461	-182,941	-115,517	-112,583	-39,238	-50,206	-90,627	-56,977	-84,373	-108,007	-138,904	-174,644	-157,208	-128,650	-135,836	-142,433	-171,372	
AFUDC	4,085,187	0	0	0	0	0	0	0	0	3,491	7,115	7,740	13,364	19,254	21,248	9,105	26,811	0	0	1	
Less AFUDC on Internal Cost	-122,849	0	0	0	0	0	0	0	0	-31	-149	-375	-697	-1,243	-1,887	-392	-677	0	0	-1	
EOM		60,874,995	86,414,942	93,369,531	98,248,207	99,974,313	100,562,752	117,420,486	128,355,654	128,508,946	129,689,944	130,559,042	131,590,951	135,352,564	138,102,529	153,957,770	165,023,751	184,455,091	201,766,042	217,191,403	
Return on CWIP																					
After Tax Return on Equity	25,433,539	275,324	361,256	440,955	427,107	399,483	237,729	89,012	131,970	158,769	158,794	153,882	158,021	165,587	177,036	219,248	289,312	348,997	453,163	438,550	
Income Tax Component	17,946,218	194,272	254,907	311,143	301,372	281,880	167,745	62,808	93,120	112,030	112,047	108,581	111,502	116,840	124,918	154,704	204,142	246,257	319,757	309,447	
Interest Expense Component	11,420,577	120,205	157,723	192,519	186,473	174,412	103,792	38,862	57,618	69,318	69,329	69,371	71,237	74,648	79,809	98,838	130,424	157,330	204,289	197,702	
Total Return on CWIP	54,800,334	589,802	773,886	944,618	914,952	855,775	509,265	190,681	282,708	340,117	340,170	331,834	340,760	357,075	381,763	472,790	623,878	752,584	977,209	945,699	

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	
230 kV Transmission Line Ext. In Service 6/25/2014	7,463,690																			
BOM		106,640	125,720	147,928	213,364	226,829	227,169	247,128	253,329	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969
CapEx	7,636,839	25,913	35,476	68,214	13,468	340	19,974	6,207	641	0	0	0	0	0	586	0	974	4,138	10,839	
Less Internal Cost	-233,503	-6,833	-13,268	-2,778	-3	0	-15	-7	0	0	0	0	0	0	-586	0	-974	-4,138	-979	
AFUDC	61,548	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-1,194	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EOM		125,720	147,928	213,364	226,829	227,169	247,128	253,329	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	253,969	263,829
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Center-Hesket Line In Service 10/22/2014	2,172,716																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	46,152	46,455	46,758	47,061	
CapEx	2,131,372	0	0	0	0	0	0	0	0	0	0	0	0	0	46,051	0	0	0	801,481	
Less Internal Cost	-2,045	0	0	0	0	0	0	0	0	0	0	0	0	0	-51	0	0	0	-1,481	
AFUDC	43,467	0	0	0	0	0	0	0	0	0	0	0	0	0	152	303	303	303	2,951	
Less AFUDC on Internal Cost	-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0	46,152	46,455	46,758	47,061	850,007	
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Bison Software In Service 1/31/2016	580,693																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	579,674	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost	-831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	1,852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-3	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	0	
Return on CWIP																				
After Tax Return on Equity																				
Income Tax Component																				
Interest Expense Component																				
Total Return on CWIP																				
Total	795,615,372																			
BOM		217,191,403	220,464,878	228,009,210	233,688,883	315,001,045	366,531,176	390,330,070	398,779,939	421,058,616	425,382,741	426,417,047	438,827,688	462,235,601	457,632,218	462,560,261	462,678,481	462,707,241	462,721,200	
CapEx	801,908,370	3,377,654	7,676,104	5,804,938	81,515,047	51,765,119	24,192,441	8,670,458	22,459,136	4,450,208	1,169,393	12,666,273	23,649,834	-4,558,545	4,963,500	152,404	51,662	49,846	998,844	
Less Internal Cost	-10,255,336	-104,179	-131,773	-125,265	-202,885	-234,988	-393,546	-220,590	-180,458	-126,083	-135,088	-255,632	-241,920	-44,838	-35,608	-34,487	-23,205	-36,190	-9,250	
AFUDC	4,085,187	0	0	0	0	0	0	0	0	0	0	0	0	0	152	303	303	304	2,951	
Less AFUDC on Internal Cost	-122,849	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	
EOM		220,464,878	228,009,210	233,688,883	315,001,045	366,531,176	390,330,070	398,779,939	421,058,616	425,382,741	426,417,047	438,827,688	462,235,601	457,632,218	462,560,261	462,678,481	462,707,241	462,721,200	463,713,740	
Return on CWIP																				
After Tax Return on Equity	25,433,539	314,399	266,336	297,334	498,375	810,342	987,297	1,054,522	1,105,750	1,155,936	1,167,727	1,197,247	612,622	0	0	0	0	0	0	
Income Tax Component	17,946,218	221,844	187,930	209,803	351,660	571,788	696,649	744,084	780,231	815,643	823,963	844,792	432,274	0	0	0	0	0	0	
Interest Expense Component	11,420,577	141,733	120,066	134,040	224,671	365,308	445,081	475,386	498,480	521,104	526,420	539,727	276,174	0	0	0	0	0	0	
Total Return on CWIP	54,800,334	677,976	574,333	641,178	1,074,705	1,747,438	2,129,027	2,273,992	2,384,461	2,492,683	2,518,109	2,581,766	1,321,070	0	0	0	0	0	0	

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	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	
230 kV Transmission Line Ext. In Service 6/25/2014	7,463,690																			
BOM		263,829	263,989	264,849	271,094	452,048	2,168,448	4,804,192	5,569,412	5,803,259	6,792,160	7,546,116	<u>In-Service</u> 8,013,400	7,914,683	7,907,742	8,060,225	7,967,640	7,940,121	7,943,723	
CapEx	7,636,839	1,536	5,943	10,507	186,795	1,732,960	2,639,623	766,740	254,181	1,002,407	772,029	489,221	-96,958	-2,331	153,295	-92,645	-27,550	4,191	70,359	
Less Internal Cost	-233,503	-1,377	-5,104	-4,314	-6,474	-23,418	-25,023	-33,167	-20,334	-13,507	-18,072	-21,937	-1,759	-4,610	-812	60	31	-589	-26	
AFUDC	61,548	0	20	74	724	7,049	21,496	32,183	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-1,194	0	0	-22	-92	-191	-352	-537	0	0	0	0	0	0	0	0	0	0	0	
EOM		263,989	264,849	271,094	452,048	2,168,448	4,804,192	5,569,412	5,803,259	6,792,160	7,546,116	8,013,400	7,914,683	7,907,742	8,060,225	7,967,640	7,940,121	7,943,723	8,014,056	
Return on CWIP																				
After Tax Return on Equity									26,699	29,570	33,661	36,528	18,813							
Income Tax Component									18,839	20,865	23,752	25,775	13,274							
Interest Expense Component									<u>12,036</u>	<u>13,330</u>	<u>15,175</u>	<u>16,467</u>	<u>8,481</u>							
Total Return on CWIP									57,574	63,764	72,588	78,770	40,568							
Center-Hesket Line In Service 10/22/2014	2,172,716																			
BOM		850,007	855,588	861,169	866,750	872,332	877,913	883,697	889,389	889,389	889,389	889,389	889,389	889,389	889,389	889,389	<u>In-Service</u> 889,389	889,389	889,389	
CapEx	2,131,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,259,833	
Less Internal Cost	-2,045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-465	
AFUDC	43,467	5,591	5,591	5,591	5,591	5,591	5,795	5,702	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-78	-10	-10	-10	-10	-10	-10	-10	0	0	0	0	0	0	0	0	0	0	0	
EOM		855,588	861,169	866,750	872,332	877,913	883,697	889,389	889,389	889,389	889,389	889,389	889,389	889,389	889,389	889,389	889,389	889,389	2,148,757	
Return on CWIP																				
After Tax Return on Equity									4,176	4,176	4,176	4,176	4,176	4,176	4,176	4,176	2,088			
Income Tax Component									2,947	2,947	2,947	2,947	2,947	2,947	2,947	2,947	1,473			
Interest Expense Component									<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>1,883</u>	<u>941</u>			
Total Return on CWIP									9,005	9,005	9,005	9,005	9,005	9,005	9,005	9,005	4,503			
Bison Software In Service 1/31/2016	580,693																			
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CapEx	579,674	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less Internal Cost	-831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AFUDC	1,852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-3	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	0	
Return on CWIP																				
After Tax Return on Equity									0	0	0	0	0	0	0	0	0	0	0	
Income Tax Component									0	0	0	0	0	0	0	0	0	0	0	
Interest Expense Component									<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total Return on CWIP									0	0	0	0	0	0	0	0	0	0	0	
Total	795,615,372																			
BOM		463,713,740	463,711,504	466,324,650	471,350,376	489,464,428	512,590,565	520,788,626	523,478,614	636,650,287	651,141,902	667,935,714	684,296,620	708,761,448	727,896,467	745,693,588	748,872,765	750,514,605	751,778,109	
CapEx	801,908,370	-4,195	2,633,678	5,075,176	18,157,037	23,178,721	7,880,120	2,439,630	113,295,899	14,643,990	16,976,276	16,799,009	24,759,698	19,278,269	17,947,989	3,285,263	1,763,105	1,354,960	41,875,051	
Less Internal Cost	-10,255,336	-3,622	-34,617	-85,481	-151,452	-290,564	-158,261	-110,112	-124,226	-152,374	-182,464	-438,103	-294,870	-143,250	-150,868	-106,087	-121,265	-91,456	-94,732	
AFUDC	4,085,187	5,592	14,176	36,427	109,513	240,147	479,588	364,618	0	0	0	0	0	0	0	0	0	0	0	
Less AFUDC on Internal Cost	-122,849	-10	-91	-397	-1,046	-2,168	-3,385	-4,149	0	0	0	0	0	0	0	0	0	0	0	
EOM		463,711,504	466,324,650	471,350,376	489,464,428	512,590,565	520,788,626	523,478,614	636,650,287	651,141,902	667,935,714	684,296,620	708,761,448	727,896,467	745,693,588	748,872,765	750,514,605	751,778,109	793,558,428	
Return on CWIP																				
After Tax Return on Equity	25,433,539	0	0	0	0	0	0	0	538,197	837,890	911,411	989,327	1,041,255	1,098,981	1,184,542	1,233,559	1,242,358	966,980	345,233	
Income Tax Component	17,946,218	0	0	0	0	0	0	0	379,759	591,225	643,103	698,081	734,723	775,455	835,828	870,414	876,623	682,313	243,601	
Interest Expense Component	11,420,577	0	0	0	0	0	0	0	242,623	377,727	410,871	445,995	469,405	495,428	534,000	556,097	560,064	435,921	155,633	
Total Return on CWIP	54,800,334	0	0	0	0	0	0	0	1,160,579	1,806,842	1,965,385	2,133,403	2,245,383	2,369,865	2,554,370	2,660,070	2,679,044	2,085,215	744,467	

Minnesota Power
Renewable Resources Rider: Bison Projects
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16		
230 kV Transmission Line Ext. In Service 6/25/2014	7,463,690																				
BOM		8,014,056	7,975,183	8,005,641	7,967,137	7,523,119	7,513,758	7,513,758	7,513,758	7,481,540	7,481,540	7,481,540									
CapEx	7,636,839	-38,937	30,515	-38,554	-444,684	-9,380	0	0	-32,256	0	0	-17,881									
Less Internal Cost	-233,503	64	-57	50	666	20	0	0	38	0	0	31									
AFUDC	61,548	0	0	0	0	0	0	0	0	0	0	0									
Less AFUDC on Internal Cost	-1,194	0	0	0	0	0	0	0	0	0	0	0									
EOM		7,975,183	8,005,641	7,967,137	7,523,119	7,513,758	7,513,758	7,513,758	7,481,540	7,481,540	7,481,540	7,463,690									
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Center-Hesket Line In Service 10/22/2014	2,172,716																				
BOM		2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757									
CapEx	2,131,372	0	0	0	0	0	0	0	0	0	24,007										
Less Internal Cost	-2,045	0	0	0	0	0	0	0	0	0	-48										
AFUDC	43,467	0	0	0	0	0	0	0	0	0	0										
Less AFUDC on Internal Cost	-78	0	0	0	0	0	0	0	0	0	0										
EOM		2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,148,757	2,172,716										
Return on CWIP																					
After Tax Return on Equity																					
Income Tax Component																					
Interest Expense Component																					
Total Return on CWIP																					
Bison Software In Service 1/31/2016	580,693																				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CapEx	579,674	0	0	0	0	0	0	0	0	0	0	0	579,674	0							
Less Internal Cost	-831	0	0	0	0	0	0	0	0	0	0	0	-831	0							
AFUDC	1,852	0	0	0	0	0	0	0	0	0	0	0	1,852	0							
Less AFUDC on Internal Cost	-3	0	0	0	0	0	0	0	0	0	0	0	-3	0							
EOM		0	0	0	0	0	0	0	0	0	0	0	580,693	580,693							
Return on CWIP																					
After Tax Return on Equity		0	0	0	0	0	0	0	0	0	0	0	1,359	1,363							
Income Tax Component		0	0	0	0	0	0	0	0	0	0	0	959	962							
Interest Expense Component		0	0	0	0	0	0	0	0	0	0	0	613	615							
Total Return on CWIP		0	0	0	0	0	0	0	0	0	0	0	2,930	2,940							
Total	795,615,372																				
BOM		793,558,428	793,916,014	794,509,277	794,622,802	794,259,374	794,563,059	794,994,587	795,238,885	795,096,771	795,117,124	795,113,246	795,037,042	795,594,985	795,595,070	795,603,327	795,610,004	795,610,073	795,614,381	795,614,381	
CapEx	801,908,370	515,542	625,224	150,559	-334,518	333,418	457,640	257,175	-129,911	30,852	31,811	-72,909	559,857	504	8,424	6,704	583	4,317	991		
Less Internal Cost	-10,255,336	-157,956	-31,961	-37,033	-28,910	-29,733	-26,112	-12,878	-12,203	-10,500	-35,688	-3,295	-3,764	-418	-168	-26	-514	-9	-1		
AFUDC	4,085,187	0	0	0	0	0	0	0	0	0	0	0	1,852	0	0	0	0	0	0		
Less AFUDC on Internal Cost	-122,849	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0		
EOM		793,916,014	794,509,277	794,622,802	794,259,374	794,563,059	794,994,587	795,238,885	795,096,771	795,117,124	795,113,246	795,037,042	795,594,985	795,595,070	795,603,327	795,610,004	795,610,073	795,614,381	795,614,381		
Return on CWIP																					
After Tax Return on Equity	25,433,539	0	0	0	0	0	0	0	0	0	0	0	1,359	1,363	0	0	0	0	0		
Income Tax Component	17,946,218	0	0	0	0	0	0	0	0	0	0	0	959	962	0	0	0	0	0		
Interest Expense Component	11,420,577	0	0	0	0	0	0	0	0	0	0	0	613	615	0	0	0	0	0		
Total Return on CWIP	54,800,334	0	0	0	0	0	0	0	0	0	0	0	2,930	2,940	0	0	0	0	0		

Section Line	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Total Year Dec-15
A Book Basis of Property													
0 CWIP	30,872,285	33,311,442	35,151,160	11,062,629	11,233,336	6,344,202	5,233,463	5,592,987	5,912,832	4,222,299	3,941,705	1,713,514	1,713,514
1 Plant in Service	54,418,559	54,497,525	54,660,398	79,087,442	79,365,915	85,339,094	80,660,562	80,801,324	80,961,118	76,966,140	78,357,611	77,975,343	77,975,343
2 Total Accumulated Depreciation	423,004	516,925	611,052	726,100	862,164	1,003,545	1,146,028	1,284,652	1,423,533	1,559,152	1,692,558	1,826,388	1,826,388
3 Net Plant	53,995,555	53,980,600	54,049,346	78,361,343	78,503,751	84,335,549	79,514,534	79,516,672	79,537,585	75,406,988	76,665,053	76,148,955	76,148,955
4 Total Depreciation	93,596	93,921	94,128	115,047	136,065	141,381	142,483	138,624	138,880	135,619	133,406	133,831	1,496,981
B Tax Basis of Property													
1 Investment Tax Credit (30%)	90,918	23,690	48,862	7,001,790	73,689	84,721	(681,361)	(15,012)	4,187	(369,995)	223,067	(189,845)	6,294,711
2 Reduction to Book and Tax Basis (ITC x 50%)	45,459	11,845	24,431	3,500,895	36,844	42,360	(340,681)	(7,506)	2,094	(184,997)	111,534	(94,923)	3,147,356
3 Adjusted Book and Tax Basis for Deferred Taxes	257,602	67,121	138,443	20,926,149	241,628	5,930,819	(4,337,851)	148,268	157,700	(3,809,980)	1,279,937	(287,345)	20,712,490
4 Cum Adjusted Book and Tax Basis for Deferred Taxes	46,255,775	46,322,896	46,461,338	67,387,487	67,629,116	73,559,935	69,222,084	69,370,351	69,528,051	65,718,071	66,998,008	66,710,663	66,710,663
5 Book Style Depreciation for Deferred Taxes	79,859	80,132	80,305	98,226	116,234	121,480	122,868	119,339	119,598	116,511	114,367	114,812	1,283,730
6 Accum Book Style Depreciation for Deferred Taxes	359,856	439,987	520,292	618,518	734,752	856,232	979,100	1,098,439	1,218,037	1,334,548	1,448,915	1,563,726	1,563,726
7 Accumulated Tax Depreciation	23,594,355	23,741,374	23,889,305	34,208,395	34,414,102	34,659,533	34,884,638	35,110,580	35,337,632	35,552,772	35,773,915	36,125,314	36,125,314
8 Net Plant for Tax	22,661,420	22,581,522	22,572,033	33,179,092	33,215,013	38,900,402	34,337,445	34,259,771	34,190,419	30,165,300	31,224,093	30,585,348	30,585,348
9 Bonus Depreciation	-	-	-	10,114,798	-	-	-	-	-	-	-	145,146	10,259,944
10 Total Tax Depreciation (including bonus)	146,617	147,018	147,931	10,319,090	205,708	245,431	225,105	225,942	227,052	215,139	221,144	351,399	12,677,576
11 Tax Book Difference	66,758	66,887	67,626	10,220,864	89,474	123,950	102,237	106,603	107,454	98,629	106,777	236,587	11,393,846
12 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%
13 Deferred Income Tax on Timing Difference	27,618	27,671	27,977	4,228,372	37,015	51,278	42,296	44,102	44,454	40,803	44,174	97,876	4,713,634
14 Total Accumulated Deferred Income Tax Liability	9,612,112	9,639,784	9,667,761	13,896,132	13,933,147	13,984,426	14,026,721	14,070,823	14,115,276	14,156,079	14,200,253	14,298,129	14,298,129
15 Deferred Tax Expense debit / (Credit)	27,618	27,671	27,977	4,228,372	37,015	51,278	42,296	44,102	44,454	40,803	44,174	97,876	4,713,634
16 Cum Investment Tax Credit (30% on Qualifying Costs)	16,325,568	16,349,257	16,398,119	23,399,910	23,473,598	23,558,319	22,876,958	22,861,946	22,866,133	22,496,138	22,719,206	22,529,361	22,529,361
17 Amortization of ITC 1/	-	-	-	-	-	-	-	-	-	-	-	-	-
18 Gross-up of Amortized ITC for revenue requirements 2/	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1 Revenue Requirements - MP Regulated NOL													
1 Net Plant	53,995,555	53,980,600	54,049,346	78,361,343	78,503,751	84,335,549	79,514,534	79,516,672	79,537,585	75,406,988	76,665,053	76,148,955	76,148,955
2 Less: ADITL - Def Taxes	(9,612,112)	(9,639,784)	(9,667,761)	(13,896,132)	(13,933,147)	(13,984,426)	(14,026,721)	(14,070,823)	(14,115,276)	(14,156,079)	(14,200,253)	(14,298,129)	(14,298,129)
3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base	44,383,443	44,340,816	44,381,585	64,465,210	64,570,603	70,351,123	65,487,813	65,445,849	65,422,308	61,250,909	62,464,800	61,850,826	61,850,826
5 Average Rate Base	44,292,519	44,362,130	44,361,201	54,423,398	64,517,907	67,460,863	67,919,468	65,466,831	65,434,079	63,336,609	61,857,855	62,157,813	62,157,813
6 Current Return on CWIP 3/	-	324,930	346,592	233,957	112,873	88,986	58,612	54,809	58,248	51,309	41,330	28,630	1,400,277
7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity	207,966	208,293	208,288	255,533	302,930	316,748	318,901	307,385	307,232	297,383	290,440	291,849	3,312,948
9 Income Tax Component	146,743	146,974	146,971	180,307	213,751	223,501	225,021	216,895	216,786	209,837	204,938	205,932	2,337,657
10 Interest Expense Component	93,752	93,900	93,898	115,196	136,563	142,792	143,763	138,571	138,502	134,062	130,932	131,567	1,493,500
11 Total Return on Average Rate Base	448,462	449,167	449,157	551,037	653,244	683,041	687,685	662,852	662,520	641,283	626,311	629,348	7,144,106
12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense	93,596	93,921	94,128	115,047	136,065	141,381	142,483	138,624	138,880	135,619	133,406	133,831	1,496,981
14 Property Tax	-	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	2,437,292
15 ITC	-	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements	542,058	1,089,590	1,111,449	1,121,614	1,123,754	1,134,981	1,110,351	1,077,857	1,081,221	1,049,783	1,022,619	1,013,380	12,478,655

1/ ITC amortized over remaining book life starting in 2024.

2/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

3/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Section	Line	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Total Year Dec-15
C-2	Revenue Requirements - Stand Alone NOL													
	1 Net Plant	53,995,555	53,980,600	54,049,346	78,361,343	78,503,751	84,335,549	79,514,534	79,516,672	79,537,585	75,406,988	76,665,053	76,148,955	76,148,955
	2 Less: ADITL - Def Taxes	(9,612,112)	(9,639,784)	(9,667,761)	(13,895,478)	(13,931,961)	(13,982,705)	(14,024,467)	(14,068,036)	(14,111,956)	(14,152,225)	(14,195,857)	(14,295,315)	(14,295,315)
	3 Plus: ADITA - NOL (Stand Alone)	8,782,122	8,628,275	8,475,230	12,290,995	12,067,380	11,844,794	11,623,323	11,407,963	11,193,867	10,982,596	10,778,450	10,447,463	10,447,463
	4 Rate Base	53,165,565	52,969,091	52,856,815	76,756,860	76,639,170	82,197,637	77,113,390	76,856,599	76,619,496	72,237,359	73,247,646	72,301,103	72,301,103
	5 Average Rate Base	53,151,721	53,067,328	52,912,953	64,806,837	76,698,015	79,418,404	79,655,514	76,984,995	76,738,048	74,428,428	72,742,503	72,774,375	72,774,375
	6 Current Return on CWIP 3/	-	324,930	346,592	233,957	112,873	88,986	58,612	54,809	58,248	51,309	41,330	28,630	1,400,277
	7 Return on Average Rate Base 3/													
	8 After Tax Return on Equity	249,562	249,166	248,441	304,286	360,119	372,892	374,005	361,466	360,307	349,463	341,547	341,696	3,912,951
	9 Income Tax Component	176,094	175,815	175,303	214,708	254,104	263,117	263,903	255,055	254,237	246,585	241,000	241,105	2,761,027
	10 Interest Expense Component	112,504	112,326	111,999	137,174	162,344	168,102	168,604	162,952	162,429	157,540	153,972	154,039	1,763,986
	11 Total Return on Average Rate Base	538,161	537,307	535,744	656,169	776,567	804,111	806,512	779,473	776,973	753,588	736,518	736,841	8,437,964
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	93,596	93,921	94,128	115,047	136,065	141,381	142,483	138,624	138,880	135,619	133,406	133,831	1,496,981
	14 Property Tax	-	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	2,437,292
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	631,757	1,177,730	1,198,035	1,226,746	1,247,077	1,256,051	1,229,179	1,194,478	1,195,673	1,162,088	1,132,826	1,120,873	13,772,513
D	Stand Alone Taxable Income or Loss (NOL)													
	1 Revenue Requirements	631,757	1,177,730	1,198,035	1,226,746	1,247,077	1,256,051	1,229,179	1,194,478	1,195,673	1,162,088	1,132,826	1,120,873	13,772,513
	2 Tax Depreciation	146,617	147,018	147,931	10,319,090	205,708	245,431	225,105	225,942	227,052	215,139	221,144	351,399	12,677,576
	3 Property Tax	-	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	221,572	2,437,292
	4 Interest Expense (including on CWIP)	112,504	179,970	184,129	186,243	186,544	187,314	181,523	175,089	175,373	169,094	163,485	160,502	2,061,771
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	259,121	548,560	553,633	10,726,905	613,824	654,317	628,200	622,603	623,997	605,806	606,200	733,473	17,176,639
	7 Taxable Income (NOL)	372,636	629,170	644,403	(9,500,159)	633,254	601,734	600,979	571,876	571,676	556,282	526,626	387,400	(3,404,125)
	8 Current tax expense	154,161	260,287	266,587	(3,930,215)	261,974	248,940	248,624	236,583	236,502	230,134	217,864	160,266	(1,408,293)
	9 Taxable Income (NOL)	372,636	629,170	644,403	(9,500,159)	633,254	601,734	600,979	571,876	571,676	556,282	526,626	387,400	-
	10 NOL carryforward	(21,600,877)	(21,228,241)	(20,856,358)	(20,486,417)	(29,709,917)	(29,169,401)	(28,631,358)	(28,096,021)	(27,575,448)	(27,057,934)	(26,547,245)	(26,053,786)	-
	11 Taxable Income after NOL carryforward	(21,228,241)	(20,599,071)	(20,211,955)	(29,621,649)	(29,076,664)	(28,567,667)	(28,030,379)	(27,524,145)	(27,003,772)	(26,501,651)	(25,924,156)	(25,178,566)	-
	12 Expected stand alone ADITA NOL	8,782,122	8,628,275	8,475,230	12,290,995	12,067,380	11,844,794	11,623,323	11,407,963	11,193,867	10,982,596	10,778,450	10,447,463	-
E	Summary: Revenue Requirements													
	1 Revenue Requirement: Consolidated		1,089,590	1,111,449	1,121,614	1,123,754	1,134,981	1,110,351	1,077,857	1,081,221	1,049,783	1,022,619	1,013,380	11,936,598
	2 Revenue Requirement: Stand Alone		1,177,730	1,198,035	1,226,746	1,247,077	1,256,051	1,229,179	1,194,478	1,195,673	1,162,088	1,132,826	1,120,873	13,140,756
	3 Revenue Requirement: Rider 4/		1,089,590	1,111,449	1,121,614	1,123,754	1,134,981	1,110,351	1,077,857	1,081,221	1,049,783	1,022,619	1,013,380	11,936,598
	4 Base Rate Revenue Credit 5/		(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(198,518)
	5 Total Net Revenue Requirements		1,071,543	1,093,402	1,103,566	1,105,707	1,116,934	1,092,304	1,059,810	1,063,174	1,031,736	1,004,572	995,333	11,738,079
	7 MN Jurisdictional Revenue Requirement		875,821	893,755	902,089	903,843	913,057	892,862	866,218	868,983	843,206	820,932	813,704	9,594,470
F	Monthly Entry													
	1 Monthly Entry needed	-	875,821	893,755	902,089	903,843	913,057	892,862	866,218	868,983	843,206	820,932	813,704	-
	2 Cumulative Year	-	875,821	1,769,576	2,671,665	3,575,508	4,488,565	5,381,428	6,247,645	7,116,628	7,959,834	8,780,766	9,594,470	9,594,470
	3 Booked YTD	-	875,821	1,769,576	2,671,665	3,575,508	4,488,565	5,381,428	6,247,645	7,116,628	7,959,834	8,780,766	9,594,470	9,594,470
	4 Entry Needed	-	875,821	893,755	902,089	903,843	913,057	892,862	866,218	868,983	843,206	820,932	813,704	-
G	2015 Tracker													
	1 Cash Collections 6/	-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Monthly (Over)/Under collection	-	875,821	893,755	902,089	903,843	913,057	892,862	866,218	868,983	843,206	820,932	813,704	9,594,470
	3 Cumulative (Over)/Under Balance	-	875,821	1,769,576	2,671,665	3,575,508	4,488,565	5,381,428	6,247,645	7,116,628	7,959,834	8,780,766	9,594,470	9,594,470

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12) and Return on Average Rate Base (Avg. Monthly Rate Base x ROR%/12) start 2/1/15. Refer to Exhibit B-6 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-7.

4/ Lesser of E1 or E2.

5/ Refer to Exhibit B-5, page 98 of 98.

6/ Cash collection and tracker balance is combined with Bison projects. Refer to Exhibit B-1.

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		1,726,670	1,808,489	1,858,888	1,492,894	1,550,861	1,650,861	1,777,861	1,904,861	1,994,861	2,084,861	2,084,861	2,069,765	2,069,765
1 Plant in Service		78,027,613	78,034,291	77,919,748	78,301,306	78,318,170	77,559,096	77,559,096	77,559,096	77,559,096	77,559,096	77,559,096	77,574,191	77,574,191
2 Total Accumulated Depreciation		1,959,506	2,092,675	2,225,750	2,359,057	2,492,710	2,625,719	2,758,068	2,890,418	3,022,768	3,155,118	3,287,467	3,419,830	3,419,830
3 Net Plant		76,068,107	75,941,617	75,693,998	75,942,248	75,825,460	74,933,377	74,801,027	74,668,677	74,536,328	74,403,978	74,271,628	74,154,361	74,154,361
4 Total Depreciation		133,118	133,169	133,075	133,307	133,653	133,009	132,350	132,350	132,350	132,350	132,350	132,363	1,593,442
B Tax Basis of Property														
1 Investment Tax Credit (30%)		23,143	545	(40,034)	(1,697)	5,093	(182,265)	-	-	-	-	-	-	(195,217)
2 Reduction to Book and Tax Basis (ITC x 50%)		11,571	272	(20,017)	(849)	2,546	(91,133)	-	-	-	-	-	-	(97,608)
3 Adjusted Book and Tax Basis for Deferred Taxes		40,698	6,406	(94,526)	382,406	14,318	(667,942)	-	-	-	-	-	15,096	(303,543)
4 Cum Adjusted Book and Tax Basis for Deferred Taxes		66,751,361	66,757,767	66,663,241	67,045,647	67,059,965	66,392,024	66,392,024	66,392,024	66,392,024	66,392,024	66,392,024	66,407,120	66,407,120
5 Book Style Depreciation for Deferred Taxes		114,213	114,253	114,179	114,433	114,777	114,225	113,660	113,660	113,660	113,660	113,660	113,673	1,368,056
6 Accum Book Style Depreciation for Deferred Taxes		1,677,939	1,792,192	1,906,372	2,020,805	2,135,582	2,249,807	2,363,467	2,477,127	2,590,788	2,704,448	2,818,108	2,931,782	2,931,782
7 Accumulated Tax Depreciation		36,339,239	36,536,267	36,682,651	37,068,298	37,269,935	37,160,719	37,353,235	37,545,750	37,738,266	37,930,782	38,123,298	38,323,645	38,323,645
8 Net Plant for Tax		30,412,122	30,221,501	29,980,590	29,977,349	29,790,030	29,231,305	29,038,789	28,846,273	28,653,757	28,461,242	28,268,726	28,083,475	28,083,475
9 Bonus Depreciation		20,111	3,203	(47,263)	191,203	7,159	(301,732)	-	-	-	-	-	7,548	(119,771)
10 Total Tax Depreciation (including bonus)		213,925	197,028	146,384	385,647	201,637	(109,216)	192,516	192,516	192,516	192,516	192,516	200,347	2,198,330
11 Tax Book Difference		99,712	82,775	32,205	271,214	86,860	(223,441)	78,855	78,855	78,855	78,855	78,855	86,673	830,275
12 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%
13 Deferred Income Tax on Timing Difference		41,251	34,244	13,323	112,201	35,934	(92,438)	32,622	32,622	32,622	32,622	32,622	35,857	343,485
14 Total Accumulated Deferred Income Tax Liability		14,339,380	14,373,624	14,386,947	14,499,148	14,535,082	14,442,644	14,475,267	14,507,889	14,540,512	14,573,134	14,605,757	14,641,614	14,641,614
15 Deferred Tax Expense debit / (Credit)		41,251	34,244	13,323	112,201	35,934	(92,438)	32,622	32,622	32,622	32,622	32,622	35,857	343,485
16 Cum Investment Tax Credit (30% on Qualifying Costs)		22,552,503	22,553,048	22,513,014	22,511,317	22,516,409	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144
17 Amortization of ITC 1/		-	-	-	-	-	-	-	-	-	-	-	-	-
18 Gross-up of Amortized ITC for revenue requirements 2/		-	-	-	-	-	-	-	-	-	-	-	-	-
C-1 Revenue Requirements - MP Regulated NOL														
1 Net Plant		76,068,107	75,941,617	75,693,998	75,942,248	75,825,460	74,933,377	74,801,027	74,668,677	74,536,328	74,403,978	74,271,628	74,154,361	74,154,361
2 Less: ADITL - Def Taxes		(14,339,380)	(14,373,624)	(14,386,947)	(14,499,148)	(14,535,082)	(14,442,644)	(14,475,267)	(14,507,889)	(14,540,512)	(14,573,134)	(14,605,757)	(14,641,614)	(14,641,614)
3 Plus: ADITA - NOL		-	-	-	-	-	-	-	-	-	-	-	-	-
4 Plus: ADITA - PTC		-	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base		61,728,727	61,567,993	61,307,051	61,443,100	61,290,378	60,490,733	60,325,760	60,160,788	59,995,816	59,830,844	59,665,872	59,512,748	59,512,748
5 Average Rate Base		61,789,777	61,648,360	61,437,522	61,375,076	61,366,739	60,890,555	60,408,246	60,243,274	60,078,302	59,913,330	59,748,358	59,589,310	59,589,310
6 Current Return on CWIP 3/		17,416	17,897	18,566	16,968	15,409	16,209	17,358	18,644	19,742	20,654	21,109	21,033	221,005
7 Return on Average Rate Base 3/														
8 After Tax Return on Equity		290,121	289,457	288,467	288,173	288,134	285,898	283,634	282,859	282,085	281,310	280,535	279,789	3,420,462
9 Income Tax Component		204,713	204,244	203,546	203,339	203,311	201,733	200,136	199,589	199,042	198,496	197,949	197,422	2,413,520
10 Interest Expense Component		130,788	130,489	130,043	129,911	129,893	128,885	127,864	127,515	127,166	126,817	126,467	126,131	1,541,968
11 Total Return on Average Rate Base		625,621	624,190	622,055	621,423	621,338	616,517	611,633	609,963	608,293	606,622	604,952	603,342	7,375,950
12 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense		133,118	133,169	133,075	133,307	133,653	133,009	132,350	132,350	132,350	132,350	132,350	132,363	1,593,442
14 Property Tax		217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	2,605,688
15 ITC		-	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements		993,296	992,396	990,837	988,839	987,541	982,875	978,482	978,097	977,526	976,766	975,552	973,878	11,796,084

1/ ITC amortized over remaining book life starting in 2024.

2/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

3/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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		76,068,107	75,941,617	75,693,998	75,942,248	75,825,460	74,933,377	74,801,027	74,668,677	74,536,328	74,403,978	74,271,628	74,154,361	74,154,361
2 Less: ADITL - Def Taxes		(14,336,578)	(14,370,834)	(14,384,169)	(14,496,383)	(14,532,329)	(14,437,529)	(14,470,159)	(14,502,789)	(14,535,419)	(14,568,049)	(14,600,679)	(14,636,544)	(14,636,544)
3 Plus: ADITA - NOL (Stand Alone)		10,244,318	10,035,018	9,806,132	9,671,130	9,466,101	9,163,491	8,959,489	8,756,703	8,555,132	8,356,196	8,159,192	7,966,608	7,966,608
4 Plus: ADITA - PTC		-	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base		71,975,847	71,605,800	71,115,960	71,116,996	70,759,232	69,659,339	69,290,357	68,922,591	68,556,041	68,192,125	67,830,141	67,484,426	67,484,426
5 Average Rate Base		72,138,475	71,790,824	71,360,880	71,116,478	70,938,114	70,209,285	69,474,848	69,106,474	68,739,316	68,374,083	68,011,133	67,657,283	67,657,283
6 Current Return on CWIP 3/		17,416	17,897	18,566	16,968	15,409	16,209	17,358	18,644	19,742	20,654	21,109	21,033	221,005
7 Return on Average Rate Base 3/		-	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity		338,711	337,078	335,060	333,912	333,075	329,652	326,204	324,474	322,751	321,036	319,332	317,670	3,938,954
9 Income Tax Component		238,998	237,847	236,422	235,612	235,022	232,607	230,174	228,953	227,737	226,527	225,324	224,152	2,799,375
10 Interest Expense Component		152,693	151,957	151,047	150,530	150,152	148,610	147,055	146,275	145,498	144,725	143,957	143,208	1,775,708
11 Total Return on Average Rate Base		730,402	726,882	722,529	720,054	718,248	710,869	703,433	699,703	695,986	692,288	688,613	685,030	8,494,037
12 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense		133,118	133,169	133,075	133,307	133,653	133,009	132,350	132,350	132,350	132,350	132,350	132,363	1,593,442
14 Property Tax		217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	2,605,688
15 ITC		-	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements		1,098,076	1,095,088	1,091,311	1,087,470	1,084,451	1,077,227	1,070,281	1,067,837	1,065,218	1,062,432	1,059,212	1,055,566	12,914,171
D Stand Alone Taxable Income or Loss (NOL)														
1 Revenue Requirements		1,098,076	1,095,088	1,091,311	1,087,470	1,084,451	1,077,227	1,070,281	1,067,837	1,065,218	1,062,432	1,059,212	1,055,566	12,914,171
2 Tax Depreciation		213,925	197,028	146,384	385,647	201,637	(109,216)	192,516	192,516	192,516	192,516	192,516	192,516	2,198,330
3 Property Tax		217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	217,141	2,605,688
4 Interest Expense (including on CWIP)		156,334	155,699	154,929	154,077	153,374	151,998	150,684	150,173	149,625	149,043	148,370	147,605	1,821,910
5 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
6 Total Tax Deduction		587,399	569,867	518,453	756,865	572,151	259,923	560,340	559,829	559,282	558,699	558,026	565,092	6,625,928
7 Taxable Income (NOL)		510,677	525,221	572,857	330,605	512,300	817,305	509,941	508,008	505,936	503,732	501,186	490,474	6,288,243
8 Current tax expense		211,265	217,284	236,991	136,773	211,940	338,118	210,965	210,165	209,306	208,395	207,342	202,913	2,601,457
9 Taxable Income (NOL)		510,677	525,221	572,857	330,605	512,300	817,305	509,941	508,008	505,936	503,732	501,186	490,474	6,288,243
10 NOL carryforward		(25,253,720)	(24,762,670)	(24,256,755)	(23,703,488)	(23,377,162)	(22,881,559)	(22,150,086)	(21,656,969)	(21,166,794)	(20,679,551)	(20,198,689)	(19,722,483)	-
11 Taxable Income after NOL carryforward		(24,743,043)	(24,237,449)	(23,683,897)	(23,360,581)	(22,864,862)	(22,064,254)	(21,640,145)	(21,148,961)	(20,660,858)	(20,175,819)	(19,697,503)	(19,232,009)	-
12 Expected stand alone ADITA NOL		10,244,318	10,035,018	9,806,132	9,671,130	9,466,101	9,163,491	8,959,489	8,756,703	8,555,132	8,356,196	8,159,192	7,966,608	7,966,608
E Summary: Revenue Requirements														
1 Revenue Requirement: Consolidated		993,296	992,396	990,837	988,839	987,541	982,875	978,482	978,097	977,526	976,766	975,552	973,878	11,796,084
2 Revenue Requirement: Stand Alone		1,098,076	1,095,088	1,091,311	1,087,470	1,084,451	1,077,227	1,070,281	1,067,837	1,065,218	1,062,432	1,059,212	1,055,566	12,914,171
3 Revenue Requirement: Rider 4/		993,296	992,396	990,837	988,839	987,541	982,875	978,482	978,097	977,526	976,766	975,552	973,878	11,796,084
4 Base Rate Revenue Credit 5/		(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(18,047)	(216,565)
5 Total Net Revenue Requirements		975,248	974,349	972,790	970,792	969,494	964,828	960,435	960,050	959,478	958,719	957,505	955,831	11,579,518
7 MN Jurisdictional Revenue Requirement		797,733	796,999	795,725	794,090	793,030	789,207	785,609	785,298	784,833	784,215	783,223	781,854	9,471,816
F Monthly Entry														
1 Monthly Entry needed		797,733	796,999	795,725	794,090	793,030	789,207	785,609	785,298	784,833	784,215	783,223	781,854	9,471,816
2 Cumulative Year		797,733	1,594,732	2,390,456	3,184,547	3,977,577	4,766,784	5,552,393	6,337,690	7,122,523	7,906,738	8,689,961	9,471,816	9,471,816
3 Booked YTD		797,733	1,594,732	2,390,456	3,184,547	3,977,577	4,766,784	5,552,393	6,337,690	7,122,523	7,906,738	8,689,961	9,471,816	9,471,816
4 Entry Needed		797,733	796,999	795,725	794,090	793,030	789,207	785,609	785,298	784,833	784,215	783,223	781,854	9,471,816
G Projected 2016 Tracker														
1 Cash Collections 6/		-	-	-	-	-	-	-	-	-	-	-	-	-
2 Monthly (Over)/Under collection		797,733	796,999	795,725	794,090	793,030	789,207	785,609	785,298	784,833	784,215	783,223	781,854	9,471,816
3 Cumulative (Over)/Under Balance		9,594,470	10,392,203	11,189,202	11,984,927	12,779,017	13,572,047	14,361,254	15,146,863	15,932,161	16,716,994	17,501,208	18,284,431	19,066,286

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12) and Return on Average Rate Base (Avg. Monthly Rate Base x ROR%/12) start 2/1/15. Refer to Exhibit B-6 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-7.

4/ Lesser of E1 or E2.

5/ Refer to Exhibit B-5, page 98 of 98.

6/ Cash collection and tracker balance is combined with Bison projects. Refer to Exhibit B-1.

Section Line	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total Year Dec-17
A Book Basis of Property														
0 CWIP	2,086,765	2,106,765	2,136,765	2,391,765	2,946,765	3,551,765	4,201,765	4,851,765	4,938,348	4,965,369	4,990,050	4,119,537	4,119,537	4,119,537
1 Plant in Service	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	77,574,191	82,536,104
2 Total Accumulated Depreciation	3,552,206	3,684,582	3,816,958	3,949,334	4,081,710	4,214,086	4,346,461	4,478,837	4,611,213	4,743,589	4,875,965	5,012,740	5,012,740	5,012,740
3 Net Plant	74,021,985	73,889,610	73,757,234	73,624,858	73,492,482	73,360,106	73,227,730	73,095,354	72,962,978	72,830,602	72,698,226	72,523,364	72,523,364	77,523,364
4 Total Depreciation	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	136,775	1,592,910
B Tax Basis of Property														
1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-	4,961,912	4,961,912
4 Cum Adjusted Book and Tax Basis for Deferred Taxes	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	66,407,120	71,369,032	71,369,032
5 Book Style Depreciation for Deferred Taxes	113,687	113,687	113,687	113,687	113,687	113,687	113,687	113,687	113,687	113,687	113,687	113,687	118,085	1,368,638
6 Accum Book Style Depreciation for Deferred Taxes	3,045,468	3,159,155	3,272,842	3,386,528	3,500,215	3,613,901	3,727,588	3,841,274	3,954,961	4,068,648	4,182,334	4,300,419	4,300,419	4,300,419
7 Accumulated Tax Depreciation	38,501,514	38,679,383	38,857,253	39,035,122	39,212,991	39,390,861	39,568,730	39,746,599	39,924,469	40,102,338	40,280,208	40,458,078	43,032,069	43,032,069
8 Net Plant for Tax	27,905,606	27,727,736	27,549,867	27,371,997	27,194,128	27,016,259	26,838,389	26,660,520	26,482,651	26,304,781	26,126,912	26,126,912	28,336,963	28,336,963
9 Bonus Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	2,480,956	2,480,956
10 Total Tax Depreciation (including bonus)	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	2,751,861	4,708,424
11 Tax Book Difference	64,183	64,183	64,183	64,183	64,183	64,183	64,183	64,183	64,183	64,183	64,183	64,183	2,633,776	3,339,787
12 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%
13 Deferred Income Tax on Timing Difference	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	1,089,593	1,381,670
14 Total Accumulated Deferred Income Tax Liability	14,668,166	14,694,718	14,721,271	14,747,823	14,774,376	14,800,928	14,827,481	14,854,033	14,880,585	14,907,138	14,933,690	14,933,690	16,023,283	16,023,283
15 Deferred Tax Expense debit / (Credit)	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	26,552	1,089,593	1,381,670
16 Cum Investment Tax Credit (30% on Qualifying Costs)	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144	22,334,144
17 Amortization of ITC 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 Gross-up of Amortized ITC for revenue requirements 2/	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1 Revenue Requirements - MP Regulated NOL														
1 Net Plant	74,021,985	73,889,610	73,757,234	73,624,858	73,492,482	73,360,106	73,227,730	73,095,354	72,962,978	72,830,602	72,698,226	72,523,364	72,523,364	77,523,364
2 Less: ADITL - Def Taxes	(14,668,166)	(14,694,718)	(14,721,271)	(14,747,823)	(14,774,376)	(14,800,928)	(14,827,481)	(14,854,033)	(14,880,585)	(14,907,138)	(14,933,690)	(14,933,690)	(16,023,283)	(16,023,283)
3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 Rate Base	59,353,819	59,194,891	59,035,963	58,877,034	58,718,106	58,559,178	58,400,249	58,241,321	58,082,393	57,923,464	57,764,536	57,605,608	57,446,680	61,500,080
5 Average Rate Base	59,433,284	59,274,355	59,115,427	58,956,499	58,797,570	58,638,642	58,479,714	58,320,785	58,161,857	58,002,929	57,844,000	57,685,072	57,526,144	59,632,308
6 Current Return on CWIP 3/	21,042	21,230	21,483	22,926	27,026	32,899	39,252	45,833	49,562	50,138	50,399	50,660	50,921	407,053
7 Return on Average Rate Base 3/	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity	279,056	278,310	277,564	276,817	276,071	275,325	274,579	273,833	273,086	272,340	271,594	270,848	270,102	3,308,566
9 Income Tax Component	196,905	196,379	195,852	195,326	194,799	194,273	193,746	193,220	192,693	192,167	191,640	191,114	190,588	2,334,565
10 Interest Expense Component	125,800	125,464	125,128	124,791	124,455	124,118	123,782	123,446	123,110	122,773	122,437	122,101	121,765	1,491,525
11 Total Return on Average Rate Base	601,762	600,153	598,544	596,935	595,325	593,716	592,107	590,498	588,889	587,280	585,671	584,062	582,453	7,134,656
12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	136,775	1,592,910
14 Property Tax	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	2,606,728
15 ITC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements	972,408	970,986	969,630	968,283	966,927	965,570	964,214	962,858	961,502	960,146	958,790	957,434	956,078	11,741,347

1/ ITC amortized over remaining book life starting in 2024.

2/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

3/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Section	Line	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total Year Dec-17
C-2	Revenue Requirements - Stand Alone NOL														
	1 Net Plant		74,021,985	73,889,610	73,757,234	73,624,858	73,492,482	73,360,106	73,227,730	73,095,354	72,962,978	72,830,602	72,698,226	77,523,364	77,523,364
	2 Less: ADITL - Def Taxes		(14,663,102)	(14,689,660)	(14,716,218)	(14,742,776)	(14,769,334)	(14,795,892)	(14,822,449)	(14,849,007)	(14,875,565)	(14,902,123)	(14,928,681)	(16,018,280)	(16,018,280)
	3 Plus: ADITA - NOL (Stand Alone)		7,766,040	7,566,659	7,368,447	7,171,415	6,975,548	6,780,846	6,587,304	6,394,921	6,203,689	6,013,607	5,824,674	6,558,749	6,558,749
	4 Rate Base		67,124,924	66,766,609	66,409,463	66,053,497	65,698,696	65,345,060	64,992,585	64,641,268	64,291,102	63,942,086	63,594,219	68,063,833	68,063,833
	5 Average Rate Base		67,304,675	66,945,766	66,588,036	66,231,480	65,876,097	65,521,878	65,168,822	64,816,926	64,466,185	64,116,594	63,768,152	65,829,026	65,829,026
	6 Current Return on CWIP 3/		21,042	21,230	21,483	22,926	27,026	32,899	39,252	45,833	49,562	50,138	50,399	25,262	407,053
	7 Return on Average Rate Base 3/														
	8 After Tax Return on Equity		316,015	314,329	312,650	310,976	309,307	307,644	305,986	304,334	302,687	301,046	299,410	309,086	3,693,468
	9 Income Tax Component		222,984	221,795	220,609	219,428	218,251	217,077	215,908	214,742	213,580	212,421	211,267	218,095	2,606,157
	10 Interest Expense Component		142,462	141,702	140,945	140,190	139,438	138,688	137,941	137,196	136,453	135,713	134,976	139,338	1,665,041
	11 Total Return on Average Rate Base		681,460	677,826	674,204	670,594	666,995	663,409	659,834	656,271	652,720	649,181	645,653	666,519	7,964,666
	12 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense		132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	132,376	136,775	1,592,910
	14 Property Tax		217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	2,606,728
	15 ITC		-	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements		1,052,106	1,048,659	1,045,290	1,043,123	1,043,625	1,045,911	1,048,690	1,051,708	1,051,886	1,048,921	1,045,655	1,045,783	12,571,356
D	Stand Alone Taxable Income or Loss (NOL)														
	1 Revenue Requirements		1,052,106	1,048,659	1,045,290	1,043,123	1,043,625	1,045,911	1,048,690	1,051,708	1,051,886	1,048,921	1,045,655	1,045,783	12,571,356
	2 Tax Depreciation		177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	177,869	2,751,861	4,708,424
	3 Property Tax		217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	217,227	2,606,728
	4 Interest Expense (including on CWIP)		146,861	146,140	145,436	144,983	145,088	145,566	146,146	146,777	146,815	146,195	145,512	144,619	1,750,137
	5 Operation & Maintenance Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction		541,957	541,237	540,532	540,079	540,184	540,662	541,243	541,874	541,911	541,292	540,609	3,113,708	9,065,289
	7 Taxable Income (NOL)		510,148	507,422	504,758	503,043	503,441	505,249	507,447	509,834	509,974	507,630	505,046	(2,067,925)	3,506,067
	8 Current tax expense		211,049	209,922	208,819	208,109	208,275	209,020	209,929	210,922	210,975	210,007	208,937	(855,501)	1,450,463
	9 Taxable Income (NOL)		510,148	507,422	504,758	503,043	503,441	505,249	507,447	509,834	509,974	507,630	505,046	(2,067,925)	3,506,067
	10 NOL carryforward		(19,256,967)	(18,772,159)	(18,290,204)	(17,811,093)	(17,334,816)	(16,861,365)	(16,390,729)	(15,922,899)	(15,457,867)	(14,995,622)	(14,536,157)	(14,079,460)	
	11 Taxable Income after NOL carryforward		(18,746,819)	(18,264,737)	(17,785,447)	(17,308,050)	(16,831,376)	(16,356,116)	(15,883,282)	(15,413,065)	(14,947,892)	(14,487,993)	(14,031,110)	(15,845,409)	(195,901,296)
	12 Expected stand alone ADITA NOL		7,766,040	7,566,659	7,368,447	7,171,415	6,975,548	6,780,846	6,587,304	6,394,921	6,203,689	6,013,607	5,824,674	6,558,749	6,558,749
E	Summary: Revenue Requirements														
	1 Revenue Requirement: Consolidated		972,408	970,986	969,630	969,463	971,955	976,218	980,963	985,935	988,054	987,020	985,673	983,041	11,741,347
	2 Revenue Requirement: Stand Alone		1,052,106	1,048,659	1,045,290	1,043,123	1,043,625	1,045,911	1,048,690	1,051,708	1,051,886	1,048,921	1,045,655	1,045,783	12,571,356
	3 Revenue Requirement: Rider 4/		972,408	970,986	969,630	969,463	971,955	976,218	980,963	985,935	988,054	987,020	985,673	983,041	11,741,347
	4 Base Rate Revenue Credit 5/		-	-	-	-	-	-	-	-	-	-	-	-	-
	5 Total Net Revenue Requirements		972,408	970,986	969,630	969,463	971,955	976,218	980,963	985,935	988,054	987,020	985,673	983,041	11,741,347
	7 MN Jurisdictional Revenue Requirement		795,454	794,292	793,184	793,052	795,100	798,601	802,496	806,578	808,321	807,477	806,376	804,221	9,605,152
F	Monthly Entry														
	1 Monthly Entry needed		795,454	794,292	793,184	793,052	795,100	798,601	802,496	806,578	808,321	807,477	806,376	804,221	
	2 Cumulative Year		795,454	1,589,747	2,382,931	3,175,983	3,971,083	4,769,684	5,572,179	6,378,757	7,187,078	7,994,555	8,800,930	9,605,152	9,605,152
	3 Booked YTD		795,454	1,589,747	2,382,931	3,175,983	3,971,083	4,769,684	5,572,179	6,378,757	7,187,078	7,994,555	8,800,930	9,605,152	9,605,152
	4 Entry Needed		795,454	794,292	793,184	793,052	795,100	798,601	802,496	806,578	808,321	807,477	806,376	804,221	
G	Projected 2016 Tracker														
	1 Cash Collections 6/		-	-	-	-	-	-	-	-	-	-	-	-	-
	2 Monthly (Over)/Under collection		795,454	794,292	793,184	793,052	795,100	798,601	802,496	806,578	808,321	807,477	806,376	804,221	9,605,152
	3 Cumulative (Over)/Under Balance		19,066,286	19,861,740	20,656,033	21,449,217	22,242,269	23,037,369	23,835,970	24,638,465	25,445,043	26,253,364	27,060,841	27,867,216	28,671,438

3/ Current Return on CWIP (Avg. Monthly CWIP x ROR% / 12) and Return on Average Rate Base (Avg. Monthly Rate Base x ROR%/12) start 2/1/15. Refer to Exhibit B-6 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-7.

4/ Lesser of E1 or E2.

5/ Refer to Exhibit B-5, page 98 of 98.

6/ Cash collection and tracker balance is combined with Bison projects. Refer to Exhibit B-1.

Minnesota Power
2017 Renewable Resources Rider
Thomson Project Identification List

<u>Project ID#</u>	<u>Description</u>	<u>In-Service Date</u>
104989	THM Unit 6 Overhaul	4/29/2014
106287	THM Lwr Gate Hse-Rpl Stl & Trsh Rks	3/12/2014
106288	THM Rpl/Rfb Lwr Gate Hse Gates	3/12/2014
106389	THM Upper Gate House Head Gate	1/15/2014
106984	THM Unit 3 Flood Insp/Refurb	7/25/2014
106284	THM Replace #1 Penstock Valve	6/12/2014
106997	THM Unit 2 Flood Insp/Refurb	6/12/2015
107017	THM Basement Flood Proofing	12/23/2015
106156	THM Forebay Embankment Reconstruct	10/9/2014
106282	THM Lower Wye Hse - Replace Valves	4/17/2015
106998	THM Unit 4 Flood Insp/Refurb	12/18/2015
106999	THM Unit 5 Flood Insp/Refurb	6/30/2015
106949	THM Refurbish #4 & #5 Penstock	4/17/2015
106983	THM Unit 1 Flood Insp/Refurb	11/6/2015
106281	THM Back-up Control Room	4/29/2016
106260	THM Flowline_Penstock_Abate_Line	4/22/2015
106262	THM - Electrical Infrastructure	11/13/2014
106286	THM Cathodic Protection Grnd Rpl	12/9/2014
106501	THM Rpl Penstock Vlv Operators 2-6	4/17/2015
106373	THM Basement Lead Abatement	12/31/2016
106069	THM Replace/Refurbish Dam 6	12/31/2017
106794	THM Spill Capacity	12/31/2017
106270	THM 115KV SUB - Add & Rpl Bkrs	11/30/2014
106293	TMS Substation Elec. Infrastructure	9/26/2014

THM Unit 6 Overhaul 1/
Project ID # 104989
In Service 4/29/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	990,486	990,486	990,486	990,486	990,486	990,486	990,486	990,486	990,486	990,486	990,486	990,486
	2 Total Accumulated Depreciation	112,755	114,329	115,904	117,479	119,054	120,629	122,204	123,779	125,354	126,929	128,504	130,078
	3 Net Plant	877,732	876,157	874,582	873,007	871,432	869,857	868,282	866,707	865,132	863,558	861,983	860,408
	4 Total Depreciation	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	841,913	841,913	841,913	841,913	841,913	841,913	841,913	841,913	841,913	841,913	841,913	841,913
	5 Book Style Depreciation for Deferred Taxes	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403
	6 Accum Book Style Depreciation for Deferred Taxes	96,885	98,288	99,691	101,094	102,497	103,901	105,304	106,707	108,110	109,513	110,916	112,320
	7 Accumulated Tax Depreciation	586,818	588,422	590,026	591,630	593,235	594,839	596,443	598,048	599,652	601,256	602,860	604,465
	8 Net Plant for Tax	255,096	253,491	251,887	250,283	248,679	247,074	245,470	243,866	242,261	240,657	239,053	237,449
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604
	11 Tax Book Difference	201	201	201	201	201	201	201	201	201	201	201	201
	12 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%
	13 Deferred Income Tax on Timing Difference	83	83	83	83	83	83	83	83	83	83	83	83
	14 Total Accumulated Deferred Income Tax Liability	202,685	202,768	202,852	202,935	203,018	203,101	203,184	203,268	203,351	203,434	203,517	203,600
	15 Deferred Tax Expense debit / (Credit)	83	83	83	83	83	83	83	83	83	83	83	83
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	297,146	297,146	297,146	297,146	297,146	297,146	297,146	297,146	297,146	297,146	297,146	297,146
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	877,732	876,157	874,582	873,007	871,432	869,857	868,282	866,707	865,132	863,558	861,983	860,408
	2 Less: ADITL - Def Taxes	(202,685)	(202,768)	(202,852)	(202,935)	(203,018)	(203,101)	(203,184)	(203,268)	(203,351)	(203,434)	(203,517)	(203,600)
	3 Plus: ADITA - NOL												
	4 Plus: ADITA - PTC												
	4 Rate Base	675,046	673,388	671,730	670,072	668,414	666,756	665,098	663,440	661,782	660,124	658,465	656,807
	5 Average Rate Base	675,875	674,217	672,559	670,901	669,243	667,585	665,927	664,269	662,611	660,953	659,294	657,636
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	3,173	3,166	3,158	3,150	3,142	3,135	3,127	3,119	3,111	3,103	3,096	3,088
	9 Income Tax Component	2,239	2,234	2,228	2,223	2,217	2,212	2,206	2,201	2,195	2,190	2,184	2,179
	10 Interest Expense Component	1,431	1,427	1,424	1,420	1,417	1,413	1,410	1,406	1,403	1,399	1,396	1,392
	11 Total Return on Average Rate Base	6,843	6,826	6,810	6,793	6,776	6,759	6,743	6,726	6,709	6,692	6,675	6,659
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575
	14 Property Tax	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828
	15 Investment Tax Credit	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 6 Overhaul 1/
Project ID # 104989
In Service 4/29/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	877,732	876,157	874,582	873,007	871,432	869,857	868,282	866,707	865,132	863,558	861,983	860,408
	2 Less: ADITL - Def Taxes	(202,685)	(202,768)	(202,852)	(202,935)	(203,018)	(203,101)	(203,184)	(203,268)	(203,351)	(203,434)	(203,517)	(203,600)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	675,046	673,388	671,730	670,072	668,414	666,756	665,098	663,440	661,782	660,124	658,465	656,807
	5 Average Rate Base	675,875	674,217	672,559	670,901	669,243	667,585	665,927	664,269	662,611	660,953	659,294	657,636
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	3,173	3,166	3,158	3,150	3,142	3,135	3,127	3,119	3,111	3,103	3,096	3,088
	9 Income Tax Component	2,239	2,234	2,228	2,223	2,217	2,212	2,206	2,201	2,195	2,190	2,184	2,179
	10 Interest Expense Component	1,431	1,427	1,424	1,420	1,417	1,413	1,410	1,406	1,403	1,399	1,396	1,392
	11 Total Return on Average Rate Base	6,843	6,826	6,810	6,793	6,776	6,759	6,743	6,726	6,709	6,692	6,675	6,659
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575
	14 Property Tax	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828
	15 Investment Tax Credit	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062
	2 Tax Depreciation	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604
	3 Property Tax	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828
	4 Interest Expense (including on CWIP)	1,431	1,427	1,424	1,420	1,417	1,413	1,410	1,406	1,403	1,399	1,396	1,392
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	6,863	6,859	6,856	6,852	6,849	6,845	6,842	6,838	6,835	6,831	6,828	6,824
	7 Taxable Income (NOL)	5,383	5,370	5,357	5,343	5,330	5,317	5,304	5,290	5,277	5,264	5,250	5,237
	8 Current tax expense	2,227	2,222	2,216	2,211	2,205	2,200	2,194	2,189	2,183	2,178	2,172	2,167
	9 Taxable Income (NOL)	5,383	5,370	5,357	5,343	5,330	5,317	5,304	5,290	5,277	5,264	5,250	5,237
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	5,383	5,370	5,357	5,343	5,330	5,317	5,304	5,290	5,277	5,264	5,250	5,237
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062
	2 Revenue Requirement: Stand Alone	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062
	3 Revenue Requirement: Rider 8/	12,246	12,229	12,213	12,196	12,179	12,162	12,145	12,129	12,112	12,095	12,078	12,062
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	10,044	10,030	10,016	10,003	9,989	9,975	9,961	9,948	9,934	9,920	9,906	9,893

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Lwr Gate Hse-Rpl Stl & Trsh Rks 1/
Project ID # 106287
In Service 3/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942	1,549,942
	2 Total Accumulated Depreciation	89,006	91,589	94,171	96,754	99,336	101,919	104,501	107,084	109,666	112,249	114,831	117,414
	3 Net Plant	1,460,935	1,458,353	1,455,770	1,453,188	1,450,605	1,448,023	1,445,440	1,442,858	1,440,275	1,437,693	1,435,110	1,432,528
	4 Total Depreciation	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450	1,317,450
	5 Book Style Depreciation for Deferred Taxes	2,196	2,196	2,196	2,196	2,196	2,196	2,196	2,196	2,196	2,196	2,196	2,196
	6 Accum Book Style Depreciation for Deferred Taxes	75,659	77,855	80,051	82,246	84,442	86,638	88,834	91,029	93,225	95,421	97,617	99,812
	7 Accumulated Tax Depreciation	793,887	797,179	800,472	803,764	807,057	810,349	813,642	816,934	820,227	823,519	826,812	830,104
	8 Net Plant for Tax	523,564	520,271	516,979	513,686	510,394	507,101	503,809	500,516	497,224	493,931	490,638	487,346
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293
	11 Tax Book Difference	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097
	12 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%
	13 Deferred Income Tax on Timing Difference	454	454	454	454	454	454	454	454	454	454	454	454
	14 Total Accumulated Deferred Income Tax Liability	297,131	297,585	298,038	298,492	298,946	299,399	299,853	300,307	300,761	301,214	301,668	302,122
	15 Deferred Tax Expense debit / (Credit)	454	454	454	454	454	454	454	454	454	454	454	454
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	464,983	464,983	464,983	464,983	464,983	464,983	464,983	464,983	464,983	464,983	464,983	464,983
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	1,460,935	1,458,353	1,455,770	1,453,188	1,450,605	1,448,023	1,445,440	1,442,858	1,440,275	1,437,693	1,435,110	1,432,528
	2 Less: ADITL - Def Taxes	(297,131)	(297,585)	(298,038)	(298,492)	(298,946)	(299,399)	(299,853)	(300,307)	(300,761)	(301,214)	(301,668)	(302,122)
	3 Plus: ADITA - NOL												
	4 Rate Base	1,163,805	1,160,768	1,157,732	1,154,696	1,151,660	1,148,623	1,145,587	1,142,551	1,139,515	1,136,478	1,133,442	1,130,406
	5 Average Rate Base	1,165,323	1,162,287	1,159,250	1,156,214	1,153,178	1,150,142	1,147,105	1,144,069	1,141,033	1,137,997	1,134,960	1,131,924
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	5,472	5,457	5,443	5,429	5,414	5,400	5,386	5,372	5,357	5,343	5,329	5,315
	9 Income Tax Component	3,861	3,851	3,841	3,831	3,821	3,810	3,800	3,790	3,780	3,770	3,760	3,750
	10 Interest Expense Component	2,467	2,460	2,454	2,447	2,441	2,434	2,428	2,422	2,415	2,409	2,402	2,396
	11 Total Return on Average Rate Base	11,799	11,768	11,737	11,707	11,676	11,645	11,614	11,584	11,553	11,522	11,491	11,461
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583
	14 Property Tax	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025
	15 ITC 5/	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	18,406	18,375	18,345	18,314	18,283	18,252	18,222	18,191	18,160	18,129	18,099	18,068

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Lwr Gate Hse-Rpl Stl & Trsh Rks 1/
Project ID # 106287
In Service 3/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	1,460,935	1,458,353	1,455,770	1,453,188	1,450,605	1,448,023	1,445,440	1,442,858	1,440,275	1,437,693	1,435,110	1,432,528
	2 Less: ADITL - Def Taxes	(297,131)	(297,585)	(298,038)	(298,492)	(298,946)	(299,399)	(299,853)	(300,307)	(300,761)	(301,214)	(301,668)	(302,122)
	3 Plus: ADITA - NOL (Stand Alone)	129,292	125,314	121,358	117,426	113,516	109,630	105,766	101,926	98,108	94,312	90,540	86,790
	4 Rate Base	1,293,097	1,286,082	1,279,090	1,272,122	1,265,176	1,258,253	1,251,353	1,244,477	1,237,623	1,230,790	1,223,982	1,217,196
	5 Average Rate Base	1,296,616	1,289,590	1,282,586	1,275,606	1,268,649	1,261,715	1,254,803	1,247,915	1,241,050	1,234,207	1,227,386	1,220,589
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	6,088	6,055	6,022	5,989	5,957	5,924	5,892	5,859	5,827	5,795	5,763	5,731
	9 Income Tax Component	4,296	4,272	4,249	4,226	4,203	4,180	4,157	4,134	4,112	4,089	4,066	4,044
	10 Interest Expense Component	2,745	2,730	2,715	2,700	2,685	2,671	2,656	2,641	2,627	2,612	2,598	2,584
	11 Total Return on Average Rate Base	13,128	13,057	12,986	12,916	12,845	12,775	12,705	12,635	12,566	12,496	12,427	12,358
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583	2,583
	14 Property Tax	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	19,735	19,664	19,593	19,523	19,452	19,382	19,312	19,242	19,173	19,104	19,035	18,966
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	19,735	19,664	19,593	19,523	19,452	19,382	19,312	19,242	19,173	19,104	19,035	18,966
	2 Tax Depreciation	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293	3,293
	3 Property Tax	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025	4,025
	4 Interest Expense (including on CWIP)	2,745	2,730	2,715	2,700	2,685	2,671	2,656	2,641	2,627	2,612	2,598	2,584
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	10,062	10,047	10,032	10,017	10,003	9,988	9,973	9,959	9,944	9,930	9,915	9,901
	7 Taxable Income (NOL)	9,674	9,617	9,561	9,505	9,450	9,394	9,339	9,284	9,229	9,174	9,119	9,065
	8 Current tax expense	4,002	3,979	3,956	3,932	3,909	3,886	3,863	3,841	3,818	3,795	3,773	3,750
	9 Taxable Income (NOL)	9,674	9,617	9,561	9,505	9,450	9,394	9,339	9,284	9,229	9,174	9,119	9,065
	10 NOL carryforward	(322,200)	(312,527)	(302,909)	(293,348)	(283,842)	(274,393)	(264,998)	(255,659)	(246,376)	(237,147)	(227,973)	(218,854)
	11 Taxable Income after NOL carryforward 7/	(312,527)	(302,909)	(293,348)	(283,842)	(274,393)	(264,998)	(255,659)	(246,376)	(237,147)	(227,973)	(218,854)	(209,789)
	12 Expected stand alone ADITA NOL	129,292	125,314	121,358	117,426	113,516	109,630	105,766	101,926	98,108	94,312	90,540	86,790
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	18,406	18,375	18,345	18,314	18,283	18,252	18,222	18,191	18,160	18,129	18,099	18,068
	2 Revenue Requirement: Stand Alone	19,735	19,664	19,593	19,523	19,452	19,382	19,312	19,242	19,173	19,104	19,035	18,966
	3 Revenue Requirement: Rider 8/	18,406	18,375	18,345	18,314	18,283	18,252	18,222	18,191	18,160	18,129	18,099	18,068
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	15,096	15,071	15,046	15,021	14,995	14,970	14,945	14,920	14,894	14,869	14,844	14,819

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Rpl/Rfb Lwr Gate Hse Gates 1/
Project ID # 106288
In Service 3/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782	1,963,782
	2 Total Accumulated Depreciation	112,667	115,938	119,210	122,481	125,753	129,024	132,296	135,567	138,839	142,110	145,382	148,653
	3 Net Plant	1,851,115	1,847,844	1,844,572	1,841,301	1,838,029	1,834,758	1,831,486	1,828,215	1,824,943	1,821,671	1,818,400	1,815,128
	4 Total Depreciation	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215	1,669,215
	5 Book Style Depreciation for Deferred Taxes	2,782	2,782	2,782	2,782	2,782	2,782	2,782	2,782	2,782	2,782	2,782	2,782
	6 Accum Book Style Depreciation for Deferred Taxes	95,775	98,557	101,339	104,121	106,903	109,685	112,467	115,249	118,031	120,813	123,595	126,377
	7 Accumulated Tax Depreciation	1,005,395	1,009,569	1,013,744	1,017,919	1,022,093	1,026,268	1,030,442	1,034,617	1,038,791	1,042,966	1,047,140	1,051,315
	8 Net Plant for Tax	663,820	659,645	655,471	651,296	647,121	642,947	638,772	634,598	630,423	626,249	622,074	617,900
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175
	11 Tax Book Difference	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393
	12 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%
	13 Deferred Income Tax on Timing Difference	576	576	576	576	576	576	576	576	576	576	576	576
	14 Total Accumulated Deferred Income Tax Liability	376,310	376,886	377,462	378,038	378,614	379,190	379,766	380,342	380,918	381,495	382,071	382,647
	15 Deferred Tax Expense debit / (Credit)	576	576	576	576	576	576	576	576	576	576	576	576
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	589,135	589,135	589,135	589,135	589,135	589,135	589,135	589,135	589,135	589,135	589,135	589,135
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	1,851,115	1,847,844	1,844,572	1,841,301	1,838,029	1,834,758	1,831,486	1,828,215	1,824,943	1,821,671	1,818,400	1,815,128
	2 Less: ADITL - Def Taxes	(376,310)	(376,886)	(377,462)	(378,038)	(378,614)	(379,190)	(379,766)	(380,342)	(380,918)	(381,495)	(382,071)	(382,647)
	3 Plus: ADITA - NOL												
	4 Rate Base	1,474,806	1,470,958	1,467,110	1,463,263	1,459,415	1,455,567	1,451,720	1,447,872	1,444,025	1,440,177	1,436,329	1,432,482
	5 Average Rate Base	1,476,729	1,472,882	1,469,034	1,465,187	1,461,339	1,457,491	1,453,644	1,449,796	1,445,948	1,442,101	1,438,253	1,434,406
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	6,934	6,916	6,898	6,879	6,861	6,843	6,825	6,807	6,789	6,771	6,753	6,735
	9 Income Tax Component	4,892	4,880	4,867	4,854	4,841	4,829	4,816	4,803	4,790	4,778	4,765	4,752
	10 Interest Expense Component	3,126	3,118	3,109	3,101	3,093	3,085	3,077	3,069	3,061	3,052	3,044	3,036
	11 Total Return on Average Rate Base	14,952	14,913	14,874	14,835	14,796	14,757	14,718	14,679	14,640	14,601	14,562	14,523
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272
	14 Property Tax	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	23,468	23,429	23,390	23,351	23,312	23,273	23,234	23,195	23,156	23,117	23,078	23,039

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Rpl/Rfb Lwr Gate Hse Gates 1/
Project ID # 106288
In Service 3/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	1,851,115	1,847,844	1,844,572	1,841,301	1,838,029	1,834,758	1,831,486	1,828,215	1,824,943	1,821,671	1,818,400	1,815,128
	2 Less: ADITL - Def Taxes	(376,310)	(376,886)	(377,462)	(378,038)	(378,614)	(379,190)	(379,766)	(380,342)	(380,918)	(381,495)	(382,071)	(382,647)
	3 Plus: ADITA - NOL (Stand Alone)	163,801	158,760	153,749	148,768	143,815	138,892	133,997	129,132	124,295	119,487	114,707	109,957
	4 Rate Base	1,638,607	1,629,718	1,620,859	1,612,031	1,603,230	1,594,459	1,585,717	1,577,004	1,568,320	1,559,664	1,551,036	1,542,439
	5 Average Rate Base	1,643,065	1,634,162	1,625,289	1,616,445	1,607,630	1,598,845	1,590,088	1,581,361	1,572,662	1,563,992	1,555,350	1,546,738
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	7,715	7,673	7,631	7,590	7,548	7,507	7,466	7,425	7,384	7,343	7,303	7,262
	9 Income Tax Component	5,444	5,414	5,385	5,355	5,326	5,297	5,268	5,239	5,210	5,182	5,153	5,124
	10 Interest Expense Component	3,478	3,459	3,440	3,421	3,403	3,384	3,366	3,347	3,329	3,310	3,292	3,274
	11 Total Return on Average Rate Base	16,636	16,546	16,456	16,367	16,277	16,188	16,100	16,011	15,923	15,835	15,748	15,661
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272	3,272
	14 Property Tax	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	25,152	25,062	24,972	24,882	24,793	24,704	24,615	24,527	24,439	24,351	24,264	24,176
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	25,152	25,062	24,972	24,882	24,793	24,704	24,615	24,527	24,439	24,351	24,264	24,176
	2 Tax Depreciation	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175	4,175
	3 Property Tax	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244	5,244
	4 Interest Expense (including on CWIP)	3,478	3,459	3,440	3,421	3,403	3,384	3,366	3,347	3,329	3,310	3,292	3,274
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	12,896	12,878	12,859	12,840	12,821	12,803	12,784	12,766	12,747	12,729	12,711	12,693
	7 Taxable Income (NOL)	12,255	12,184	12,113	12,042	11,971	11,901	11,831	11,761	11,691	11,622	11,553	11,484
	8 Current tax expense	5,070	5,040	5,011	4,982	4,953	4,923	4,894	4,866	4,837	4,808	4,779	4,751
	9 Taxable Income (NOL)	12,255	12,184	12,113	12,042	11,971	11,901	11,831	11,761	11,691	11,622	11,553	11,484
	10 NOL carryforward	(408,197)	(395,941)	(383,758)	(371,645)	(359,603)	(347,631)	(335,730)	(323,899)	(312,138)	(300,447)	(288,825)	(277,272)
	11 Taxable Income after NOL carryforward 7/	(395,941)	(383,758)	(371,645)	(359,603)	(347,631)	(335,730)	(323,899)	(312,138)	(300,447)	(288,825)	(277,272)	(265,788)
	12 Expected stand alone ADITA NOL	163,801	158,760	153,749	148,768	143,815	138,892	133,997	129,132	124,295	119,487	114,707	109,957
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	23,468	23,429	23,390	23,351	23,312	23,273	23,234	23,195	23,156	23,117	23,078	23,039
	2 Revenue Requirement: Stand Alone	25,152	25,062	24,972	24,882	24,793	24,704	24,615	24,527	24,439	24,351	24,264	24,176
	3 Revenue Requirement: Rider 8/	23,468	23,429	23,390	23,351	23,312	23,273	23,234	23,195	23,156	23,117	23,078	23,039
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	19,247	19,215	19,183	19,151	19,120	19,088	19,056	19,024	18,992	18,960	18,928	18,896

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

**THM Upper Gate House Head Gate 1/
Project ID # 106389
In Service 1/15/2014**

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689	1,316,689
	2 Total Accumulated Depreciation	91,357	93,535	95,713	97,891	100,069	102,247	104,425	106,603	108,781	110,959	113,137	115,315
	3 Net Plant	1,225,332	1,223,154	1,220,976	1,218,798	1,216,620	1,214,442	1,212,264	1,210,086	1,207,908	1,205,730	1,203,552	1,201,374
	4 Total Depreciation	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186	1,119,186
	5 Book Style Depreciation for Deferred Taxes	1,865	1,865	1,865	1,865	1,865	1,865	1,865	1,865	1,865	1,865	1,865	1,865
	6 Accum Book Style Depreciation for Deferred Taxes	77,799	79,664	81,529	83,394	85,260	87,125	88,990	90,856	92,721	94,586	96,452	98,317
	7 Accumulated Tax Depreciation	692,311	694,995	697,680	700,364	703,048	705,733	708,417	711,101	713,786	716,470	719,154	721,839
	8 Net Plant for Tax	426,875	424,191	421,506	418,822	416,138	413,453	410,769	408,085	405,400	402,716	400,032	397,347
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684
	11 Tax Book Difference	819	819	819	819	819	819	819	819	819	819	819	819
	12 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%
	13 Deferred Income Tax on Timing Difference	339	339	339	339	339	339	339	339	339	339	339	339
	14 Total Accumulated Deferred Income Tax Liability	254,224	254,563	254,901	255,240	255,579	255,918	256,257	256,596	256,934	257,273	257,612	257,951
	15 Deferred Tax Expense debit / (Credit)	339	339	339	339	339	339	339	339	339	339	339	339
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	395,007	395,007	395,007	395,007	395,007	395,007	395,007	395,007	395,007	395,007	395,007	395,007
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	1,225,332	1,223,154	1,220,976	1,218,798	1,216,620	1,214,442	1,212,264	1,210,086	1,207,908	1,205,730	1,203,552	1,201,374
	2 Less: ADITL - Def Taxes	(254,224)	(254,563)	(254,901)	(255,240)	(255,579)	(255,918)	(256,257)	(256,596)	(256,934)	(257,273)	(257,612)	(257,951)
	3 Plus: ADITA - NOL												
	4 Rate Base	971,109	968,592	966,075	963,558	961,041	958,524	956,008	953,491	950,974	948,457	945,940	943,423
	5 Average Rate Base	972,367	969,850	967,333	964,817	962,300	959,783	957,266	954,749	952,232	949,716	947,199	944,682
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	4,566	4,554	4,542	4,530	4,518	4,506	4,495	4,483	4,471	4,459	4,447	4,436
	9 Income Tax Component	3,222	3,213	3,205	3,196	3,188	3,180	3,171	3,163	3,155	3,146	3,138	3,130
	10 Interest Expense Component	2,058	2,053	2,048	2,042	2,037	2,032	2,026	2,021	2,016	2,010	2,005	2,000
	11 Total Return on Average Rate Base	9,845	9,820	9,794	9,769	9,743	9,718	9,692	9,667	9,641	9,616	9,590	9,565
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178
	14 Property Tax	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638
	15 ITC 5/	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	15,661	15,636	15,610	15,585	15,559	15,534	15,508	15,483	15,457	15,432	15,406	15,381

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Upper Gate House Head Gate 1/
Project ID # 106389
In Service 1/15/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	1,225,332	1,223,154	1,220,976	1,218,798	1,216,620	1,214,442	1,212,264	1,210,086	1,207,908	1,205,730	1,203,552	1,201,374
	2 Less: ADITL - Def Taxes	(254,224)	(254,563)	(254,901)	(255,240)	(255,579)	(255,918)	(256,257)	(256,596)	(256,934)	(257,273)	(257,612)	(257,951)
	3 Plus: ADITA - NOL (Stand Alone)	82,973	79,700	76,446	73,211	69,995	66,798	63,620	60,461	57,320	54,199	51,096	48,011
	4 Rate Base	1,054,082	1,048,292	1,042,521	1,036,769	1,031,036	1,025,322	1,019,628	1,013,952	1,008,294	1,002,656	997,036	991,434
	5 Average Rate Base	1,056,986	1,051,187	1,045,406	1,039,645	1,033,903	1,028,179	1,022,475	1,016,790	1,011,123	1,005,475	999,846	994,235
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	4,963	4,936	4,908	4,881	4,854	4,828	4,801	4,774	4,748	4,721	4,695	4,668
	9 Income Tax Component	3,502	3,483	3,463	3,444	3,425	3,406	3,388	3,369	3,350	3,331	3,313	3,294
	10 Interest Expense Component	2,237	2,225	2,213	2,201	2,188	2,176	2,164	2,152	2,140	2,128	2,116	2,104
	11 Total Return on Average Rate Base	10,702	10,643	10,585	10,526	10,468	10,410	10,353	10,295	10,238	10,180	10,123	10,067
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178	2,178
	14 Property Tax	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	16,518	16,459	16,401	16,342	16,284	16,226	16,168	16,111	16,054	15,996	15,939	15,883
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	16,518	16,459	16,401	16,342	16,284	16,226	16,168	16,111	16,054	15,996	15,939	15,883
	2 Tax Depreciation	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684	2,684
	3 Property Tax	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638
	4 Interest Expense (including on CWIP)	2,237	2,225	2,213	2,201	2,188	2,176	2,164	2,152	2,140	2,128	2,116	2,104
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	8,560	8,547	8,535	8,523	8,511	8,499	8,487	8,474	8,462	8,451	8,439	8,427
	7 Taxable Income (NOL)	7,958	7,912	7,866	7,819	7,773	7,728	7,682	7,636	7,591	7,546	7,501	7,456
	8 Current tax expense	3,292	3,273	3,254	3,235	3,216	3,197	3,178	3,159	3,140	3,122	3,103	3,084
	9 Taxable Income (NOL)	7,958	7,912	7,866	7,819	7,773	7,728	7,682	7,636	7,591	7,546	7,501	7,456
	10 NOL carryforward	(208,521)	(200,563)	(192,651)	(184,785)	(176,966)	(169,193)	(161,465)	(153,783)	(146,147)	(138,556)	(131,010)	(123,509)
	11 Taxable Income after NOL carryforward 7/	(200,563)	(192,651)	(184,785)	(176,966)	(169,193)	(161,465)	(153,783)	(146,147)	(138,556)	(131,010)	(123,509)	(116,053)
	12 Expected stand alone ADITA NOL	82,973	79,700	76,446	73,211	69,995	66,798	63,620	60,461	57,320	54,199	51,096	48,011
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	15,661	15,636	15,610	15,585	15,559	15,534	15,508	15,483	15,457	15,432	15,406	15,381
	2 Revenue Requirement: Stand Alone	16,518	16,459	16,401	16,342	16,284	16,226	16,168	16,111	16,054	15,996	15,939	15,883
	3 Revenue Requirement: Rider 8/	15,661	15,636	15,610	15,585	15,559	15,534	15,508	15,483	15,457	15,432	15,406	15,381
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	12,845	12,824	12,803	12,782	12,761	12,740	12,719	12,698	12,678	12,657	12,636	12,615

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Unit 3 Flood Insp/Refurb 1/
Project ID # 106984
In Service 7/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	242,510	242,510	242,510	242,510	242,510	242,510	242,510	242,510	242,510	242,510	242,510	242,510
	2 Total Accumulated Depreciation	46,346	46,695	47,045	47,395	47,744	48,094	48,444	48,793	49,143	49,492	49,842	50,192
	3 Net Plant	196,164	195,815	195,465	195,115	194,766	194,416	194,067	193,717	193,367	193,018	192,668	192,318
	4 Total Depreciation	350	350	350	350	350	350	350	350	350	350	350	350
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	206,134	206,134	206,134	206,134	206,134	206,134	206,134	206,134	206,134	206,134	206,134	206,134
	5 Book Style Depreciation for Deferred Taxes	344	344	344	344	344	344	344	344	344	344	344	344
	6 Accum Book Style Depreciation for Deferred Taxes	40,113	40,457	40,801	41,144	41,488	41,831	42,175	42,518	42,862	43,205	43,549	43,893
	7 Accumulated Tax Depreciation	172,423	172,635	172,848	173,060	173,272	173,484	173,697	173,909	174,121	174,334	174,546	174,758
	8 Net Plant for Tax	33,711	33,498	33,286	33,074	32,861	32,649	32,437	32,224	32,012	31,800	31,588	31,375
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	212	212	212	212	212	212	212	212	212	212	212	212
	11 Tax Book Difference	(131)	(131)	(131)	(131)	(131)	(131)	(131)	(131)	(131)	(131)	(131)	(131)
	12 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%
	13 Deferred Income Tax on Timing Difference	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)
	14 Total Accumulated Deferred Income Tax Liability	54,736	54,682	54,628	54,574	54,519	54,465	54,411	54,356	54,302	54,248	54,193	54,139
	15 Deferred Tax Expense debit / (Credit)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)	(54)
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	72,753	72,753	72,753	72,753	72,753	72,753	72,753	72,753	72,753	72,753	72,753	72,753
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	196,164	195,815	195,465	195,115	194,766	194,416	194,067	193,717	193,367	193,018	192,668	192,318
	2 Less: ADITL - Def Taxes	(54,736)	(54,682)	(54,628)	(54,574)	(54,519)	(54,465)	(54,411)	(54,356)	(54,302)	(54,248)	(54,193)	(54,139)
	3 Plus: ADITA - NOL												
	4 Rate Base	141,428	141,133	140,837	140,542	140,247	139,951	139,656	139,360	139,065	138,770	138,474	138,179
	5 Average Rate Base	141,576	141,280	140,985	140,690	140,394	140,099	139,804	139,508	139,213	138,917	138,622	138,327
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	665	663	662	661	659	658	656	655	654	652	651	649
	9 Income Tax Component	469	468	467	466	465	464	463	462	461	460	459	458
	10 Interest Expense Component	300	299	298	298	297	297	296	295	295	294	293	293
	11 Total Return on Average Rate Base	1,433	1,430	1,427	1,424	1,421	1,419	1,416	1,413	1,410	1,407	1,404	1,401
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	350	350	350	350	350	350	350	350	350	350	350	350
	14 Property Tax	985	985	985	985	985	985	985	985	985	985	985	985
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 3 Flood Insp/Refurb 1/
Project ID # 106984
In Service 7/25/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	196,164	195,815	195,465	195,115	194,766	194,416	194,067	193,717	193,367	193,018	192,668	192,318
	2 Less: ADITL - Def Taxes	(54,736)	(54,682)	(54,628)	(54,574)	(54,519)	(54,465)	(54,411)	(54,356)	(54,302)	(54,248)	(54,193)	(54,139)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	141,428	141,133	140,837	140,542	140,247	139,951	139,656	139,360	139,065	138,770	138,474	138,179
	5 Average Rate Base	141,576	141,280	140,985	140,690	140,394	140,099	139,804	139,508	139,213	138,917	138,622	138,327
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	665	663	662	661	659	658	656	655	654	652	651	649
	9 Income Tax Component	469	468	467	466	465	464	463	462	461	460	459	458
	10 Interest Expense Component	300	299	298	298	297	297	296	295	295	294	293	293
	11 Total Return on Average Rate Base	1,433	1,430	1,427	1,424	1,421	1,419	1,416	1,413	1,410	1,407	1,404	1,401
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	350	350	350	350	350	350	350	350	350	350	350	350
	14 Property Tax	985	985	985	985	985	985	985	985	985	985	985	985
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735
	2 Tax Depreciation	212	212	212	212	212	212	212	212	212	212	212	212
	3 Property Tax	985	985	985	985	985	985	985	985	985	985	985	985
	4 Interest Expense (including on CWIP)	300	299	298	298	297	297	296	295	295	294	293	293
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	1,497	1,496	1,496	1,495	1,495	1,494	1,493	1,493	1,492	1,491	1,491	1,490
	7 Taxable Income (NOL)	1,271	1,269	1,266	1,264	1,262	1,259	1,257	1,255	1,252	1,250	1,247	1,245
	8 Current tax expense	526	525	524	523	522	521	520	519	518	517	516	515
	9 Taxable Income (NOL)	1,271	1,269	1,266	1,264	1,262	1,259	1,257	1,255	1,252	1,250	1,247	1,245
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	1,271	1,269	1,266	1,264	1,262	1,259	1,257	1,255	1,252	1,250	1,247	1,245
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735
	2 Revenue Requirement: Stand Alone	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735
	3 Revenue Requirement: Rider 8/	2,768	2,765	2,762	2,759	2,756	2,753	2,750	2,747	2,744	2,741	2,738	2,735
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	2,270	2,268	2,265	2,263	2,261	2,258	2,256	2,253	2,251	2,248	2,246	2,243

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Replace #1 Penstock Valve 1/
Projects ID # 106284
In Service 6/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	405,511	405,511	405,511	405,511	405,511	405,511	405,511	405,511	405,511	405,511	405,511	405,511
	2 Total Accumulated Depreciation	21,504	22,180	22,855	23,530	24,205	24,881	25,556	26,231	26,906	27,582	28,257	28,932
	3 Net Plant	384,007	383,332	382,657	381,981	381,306	380,631	379,956	379,280	378,605	377,930	377,255	376,579
	4 Total Depreciation	675	675	675	675	675	675	675	675	675	675	675	675
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	344,685	344,685	344,685	344,685	344,685	344,685	344,685	344,685	344,685	344,685	344,685	344,685
	5 Book Style Depreciation for Deferred Taxes	574	574	574	574	574	574	574	574	574	574	574	574
	6 Accum Book Style Depreciation for Deferred Taxes	18,282	18,857	19,431	20,006	20,580	21,155	21,729	22,304	22,878	23,453	24,027	24,602
	7 Accumulated Tax Depreciation	205,261	206,138	207,015	207,891	208,768	209,645	210,522	211,399	212,276	213,152	214,029	214,906
	8 Net Plant for Tax	139,424	138,547	137,670	136,793	135,916	135,040	134,163	133,286	132,409	131,532	130,655	129,779
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	877	877	877	877	877	877	877	877	877	877	877	877
	11 Tax Book Difference	302	302	302	302	302	302	302	302	302	302	302	302
	12 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%
	13 Deferred Income Tax on Timing Difference	125	125	125	125	125	125	125	125	125	125	125	125
	14 Total Accumulated Deferred Income Tax Liability	77,353	77,478	77,603	77,728	77,853	77,978	78,104	78,229	78,354	78,479	78,604	78,729
	15 Deferred Tax Expense debit / (Credit)	125	125	125	125	125	125	125	125	125	125	125	125
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	121,653	121,653	121,653	121,653	121,653	121,653	121,653	121,653	121,653	121,653	121,653	121,653
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	384,007	383,332	382,657	381,981	381,306	380,631	379,956	379,280	378,605	377,930	377,255	376,579
	2 Less: ADITL - Def Taxes	(77,353)	(77,478)	(77,603)	(77,728)	(77,853)	(77,978)	(78,104)	(78,229)	(78,354)	(78,479)	(78,604)	(78,729)
	3 Plus: ADITA - NOL												
	4 Rate Base	306,654	305,854	305,053	304,253	303,453	302,652	301,852	301,052	300,251	299,451	298,651	297,850
	5 Average Rate Base	307,054	306,254	305,454	304,653	303,853	303,053	302,252	301,452	300,652	299,851	299,051	298,251
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,442	1,438	1,434	1,430	1,427	1,423	1,419	1,415	1,412	1,408	1,404	1,400
	9 Income Tax Component	1,017	1,015	1,012	1,009	1,007	1,004	1,001	999	996	993	991	988
	10 Interest Expense Component	650	648	647	645	643	641	640	638	636	635	633	631
	11 Total Return on Average Rate Base	3,109	3,101	3,093	3,085	3,077	3,068	3,060	3,052	3,044	3,036	3,028	3,020
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	675	675	675	675	675	675	675	675	675	675	675	675
	14 Property Tax	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	4,836	4,828	4,820	4,812	4,804	4,796	4,787	4,779	4,771	4,763	4,755	4,747

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Replace #1 Penstock Valve 1/
Projects ID # 106284
In Service 6/12/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	384,007	383,332	382,657	381,981	381,306	380,631	379,956	379,280	378,605	377,930	377,255	376,579
	2 Less: ADITL - Def Taxes	(77,353)	(77,478)	(77,603)	(77,728)	(77,853)	(77,978)	(78,104)	(78,229)	(78,354)	(78,479)	(78,604)	(78,729)
	3 Plus: ADITA - NOL (Stand Alone)	36,540	35,490	34,445	33,407	32,375	31,348	30,328	29,314	28,306	27,304	26,308	25,317
	4 Rate Base	343,194	341,344	339,498	337,660	335,828	334,000	332,180	330,366	328,557	326,755	324,959	323,167
	5 Average Rate Base	344,123	342,269	340,421	338,579	336,744	334,914	333,090	331,273	329,462	327,656	325,857	324,063
	7 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	6 Return on Average Rate Base 6/												
	7 After Tax Return on Equity	1,616	1,607	1,598	1,590	1,581	1,573	1,564	1,555	1,547	1,538	1,530	1,522
	8 Income Tax Component	1,140	1,134	1,128	1,122	1,116	1,110	1,104	1,098	1,092	1,086	1,080	1,074
	9 Interest Expense Component	728	724	721	717	713	709	705	701	697	694	690	686
	10 Total Return on Average Rate Base	3,484	3,465	3,447	3,428	3,410	3,391	3,373	3,354	3,336	3,318	3,299	3,281
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	675	675	675	675	675	675	675	675	675	675	675	675
	13 Property Tax	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	14 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	5,211	5,193	5,174	5,155	5,137	5,118	5,100	5,081	5,063	5,045	5,026	5,008
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	5,211	5,193	5,174	5,155	5,137	5,118	5,100	5,081	5,063	5,045	5,026	5,008
	2 Tax Depreciation	877	877	877	877	877	877	877	877	877	877	877	877
	3 Property Tax	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	4 Interest Expense (including on CWIP)	728	724	721	717	713	709	705	701	697	694	690	686
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	2,657	2,653	2,649	2,645	2,642	2,638	2,634	2,630	2,626	2,622	2,618	2,615
	7 Taxable Income (NOL)	2,554	2,539	2,525	2,510	2,495	2,481	2,466	2,451	2,437	2,422	2,408	2,394
	8 Current tax expense	1,057	1,051	1,044	1,038	1,032	1,026	1,020	1,014	1,008	1,002	996	990
	9 Taxable Income (NOL)	2,554	2,539	2,525	2,510	2,495	2,481	2,466	2,451	2,437	2,422	2,408	2,394
	10 NOL carryforward	(90,879)	(88,325)	(85,786)	(83,261)	(80,751)	(78,256)	(75,776)	(73,310)	(70,858)	(68,421)	(65,999)	(63,591)
	11 Taxable Income after NOL carryforward 7/	(88,325)	(85,786)	(83,261)	(80,751)	(78,256)	(75,776)	(73,310)	(70,858)	(68,421)	(65,999)	(63,591)	(61,197)
	12 Expected stand alone ADITA NOL	36,540	35,490	34,445	33,407	32,375	31,348	30,328	29,314	28,306	27,304	26,308	25,317
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	4,836	4,828	4,820	4,812	4,804	4,796	4,787	4,779	4,771	4,763	4,755	4,747
	2 Revenue Requirement: Stand Alone	5,211	5,193	5,174	5,155	5,137	5,118	5,100	5,081	5,063	5,045	5,026	5,008
	3 Revenue Requirement: Rider 8/	4,836	4,828	4,820	4,812	4,804	4,796	4,787	4,779	4,771	4,763	4,755	4,747
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	3,966	3,960	3,953	3,946	3,940	3,933	3,927	3,920	3,913	3,907	3,900	3,893

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Unit 2 Flood Insp/Refurb 1/
Projects ID # 106997
In Service 6/12/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198
	2 Total Accumulated Depreciation	19,499	19,844	20,189	20,534	20,879	21,224	21,568	21,913	22,258	22,603	22,948	23,293
	3 Net Plant	183,699	183,354	183,009	182,664	182,319	181,974	181,629	181,284	180,939	180,594	180,250	179,905
	4 Total Depreciation	345	345	345	345	345	345	345	345	345	345	345	345
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198	203,198
	5 Book Style Depreciation for Deferred Taxes	346	346	346	346	346	346	346	346	346	346	346	346
	6 Accum Book Style Depreciation for Deferred Taxes	19,504	19,849	20,195	20,540	20,886	21,232	21,577	21,923	22,268	22,614	22,960	23,305
	7 Accumulated Tax Depreciation	147,526	147,876	148,226	148,577	148,927	149,277	149,627	149,977	150,327	150,678	151,028	151,378
	8 Net Plant for Tax	55,672	55,322	54,971	54,621	54,271	53,921	53,571	53,220	52,870	52,520	52,170	51,820
	9 Bonus Depreciation 50% in 2015												
	10 Total Tax Depreciation (including bonus)	350	350	350	350	350	350	350	350	350	350	350	350
	11 Tax Book Difference	5	5	5	5	5	5	5	5	5	5	5	5
	12 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%
	13 Deferred Income Tax on Timing Difference	2	2	2	2	2	2	2	2	2	2	2	2
	14 Total Accumulated Deferred Income Tax Liability	52,963	52,965	52,967	52,969	52,970	52,972	52,974	52,976	52,978	52,980	52,982	52,984
	15 Deferred Tax Expense debit / (Credit)	2	2	2	2	2	2	2	2	2	2	2	2
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	183,699	183,354	183,009	182,664	182,319	181,974	181,629	181,284	180,939	180,594	180,250	179,905
	2 Less: ADITL - Def Taxes	(52,963)	(52,965)	(52,967)	(52,969)	(52,970)	(52,972)	(52,974)	(52,976)	(52,978)	(52,980)	(52,982)	(52,984)
	3 Plus: ADITA - NOL												
	4 Rate Base	130,736	130,389	130,042	129,696	129,349	129,002	128,655	128,308	127,961	127,615	127,268	126,921
	5 Average Rate Base	130,909	130,563	130,216	129,869	129,522	129,175	128,828	128,482	128,135	127,788	127,441	127,094
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	615	613	611	610	608	607	605	603	602	600	598	597
	9 Income Tax Component	434	433	431	430	429	428	427	426	425	423	422	421
	10 Interest Expense Component	277	276	276	275	274	273	273	272	271	270	270	269
	11 Total Return on Average Rate Base	1,325	1,322	1,318	1,315	1,311	1,308	1,304	1,301	1,297	1,294	1,290	1,287
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	345	345	345	345	345	345	345	345	345	345	345	345
	14 Property Tax	936	936	936	936	936	936	936	936	936	936	936	936
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 2 Flood Insp/Refurb 1/
Projects ID # 106997
In Service 6/12/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	183,699	183,354	183,009	182,664	182,319	181,974	181,629	181,284	180,939	180,594	180,250	179,905
	2 Less: ADITL - Def Taxes	(52,963)	(52,965)	(52,967)	(52,969)	(52,970)	(52,972)	(52,974)	(52,976)	(52,978)	(52,980)	(52,982)	(52,984)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	130,736	130,389	130,042	129,696	129,349	129,002	128,655	128,308	127,961	127,615	127,268	126,921
	5 Average Rate Base	130,909	130,563	130,216	129,869	129,522	129,175	128,828	128,482	128,135	127,788	127,441	127,094
	7 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	6 Return on Average Rate Base 6/												
	7 After Tax Return on Equity	615	613	611	610	608	607	605	603	602	600	598	597
	8 Income Tax Component	434	433	431	430	429	428	427	426	425	423	422	421
	9 Interest Expense Component	277	276	276	275	274	273	273	272	271	270	270	269
	10 Total Return on Average Rate Base	1,325	1,322	1,318	1,315	1,311	1,308	1,304	1,301	1,297	1,294	1,290	1,287
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	345	345	345	345	345	345	345	345	345	345	345	345
	13 Property Tax	936	936	936	936	936	936	936	936	936	936	936	936
	14 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568
	2 Tax Depreciation	350	350	350	350	350	350	350	350	350	350	350	350
	3 Property Tax	936	936	936	936	936	936	936	936	936	936	936	936
	4 Interest Expense (including on CWIP)	277	276	276	275	274	273	273	272	271	270	270	269
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	1,563	1,563	1,562	1,561	1,560	1,559	1,558	1,557	1,557	1,557	1,556	1,555
	7 Taxable Income (NOL)	1,043	1,040	1,038	1,035	1,032	1,029	1,026	1,024	1,021	1,018	1,015	1,013
	8 Current tax expense	432	430	429	428	427	426	425	423	422	421	420	419
	9 Taxable Income (NOL)	1,043	1,040	1,038	1,035	1,032	1,029	1,026	1,024	1,021	1,018	1,015	1,013
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	1,043	1,040	1,038	1,035	1,032	1,029	1,026	1,024	1,021	1,018	1,015	1,013
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568
	2 Revenue Requirement: Stand Alone	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568
	3 Revenue Requirement: Rider 8/	2,606	2,603	2,599	2,596	2,592	2,589	2,585	2,582	2,578	2,575	2,571	2,568
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	2,138	2,135	2,132	2,129	2,126	2,123	2,120	2,118	2,115	2,112	2,109	2,106

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

Thomson Basement Flood Proofing 1/
Project ID # 107017
In Service 12/23/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711
	2 Total Accumulated Depreciation	9,452	10,154	10,857	11,559	12,262	12,964	13,666	14,369	15,071	15,774	16,476	17,178
	3 Net Plant	403,259	402,557	401,854	401,152	400,449	399,747	399,044	398,342	397,640	396,937	396,235	395,532
	4 Total Depreciation	702	702	702	702	702	702	702	702	702	702	702	702
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711	412,711
	5 Book Style Depreciation for Deferred Taxes	702	702	702	702	702	702	702	702	702	702	702	702
	6 Accum Book Style Depreciation for Deferred Taxes	9,445	10,147	10,849	11,551	12,253	12,955	13,657	14,359	15,061	15,762	16,464	17,166
	7 Accumulated Tax Depreciation	224,466	225,650	226,834	228,017	229,201	230,385	231,569	232,753	233,937	235,121	236,304	237,488
	8 Net Plant for Tax	188,245	187,061	185,877	184,693	183,510	182,326	181,142	179,958	178,774	177,590	176,406	175,223
	9 Bonus Depreciation 50%												
	10 Total Tax Depreciation (including bonus)	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184
	11 Tax Book Difference	482	482	482	482	482	482	482	482	482	482	482	482
	12 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%
	13 Deferred Income Tax on Timing Difference	199	199	199	199	199	199	199	199	199	199	199	199
	14 Total Accumulated Deferred Income Tax Liability	88,954	89,153	89,353	89,552	89,751	89,951	90,150	90,350	90,549	90,748	90,948	91,147
	15 Deferred Tax Expense debit / (Credit)	199	199	199	199	199	199	199	199	199	199	199	199
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	403,259	402,557	401,854	401,152	400,449	399,747	399,044	398,342	397,640	396,937	396,235	395,532
	2 Less: ADITL - Def Taxes	(88,954)	(89,153)	(89,353)	(89,552)	(89,751)	(89,951)	(90,150)	(90,350)	(90,549)	(90,748)	(90,948)	(91,147)
	3 Plus: ADITA - NOL												
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	314,305	313,403	312,501	311,600	310,698	309,796	308,894	307,992	307,091	306,189	305,287	304,385
	5 Average Rate Base	314,756	313,854	312,952	312,051	311,149	310,247	309,345	308,443	307,541	306,640	305,738	304,836
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,478	1,474	1,469	1,465	1,461	1,457	1,452	1,448	1,444	1,440	1,436	1,431
	9 Income Tax Component	1,043	1,040	1,037	1,034	1,031	1,028	1,025	1,022	1,019	1,016	1,013	1,010
	10 Interest Expense Component	666	664	662	661	659	657	655	653	651	649	647	645
	11 Total Return on Average Rate Base	3,187	3,178	3,169	3,160	3,150	3,141	3,132	3,123	3,114	3,105	3,096	3,086
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	702	702	702	702	702	702	702	702	702	702	702	702
	14 Property Tax	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	5,003	4,993	4,984	4,975	4,966	4,957	4,948	4,939	4,930	4,920	4,911	4,902

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Thomson Basement Flood Proofing 1/
Project ID # 107017
In Service 12/23/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	403,259	402,557	401,854	401,152	400,449	399,747	399,044	398,342	397,640	396,937	396,235	395,532
	2 Less: ADITL - Def Taxes	(88,954)	(89,153)	(89,353)	(89,552)	(89,751)	(89,951)	(90,150)	(90,350)	(90,549)	(90,748)	(90,948)	(91,147)
	3 Plus: ADITA - NOL (Stand Alone)	60,625	59,586	58,552	57,525	56,505	55,491	54,483	53,481	52,486	51,497	50,514	49,538
	4 Rate Base	374,930	372,989	371,053	369,125	367,203	365,287	363,377	361,473	359,577	357,686	355,801	353,923
	5 Average Rate Base	375,904	373,960	372,021	370,089	368,164	366,245	364,332	362,425	360,525	358,631	356,743	354,862
	7 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	6 Return on Average Rate Base 6/												
	7 After Tax Return on Equity	1,765	1,756	1,747	1,738	1,729	1,720	1,711	1,702	1,693	1,684	1,675	1,666
	8 Income Tax Component	1,245	1,239	1,233	1,226	1,220	1,213	1,207	1,201	1,194	1,188	1,182	1,176
	9 Interest Expense Component	796	792	787	783	779	775	771	767	763	759	755	751
	10 Total Return on Average Rate Base	3,806	3,786	3,767	3,747	3,728	3,708	3,689	3,670	3,650	3,631	3,612	3,593
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	702	702	702	702	702	702	702	702	702	702	702	702
	13 Property Tax	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113
	14 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	5,622	5,602	5,582	5,563	5,543	5,524	5,505	5,485	5,466	5,447	5,428	5,409
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	5,622	5,602	5,582	5,563	5,543	5,524	5,505	5,485	5,466	5,447	5,428	5,409
	2 Tax Depreciation	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184	1,184
	3 Property Tax	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113
	4 Interest Expense (including on CWIP)	796	792	787	783	779	775	771	767	763	759	755	751
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	3,093	3,089	3,085	3,080	3,076	3,072	3,068	3,064	3,060	3,056	3,052	3,048
	7 Taxable Income (NOL)	2,529	2,513	2,498	2,482	2,467	2,452	2,436	2,421	2,406	2,391	2,375	2,360
	8 Current tax expense	1,046	1,040	1,033	1,027	1,021	1,014	1,008	1,002	995	989	983	976
	9 Taxable Income (NOL)	2,529	2,513	2,498	2,482	2,467	2,452	2,436	2,421	2,406	2,391	2,375	2,360
	10 NOL carryforward	(149,073)	(146,544)	(144,031)	(141,533)	(139,051)	(136,584)	(134,132)	(131,696)	(129,275)	(126,869)	(124,479)	(122,103)
	11 Taxable Income after NOL carryforward 7/	(146,544)	(144,031)	(141,533)	(139,051)	(136,584)	(134,132)	(131,696)	(129,275)	(126,869)	(124,479)	(122,103)	(119,743)
	12 Expected stand alone ADITA NOL	60,625	59,586	58,552	57,525	56,505	55,491	54,483	53,481	52,486	51,497	50,514	49,538
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	5,003	4,993	4,984	4,975	4,966	4,957	4,948	4,939	4,930	4,920	4,911	4,902
	2 Revenue Requirement: Stand Alone	5,622	5,602	5,582	5,563	5,543	5,524	5,505	5,485	5,466	5,447	5,428	5,409
	3 Revenue Requirement: Rider 8/	5,003	4,993	4,984	4,975	4,966	4,957	4,948	4,939	4,930	4,920	4,911	4,902
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	4,103	4,095	4,088	4,080	4,073	4,066	4,058	4,051	4,043	4,036	4,028	4,021

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

**Thomson Forebay Embankment Reconstruction 1/
Project ID # 106156
In Service 10/9/2014**

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894	30,802,894
	2 Total Accumulated Depreciation	1,353,609	1,405,041	1,456,474	1,507,906	1,559,338	1,610,770	1,662,203	1,713,635	1,765,067	1,816,499	1,867,932	1,919,364
	3 Net Plant	29,449,285	29,397,853	29,346,421	29,294,989	29,243,556	29,192,124	29,140,692	29,089,259	29,037,827	28,986,395	28,934,963	28,883,530
	4 Total Depreciation	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460	26,182,460
	5 Book Style Depreciation for Deferred Taxes	43,637	43,637	43,637	43,637	43,637	43,637	43,637	43,637	43,637	43,637	43,637	43,637
	6 Accum Book Style Depreciation for Deferred Taxes	1,149,432	1,193,070	1,236,707	1,280,345	1,323,982	1,367,620	1,411,257	1,454,894	1,498,532	1,542,169	1,585,807	1,629,444
	7 Accumulated Tax Depreciation	15,080,562	15,150,385	15,220,208	15,290,031	15,359,854	15,429,677	15,499,500	15,569,323	15,639,145	15,708,968	15,778,791	15,848,614
	8 Net Plant for Tax	11,101,898	11,032,075	10,962,252	10,892,429	10,822,606	10,752,784	10,682,961	10,613,138	10,543,315	10,473,492	10,403,669	10,333,846
	9 Bonus Depreciation (50%)												
	10 Accumulated Tax Depreciation	15,080,562	15,150,385	15,220,208	15,290,031	15,359,854	15,429,677	15,499,500	15,569,323	15,639,145	15,708,968	15,778,791	15,848,614
	11 Tax Book Difference	26,185	26,185	26,185	26,185	26,185	26,185	26,185	26,185	26,185	26,185	26,185	26,185
	12 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%
	13 Deferred Income Tax on Timing Difference	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833
	14 Total Accumulated Deferred Income Tax Liability	5,763,308	5,774,141	5,784,974	5,795,807	5,806,640	5,817,473	5,828,306	5,839,139	5,849,972	5,860,805	5,871,638	5,882,471
	15 Deferred Tax Expense debit / (Credit)	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833	10,833
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868	9,240,868
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	29,449,285	29,397,853	29,346,421	29,294,989	29,243,556	29,192,124	29,140,692	29,089,259	29,037,827	28,986,395	28,934,963	28,883,530
	2 Less: ADITL - Def Taxes	(5,763,308)	(5,774,141)	(5,784,974)	(5,795,807)	(5,806,640)	(5,817,473)	(5,828,306)	(5,839,139)	(5,849,972)	(5,860,805)	(5,871,638)	(5,882,471)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	23,685,977	23,623,712	23,561,447	23,499,181	23,436,916	23,374,651	23,312,386	23,250,121	23,187,855	23,125,590	23,063,325	23,001,060
	5 Average Rate Base	23,717,110	23,654,844	23,592,579	23,530,314	23,468,049	23,405,784	23,343,518	23,281,253	23,218,988	23,156,723	23,094,458	23,032,192
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	111,359	111,066	110,774	110,481	110,189	109,897	109,604	109,312	109,020	108,727	108,435	108,143
	9 Income Tax Component	78,576	78,370	78,163	77,957	77,751	77,545	77,338	77,132	76,926	76,719	76,513	76,307
	10 Interest Expense Component	50,201	50,069	49,938	49,806	49,674	49,542	49,410	49,279	49,147	49,015	48,883	48,751
	11 Total Return on Average Rate Base	240,136	239,505	238,875	238,244	237,614	236,984	236,353	235,723	235,092	234,462	233,831	233,201
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432
	14 Property Tax	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	371,106	370,476	369,845	369,215	368,584	367,954	367,323	366,693	366,063	365,432	364,802	364,171

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

**Thomson Forebay Embankment Reconstruction 1/
Project ID # 106156
In Service 10/9/2014**

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	29,449,285	29,397,853	29,346,421	29,294,989	29,243,556	29,192,124	29,140,692	29,089,259	29,037,827	28,986,395	28,934,963	28,883,530
	2 Less: ADITL - Def Taxes	(5,763,308)	(5,774,141)	(5,784,974)	(5,795,807)	(5,806,640)	(5,817,473)	(5,828,306)	(5,839,139)	(5,849,972)	(5,860,805)	(5,871,638)	(5,882,471)
	3 Plus: ADITA - NOL (Stand Alone)	3,168,608	3,087,484	3,006,833	2,926,655	2,846,949	2,767,712	2,688,943	2,610,640	2,532,802	2,455,428	2,378,516	2,302,064
	4 Rate Base	26,854,585	26,711,196	26,568,280	26,425,836	26,283,865	26,142,363	26,001,329	25,860,761	25,720,657	25,581,018	25,441,841	25,303,124
	5 Average Rate Base	26,926,518	26,782,890	26,639,738	26,497,058	26,354,851	26,213,114	26,071,846	25,931,045	25,790,709	25,650,838	25,511,430	25,372,482
	7 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	6 Return on Average Rate Base 6/												
	7 After Tax Return on Equity	126,428	125,753	125,081	124,411	123,743	123,078	122,415	121,754	121,095	120,438	119,783	119,131
	8 Income Tax Component	89,209	88,733	88,259	87,786	87,315	86,845	86,377	85,911	85,446	84,983	84,521	84,060
	9 Interest Expense Component	56,994	56,690	56,387	56,085	55,784	55,484	55,185	54,887	54,590	54,294	53,999	53,705
	10 Total Return on Average Rate Base	272,631	271,177	269,727	268,283	266,843	265,408	263,977	262,552	261,131	259,715	258,303	256,896
	11 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	12 Depreciation Expense	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432	51,432
	13 Property Tax	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538
	14 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	403,601	402,147	400,698	399,253	397,813	396,378	394,948	393,522	392,101	390,685	389,273	387,867
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	403,601	402,147	400,698	399,253	397,813	396,378	394,948	393,522	392,101	390,685	389,273	387,867
	2 Tax Depreciation	69,823	69,823	69,823	69,823	69,823	69,823	69,823	69,823	69,823	69,823	69,823	69,823
	3 Property Tax	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538	79,538
	4 Interest Expense (including on CWIP)	56,994	56,690	56,387	56,085	55,784	55,484	55,185	54,887	54,590	54,294	53,999	53,705
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	206,355	206,051	205,748	205,446	205,145	204,845	204,546	204,248	203,951	203,655	203,360	203,066
	7 Taxable Income (NOL)	197,246	196,096	194,949	193,807	192,668	191,533	190,401	189,274	188,150	187,030	185,913	184,801
	8 Current tax expense	81,601	81,125	80,650	80,178	79,707	79,237	78,769	78,303	77,838	77,374	76,912	76,452
	9 Taxable Income (NOL)	197,246	196,096	194,949	193,807	192,668	191,533	190,401	189,274	188,150	187,030	185,913	184,801
	10 NOL carryforward	(7,856,440)	(7,659,194)	(7,463,098)	(7,268,149)	(7,074,342)	(6,881,675)	(6,690,142)	(6,499,741)	(6,310,467)	(6,122,317)	(5,935,287)	(5,749,374)
	11 Taxable Income after NOL carryforward 7/	(7,659,194)	(7,463,098)	(7,268,149)	(7,074,342)	(6,881,675)	(6,690,142)	(6,499,741)	(6,310,467)	(6,122,317)	(5,935,287)	(5,749,374)	(5,564,573)
	12 Expected stand alone ADITA NOL	3,168,608	3,087,484	3,006,833	2,926,655	2,846,949	2,767,712	2,688,943	2,610,640	2,532,802	2,455,428	2,378,516	2,302,064
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	371,106	370,476	369,845	369,215	368,584	367,954	367,323	366,693	366,063	365,432	364,802	364,171
	2 Revenue Requirement: Stand Alone	403,601	402,147	400,698	399,253	397,813	396,378	394,948	393,522	392,101	390,685	389,273	387,867
	3 Revenue Requirement: Rider 8/	371,106	370,476	369,845	369,215	368,584	367,954	367,323	366,693	366,063	365,432	364,802	364,171
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	304,370	303,853	303,336	302,819	302,302	301,785	301,268	300,751	300,233	299,716	299,199	298,682

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Lower Wye Hse - Replace Valves 1/
Project IDs # 106282
In Service 4/17/2015

Section Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A Book Basis of Property												
0 CWIP												
1 Plant in Service	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427	1,404,427
2 Total Accumulated Depreciation	51,844	54,231	56,618	59,005	61,392	63,780	66,167	68,554	70,941	73,328	75,715	78,102
3 Net Plant	1,352,583	1,350,196	1,347,809	1,345,422	1,343,035	1,340,648	1,338,261	1,335,873	1,333,486	1,331,099	1,328,712	1,326,325
4 Total Depreciation	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387
5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B Tax Basis of Property												
1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763	1,193,763
5 Book Style Depreciation for Deferred Taxes	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030
6 Accum Book Style Depreciation for Deferred Taxes	44,076	46,106	48,137	50,167	52,197	54,227	56,258	58,288	60,318	62,348	64,378	66,409
7 Accumulated Tax Depreciation	672,152	675,432	678,712	681,993	685,273	688,554	691,834	695,114	698,395	701,675	704,956	708,236
8 Net Plant for Tax	521,612	518,331	515,051	511,770	508,490	505,210	501,929	498,649	495,368	492,088	488,807	485,527
9 Bonus Depreciation (50% in 2015)												
10 Total Tax Depreciation (including bonus)	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280
11 Tax Book Difference	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
12 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%
13 Deferred Income Tax on Timing Difference	517	517	517	517	517	517	517	517	517	517	517	517
14 Total Accumulated Deferred Income Tax Liability	259,835	260,352	260,869	261,386	261,904	262,421	262,938	263,455	263,972	264,490	265,007	265,524
15 Deferred Tax Expense debit / (Credit)	517	517	517	517	517	517	517	517	517	517	517	517
16 Cum Investment Tax Credit (30% on Qualifying Costs)	421,328	421,328	421,328	421,328	421,328	421,328	421,328	421,328	421,328	421,328	421,328	421,328
17 Amortization of ITC 4/												
18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1 Revenue Requirements - MP Regulated NOL												
1 Net Plant	1,352,583	1,350,196	1,347,809	1,345,422	1,343,035	1,340,648	1,338,261	1,335,873	1,333,486	1,331,099	1,328,712	1,326,325
2 Less: ADITL - Def Taxes	(259,835)	(260,352)	(260,869)	(261,386)	(261,904)	(262,421)	(262,938)	(263,455)	(263,972)	(264,490)	(265,007)	(265,524)
3 Plus: ADITA - NOL												
4 Rate Base	1,092,748	1,089,844	1,086,940	1,084,036	1,081,131	1,078,227	1,075,323	1,072,418	1,069,514	1,066,610	1,063,705	1,060,801
5 Average Rate Base	1,094,201	1,091,296	1,088,392	1,085,488	1,082,583	1,079,679	1,076,775	1,073,870	1,070,966	1,068,062	1,065,158	1,062,253
6 Current Return on CWIP 6/												
7 Return on Average Rate Base 6/												
8 After Tax Return on Equity	5,138	5,124	5,110	5,097	5,083	5,069	5,056	5,042	5,028	5,015	5,001	4,988
9 Income Tax Component	3,625	3,616	3,606	3,596	3,587	3,577	3,567	3,558	3,548	3,539	3,529	3,519
10 Interest Expense Component	2,316	2,310	2,304	2,298	2,291	2,285	2,279	2,273	2,267	2,261	2,255	2,248
11 Total Return on Average Rate Base	11,079	11,049	11,020	10,991	10,961	10,932	10,902	10,873	10,844	10,814	10,785	10,755
12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387
14 Property Tax	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805
15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements	17,271	17,242	17,212	17,183	17,154	17,124	17,095	17,065	17,036	17,007	16,977	16,948

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Lower Wye Hse - Replace Valves 1/
Project IDs # 106282
In Service 4/17/2015

Section Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2 Revenue Requirements - Stand Alone NOL												
1 Net Plant	1,352,583	1,350,196	1,347,809	1,345,422	1,343,035	1,340,648	1,338,261	1,335,873	1,333,486	1,331,099	1,328,712	1,326,325
2 Less: ADITL - Def Taxes	(259,835)	(260,352)	(260,869)	(261,386)	(261,904)	(262,421)	(262,938)	(263,455)	(263,972)	(264,490)	(265,007)	(265,524)
3 Plus: ADITA - NOL (Stand Alone)	151,456	147,715	143,995	140,298	136,622	132,968	129,335	125,725	122,136	118,568	115,022	111,497
4 Rate Base	1,244,204	1,237,559	1,230,935	1,224,334	1,217,753	1,211,195	1,204,658	1,198,143	1,191,650	1,185,178	1,178,727	1,172,298
5 Average Rate Base	1,247,539	1,240,882	1,234,247	1,227,634	1,221,043	1,214,474	1,207,926	1,201,400	1,194,897	1,188,414	1,181,953	1,175,513
6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
8 After Tax Return on Equity	5,858	5,826	5,795	5,764	5,733	5,702	5,672	5,641	5,610	5,580	5,550	5,519
9 Income Tax Component	4,133	4,111	4,089	4,067	4,045	4,024	4,002	3,980	3,959	3,937	3,916	3,895
10 Interest Expense Component	2,641	2,627	2,612	2,598	2,585	2,571	2,557	2,543	2,529	2,515	2,502	2,488
11 Total Return on Average Rate Base	12,631	12,564	12,497	12,430	12,363	12,297	12,230	12,164	12,098	12,033	11,967	11,902
12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
13 Depreciation Expense	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387
14 Property Tax	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805
15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
16 Revenue Requirements	18,824	18,756	18,689	18,622	18,555	18,489	18,423	18,357	18,291	18,225	18,160	18,094
D Stand Alone Taxable Income or Loss (NOL)												
1 Revenue Requirements	18,824	18,756	18,689	18,622	18,555	18,489	18,423	18,357	18,291	18,225	18,160	18,094
2 Tax Depreciation	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280
3 Property Tax	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805	3,805
4 Interest Expense (including on CWIP)	2,641	2,627	2,612	2,598	2,585	2,571	2,557	2,543	2,529	2,515	2,502	2,488
5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
6 Total Tax Deduction	9,726	9,712	9,698	9,684	9,670	9,656	9,643	9,629	9,615	9,601	9,588	9,574
7 Taxable Income (NOL)	9,097	9,044	8,991	8,938	8,885	8,833	8,780	8,728	8,676	8,624	8,572	8,521
8 Current tax expense	3,764	3,742	3,720	3,698	3,676	3,654	3,632	3,611	3,589	3,568	3,546	3,525
9 Taxable Income (NOL)	9,097	9,044	8,991	8,938	8,885	8,833	8,780	8,728	8,676	8,624	8,572	8,521
10 NOL carryforward	(375,199)	(366,102)	(357,058)	(348,067)	(339,129)	(330,244)	(321,411)	(312,631)	(303,903)	(295,227)	(286,604)	(278,031)
11 Taxable Income after NOL carryforward 7/	(366,102)	(357,058)	(348,067)	(339,129)	(330,244)	(321,411)	(312,631)	(303,903)	(295,227)	(286,604)	(278,031)	(269,511)
12 Expected stand alone ADITA NOL	151,456	147,715	143,995	140,298	136,622	132,968	129,335	125,725	122,136	118,568	115,022	111,497
E Summary: Revenue Requirements												
1 Revenue Requirement: Consolidated	17,271	17,242	17,212	17,183	17,154	17,124	17,095	17,065	17,036	17,007	16,977	16,948
2 Revenue Requirement: Stand Alone	18,824	18,756	18,689	18,622	18,555	18,489	18,423	18,357	18,291	18,225	18,160	18,094
3 Revenue Requirement: Rider 8/	17,271	17,242	17,212	17,183	17,154	17,124	17,095	17,065	17,036	17,007	16,977	16,948
4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
5 MN Jurisdictional Revenue Requirement	14,165	14,141	14,117	14,093	14,069	14,045	14,021	13,997	13,972	13,948	13,924	13,900

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Unit 4 Flood Insp/Refurb 1/
Project IDs # 106998
In Service 12/18/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802
	2 Total Accumulated Depreciation	10,209	10,960	11,712	12,464	13,216	13,968	14,719	15,471	16,223	16,975	17,727	18,479
	3 Net Plant	432,594	431,842	431,090	430,338	429,587	428,835	428,083	427,331	426,579	425,828	425,076	424,324
	4 Total Depreciation	752	752	752	752	752	752	752	752	752	752	752	752
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes												
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802	442,802
	5 Book Style Depreciation for Deferred Taxes	753	753	753	753	753	753	753	753	753	753	753	753
	6 Accum Book Style Depreciation for Deferred Taxes	10,224	10,977	11,731	12,484	13,237	13,990	14,743	15,496	16,249	17,002	17,755	18,508
	7 Accumulated Tax Depreciation	242,010	243,273	244,536	245,799	247,061	248,324	249,587	250,850	252,112	253,375	254,638	255,901
	8 Net Plant for Tax	200,792	199,529	198,267	197,004	195,741	194,478	193,216	191,953	190,690	189,427	188,165	186,902
	9 Bonus Depreciation 50%												
	10 Total Tax Depreciation (including bonus)	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263
	11 Tax Book Difference	510	510	510	510	510	510	510	510	510	510	510	510
	12 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%
	13 Deferred Income Tax on Timing Difference	211	211	211	211	211	211	211	211	211	211	211	211
	14 Total Accumulated Deferred Income Tax Liability	95,890	96,101	96,312	96,522	96,733	96,944	97,155	97,366	97,577	97,788	97,998	98,209
	15 Deferred Tax Expense debit / (Credit)	211	211	211	211	211	211	211	211	211	211	211	211
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	432,594	431,842	431,090	430,338	429,587	428,835	428,083	427,331	426,579	425,828	425,076	424,324
	2 Less: ADITL - Def Taxes	(95,890)	(96,101)	(96,312)	(96,522)	(96,733)	(96,944)	(97,155)	(97,366)	(97,577)	(97,788)	(97,998)	(98,209)
	3 Plus: ADITA - NOL												
	4 Rate Base	336,704	335,741	334,779	333,816	332,853	331,891	330,928	329,965	329,003	328,040	327,077	326,115
	5 Average Rate Base	337,185	336,223	335,260	334,297	333,335	332,372	331,409	330,447	329,484	328,521	327,559	326,596
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,583	1,579	1,574	1,570	1,565	1,561	1,556	1,552	1,547	1,543	1,538	1,533
	9 Income Tax Component	1,117	1,114	1,111	1,108	1,104	1,101	1,098	1,095	1,092	1,088	1,085	1,082
	10 Interest Expense Component	714	712	710	708	706	704	701	699	697	695	693	691
	11 Total Return on Average Rate Base	3,414	3,404	3,395	3,385	3,375	3,365	3,356	3,346	3,336	3,326	3,317	3,307
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	752	752	752	752	752	752	752	752	752	752	752	752
	14 Property Tax	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	5,552	5,543	5,533	5,523	5,513	5,504	5,494	5,484	5,475	5,465	5,455	5,445

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 4 Flood Insp/Refurb 1/
Project IDs # 106998
In Service 12/18/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	432,594	431,842	431,090	430,338	429,587	428,835	428,083	427,331	426,579	425,828	425,076	424,324
	2 Less: ADITL - Def Taxes	(95,890)	(96,101)	(96,312)	(96,522)	(96,733)	(96,944)	(97,155)	(97,366)	(97,577)	(97,788)	(97,998)	(98,209)
	3 Plus: ADITA - NOL (Stand Alone)	26,305	25,317	24,336	23,361	22,392	21,430	20,474	19,524	18,581	17,643	16,713	15,788
	4 Rate Base	363,009	361,058	359,115	357,177	355,245	353,321	351,402	349,489	347,584	345,683	343,790	341,903
	5 Average Rate Base	363,988	362,034	360,087	358,146	356,211	354,283	352,361	350,446	348,537	346,633	344,737	342,847
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	1,709	1,700	1,691	1,682	1,673	1,663	1,654	1,645	1,636	1,628	1,619	1,610
	9 Income Tax Component	1,206	1,199	1,193	1,187	1,180	1,174	1,167	1,161	1,155	1,148	1,142	1,136
	10 Interest Expense Component	770	766	762	758	754	750	746	742	738	734	730	726
	11 Total Return on Average Rate Base	3,685	3,666	3,646	3,626	3,607	3,587	3,568	3,548	3,529	3,510	3,490	3,471
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	752	752	752	752	752	752	752	752	752	752	752	752
	14 Property Tax	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	5,824	5,804	5,784	5,765	5,745	5,726	5,706	5,687	5,667	5,648	5,629	5,610
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	5,824	5,804	5,784	5,765	5,745	5,726	5,706	5,687	5,667	5,648	5,629	5,610
	2 Tax Depreciation	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263	1,263
	3 Property Tax	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387
	4 Interest Expense (including on CWIP)	770	766	762	758	754	750	746	742	738	734	730	726
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	3,420	3,416	3,412	3,408	3,403	3,399	3,395	3,391	3,387	3,383	3,379	3,375
	7 Taxable Income (NOL)	2,404	2,388	2,373	2,357	2,342	2,326	2,311	2,296	2,280	2,265	2,250	2,235
	8 Current tax expense	995	988	982	975	969	962	956	950	943	937	931	924
	9 Taxable Income (NOL)	2,404	2,388	2,373	2,357	2,342	2,326	2,311	2,296	2,280	2,265	2,250	2,235
	10 NOL carryforward	(65,990)	(63,586)	(61,198)	(58,825)	(56,468)	(54,126)	(51,800)	(49,489)	(47,193)	(44,913)	(42,648)	(40,398)
	11 Taxable Income after NOL carryforward 7/	(63,586)	(61,198)	(58,825)	(56,468)	(54,126)	(51,800)	(49,489)	(47,193)	(44,913)	(42,648)	(40,398)	(38,163)
	12 Expected stand alone ADITA NOL	26,305	25,317	24,336	23,361	22,392	21,430	20,474	19,524	18,581	17,643	16,713	15,788
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	5,552	5,543	5,533	5,523	5,513	5,504	5,494	5,484	5,475	5,465	5,455	5,445
	2 Revenue Requirement: Stand Alone	5,824	5,804	5,784	5,765	5,745	5,726	5,706	5,687	5,667	5,648	5,629	5,610
	3 Revenue Requirement: Rider 8/	5,552	5,543	5,533	5,523	5,513	5,504	5,494	5,484	5,475	5,465	5,455	5,445
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	4,554	4,546	4,538	4,530	4,522	4,514	4,506	4,498	4,490	4,482	4,474	4,466

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Unit 5 Flood Insp/Refurb 1/
Project IDs # 106999
In Service 6/30/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739
	2 Total Accumulated Depreciation	21,354	21,684	22,014	22,343	22,673	23,002	23,332	23,661	23,991	24,321	24,650	24,980
	3 Net Plant	173,385	173,055	172,726	172,396	172,067	171,737	171,407	171,078	170,748	170,419	170,089	169,760
	4 Total Depreciation	330	330	330	330	330	330	330	330	330	330	330	330
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739	194,739
	5 Book Style Depreciation for Deferred Taxes	331	331	331	331	331	331	331	331	331	331	331	331
	6 Accum Book Style Depreciation for Deferred Taxes	21,367	21,698	22,029	22,360	22,691	23,022	23,354	23,685	24,016	24,347	24,678	25,010
	7 Accumulated Tax Depreciation	145,741	146,049	146,357	146,665	146,973	147,282	147,590	147,898	148,206	148,514	148,823	149,131
	8 Net Plant for Tax	48,999	48,691	48,382	48,074	47,766	47,458	47,149	46,841	46,533	46,225	45,917	45,608
	9 Bonus Depreciation 50% in 2015												
	10 Total Tax Depreciation (including bonus)	308	308	308	308	308	308	308	308	308	308	308	308
	11 Tax Book Difference	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	(23)
	12 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%
	13 Deferred Income Tax on Timing Difference	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
	14 Total Accumulated Deferred Income Tax Liability	51,454	51,444	51,435	51,425	51,416	51,406	51,397	51,387	51,377	51,368	51,358	51,349
	15 Deferred Tax Expense debit / (Credit)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	173,385	173,055	172,726	172,396	172,067	171,737	171,407	171,078	170,748	170,419	170,089	169,760
	2 Less: ADITL - Def Taxes	(51,454)	(51,444)	(51,435)	(51,425)	(51,416)	(51,406)	(51,397)	(51,387)	(51,377)	(51,368)	(51,358)	(51,349)
	3 Plus: ADITA - NOL												
	4 Rate Base	121,931	121,611	121,291	120,971	120,651	120,331	120,011	119,691	119,371	119,051	118,731	118,411
	5 Average Rate Base	122,091	121,771	121,451	121,131	120,811	120,491	120,171	119,851	119,531	119,211	118,891	118,571
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	573	572	570	569	567	566	564	563	561	560	558	557
	9 Income Tax Component	404	403	402	401	400	399	398	397	396	395	394	393
	10 Interest Expense Component	258	258	257	256	256	255	254	254	253	252	252	251
	11 Total Return on Average Rate Base	1,236	1,233	1,230	1,226	1,223	1,220	1,217	1,213	1,210	1,207	1,204	1,201
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	330	330	330	330	330	330	330	330	330	330	330	330
	14 Property Tax	953	953	953	953	953	953	953	953	953	953	953	953
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 5 Flood Insp/Refurb 1/
Project IDs # 106999
In Service 6/30/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	173,385	173,055	172,726	172,396	172,067	171,737	171,407	171,078	170,748	170,419	170,089	169,760
	2 Less: ADITL - Def Taxes	(51,454)	(51,444)	(51,435)	(51,425)	(51,416)	(51,406)	(51,397)	(51,387)	(51,377)	(51,368)	(51,358)	(51,349)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	121,931	121,611	121,291	120,971	120,651	120,331	120,011	119,691	119,371	119,051	118,731	118,411
	5 Average Rate Base	122,091	121,771	121,451	121,131	120,811	120,491	120,171	119,851	119,531	119,211	118,891	118,571
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	573	572	570	569	567	566	564	563	561	560	558	557
	9 Income Tax Component	404	403	402	401	400	399	398	397	396	395	394	393
	10 Interest Expense Component	258	258	257	256	256	255	254	254	253	252	252	251
	11 Total Return on Average Rate Base	1,236	1,233	1,230	1,226	1,223	1,220	1,217	1,213	1,210	1,207	1,204	1,201
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	330	330	330	330	330	330	330	330	330	330	330	330
	14 Property Tax	953	953	953	953	953	953	953	953	953	953	953	953
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483
	2 Tax Depreciation	308	308	308	308	308	308	308	308	308	308	308	308
	3 Property Tax	953	953	953	953	953	953	953	953	953	953	953	953
	4 Interest Expense (including on CWIP)	258	258	257	256	256	255	254	254	253	252	252	251
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	1,520	1,519	1,518	1,518	1,517	1,516	1,516	1,515	1,514	1,514	1,513	1,512
	7 Taxable Income (NOL)	999	997	994	991	989	986	984	981	979	976	973	971
	8 Current tax expense	413	412	411	410	409	408	407	406	405	404	403	402
	9 Taxable Income (NOL)	999	997	994	991	989	986	984	981	979	976	973	971
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	999	997	994	991	989	986	984	981	979	976	973	971
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	-
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483
	2 Revenue Requirement: Stand Alone	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483
	3 Revenue Requirement: Rider 8/	2,519	2,516	2,512	2,509	2,506	2,503	2,499	2,496	2,493	2,490	2,486	2,483
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	2,066	2,063	2,060	2,058	2,055	2,053	2,050	2,047	2,045	2,042	2,039	2,037

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Refurbish #4 & #5 Penstock 1/
Project IDs # 106949
In Service 4/17/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	347,626	347,626	347,626	347,626	347,626	347,626	347,626	347,626	347,626	347,626	347,626	347,626
	2 Total Accumulated Depreciation	12,705	13,296	13,887	14,478	15,069	15,661	16,252	16,843	17,434	18,025	18,617	19,208
	3 Net Plant	334,922	334,331	333,739	333,148	332,557	331,966	331,375	330,783	330,192	329,601	329,010	328,419
	4 Total Depreciation	591	591	591	591	591	591	591	591	591	591	591	591
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	295,482	295,482	295,482	295,482	295,482	295,482	295,482	295,482	295,482	295,482	295,482	295,482
	5 Book Style Depreciation for Deferred Taxes	503	503	503	503	503	503	503	503	503	503	503	503
	6 Accum Book Style Depreciation for Deferred Taxes	10,799	11,301	11,804	12,306	12,809	13,312	13,814	14,317	14,819	15,322	15,824	16,327
	7 Accumulated Tax Depreciation	166,040	166,854	167,668	168,482	169,297	170,111	170,925	171,739	172,553	173,367	174,181	174,995
	8 Net Plant for Tax	129,442	128,628	127,814	127,000	126,186	125,372	124,558	123,744	122,930	122,116	121,302	120,487
	9 Bonus Depreciation 50% in 2015												
	10 Total Tax Depreciation (including bonus)	814	814	814	814	814	814	814	814	814	814	814	814
	11 Tax Book Difference	312	312	312	312	312	312	312	312	312	312	312	312
	12 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%
	13 Deferred Income Tax on Timing Difference	129	129	129	129	129	129	129	129	129	129	129	129
	14 Total Accumulated Deferred Income Tax Liability	64,223	64,352	64,481	64,610	64,739	64,868	64,997	65,126	65,254	65,383	65,512	65,641
	15 Deferred Tax Expense debit / (Credit)	129	129	129	129	129	129	129	129	129	129	129	129
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	104,288	104,288	104,288	104,288	104,288	104,288	104,288	104,288	104,288	104,288	104,288	104,288
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	334,922	334,331	333,739	333,148	332,557	331,966	331,375	330,783	330,192	329,601	329,010	328,419
	2 Less: ADITL - Def Taxes	(64,223)	(64,352)	(64,481)	(64,610)	(64,739)	(64,868)	(64,997)	(65,126)	(65,254)	(65,383)	(65,512)	(65,641)
	3 Plus: ADITA - NOL												
	4 Rate Base	270,699	269,978	269,258	268,538	267,818	267,098	266,378	265,658	264,938	264,218	263,498	262,778
	5 Average Rate Base	271,059	270,338	269,618	268,898	268,178	267,458	266,738	266,018	265,298	264,578	263,858	263,138
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,273	1,269	1,266	1,263	1,259	1,256	1,252	1,249	1,246	1,242	1,239	1,236
	9 Income Tax Component	898	896	893	891	888	886	884	881	879	877	874	872
	10 Interest Expense Component	574	572	571	569	568	566	565	563	562	560	558	557
	11 Total Return on Average Rate Base	2,744	2,737	2,730	2,723	2,715	2,708	2,701	2,693	2,686	2,679	2,672	2,664
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	591	591	591	591	591	591	591	591	591	591	591	591
	14 Property Tax	879	879	879	879	879	879	879	879	879	879	879	879
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	4,215	4,207	4,200	4,193	4,186	4,178	4,171	4,164	4,156	4,149	4,142	4,135

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Refurbish #4 & #5 Penstock 1/
Project IDs # 106949
In Service 4/17/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	334,922	334,331	333,739	333,148	332,557	331,966	331,375	330,783	330,192	329,601	329,010	328,419
	2 Less: ADITL - Def Taxes	(64,223)	(64,352)	(64,481)	(64,610)	(64,739)	(64,868)	(64,997)	(65,126)	(65,254)	(65,383)	(65,512)	(65,641)
	3 Plus: ADITA - NOL (Stand Alone)	37,506	36,580	35,659	34,744	33,834	32,930	32,031	31,137	30,248	29,365	28,487	27,615
	4 Rate Base	308,205	306,558	304,917	303,282	301,652	300,028	298,409	296,795	295,186	293,583	291,985	290,393
	5 Average Rate Base	309,031	307,381	305,738	304,100	302,467	300,840	299,219	297,602	295,990	294,384	292,784	291,189
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	1,451	1,443	1,436	1,428	1,420	1,413	1,405	1,397	1,390	1,382	1,375	1,367
	9 Income Tax Component	1,024	1,018	1,013	1,007	1,002	997	991	986	981	975	970	965
	10 Interest Expense Component	654	651	647	644	640	637	633	630	627	623	620	616
	11 Total Return on Average Rate Base	3,129	3,112	3,096	3,079	3,062	3,046	3,030	3,013	2,997	2,981	2,964	2,948
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	591	591	591	591	591	591	591	591	591	591	591	591
	14 Property Tax	879	879	879	879	879	879	879	879	879	879	879	879
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	4,599	4,583	4,566	4,549	4,533	4,516	4,500	4,484	4,467	4,451	4,435	4,419
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	4,599	4,583	4,566	4,549	4,533	4,516	4,500	4,484	4,467	4,451	4,435	4,419
	2 Tax Depreciation	814	814	814	814	814	814	814	814	814	814	814	814
	3 Property Tax	879	879	879	879	879	879	879	879	879	879	879	879
	4 Interest Expense (including on CWIP)	654	651	647	644	640	637	633	630	627	623	620	616
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	2,347	2,344	2,340	2,337	2,333	2,330	2,326	2,323	2,320	2,316	2,313	2,309
	7 Taxable Income (NOL)	2,252	2,239	2,226	2,212	2,199	2,186	2,173	2,160	2,148	2,135	2,122	2,109
	8 Current tax expense	932	926	921	915	910	904	899	894	888	883	878	873
	9 Taxable Income (NOL)	2,252	2,239	2,226	2,212	2,199	2,186	2,173	2,160	2,148	2,135	2,122	2,109
	10 NOL carryforward	(92,913)	(90,661)	(88,422)	(86,196)	(83,984)	(81,784)	(79,598)	(77,425)	(75,264)	(73,117)	(70,982)	(68,860)
	11 Taxable Income after NOL carryforward 7/	(90,661)	(88,422)	(86,196)	(83,984)	(81,784)	(79,598)	(77,425)	(75,264)	(73,117)	(70,982)	(68,860)	(66,751)
	12 Expected stand alone ADITA NOL	37,506	36,580	35,659	34,744	33,834	32,930	32,031	31,137	30,248	29,365	28,487	27,615
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	4,215	4,207	4,200	4,193	4,186	4,178	4,171	4,164	4,156	4,149	4,142	4,135
	2 Revenue Requirement: Stand Alone	4,599	4,583	4,566	4,549	4,533	4,516	4,500	4,484	4,467	4,451	4,435	4,419
	3 Revenue Requirement: Rider 8/	4,215	4,207	4,200	4,193	4,186	4,178	4,171	4,164	4,156	4,149	4,142	4,135
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	3,457	3,451	3,445	3,439	3,433	3,427	3,421	3,415	3,409	3,403	3,397	3,391

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Unit 1 Flood Insp/Refurb 1/
Project IDs # 106983
In Service 11/6/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382
	2 Total Accumulated Depreciation	12,785	13,602	14,418	15,234	16,051	16,867	17,684	18,500	19,316	20,133	20,949	21,766
	3 Net Plant	468,597	467,780	466,964	466,148	465,331	464,515	463,698	462,882	462,065	461,249	460,433	459,616
	4 Total Depreciation	816	816	816	816	816	816	816	816	816	816	816	816
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382	481,382
	5 Book Style Depreciation for Deferred Taxes	819	819	819	819	819	819	819	819	819	819	819	819
	6 Accum Book Style Depreciation for Deferred Taxes	12,802	13,621	14,439	15,258	16,077	16,895	17,714	18,533	19,351	20,170	20,989	21,807
	7 Accumulated Tax Depreciation	294,287	295,463	296,640	297,817	298,993	300,170	301,346	302,523	303,700	304,876	306,053	307,229
	8 Net Plant for Tax	187,095	185,918	184,742	183,565	182,389	181,212	180,035	178,859	177,682	176,506	175,329	174,152
	9 Bonus Depreciation 50% in 2015												
	10 Total Tax Depreciation (including bonus)	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177
	11 Tax Book Difference	358	358	358	358	358	358	358	358	358	358	358	358
	12 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%
	13 Deferred Income Tax on Timing Difference	148	148	148	148	148	148	148	148	148	148	148	148
	14 Total Accumulated Deferred Income Tax Liability	116,450	116,598	116,746	116,894	117,043	117,191	117,339	117,487	117,635	117,783	117,931	118,079
	15 Deferred Tax Expense debit / (Credit)	148	148	148	148	148	148	148	148	148	148	148	148
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	468,597	467,780	466,964	466,148	465,331	464,515	463,698	462,882	462,065	461,249	460,433	459,616
	2 Less: ADITL - Def Taxes	(116,450)	(116,598)	(116,746)	(116,894)	(117,043)	(117,191)	(117,339)	(117,487)	(117,635)	(117,783)	(117,931)	(118,079)
	3 Plus: ADITA - NOL												
	4 Rate Base	352,146	351,182	350,218	349,253	348,289	347,324	346,360	345,395	344,431	343,466	342,502	341,537
	5 Average Rate Base	352,629	351,664	350,700	349,735	348,771	347,806	346,842	345,877	344,913	343,948	342,984	342,019
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,656	1,651	1,647	1,642	1,638	1,633	1,629	1,624	1,619	1,615	1,610	1,606
	9 Income Tax Component	1,168	1,165	1,162	1,159	1,155	1,152	1,149	1,146	1,143	1,140	1,136	1,133
	10 Interest Expense Component	746	744	742	740	738	736	734	732	730	728	726	724
	11 Total Return on Average Rate Base	3,570	3,561	3,551	3,541	3,531	3,522	3,512	3,502	3,492	3,482	3,473	3,463
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	816	816	816	816	816	816	816	816	816	816	816	816
	14 Property Tax	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	5,958	5,949	5,939	5,929	5,919	5,910	5,900	5,890	5,880	5,871	5,861	5,851

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Unit 1 Flood Insp/Refurb 1/
Project IDs # 106983
In Service 11/6/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	468,597	467,780	466,964	466,148	465,331	464,515	463,698	462,882	462,065	461,249	460,433	459,616
	2 Less: ADITL - Def Taxes	(116,450)	(116,598)	(116,746)	(116,894)	(117,043)	(117,191)	(117,339)	(117,487)	(117,635)	(117,783)	(117,931)	(118,079)
	3 Plus: ADITA - NOL (Stand Alone)	37,382	36,244	35,113	33,989	32,872	31,761	30,658	29,561	28,471	27,388	26,312	25,242
	4 Rate Base	389,528	387,426	385,331	383,242	381,161	379,085	377,018	374,956	372,902	370,854	368,814	366,779
	5 Average Rate Base	390,583	388,477	386,378	384,286	382,201	380,123	378,051	375,987	373,929	371,878	369,834	367,796
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	1,834	1,824	1,814	1,804	1,795	1,785	1,775	1,765	1,756	1,746	1,736	1,727
	9 Income Tax Component	1,294	1,287	1,280	1,273	1,266	1,259	1,253	1,246	1,239	1,232	1,225	1,219
	10 Interest Expense Component	827	822	818	813	809	805	800	796	791	787	783	779
	11 Total Return on Average Rate Base	3,955	3,933	3,912	3,891	3,870	3,849	3,828	3,807	3,786	3,765	3,745	3,724
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	816	816	816	816	816	816	816	816	816	816	816	816
	14 Property Tax	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	6,343	6,321	6,300	6,279	6,258	6,237	6,216	6,195	6,174	6,153	6,133	6,112
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	6,343	6,321	6,300	6,279	6,258	6,237	6,216	6,195	6,174	6,153	6,133	6,112
	2 Tax Depreciation	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177
	3 Property Tax	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572
	4 Interest Expense (including on CWIP)	827	822	818	813	809	805	800	796	791	787	783	779
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	3,575	3,571	3,566	3,562	3,557	3,553	3,548	3,544	3,540	3,535	3,531	3,527
	7 Taxable Income (NOL)	2,768	2,751	2,734	2,717	2,701	2,684	2,667	2,651	2,634	2,618	2,602	2,585
	8 Current tax expense	1,145	1,138	1,131	1,124	1,117	1,110	1,103	1,097	1,090	1,083	1,076	1,070
	9 Taxable Income (NOL)	2,768	2,751	2,734	2,717	2,701	2,684	2,667	2,651	2,634	2,618	2,602	2,585
	10 NOL carryforward	(93,128)	(90,360)	(87,610)	(84,875)	(82,158)	(79,458)	(76,774)	(74,106)	(71,455)	(68,821)	(66,203)	(63,601)
	11 Taxable Income after NOL carryforward 7/	(90,360)	(87,610)	(84,875)	(82,158)	(79,458)	(76,774)	(74,106)	(71,455)	(68,821)	(66,203)	(63,601)	(61,016)
	12 Expected stand alone ADITA NOL	37,382	36,244	35,113	33,989	32,872	31,761	30,658	29,561	28,471	27,388	26,312	25,242
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	5,958	5,949	5,939	5,929	5,919	5,910	5,900	5,890	5,880	5,871	5,861	5,851
	2 Revenue Requirement: Stand Alone	6,343	6,321	6,300	6,279	6,258	6,237	6,216	6,195	6,174	6,153	6,133	6,112
	3 Revenue Requirement: Rider 8/	5,958	5,949	5,939	5,929	5,919	5,910	5,900	5,890	5,880	5,871	5,861	5,851
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	4,887	4,879	4,871	4,863	4,855	4,847	4,839	4,831	4,823	4,815	4,807	4,799

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

Thomson Back-UP Control Room 1/
Project ID # 106281
In Service 4/29/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718
	2 Total Accumulated Depreciation	6,237	6,889	7,542	8,194	8,846	9,499	10,151	10,803	11,455	12,108	12,760	13,412
	3 Net Plant	369,481	368,829	368,176	367,524	366,872	366,220	365,567	364,915	364,263	363,610	362,958	362,306
	4 Total Depreciation	652	652	652	652	652	652	652	652	652	652	652	652
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718	375,718
	5 Book Style Depreciation for Deferred Taxes	652	652	652	652	652	652	652	652	652	652	652	652
	6 Accum Book Style Depreciation for Deferred Taxes	6,237	6,889	7,542	8,194	8,846	9,499	10,151	10,803	11,455	12,108	12,760	13,412
	7 Accumulated Tax Depreciation	196,034	197,164	198,294	199,424	200,554	201,684	202,815	203,945	205,075	206,205	207,335	208,465
	8 Net Plant for Tax	179,684	178,554	177,424	176,294	175,164	174,034	172,903	171,773	170,643	169,513	168,383	167,253
	9 Bonus Depreciation 50%												
	10 Total Tax Depreciation (including bonus)	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130
	11 Tax Book Difference	478	478	478	478	478	478	478	478	478	478	478	478
	12 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%
	13 Deferred Income Tax on Timing Difference	198	198	198	198	198	198	198	198	198	198	198	198
	14 Total Accumulated Deferred Income Tax Liability	78,519	78,717	78,914	79,112	79,310	79,507	79,705	79,903	80,100	80,298	80,496	80,693
	15 Deferred Tax Expense debit / (Credit)	198	198	198	198	198	198	198	198	198	198	198	198
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	369,481	368,829	368,176	367,524	366,872	366,220	365,567	364,915	364,263	363,610	362,958	362,306
	2 Less: ADITL - Def Taxes	(78,519)	(78,717)	(78,914)	(79,112)	(79,310)	(79,507)	(79,705)	(79,903)	(80,100)	(80,298)	(80,496)	(80,693)
	3 Plus: ADITA - NOL												
	4 Rate Base	290,962	290,112	289,262	288,412	287,562	286,712	285,862	285,012	284,162	283,312	282,462	281,612
	5 Average Rate Base	291,387	290,537	289,687	288,837	287,987	287,137	286,287	285,437	284,587	283,737	282,887	282,037
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	1,368	1,364	1,360	1,356	1,352	1,348	1,344	1,340	1,336	1,332	1,328	1,324
	9 Income Tax Component	965	963	960	957	954	951	948	946	943	940	937	934
	10 Interest Expense Component	617	615	613	611	610	608	606	604	602	601	599	597
	11 Total Return on Average Rate Base	2,950	2,942	2,933	2,924	2,916	2,907	2,899	2,890	2,881	2,873	2,864	2,856
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	652	652	652	652	652	652	652	652	652	652	652	652
	14 Property Tax	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	4,656	4,647	4,639	4,630	4,622	4,613	4,604	4,596	4,587	4,579	4,570	4,561

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Thomson Back-UP Control Room 1/
Project ID # 106281
In Service 4/29/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	369,481	368,829	368,176	367,524	366,872	366,220	365,567	364,915	364,263	363,610	362,958	362,306
	2 Less: ADITL - Def Taxes	(78,519)	(78,717)	(78,914)	(79,112)	(79,310)	(79,507)	(79,705)	(79,903)	(80,100)	(80,298)	(80,496)	(80,693)
	3 Plus: ADITA - NOL (Stand Alone)	61,350	60,384	59,423	58,469	57,520	56,578	55,641	54,710	53,785	52,866	51,953	51,046
	4 Rate Base	352,312	350,496	348,685	346,881	345,082	343,290	341,503	339,722	337,947	336,178	334,415	332,658
	5 Average Rate Base	353,224	351,404	349,591	347,783	345,982	344,186	342,397	340,613	338,835	337,063	335,297	333,537
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	1,658	1,650	1,641	1,633	1,624	1,616	1,608	1,599	1,591	1,583	1,574	1,566
	9 Income Tax Component	1,170	1,164	1,158	1,152	1,146	1,140	1,134	1,128	1,123	1,117	1,111	1,105
	10 Interest Expense Component	748	744	740	736	732	729	725	721	717	713	710	706
	11 Total Return on Average Rate Base	3,576	3,558	3,540	3,521	3,503	3,485	3,467	3,449	3,431	3,413	3,395	3,377
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	652	652	652	652	652	652	652	652	652	652	652	652
	14 Property Tax	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	5,282	5,264	5,245	5,227	5,209	5,191	5,172	5,154	5,136	5,118	5,101	5,083
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	5,282	5,264	5,245	5,227	5,209	5,191	5,172	5,154	5,136	5,118	5,101	5,083
	2 Tax Depreciation	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130
	3 Property Tax	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
	4 Interest Expense (including on CWIP)	748	744	740	736	732	729	725	721	717	713	710	706
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	2,931	2,927	2,924	2,920	2,916	2,912	2,908	2,905	2,901	2,897	2,893	2,890
	7 Taxable Income (NOL)	2,351	2,336	2,322	2,307	2,293	2,279	2,264	2,250	2,236	2,221	2,207	2,193
	8 Current tax expense	973	967	961	955	949	943	937	931	925	919	913	907
	9 Taxable Income (NOL)	2,351	2,336	2,322	2,307	2,293	2,279	2,264	2,250	2,236	2,221	2,207	2,193
	10 NOL carryforward	(150,648)	(148,297)	(145,961)	(143,639)	(141,332)	(139,039)	(136,760)	(134,496)	(132,246)	(130,010)	(127,789)	(125,582)
	11 Taxable Income after NOL carryforward 7/	(148,297)	(145,961)	(143,639)	(141,332)	(139,039)	(136,760)	(134,496)	(132,246)	(130,010)	(127,789)	(125,582)	(123,388)
	12 Expected stand alone ADITA NOL	61,350	60,384	59,423	58,469	57,520	56,578	55,641	54,710	53,785	52,866	51,953	51,046
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	4,656	4,647	4,639	4,630	4,622	4,613	4,604	4,596	4,587	4,579	4,570	4,561
	2 Revenue Requirement: Stand Alone	5,282	5,264	5,245	5,227	5,209	5,191	5,172	5,154	5,136	5,118	5,101	5,083
	3 Revenue Requirement: Rider 8/	4,656	4,647	4,639	4,630	4,622	4,613	4,604	4,596	4,587	4,579	4,570	4,561
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	3,819	3,812	3,805	3,798	3,790	3,783	3,776	3,769	3,762	3,755	3,748	3,741

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Flowline_Penstock_Abate_Line 1/
Project ID # 106260
In Service 4/22/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744	22,287,744
	2 Total Accumulated Depreciation	815,709	853,613	891,518	929,423	967,327	1,005,232	1,043,136	1,081,041	1,118,945	1,156,850	1,194,755	1,232,659
	3 Net Plant	21,472,036	21,434,131	21,396,226	21,358,322	21,320,417	21,282,513	21,244,608	21,206,704	21,168,799	21,130,894	21,092,990	21,055,085
	4 Total Depreciation	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793	19,094,793
	5 Book Style Depreciation for Deferred Taxes	32,474	32,474	32,474	32,474	32,474	32,474	32,474	32,474	32,474	32,474	32,474	32,474
	6 Accum Book Style Depreciation for Deferred Taxes	698,956	731,430	763,904	796,378	828,852	861,326	893,801	926,275	958,749	991,223	1,023,697	1,056,171
	7 Accumulated Tax Depreciation	10,737,095	10,789,657	10,842,219	10,894,781	10,947,342	10,999,904	11,052,466	11,105,028	11,157,589	11,210,151	11,262,713	11,315,275
	8 Net Plant for Tax	8,357,697	8,305,135	8,252,574	8,200,012	8,147,450	8,094,888	8,042,327	7,989,765	7,937,203	7,884,641	7,832,080	7,779,518
	9 Bonus Depreciation 50%												
	10 Total Tax Depreciation (including bonus)	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562
	11 Tax Book Difference	20,088	20,088	20,088	20,088	20,088	20,088	20,088	20,088	20,088	20,088	20,088	20,088
	12 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%
	13 Deferred Income Tax on Timing Difference	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310
	14 Total Accumulated Deferred Income Tax Liability	4,152,778	4,161,089	4,169,399	4,177,709	4,186,019	4,194,330	4,202,640	4,210,950	4,219,260	4,227,571	4,235,881	4,244,191
	15 Deferred Tax Expense debit / (Credit)	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904	6,385,904
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	21,472,036	21,434,131	21,396,226	21,358,322	21,320,417	21,282,513	21,244,608	21,206,704	21,168,799	21,130,894	21,092,990	21,055,085
	2 Less: ADITL - Def Taxes	(4,152,778)	(4,161,089)	(4,169,399)	(4,177,709)	(4,186,019)	(4,194,330)	(4,202,640)	(4,210,950)	(4,219,260)	(4,227,571)	(4,235,881)	(4,244,191)
	3 Plus: ADITA - NOL												
	4 Rate Base	17,319,257	17,273,042	17,226,828	17,180,613	17,134,398	17,088,183	17,041,968	16,995,753	16,949,539	16,903,324	16,857,109	16,810,894
	5 Average Rate Base	17,342,365	17,296,150	17,249,935	17,203,720	17,157,505	17,111,291	17,065,076	17,018,861	16,972,646	16,926,431	16,880,216	16,834,002
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	81,427	81,210	80,993	80,776	80,559	80,342	80,125	79,908	79,691	79,474	79,257	79,040
	9 Income Tax Component	57,456	57,303	57,150	56,997	56,844	56,691	56,537	56,384	56,231	56,078	55,925	55,772
	10 Interest Expense Component	36,708	36,610	36,512	36,415	36,317	36,219	36,121	36,023	35,925	35,828	35,730	35,632
	11 Total Return on Average Rate Base	175,591	175,124	174,656	174,188	173,720	173,252	172,784	172,316	171,848	171,380	170,912	170,444
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905
	14 Property Tax	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	270,982	270,514	270,046	269,578	269,110	268,642	268,174	267,706	267,238	266,770	266,303	265,835

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Flowline_Penstock_Abate_Line 1/
Project ID # 106260
In Service 4/22/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	21,472,036	21,434,131	21,396,226	21,358,322	21,320,417	21,282,513	21,244,608	21,206,704	21,168,799	21,130,894	21,092,990	21,055,085
	2 Less: ADITL - Def Taxes	(4,152,778)	(4,161,089)	(4,169,399)	(4,177,709)	(4,186,019)	(4,194,330)	(4,202,640)	(4,210,950)	(4,219,260)	(4,227,571)	(4,235,881)	(4,244,191)
	3 Plus: ADITA - NOL (Stand Alone)	2,432,536	2,373,336	2,314,484	2,255,980	2,197,822	2,140,009	2,082,541	2,025,415	1,968,632	1,912,189	1,856,085	1,800,320
	4 Rate Base	19,751,793	19,646,378	19,541,312	19,436,593	19,332,220	19,228,192	19,124,509	19,021,168	18,918,171	18,815,513	18,713,194	18,611,214
	5 Average Rate Base	19,804,676	19,699,086	19,593,845	19,488,952	19,384,406	19,280,206	19,176,351	19,072,839	18,969,670	18,866,842	18,764,353	18,662,204
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	92,989	92,493	91,999	91,506	91,015	90,526	90,038	89,552	89,068	88,585	88,104	87,624
	9 Income Tax Component	65,614	65,264	64,915	64,568	64,222	63,876	63,532	63,189	62,847	62,507	62,167	61,829
	10 Interest Expense Component	41,920	41,696	41,474	41,252	41,030	40,810	40,590	40,371	40,152	39,935	39,718	39,502
	11 Total Return on Average Rate Base	200,522	199,453	198,388	197,326	196,267	195,212	194,161	193,112	192,068	191,027	189,989	188,955
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905	37,905
	14 Property Tax	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	295,913	294,844	293,778	292,716	291,657	290,602	289,551	288,503	287,458	286,417	285,379	284,345
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	295,913	294,844	293,778	292,716	291,657	290,602	289,551	288,503	287,458	286,417	285,379	284,345
	2 Tax Depreciation	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562	52,562
	3 Property Tax	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486	57,486
	4 Interest Expense (including on CWIP)	41,920	41,696	41,474	41,252	41,030	40,810	40,590	40,371	40,152	39,935	39,718	39,502
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	151,967	151,744	151,521	151,299	151,078	150,857	150,637	150,418	150,200	149,982	149,765	149,549
	7 Taxable Income (NOL)	143,945	143,100	142,257	141,417	140,580	139,745	138,913	138,084	137,258	136,435	135,614	134,796
	8 Current tax expense	59,550	59,200	58,852	58,504	58,158	57,813	57,468	57,126	56,784	56,443	56,104	55,765
	9 Taxable Income (NOL)	143,945	143,100	142,257	141,417	140,580	139,745	138,913	138,084	137,258	136,435	135,614	134,796
	10 NOL carryforward	(6,023,897)	(5,879,952)	(5,736,852)	(5,594,595)	(5,453,178)	(5,312,598)	(5,172,853)	(5,033,940)	(4,895,855)	(4,758,597)	(4,622,162)	(4,486,548)
	11 Taxable Income after NOL carryforward 7/	(5,879,952)	(5,736,852)	(5,594,595)	(5,453,178)	(5,312,598)	(5,172,853)	(5,033,940)	(4,895,855)	(4,758,597)	(4,622,162)	(4,486,548)	(4,351,752)
	12 Expected stand alone ADITA NOL	2,432,536	2,373,336	2,314,484	2,255,980	2,197,822	2,140,009	2,082,541	2,025,415	1,968,632	1,912,189	1,856,085	1,800,320
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	270,982	270,514	270,046	269,578	269,110	268,642	268,174	267,706	267,238	266,770	266,303	265,835
	2 Revenue Requirement: Stand Alone	295,913	294,844	293,778	292,716	291,657	290,602	289,551	288,503	287,458	286,417	285,379	284,345
	3 Revenue Requirement: Rider 8/	270,982	270,514	270,046	269,578	269,110	268,642	268,174	267,706	267,238	266,770	266,303	265,835
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	222,251	221,867	221,484	221,100	220,716	220,332	219,948	219,565	219,181	218,797	218,413	218,030

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM - Electrical Infrastructure 1/
Project ID # 106262
In Service 11/13/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376	9,725,376
	2 Total Accumulated Depreciation	447,597	463,794	479,991	496,189	512,386	528,583	544,781	560,978	577,176	593,373	609,570	625,768
	3 Net Plant	9,277,779	9,261,582	9,245,385	9,229,187	9,212,990	9,196,792	9,180,595	9,164,398	9,148,200	9,132,003	9,115,806	9,099,608
	4 Total Depreciation	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569	8,266,569
	5 Book Style Depreciation for Deferred Taxes	14,059	14,059	14,059	14,059	14,059	14,059	14,059	14,059	14,059	14,059	14,059	14,059
	6 Accum Book Style Depreciation for Deferred Taxes	387,575	401,634	415,693	429,752	443,810	457,869	471,928	485,987	500,046	514,104	528,163	542,222
	7 Accumulated Tax Depreciation	4,798,082	4,819,897	4,841,711	4,863,525	4,885,339	4,907,154	4,928,968	4,950,782	4,972,597	4,994,411	5,016,225	5,038,040
	8 Net Plant for Tax	3,468,487	3,446,673	3,424,859	3,403,044	3,381,230	3,359,416	3,337,601	3,315,787	3,293,973	3,272,158	3,250,344	3,228,530
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814
	11 Tax Book Difference	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756	7,756
	12 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%
	13 Deferred Income Tax on Timing Difference	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208
	14 Total Accumulated Deferred Income Tax Liability	1,824,627	1,827,835	1,831,044	1,834,252	1,837,461	1,840,669	1,843,877	1,847,086	1,850,294	1,853,503	1,856,711	1,859,920
	15 Deferred Tax Expense debit / (Credit)	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613	2,917,613
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	9,277,779	9,261,582	9,245,385	9,229,187	9,212,990	9,196,792	9,180,595	9,164,398	9,148,200	9,132,003	9,115,806	9,099,608
	2 Less: ADITL - Def Taxes	(1,824,627)	(1,827,835)	(1,831,044)	(1,834,252)	(1,837,461)	(1,840,669)	(1,843,877)	(1,847,086)	(1,850,294)	(1,853,503)	(1,856,711)	(1,859,920)
	3 Plus: ADITA - NOL												
	4 Rate Base	7,453,153	7,433,747	7,414,341	7,394,935	7,375,529	7,356,123	7,336,718	7,317,312	7,297,906	7,278,500	7,259,094	7,239,688
	5 Average Rate Base	7,462,855	7,443,450	7,424,044	7,404,638	7,385,232	7,365,826	7,346,420	7,327,015	7,307,609	7,288,203	7,268,797	7,249,391
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	35,040	34,949	34,858	34,767	34,676	34,585	34,494	34,402	34,311	34,220	34,129	34,038
	9 Income Tax Component	24,725	24,661	24,596	24,532	24,468	24,403	24,339	24,275	24,210	24,146	24,082	24,018
	10 Interest Expense Component	15,796	15,755	15,714	15,673	15,632	15,591	15,550	15,509	15,468	15,427	15,386	15,345
	11 Total Return on Average Rate Base	75,561	75,365	75,168	74,972	74,775	74,579	74,383	74,186	73,990	73,793	73,597	73,400
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197
	14 Property Tax	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	120,060	119,864	119,667	119,471	119,274	119,078	118,881	118,685	118,488	118,292	118,095	117,899

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM - Electrical Infrastructure 1/
Project ID # 106262
In Service 11/13/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	9,277,779	9,261,582	9,245,385	9,229,187	9,212,990	9,196,792	9,180,595	9,164,398	9,148,200	9,132,003	9,115,806	9,099,608
	2 Less: ADITL - Def Taxes	(1,824,627)	(1,827,835)	(1,831,044)	(1,834,252)	(1,837,461)	(1,840,669)	(1,843,877)	(1,847,086)	(1,850,294)	(1,853,503)	(1,856,711)	(1,859,920)
	3 Plus: ADITA - NOL (Stand Alone)	969,573	944,066	918,708	893,497	868,435	843,519	818,750	794,128	769,650	745,318	721,131	697,088
	4 Rate Base	8,422,726	8,377,813	8,333,049	8,288,432	8,243,964	8,199,642	8,155,468	8,111,440	8,067,556	8,023,818	7,980,225	7,936,776
	5 Average Rate Base	8,445,256	8,400,269	8,355,431	8,310,740	8,266,198	8,221,803	8,177,555	8,133,454	8,089,498	8,045,687	8,002,022	7,958,501
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	39,653	39,442	39,231	39,021	38,812	38,604	38,396	38,189	37,982	37,777	37,572	37,367
	9 Income Tax Component	27,980	27,831	27,682	27,534	27,386	27,239	27,093	26,947	26,801	26,656	26,511	26,367
	10 Interest Expense Component	17,876	17,781	17,686	17,591	17,497	17,403	17,309	17,216	17,123	17,030	16,938	16,845
	11 Total Return on Average Rate Base	85,508	85,053	84,599	84,146	83,695	83,246	82,798	82,351	81,906	81,463	81,020	80,580
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197
	14 Property Tax	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	130,007	129,551	129,097	128,645	128,194	127,744	127,296	126,850	126,405	125,961	125,519	125,078
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	130,007	129,551	129,097	128,645	128,194	127,744	127,296	126,850	126,405	125,961	125,519	125,078
	2 Tax Depreciation	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814	21,814
	3 Property Tax	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301	28,301
	4 Interest Expense (including on CWIP)	17,876	17,781	17,686	17,591	17,497	17,403	17,309	17,216	17,123	17,030	16,938	16,845
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	67,991	67,896	67,801	67,707	67,612	67,518	67,425	67,331	67,238	67,146	67,053	66,961
	7 Taxable Income (NOL)	62,015	61,655	61,296	60,938	60,582	60,226	59,872	59,518	59,166	58,816	58,466	58,117
	8 Current tax expense	25,656	25,507	25,358	25,210	25,063	24,915	24,769	24,623	24,477	24,332	24,187	24,043
	9 Taxable Income (NOL)	62,015	61,655	61,296	60,938	60,582	60,226	59,872	59,518	59,166	58,816	58,466	58,117
	10 NOL carryforward	(2,405,676)	(2,343,661)	(2,282,006)	(2,220,710)	(2,159,771)	(2,099,190)	(2,038,964)	(1,979,092)	(1,919,574)	(1,860,407)	(1,801,592)	(1,743,126)
	11 Taxable Income after NOL carryforward 7/	(2,343,661)	(2,282,006)	(2,220,710)	(2,159,771)	(2,099,190)	(2,038,964)	(1,979,092)	(1,919,574)	(1,860,407)	(1,801,592)	(1,743,126)	(1,685,008)
	12 Expected stand alone ADITA NOL	969,573	944,066	918,708	893,497	868,435	843,519	818,750	794,128	769,650	745,318	721,131	697,088
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	120,060	119,864	119,667	119,471	119,274	119,078	118,881	118,685	118,488	118,292	118,095	117,899
	2 Revenue Requirement: Stand Alone	130,007	129,551	129,097	128,645	128,194	127,744	127,296	126,850	126,405	125,961	125,519	125,078
	3 Revenue Requirement: Rider 8/	120,060	119,864	119,667	119,471	119,274	119,078	118,881	118,685	118,488	118,292	118,095	117,899
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	98,470	98,308	98,147	97,986	97,825	97,664	97,503	97,342	97,180	97,019	96,858	96,697

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Cathodic Protection Grnd Rpl 1/
Project ID # 106286
In Service 12/9/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	827,641	827,641	827,641	827,641	827,641	827,641	827,641	827,641	827,641	827,641	827,641	827,641
	2 Total Accumulated Depreciation	35,617	36,997	38,376	39,755	41,135	42,514	43,894	45,273	46,652	48,032	49,411	50,791
	3 Net Plant	792,024	790,644	789,265	787,885	786,506	785,127	783,747	782,368	780,988	779,609	778,230	776,850
	4 Total Depreciation	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	703,495	703,495	703,495	703,495	703,495	703,495	703,495	703,495	703,495	703,495	703,495	703,495
	5 Book Style Depreciation for Deferred Taxes	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196
	6 Accum Book Style Depreciation for Deferred Taxes	30,873	32,069	33,266	34,462	35,659	36,855	38,051	39,248	40,444	41,641	42,837	44,034
	7 Accumulated Tax Depreciation	408,122	409,980	411,837	413,695	415,553	417,410	419,268	421,126	422,983	424,841	426,699	428,556
	8 Net Plant for Tax	295,373	293,515	291,658	289,800	287,942	286,084	284,227	282,369	280,511	278,654	276,796	274,938
	9 Bonus Depreciation (50% bonus)												
	10 Total Tax Depreciation (including bonus)	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858
	11 Tax Book Difference	661	661	661	661	661	661	661	661	661	661	661	661
	12 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%
	13 Deferred Income Tax on Timing Difference	274	274	274	274	274	274	274	274	274	274	274	274
	14 Total Accumulated Deferred Income Tax Liability	156,068	156,341	156,615	156,889	157,162	157,436	157,709	157,983	158,256	158,530	158,804	159,077
	15 Deferred Tax Expense debit / (Credit)	274	274	274	274	274	274	274	274	274	274	274	274
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	248,292	248,292	248,292	248,292	248,292	248,292	248,292	248,292	248,292	248,292	248,292	248,292
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	792,024	790,644	789,265	787,885	786,506	785,127	783,747	782,368	780,988	779,609	778,230	776,850
	2 Less: ADITL - Def Taxes	(156,068)	(156,341)	(156,615)	(156,889)	(157,162)	(157,436)	(157,709)	(157,983)	(158,256)	(158,530)	(158,804)	(159,077)
	3 Plus: ADITA - NOL												
	4 Rate Base	635,956	634,303	632,650	630,997	629,344	627,691	626,038	624,385	622,732	621,079	619,426	617,773
	5 Average Rate Base	636,782	635,129	633,476	631,823	630,170	628,517	626,864	625,211	623,558	621,905	620,253	618,600
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	2,990	2,982	2,974	2,967	2,959	2,951	2,943	2,936	2,928	2,920	2,912	2,905
	9 Income Tax Component	2,110	2,104	2,099	2,093	2,088	2,082	2,077	2,071	2,066	2,060	2,055	2,049
	10 Interest Expense Component	1,348	1,344	1,341	1,337	1,334	1,330	1,327	1,323	1,320	1,316	1,313	1,309
	11 Total Return on Average Rate Base	6,447	6,431	6,414	6,397	6,380	6,364	6,347	6,330	6,314	6,297	6,280	6,263
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379
	14 Property Tax	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	9,914	9,897	9,881	9,864	9,847	9,830	9,814	9,797	9,780	9,763	9,747	9,730

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Cathodic Protection Grnd Rpl 1/
Project ID # 106286
In Service 12/9/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	792,024	790,644	789,265	787,885	786,506	785,127	783,747	782,368	780,988	779,609	778,230	776,850
	2 Less: ADITL - Def Taxes	(156,068)	(156,341)	(156,615)	(156,889)	(157,162)	(157,436)	(157,709)	(157,983)	(158,256)	(158,530)	(158,804)	(159,077)
	3 Plus: ADITA - NOL (Stand Alone)	87,800	85,607	83,426	81,258	79,102	76,959	74,829	72,711	70,605	68,512	66,432	64,364
	4 Rate Base	723,756	719,910	716,076	712,255	708,446	704,650	700,867	697,096	693,337	689,591	685,858	682,137
	5 Average Rate Base	725,686	721,833	717,993	714,165	710,350	706,548	702,758	698,981	695,216	691,464	687,725	683,998
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	3,407	3,389	3,371	3,353	3,335	3,317	3,300	3,282	3,264	3,247	3,229	3,212
	9 Income Tax Component	2,404	2,391	2,379	2,366	2,353	2,341	2,328	2,316	2,303	2,291	2,278	2,266
	10 Interest Expense Component	1,536	1,528	1,520	1,512	1,504	1,496	1,488	1,480	1,472	1,464	1,456	1,448
	11 Total Return on Average Rate Base	7,348	7,309	7,270	7,231	7,192	7,154	7,115	7,077	7,039	7,001	6,963	6,925
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379
	14 Property Tax	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	10,814	10,775	10,736	10,697	10,659	10,620	10,582	10,544	10,506	10,468	10,430	10,392
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	10,814	10,775	10,736	10,697	10,659	10,620	10,582	10,544	10,506	10,468	10,430	10,392
	2 Tax Depreciation	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858
	3 Property Tax	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087
	4 Interest Expense (including on CWIP)	1,536	1,528	1,520	1,512	1,504	1,496	1,488	1,480	1,472	1,464	1,456	1,448
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	5,481	5,473	5,465	5,457	5,448	5,440	5,432	5,424	5,416	5,408	5,401	5,393
	7 Taxable Income (NOL)	5,333	5,302	5,272	5,241	5,210	5,180	5,150	5,119	5,089	5,059	5,029	4,999
	8 Current tax expense	2,206	2,194	2,181	2,168	2,156	2,143	2,130	2,118	2,105	2,093	2,081	2,068
	9 Taxable Income (NOL)	5,333	5,302	5,272	5,241	5,210	5,180	5,150	5,119	5,089	5,059	5,029	4,999
	10 NOL carryforward	(217,565)	(212,232)	(206,929)	(201,658)	(196,417)	(191,206)	(186,026)	(180,877)	(175,757)	(170,668)	(165,609)	(160,580)
	11 Taxable Income after NOL carryforward 7/	(212,232)	(206,929)	(201,658)	(196,417)	(191,206)	(186,026)	(180,877)	(175,757)	(170,668)	(165,609)	(160,580)	(155,580)
	12 Expected stand alone ADITA NOL	87,800	85,607	83,426	81,258	79,102	76,959	74,829	72,711	70,605	68,512	66,432	64,364
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	9,914	9,897	9,881	9,864	9,847	9,830	9,814	9,797	9,780	9,763	9,747	9,730
	2 Revenue Requirement: Stand Alone	10,814	10,775	10,736	10,697	10,659	10,620	10,582	10,544	10,506	10,468	10,430	10,392
	3 Revenue Requirement: Rider 8/	9,914	9,897	9,881	9,864	9,847	9,830	9,814	9,797	9,780	9,763	9,747	9,730
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	8,131	8,117	8,104	8,090	8,076	8,063	8,049	8,035	8,021	8,008	7,994	7,980

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Rpl Penstock Viv Operators 2-6 1/
Project ID # 106501
In Service 4/17/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	24,936	24,936	24,936	24,936	24,936	24,936	24,936	24,936	24,936	24,936	24,936	24,936
	2 Total Accumulated Depreciation	6,308	6,351	6,393	6,436	6,479	6,522	6,565	6,608	6,651	6,694	6,736	6,779
	3 Net Plant	18,628	18,585	18,542	18,499	18,457	18,414	18,371	18,328	18,285	18,242	18,199	18,156
	4 Total Depreciation	43	43	43	43	43	43	43	43	43	43	43	43
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	21,195	21,195	21,195	21,195	21,195	21,195	21,195	21,195	21,195	21,195	21,195	21,195
	5 Book Style Depreciation for Deferred Taxes	36	36	36	36	36	36	36	36	36	36	36	36
	6 Accum Book Style Depreciation for Deferred Taxes	5,358	5,395	5,431	5,467	5,503	5,539	5,575	5,611	5,647	5,683	5,719	5,755
	7 Accumulated Tax Depreciation	17,600	17,623	17,645	17,668	17,691	17,713	17,736	17,759	17,781	17,804	17,826	17,849
	8 Net Plant for Tax	3,595	3,573	3,550	3,527	3,505	3,482	3,459	3,437	3,414	3,392	3,369	3,346
	9 Bonus Depreciation 50% in 2015												
	10 Total Tax Depreciation (including bonus)	23	23	23	23	23	23	23	23	23	23	23	23
	11 Tax Book Difference	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
	12 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%
	13 Deferred Income Tax on Timing Difference	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
	14 Total Accumulated Deferred Income Tax Liability	5,064	5,059	5,053	5,048	5,042	5,037	5,031	5,026	5,020	5,014	5,009	5,003
	15 Deferred Tax Expense debit / (Credit)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	18,628	18,585	18,542	18,499	18,457	18,414	18,371	18,328	18,285	18,242	18,199	18,156
	2 Less: ADITL - Def Taxes	(5,064)	(5,059)	(5,053)	(5,048)	(5,042)	(5,037)	(5,031)	(5,026)	(5,020)	(5,014)	(5,009)	(5,003)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	13,564	13,526	13,489	13,452	13,414	13,377	13,340	13,302	13,265	13,228	13,190	13,153
	5 Average Rate Base	13,582	13,545	13,508	13,470	13,433	13,396	13,358	13,321	13,284	13,246	13,209	13,172
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	64	64	63	63	63	63	63	63	62	62	62	62
	9 Income Tax Component	45	45	45	45	45	44	44	44	44	44	44	44
	10 Interest Expense Component	29	29	29	29	28	28	28	28	28	28	28	28
	11 Total Return on Average Rate Base	138	137	137	136	136	136	135	135	134	134	134	133
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	43	43	43	43	43	43	43	43	43	43	43	43
	14 Property Tax	309	309	309	309	309	309	309	309	309	309	309	309
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	489	489	488	488	488	487	487	487	486	486	485	485

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Rpl Penstock Viv Operators 2-6 1/
Project ID # 106501
In Service 4/17/2015

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	18,628	18,585	18,542	18,499	18,457	18,414	18,371	18,328	18,285	18,242	18,199	18,156
	2 Less: ADITL - Def Taxes												
	3 Plus: ADITA - NOL (Stand Alone)	1,763	1,687	1,611	1,537	1,462	1,388	1,314	1,241	1,168	1,095	1,023	951
	4 Rate Base	20,391	20,272	20,153	20,036	19,919	19,802	19,685	19,569	19,453	19,337	19,222	19,107
	5 Average Rate Base	20,451	20,332	20,213	20,095	19,977	19,860	19,743	19,627	19,511	19,395	19,280	19,165
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	96	95	95	94	94	93	93	92	92	91	91	90
	9 Income Tax Component	68	67	67	67	66	66	65	65	65	64	64	63
	10 Interest Expense Component	43	43	43	43	42	42	42	42	41	41	41	41
	11 Total Return on Average Rate Base	207	206	205	203	202	201	200	199	198	196	195	194
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	43	43	43	43	43	43	43	43	43	43	43	43
	14 Property Tax	309	309	309	309	309	309	309	309	309	309	309	309
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	559	558	556	555	554	553	552	550	549	548	547	546
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	559	558	556	555	554	553	552	550	549	548	547	546
	2 Tax Depreciation	23	23	23	23	23	23	23	23	23	23	23	23
	3 Property Tax	309	309	309	309	309	309	309	309	309	309	309	309
	4 Interest Expense (including on CWIP)	43	43	43	43	42	42	42	42	41	41	41	41
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	375	374	374	374	374	373	373	373	373	373	372	372
	7 Taxable Income (NOL)	184	183	182	181	180	179	178	177	177	176	175	174
	8 Current tax expense	76	76	75	75	75	74	74	73	73	73	72	72
	9 Taxable Income (NOL)	184	183	182	181	180	179	178	177	177	176	175	174
	10 NOL carryforward	(4,445)	(4,261)	(4,077)	(3,895)	(3,714)	(3,534)	(3,355)	(3,176)	(2,999)	(2,822)	(2,647)	(2,472)
	11 Taxable Income after NOL carryforward 7/	(4,261)	(4,077)	(3,895)	(3,714)	(3,534)	(3,355)	(3,176)	(2,999)	(2,822)	(2,647)	(2,472)	(2,298)
	12 Expected stand alone ADITA NOL	1,763	1,687	1,611	1,537	1,462	1,388	1,314	1,241	1,168	1,095	1,023	951
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	489	489	488	488	488	487	487	487	486	486	485	485
	2 Revenue Requirement: Stand Alone	559	558	556	555	554	553	552	550	549	548	547	546
	3 Revenue Requirement: Rider 8/	489	489	488	488	488	487	487	487	486	486	485	485
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	401	401	401	400	400	400	399	399	399	398	398	398

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Basement Lead Abatement 1/
Project ID # 106373
In Service 12/31/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096
	2 Total Accumulated Depreciation	39	66	92	118	144	170	197	223	249	275	301	328
	3 Net Plant	15,057	15,030	15,004	14,978	14,952	14,926	14,899	14,873	14,847	14,821	14,794	14,768
	4 Total Depreciation	26	26	26	26	26	26	26	26	26	26	26	26
	5 Book Depreciation Rate 2/	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)												
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096	15,096
	5 Book Style Depreciation for Deferred Taxes	26	26	26	26	26	26	26	26	26	26	26	26
	6 Accum Book Style Depreciation for Deferred Taxes	39	66	92	118	144	170	197	223	249	275	301	328
	7 Accumulated Tax Depreciation	7,876	7,922	7,967	8,013	8,058	8,103	8,149	8,194	8,240	8,285	8,330	8,376
	8 Net Plant for Tax	7,219	7,174	7,129	7,083	7,038	6,992	6,947	6,902	6,856	6,811	6,765	6,720
	9 Bonus Depreciation 50%												
	10 Total Tax Depreciation (including bonus)	45	45	45	45	45	45	45	45	45	45	45	45
	11 Tax Book Difference	19	19	19	19	19	19	19	19	19	19	19	19
	12 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%
	13 Deferred Income Tax on Timing Difference	8	8	8	8	8	8	8	8	8	8	8	8
	14 Total Accumulated Deferred Income Tax Liability	3,242	3,250	3,258	3,266	3,274	3,282	3,290	3,298	3,306	3,314	3,322	3,330
	15 Deferred Tax Expense debit / (Credit)	8	8	8	8	8	8	8	8	8	8	8	8
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	-	-	-	-	-	-	-	-	-	-	-	-
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	15,057	15,030	15,004	14,978	14,952	14,926	14,899	14,873	14,847	14,821	14,794	14,768
	2 Less: ADITL - Def Taxes	(3,242)	(3,250)	(3,258)	(3,266)	(3,274)	(3,282)	(3,290)	(3,298)	(3,306)	(3,314)	(3,322)	(3,330)
	3 Plus: ADITA - NOL												
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	11,814	11,780	11,746	11,712	11,678	11,644	11,609	11,575	11,541	11,507	11,473	11,439
	5 Average Rate Base	11,831	11,797	11,763	11,729	11,695	11,661	11,627	11,592	11,558	11,524	11,490	11,456
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	56	55	55	55	55	55	55	54	54	54	54	54
	9 Income Tax Component	39	39	39	39	39	39	39	38	38	38	38	38
	10 Interest Expense Component	25	25	25	25	25	25	25	25	24	24	24	24
	11 Total Return on Average Rate Base	120	119	119	119	118	118	118	117	117	117	116	116
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	26	26	26	26	26	26	26	26	26	26	26	26
	14 Property Tax	76	76	76	76	76	76	76	76	76	76	76	76
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	222	222	221	221	221	220	220	220	219	219	219	218

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Basement Lead Abatement 1/
Project ID # 106373
In Service 12/31/2016

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	15,057	15,030	15,004	14,978	14,952	14,926	14,899	14,873	14,847	14,821	14,794	14,768
	2 Less: ADITL - Def Taxes	(3,242)	(3,250)	(3,258)	(3,266)	(3,274)	(3,282)	(3,290)	(3,298)	(3,306)	(3,314)	(3,322)	(3,330)
	3 Plus: ADITA - NOL (Stand Alone)	4,565	4,519	4,473	4,427	4,382	4,337	4,292	4,247	4,203	4,159	4,115	4,072
	4 Rate Base	16,379	16,299	16,219	16,139	16,060	15,981	15,901	15,822	15,744	15,666	15,588	15,511
	5 Average Rate Base	16,420	16,339	16,259	16,179	16,099	16,020	15,941	15,862	15,783	15,705	15,627	15,549
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	77	77	76	76	76	75	75	74	74	74	73	73
	9 Income Tax Component	54	54	54	54	53	53	53	53	52	52	52	52
	10 Interest Expense Component	35	35	34	34	34	34	34	34	33	33	33	33
	11 Total Return on Average Rate Base	166	165	165	164	163	162	161	161	160	159	158	157
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	26	26	26	26	26	26	26	26	26	26	26	26
	14 Property Tax	76	76	76	76	76	76	76	76	76	76	76	76
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	268	268	267	266	265	264	264	263	262	261	260	260
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	268	268	267	266	265	264	264	263	262	261	260	260
	2 Tax Depreciation	45	45	45	45	45	45	45	45	45	45	45	45
	3 Property Tax	76	76	76	76	76	76	76	76	76	76	76	76
	4 Interest Expense (including on CWIP)	35	35	34	34	34	34	34	34	33	33	33	33
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	156	156	156	156	155	155	155	155	155	155	154	154
	7 Taxable Income (NOL)	112	112	111	110	110	109	108	108	107	107	106	105
	8 Current tax expense	46	46	46	46	45	45	45	45	44	44	44	44
	9 Taxable Income (NOL)	112	112	111	110	110	109	108	108	107	107	106	105
	10 NOL carryforward	(11,147)	(11,035)	(10,923)	(10,812)	(10,702)	(10,592)	(10,483)	(10,375)	(10,267)	(10,160)	(10,053)	(9,947)
	11 Taxable Income after NOL carryforward 7/	(11,035)	(10,923)	(10,812)	(10,702)	(10,592)	(10,483)	(10,375)	(10,267)	(10,160)	(10,053)	(9,947)	(9,842)
	12 Expected stand alone ADITA NOL	4,565	4,519	4,473	4,427	4,382	4,337	4,292	4,247	4,203	4,159	4,115	4,072
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	222	222	221	221	221	220	220	220	219	219	219	218
	2 Revenue Requirement: Stand Alone	268	268	267	266	265	264	264	263	262	261	260	260
	3 Revenue Requirement: Rider 8/	222	222	221	221	221	220	220	220	219	219	219	218
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	182	182	182	181	181	181	180	180	180	180	179	179

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Replace/Refurbish Dam 6 1/
Project ID # 106069
In Service 12/31/2017

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP	244,875	259,875	274,875	289,875	344,875	449,875	549,875	649,875	749,875	799,875	839,875	
	1 Plant in Service												842,375
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	747
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	841,629
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	747
	5 Book Depreciation Rate 2/												0.18%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)												-
	3 Adjusted Book and Tax Basis for Deferred Taxes												842,375
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes												842,375
	5 Book Style Depreciation for Deferred Taxes												747
	6 Accum Book Style Depreciation for Deferred Taxes												747
	7 Accumulated Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	436,982
	8 Net Plant for Tax	-	-	-	-	-	-	-	-	-	-	-	405,393
	9 Bonus Depreciation 50% in 2017												421,188
	10 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	436,982
	11 Tax Book Difference												436,235
	12 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%
	13 Deferred Income Tax on Timing Difference	-	-	-	-	-	-	-	-	-	-	-	180,471
	14 Total Accumulated Deferred Income Tax Liability												180,471
	15 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	180,471
	16 Cum Investment Tax Credit (30% on Qualifying Costs)												-
	17 Amortization of ITC 4/												-
	18 Gross-up of Amortized ITC for revenue requirements 5/												-
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	841,629
	2 Less: ADITL - Def Taxes												(180,471)
	3 Plus: ADITA - NOL												-
	4 Plus: ADITA - PTC												-
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	661,158
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	330,579
	6 Current Return on CWIP 6/	2,403	2,555	2,707	2,859	3,213	4,023	5,061	6,074	7,086	7,846	8,301	4,252
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	1,552
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	1,095
	10 Interest Expense Component												700
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	3,347
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	747
	14 Property Tax	697	697	697	697	697	697	697	697	697	697	697	697
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,042

1/ Refer to Exhibit B-5, page 1 for Project List.
2/ Remaining life is 50 years beginning 1/1/2014.
3/ Minnesota Composite Income Tax Rate.
4/ ITC amortized over remaining book life starting in 2024.
5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).
Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.
6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Replace/Refurbish Dam 6 1/
Project ID # 106069
In Service 12/31/2017

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	841,629
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(180,471)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	160,660
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	821,818
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	410,909
	6 Current Return on CWIP 6/	2,403	2,555	2,707	2,859	3,213	4,023	5,061	6,074	7,086	7,846	8,301	4,252
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	1,929
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	1,361
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	870
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	4,160
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	747
	14 Property Tax	697	697	697	697	697	697	697	697	697	697	697	697
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,856
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,856
	2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	436,982
	3 Property Tax	697	697	697	697	697	697	697	697	697	697	697	697
	4 Interest Expense (including on CWIP)	502	534	566	598	672	841	1,058	1,270	1,481	1,640	1,735	1,759
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	1,199	1,231	1,262	1,294	1,368	1,538	1,755	1,966	2,178	2,337	2,432	439,437
	7 Taxable Income (NOL)	1,901	2,021	2,141	2,261	2,542	3,182	4,003	4,804	5,605	6,205	6,566	(429,582)
	8 Current tax expense	786	836	886	936	1,051	1,317	1,656	1,987	2,319	2,567	2,716	(177,718)
	9 Taxable Income (NOL)	1,901	2,021	2,141	2,261	2,542	3,182	4,003	4,804	5,605	6,205	6,566	(429,582)
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	1,901	2,021	2,141	2,261	2,542	3,182	4,003	4,804	5,605	6,205	6,566	(388,350)
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	160,660
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,042
	2 Revenue Requirement: Stand Alone	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,856
	3 Revenue Requirement: Rider 8/	3,100	3,252	3,404	3,556	3,910	4,720	5,758	6,770	7,783	8,542	8,998	9,042
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	2,542	2,667	2,792	2,916	3,207	3,871	4,722	5,553	6,383	7,006	7,380	7,416

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

THM Spill Capacity 1/
Project ID # 106794
In Service 12/31/2017

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP	1,841,889	1,846,889	1,861,889	2,101,889	2,601,889	3,101,889	3,651,889	4,201,889	4,188,472	4,165,494	4,150,175	4,119,537
	1 Plant in Service												4,119,537
	2 Total Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	3,652
	3 Net Plant	-	-	-	-	-	-	-	-	-	-	-	4,115,885
	4 Total Depreciation	-	-	-	-	-	-	-	-	-	-	-	3,652
	5 Book Depreciation Rate 2/												0.18%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)												-
	3 Adjusted Book and Tax Basis for Deferred Taxes												4,119,537
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes												4,119,537
	5 Book Style Depreciation for Deferred Taxes												3,652
	6 Accum Book Style Depreciation for Deferred Taxes												3,652
	7 Accumulated Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	2,137,010
	8 Net Plant for Tax	-	-	-	-	-	-	-	-	-	-	-	1,982,527
	9 Bonus Depreciation 50% in 2017												2,059,768
	10 Total Tax Depreciation (including bonus)	-	-	-	-	-	-	-	-	-	-	-	2,137,010
	11 Tax Book Difference	-	-	-	-	-	-	-	-	-	-	-	2,133,358
	12 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%
	13 Deferred Income Tax on Timing Difference												882,570
	14 Total Accumulated Deferred Income Tax Liability	-	-	-	-	-	-	-	-	-	-	-	882,570
	15 Deferred Tax Expense debit / (Credit)	-	-	-	-	-	-	-	-	-	-	-	882,570
	16 Cum Investment Tax Credit (30% on Qualifying Costs)												-
	17 Amortization of ITC 4/												-
	18 Gross-up of Amortized ITC for revenue requirements 5/												-
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	4,115,885
	2 Less: ADITL - Def Taxes												(882,570)
	3 Plus: ADITA - NOL												-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	3,233,315
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,616,657
	6 Current Return on CWIP 6/	18,639	18,674	18,776	20,067	23,813	28,875	34,191	39,760	42,476	42,292	42,098	21,010
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	7,591
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	5,356
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	3,422
	11 Total Return on Average Rate Base												16,369
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	3,652
	14 Property Tax	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	46,872

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Remaining life is 50 years beginning 1/1/2014.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

THM Spill Capacity 1/
Project ID # 106794
In Service 12/31/2017

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	-	-	-	-	-	-	-	-	-	-	-	4,115,885
	2 Less: ADITL - Def Taxes	-	-	-	-	-	-	-	-	-	-	-	(882,570)
	3 Plus: ADITA - NOL (Stand Alone)	-	-	-	-	-	-	-	-	-	-	-	761,208
	4 Rate Base	-	-	-	-	-	-	-	-	-	-	-	3,994,523
	5 Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	1,997,261
	6 Current Return on CWIP 6/	18,639	18,674	18,776	20,067	23,813	28,875	34,191	39,760	42,476	42,292	42,098	21,010
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	-	-	-	-	-	-	-	-	-	-	-	9,378
	9 Income Tax Component	-	-	-	-	-	-	-	-	-	-	-	6,617
	10 Interest Expense Component	-	-	-	-	-	-	-	-	-	-	-	4,228
	11 Total Return on Average Rate Base	-	-	-	-	-	-	-	-	-	-	-	20,222
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	-	-	-	-	-	-	-	-	-	-	-	3,652
	14 Property Tax	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	50,726
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	50,726
	2 Tax Depreciation	-	-	-	-	-	-	-	-	-	-	-	2,137,010
	3 Property Tax	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841	5,841
	4 Interest Expense (including on CWIP)	3,897	3,904	3,925	4,195	4,978	6,036	7,148	8,312	8,880	8,841	8,801	8,620
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	9,738	9,745	9,766	10,036	10,819	11,877	12,989	14,153	14,721	14,682	14,642	2,151,471
	7 Taxable Income (NOL)	14,742	14,770	14,851	15,872	18,835	22,839	27,043	31,448	33,596	33,451	33,297	(2,100,745)
	8 Current tax expense	6,099	6,111	6,144	6,566	7,792	9,448	11,188	13,010	13,899	13,839	13,775	(869,078)
	9 Taxable Income (NOL)	14,742	14,770	14,851	15,872	18,835	22,839	27,043	31,448	33,596	33,451	33,297	(2,100,745)
	10 NOL carryforward	-	-	-	-	-	-	-	-	-	-	-	-
	11 Taxable Income after NOL carryforward 7/	14,742	14,770	14,851	15,872	18,835	22,839	27,043	31,448	33,596	33,451	33,297	(1,840,001)
	12 Expected stand alone ADITA NOL	-	-	-	-	-	-	-	-	-	-	-	761,208
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	46,872
	2 Revenue Requirement: Stand Alone	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	50,726
	3 Revenue Requirement: Rider 8/	24,480	24,515	24,617	25,908	29,654	34,716	40,032	45,601	48,317	48,133	47,939	46,872
	4 MN Jurisdictional Allocator 9/	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017	0.82017
	5 MN Jurisdictional Revenue Requirement	20,078	20,107	20,190	21,249	24,321	28,473	32,833	37,400	39,628	39,477	39,318	38,443

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

Thomson 115 kV Substation - Add & Rpl Brkrs 1/
Project ID # 106270
In Service 11/30/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068	1,301,068
	2 Total Accumulated Depreciation	89,169	92,162	95,154	98,147	101,139	104,132	107,124	110,116	113,109	116,101	119,094	122,086
	3 Net Plant	1,211,899	1,208,907	1,205,914	1,202,922	1,199,929	1,196,937	1,193,944	1,190,952	1,187,960	1,184,967	1,181,975	1,178,982
	4 Total Depreciation	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992
	5 Book Depreciation Rate 2/	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908	1,105,908
	5 Book Style Depreciation for Deferred Taxes	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544
	6 Accum Book Style Depreciation for Deferred Taxes	75,794	78,337	80,881	83,425	85,968	88,512	91,055	93,599	96,143	98,686	101,230	103,773
	7 Accumulated Tax Depreciation	679,399	682,984	686,569	690,154	693,738	697,323	700,908	704,493	708,078	711,663	715,248	718,833
	8 Net Plant for Tax	426,509	422,924	419,340	415,755	412,170	408,585	405,000	401,415	397,830	394,245	390,660	387,075
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585
	11 Tax Book Difference	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
	12 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%
	13 Deferred Income Tax on Timing Difference	431	431	431	431	431	431	431	431	431	431	431	431
	14 Total Accumulated Deferred Income Tax Liability	249,711	250,142	250,573	251,004	251,435	251,865	252,296	252,727	253,158	253,589	254,019	254,450
	15 Deferred Tax Expense debit / (Credit)	431	431	431	431	431	431	431	431	431	431	431	431
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	390,321	390,321	390,321	390,321	390,321	390,321	390,321	390,321	390,321	390,321	390,321	390,321
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	1,211,899	1,208,907	1,205,914	1,202,922	1,199,929	1,196,937	1,193,944	1,190,952	1,187,960	1,184,967	1,181,975	1,178,982
	2 Less: ADITL - Def Taxes	(249,711)	(250,142)	(250,573)	(251,004)	(251,435)	(251,865)	(252,296)	(252,727)	(253,158)	(253,589)	(254,019)	(254,450)
	3 Plus: ADITA - NOL												
	4 Rate Base	962,188	958,765	955,341	951,918	948,495	945,072	941,648	938,225	934,802	931,379	927,955	924,532
	5 Average Rate Base	963,899	960,476	957,053	953,630	950,206	946,783	943,360	939,937	936,513	933,090	929,667	926,244
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	4,526	4,510	4,494	4,478	4,461	4,445	4,429	4,413	4,397	4,381	4,365	4,349
	9 Income Tax Component	3,193	3,182	3,171	3,159	3,148	3,137	3,125	3,114	3,103	3,091	3,080	3,069
	10 Interest Expense Component	2,040	2,033	2,026	2,019	2,011	2,004	1,997	1,990	1,982	1,975	1,968	1,961
	11 Total Return on Average Rate Base	9,759	9,725	9,690	9,656	9,621	9,586	9,552	9,517	9,482	9,448	9,413	9,378
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992
	14 Property Tax	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	18,370	18,335	18,301	18,266	18,231	18,197	18,162	18,127	18,093	18,058	18,023	17,989

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Depreciation rate per Property.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

Thomson 115 kV Substation - Add & Rpl Brkrs 1/
Project ID # 106270
In Service 11/30/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	1,211,899	1,208,907	1,205,914	1,202,922	1,199,929	1,196,937	1,193,944	1,190,952	1,187,960	1,184,967	1,181,975	1,178,982
	2 Less: ADITL - Def Taxes	(249,711)	(250,142)	(250,573)	(251,004)	(251,435)	(251,865)	(252,296)	(252,727)	(253,158)	(253,589)	(254,019)	(254,450)
	3 Plus: ADITA - NOL (Stand Alone)	125,774	122,426	119,100	115,797	112,516	109,257	106,020	102,805	99,612	96,441	93,292	90,164
	4 Rate Base	1,087,962	1,081,191	1,074,441	1,067,715	1,061,011	1,054,329	1,047,668	1,041,030	1,034,414	1,027,820	1,021,247	1,014,696
	5 Average Rate Base	1,091,359	1,084,576	1,077,816	1,071,078	1,064,363	1,057,670	1,050,998	1,044,349	1,037,722	1,031,117	1,024,533	1,017,972
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	5,124	5,092	5,061	5,029	4,997	4,966	4,935	4,904	4,872	4,841	4,810	4,780
	9 Income Tax Component	3,616	3,593	3,571	3,549	3,526	3,504	3,482	3,460	3,438	3,416	3,394	3,373
	10 Interest Expense Component	2,310	2,296	2,281	2,267	2,253	2,239	2,225	2,211	2,197	2,183	2,169	2,155
	11 Total Return on Average Rate Base	11,050	10,981	10,913	10,845	10,777	10,709	10,641	10,574	10,507	10,440	10,373	10,307
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992	2,992
	14 Property Tax	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	19,660	19,592	19,523	19,455	19,387	19,319	19,252	19,184	19,117	19,051	18,984	18,917
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	19,660	19,592	19,523	19,455	19,387	19,319	19,252	19,184	19,117	19,051	18,984	18,917
	2 Tax Depreciation	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585	3,585
	3 Property Tax	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618	5,618
	4 Interest Expense (including on CWIP)	2,310	2,296	2,281	2,267	2,253	2,239	2,225	2,211	2,197	2,183	2,169	2,155
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	11,513	11,499	11,484	11,470	11,456	11,442	11,428	11,413	11,399	11,385	11,372	11,358
	7 Taxable Income (NOL)	8,148	8,093	8,039	7,985	7,931	7,878	7,824	7,771	7,718	7,665	7,612	7,560
	8 Current tax expense	3,371	3,348	3,326	3,303	3,281	3,259	3,237	3,215	3,193	3,171	3,149	3,127
	9 Taxable Income (NOL)	8,148	8,093	8,039	7,985	7,931	7,878	7,824	7,771	7,718	7,665	7,612	7,560
	10 NOL carryforward	(312,170)	(304,023)	(295,929)	(287,890)	(279,905)	(271,974)	(264,096)	(256,272)	(248,501)	(240,783)	(233,118)	(225,506)
	11 Taxable Income after NOL carryforward 7/	(304,023)	(295,929)	(287,890)	(279,905)	(271,974)	(264,096)	(256,272)	(248,501)	(240,783)	(233,118)	(225,506)	(217,946)
	12 Expected stand alone ADITA NOL	125,774	122,426	119,100	115,797	112,516	109,257	106,020	102,805	99,612	96,441	93,292	90,164
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	18,370	18,335	18,301	18,266	18,231	18,197	18,162	18,127	18,093	18,058	18,023	17,989
	2 Revenue Requirement: Stand Alone	19,660	19,592	19,523	19,455	19,387	19,319	19,252	19,184	19,117	19,051	18,984	18,917
	3 Revenue Requirement: Rider 8/	18,370	18,335	18,301	18,266	18,231	18,197	18,162	18,127	18,093	18,058	18,023	17,989
	4 MN Jurisdictional Allocator 9/	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757
	5 MN Jurisdictional Revenue Requirement	14,250	14,223	14,196	14,169	14,142	14,115	14,088	14,061	14,034	14,008	13,981	13,954

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

TMS Substation Elec. Infrastructure 1/
Project ID # 106293
In Service 9/26/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A	Book Basis of Property												
	0 CWIP												
	1 Plant in Service	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911	2,257,911
	2 Total Accumulated Depreciation	186,439	191,632	196,825	202,019	207,212	212,405	217,598	222,791	227,985	233,178	238,371	243,564
	3 Net Plant	2,071,472	2,066,279	2,061,086	2,055,893	2,050,700	2,045,506	2,040,313	2,035,120	2,029,927	2,024,734	2,019,540	2,014,347
	4 Total Depreciation	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193
	5 Book Depreciation Rate 2/	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
B	Tax Basis of Property												
	1 Investment Tax Credit (30%)	-	-	-	-	-	-	-	-	-	-	-	-
	2 Reduction to Book and Tax Basis (ITC x 50%)	-	-	-	-	-	-	-	-	-	-	-	-
	3 Adjusted Book and Tax Basis for Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-	-
	4 Cum Adjusted Book and Tax Basis for Deferred Taxes	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225	1,919,225
	5 Book Style Depreciation for Deferred Taxes	4,414	4,414	4,414	4,414	4,414	4,414	4,414	4,414	4,414	4,414	4,414	4,414
	6 Accum Book Style Depreciation for Deferred Taxes	158,473	162,887	167,302	171,716	176,130	180,544	184,958	189,373	193,787	198,201	202,615	207,030
	7 Accumulated Tax Depreciation	1,228,428	1,234,237	1,240,045	1,245,854	1,251,663	1,257,471	1,263,280	1,269,089	1,274,897	1,280,706	1,286,515	1,292,323
	8 Net Plant for Tax	690,797	684,988	679,179	673,371	667,562	661,753	655,945	650,136	644,327	638,519	632,710	626,901
	9 Bonus Depreciation (50%)												
	10 Total Tax Depreciation (including bonus)	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809
	11 Tax Book Difference	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394
	12 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%
	13 Deferred Income Tax on Timing Difference	577	577	577	577	577	577	577	577	577	577	577	577
	14 Total Accumulated Deferred Income Tax Liability	442,640	443,217	443,794	444,371	444,948	445,525	446,102	446,679	447,255	447,832	448,409	448,986
	15 Deferred Tax Expense debit / (Credit)	577	577	577	577	577	577	577	577	577	577	577	577
	16 Cum Investment Tax Credit (30% on Qualifying Costs)	677,373	677,373	677,373	677,373	677,373	677,373	677,373	677,373	677,373	677,373	677,373	677,373
	17 Amortization of ITC 4/												
	18 Gross-up of Amortized ITC for revenue requirements 5/												
C-1	Revenue Requirements - MP Regulated NOL												
	1 Net Plant	2,071,472	2,066,279	2,061,086	2,055,893	2,050,700	2,045,506	2,040,313	2,035,120	2,029,927	2,024,734	2,019,540	2,014,347
	2 Less: ADITL - Def Taxes	(442,640)	(443,217)	(443,794)	(444,371)	(444,948)	(445,525)	(446,102)	(446,679)	(447,255)	(447,832)	(448,409)	(448,986)
	3 Plus: ADITA - NOL	-	-	-	-	-	-	-	-	-	-	-	-
	4 Plus: ADITA - PTC	-	-	-	-	-	-	-	-	-	-	-	-
	4 Rate Base	1,628,832	1,623,062	1,617,292	1,611,522	1,605,752	1,599,982	1,594,212	1,588,441	1,582,671	1,576,901	1,571,131	1,565,361
	5 Average Rate Base	1,631,717	1,625,947	1,620,177	1,614,407	1,608,637	1,602,867	1,597,097	1,591,327	1,585,556	1,579,786	1,574,016	1,568,246
	6 Current Return on CWIP 6/												
	7 Return on Average Rate Base 6/												
	8 After Tax Return on Equity	7,661	7,634	7,607	7,580	7,553	7,526	7,499	7,472	7,445	7,418	7,390	7,363
	9 Income Tax Component	5,406	5,387	5,368	5,349	5,329	5,310	5,291	5,272	5,253	5,234	5,215	5,196
	10 Interest Expense Component	3,454	3,442	3,429	3,417	3,405	3,393	3,381	3,368	3,356	3,344	3,332	3,319
	11 Total Return on Average Rate Base	16,521	16,463	16,404	16,346	16,287	16,229	16,171	16,112	16,054	15,995	15,937	15,878
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193
	14 Property Tax	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	16 Revenue Requirements	28,519	28,460	28,402	28,344	28,285	28,227	28,168	28,110	28,051	27,993	27,935	27,876

1/ Refer to Exhibit B-5, page 1 for Project List.

2/ Depreciation rate per Property.

3/ Minnesota Composite Income Tax Rate.

4/ ITC amortized over remaining book life starting in 2024.

5/ ITC are grossed up by dividing by a factor of (1-MP composite income tax rate of 41.37%).

Grossed up ITC is credited to monthly revenue requirements over the remaining book life of asset.

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

TMS Substation Elec. Infrastructure 1/
Project ID # 106293
In Service 9/26/2014

Section	Line	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
C-2	Revenue Requirements - Stand Alone NOL												
	1 Net Plant	2,071,472	2,066,279	2,061,086	2,055,893	2,050,700	2,045,506	2,040,313	2,035,120	2,029,927	2,024,734	2,019,540	2,014,347
	2 Less: ADITL - Def Taxes	(442,640)	(443,217)	(443,794)	(444,371)	(444,948)	(445,525)	(446,102)	(446,679)	(447,255)	(447,832)	(448,409)	(448,986)
	3 Plus: ADITA - NOL (Stand Alone)	188,191	182,444	176,736	171,066	165,434	159,839	154,282	148,763	143,281	137,836	132,428	127,057
	4 Rate Base	1,817,023	1,805,506	1,794,028	1,782,588	1,771,186	1,759,821	1,748,494	1,737,204	1,725,952	1,714,737	1,703,559	1,692,418
	5 Average Rate Base	1,822,800	1,811,264	1,799,767	1,788,308	1,776,887	1,765,503	1,754,157	1,742,849	1,731,578	1,720,345	1,709,148	1,697,989
	6 Current Return on CWIP 6/	-	-	-	-	-	-	-	-	-	-	-	-
	7 Return on Average Rate Base 6/	-	-	-	-	-	-	-	-	-	-	-	-
	8 After Tax Return on Equity	8,559	8,504	8,450	8,397	8,343	8,290	8,236	8,183	8,130	8,078	8,025	7,973
	9 Income Tax Component	6,039	6,001	5,963	5,925	5,887	5,849	5,812	5,774	5,737	5,700	5,662	5,626
	10 Interest Expense Component	3,858	3,834	3,810	3,785	3,761	3,737	3,713	3,689	3,665	3,641	3,618	3,594
	11 Total Return on Average Rate Base	18,456	18,339	18,223	18,107	17,991	17,876	17,761	17,646	17,532	17,418	17,305	17,192
	12 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	13 Depreciation Expense	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193	5,193
	14 Property Tax	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805
	15 ITC	-	-	-	-	-	-	-	-	-	-	-	-
	15 Revenue Requirements	30,454	30,337	30,220	30,104	29,989	29,873	29,759	29,644	29,530	29,416	29,303	29,190
D	Stand Alone Taxable Income or Loss (NOL)												
	1 Revenue Requirements	30,454	30,337	30,220	30,104	29,989	29,873	29,759	29,644	29,530	29,416	29,303	29,190
	2 Tax Depreciation	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809	5,809
	3 Property Tax	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805	6,805
	4 Interest Expense (including on CWIP)	3,858	3,834	3,810	3,785	3,761	3,737	3,713	3,689	3,665	3,641	3,618	3,594
	5 Operation & Maintenance Expense	-	-	-	-	-	-	-	-	-	-	-	-
	6 Total Tax Deduction	16,471	16,447	16,423	16,398	16,374	16,350	16,326	16,302	16,278	16,255	16,231	16,207
	7 Taxable Income (NOL)	13,982	13,890	13,798	13,706	13,614	13,523	13,432	13,342	13,252	13,162	13,072	12,983
	8 Current tax expense	5,784	5,746	5,708	5,670	5,632	5,595	5,557	5,520	5,482	5,445	5,408	5,371
	9 Taxable Income (NOL)	13,982	13,890	13,798	13,706	13,614	13,523	13,432	13,342	13,252	13,162	13,072	12,983
	10 NOL carryforward	(468,878)	(454,896)	(441,007)	(427,209)	(413,503)	(399,889)	(386,365)	(372,933)	(359,591)	(346,339)	(333,178)	(320,106)
	11 Taxable Income after NOL carryforward 7/	(454,896)	(441,007)	(427,209)	(413,503)	(399,889)	(386,365)	(372,933)	(359,591)	(346,339)	(333,178)	(320,106)	(307,123)
	12 Expected stand alone ADITA NOL	188,191	182,444	176,736	171,066	165,434	159,839	154,282	148,763	143,281	137,836	132,428	127,057
E	Summary: Revenue Requirements												
	1 Revenue Requirement: Consolidated	28,519	28,460	28,402	28,344	28,285	28,227	28,168	28,110	28,051	27,993	27,935	27,876
	2 Revenue Requirement: Stand Alone	30,454	30,337	30,220	30,104	29,989	29,873	29,759	29,644	29,530	29,416	29,303	29,190
	3 Revenue Requirement: Rider 8/	28,519	28,460	28,402	28,344	28,285	28,227	28,168	28,110	28,051	27,993	27,935	27,876
	4 MN Jurisdictional Allocator 9/	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757	0.7757
	5 MN Jurisdictional Revenue Requirement	22,122	22,077	22,031	21,986	21,941	21,895	21,850	21,805	21,760	21,714	21,669	21,624

6/ Pre-tax rate of return is 12.15% from 2009 MPUC rate case, Docket No. E-015/GR-09-1151. Refer to Exhibit B-7.

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

8/ Lesser of E1 or E2.

9/ Refer to Exhibit B-8.

Thomson Base Rate Revenue Credit

Expected Property Retirements in Base Rates

Section	Line	2009	Base Rates 2010
A	Book Basis of Property to be Retired		
	1 Plant in Service	3,068,658	3,124,620
	2 Total Accumulated Depreciation	1,919,500	1,975,208
	3 Net Plant	1,149,158	1,149,412
	4 Depreciation Expense		55,708
B	Tax Basis of Property of to be Retired		
	1 Plant in Service	3,068,658	3,124,620
	2 Accumulated Depreciation	2,982,953	3,057,308
	3 Net Plant	85,705	67,312
	4 Total Tax Depreciation		74,355
	5 Tax Book Difference	1,063,453	1,082,100
	6 Income Tax Rate 1/	41.37%	41.37%
	7 Accumulated Deferred Income Tax Liability	439,951	447,665
	8 Deferred Tax Expense debit / (Credit)		7,714
C	Revenue Requirements in Base Rates		
	1 Net Plant	1,149,158	1,149,412
	2 Less: ADITL - Def Taxes	(439,951)	(447,665)
	3 Rate Base	709,208	701,747
	4 Average Rate Base		705,477
	5 Return on Average Rate Base 2/		
	6 After Tax Return on Equity		39,749
	7 Income Tax Component		28,047
	8 Interest Expense Component		17,919
	9 Total Return on Average Rate Base		85,715
	10 Operation & Maintenance Expense Associated with Plant to be Retired		-
	11 Depreciation Expense		55,708
	12 Property Tax		75,142
	13 Revenue Requirements in Base Rates Associated with Property to be Retired		216,565
	14 Monthly Credit for Revenue Requirements in Base Rates		(18,047)
	15 MN Jurisdictional Allocator 3/		0.82017
	16 Monthly MN jurisdictional Credit for Revenue Requirements in Base Rates 4/		(14,802)

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-7 rate of return components.

3/ Refer to Exhibit B-8.

4/ This monthly revenue requirement credit is needed beginning the month MPUC approves cost recovery and until the retirements and the Thomson projects are incorporated into base rates in a subsequent rate case, currently assumed on 1/1/2017.

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Unit 3 Flood Insp/Refurb ID# 106984 In Service 7/25/2014	242,510												
BOM		1,755,082	1,937,036	1,944,011	2,042,163	1,952,715	1,952,715	2,030,562	826,128	827,377	827,377	327,377	327,792
CapEx	2,059,697	186,214	7,376	99,218	-88,314		77,934	-1,206,215	1,201,250		-1,005	415	2,138
Less Internal Cost	-151,880	-4,260	-401	-1,066	-1,133		-87	1,781			1,005	-1	-3
AFUDC	35,866	0	0	0	0	0	0	0	0	0	0	1	10
Less AFUDC on Internal Cost	-1,173	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-1,700,000	0	0	0	0	0	0	0	-1,200,000		-500,000	0	0
EOM		1,937,036	1,944,011	2,042,163	1,952,715	1,952,715	2,030,562	826,128	827,377	827,377	327,377	327,792	329,936
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Replace #1 Penstock Valve ID# 106284 In Service 6/12/2014	405,511												
BOM		414,007	414,007	414,007	414,007	414,193	414,193	414,193	414,193	414,193	414,193	414,193	414,193
CapEx	413,620	0	0	0	186	0	0	0	0	0	0	0	0
Less Internal Cost	-16,735	0	0	0	0	0	0	0	0	0	0	0	0
AFUDC	8,769	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-142	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		414,007	414,007	414,007	414,193	414,193	414,193	414,193	414,193	414,193	414,193	414,193	414,193
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Unit 2 Flood Insp/Refurb ID# 106997 In Service 6/12/2015	203,198							<u>In-Service</u> 6/12/2014					
BOM		2,421,244	2,071,113	2,146,610	2,319,133	2,582,908	2,634,204	2,717,474	1,508,286	1,509,423	1,510,237	684,630	686,007
CapEx	2,762,934	-350,699	89,345	183,923	267,374	66,406	87,293	-1,207,768	1,203,953	3,634	-22,823	3,016	-592
Less Internal Cost	-157,642	-10,345	-13,848	-11,401	-3,599	-15,111	-4,024	-1,420	-2,816	-2,820	-2,783	-1,640	594
AFUDC	64,512	11,425	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-2,022	-512	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-2,464,584	0	0	0	0	0	0	0	-1,200,000	0	-800,000	0	-464,584
EOM		2,071,113	2,146,610	2,319,133	2,582,908	2,634,204	2,717,474	1,508,286	1,509,423	1,510,237	684,630	686,007	221,425
Return on CWIP													
After Tax Return on Equity			9,902	10,484	11,508	12,248	6,184						
Income Tax Component			6,987	7,398	8,120	8,642	4,364						
Interest Expense Component			<u>4,464</u>	<u>4,726</u>	<u>5,188</u>	<u>5,521</u>	<u>2,788</u>						
Total Return on CWIP			21,352	22,608	24,817	26,412	13,336						
Basement Flood Proofing ID# 107017 In Service 12/23/2015	412,711												<u>In-Service</u> 12/23/2015
BOM		202,162	212,377	222,603	249,031	297,611	272,424	303,262	325,511	316,303	408,729	373,608	451,020
CapEx	605,320	10,231	10,313	26,463	48,652	-24,750	32,130	22,492	-8,870	92,884	-34,282	90,659	118,454
Less Internal Cost	-34,313	-17	-87	-34	-73	-437	-1,292	-243	-339	-458	-839	-13,247	-13,249
AFUDC	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
Less Insurance Proceeds	-158,296	0	0	0	0	0	0	0	0	0	0	0	-158,296
EOM		212,377	222,603	249,031	297,611	272,424	303,262	325,511	316,303	408,729	373,608	451,020	397,929
Return on CWIP													
After Tax Return on Equity			1,021	1,107	1,283	1,338	1,352	1,476	1,507	1,702	1,837	1,936	1,059
Income Tax Component			721	781	906	944	954	1,042	1,063	1,201	1,296	1,366	747
Interest Expense Component			<u>460</u>	<u>499</u>	<u>579</u>	<u>603</u>	<u>609</u>	<u>665</u>	<u>679</u>	<u>767</u>	<u>828</u>	<u>873</u>	<u>477</u>
Total Return on CWIP			2,202	2,388	2,767	2,886	2,914	3,183	3,249	3,670	3,961	4,175	2,283

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Forebay Embankment Reconstr ID# 106156 In Service 10/9/2014	30,802,894												
BOM		28,183,996	28,152,120	28,186,858	28,206,940	28,276,450	28,316,501	28,365,718	28,413,708	28,488,074	28,478,158	28,535,578	29,286,446
CapEx	30,169,150	-11,454	48,119	45,269	93,245	65,467	61,513	63,073	104,969	2,610	78,157	777,235	1,402,038
Less Internal Cost	-1,088,631	-20,423	-13,381	-25,187	-23,735	-25,416	-12,296	-15,082	-30,603	-12,526	-20,737	-26,367	-27,354
AFUDC	1,769,982	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-47,607	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		28,152,120	28,186,858	28,206,940	28,276,450	28,316,501	28,365,718	28,413,708	28,488,074	28,478,158	28,535,578	29,286,446	30,661,130
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Lower Wye Hse - Replace Valve ID# 106282 In Service 4/17/2015	1,404,427												
BOM		1,182,079	1,186,370	1,199,526	1,310,161	1,233,482	1,407,144	1,438,695	1,443,168	1,443,247	1,443,496	1,443,496	1,443,496
CapEx	1,456,075	46	17,873	114,474	-68,197	180,079	33,238	10,403	79	250	0	0	0
Less Internal Cost	-112,813	0	-4,717	-3,839	-8,483	-6,417	-1,686	-5,930	0	0	0	0	0
AFUDC	68,567	4,703	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-7,402	-457	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM		1,186,370	1,199,526	1,310,161	1,233,482	1,407,144	1,438,695	1,443,168	1,443,247	1,443,496	1,443,496	1,443,496	1,443,496
Return on CWIP													
After Tax Return on Equity			5,601	5,892	3,076								
Income Tax Component			3,952	4,157	2,170								
Interest Expense Component			2,525	2,656	1,387								
Total Return on CWIP			12,079	12,705	6,633								
Unit 4 Flood Insp/Refurb ID# 106998 In Service 12/18/2015	442,803												
BOM		921,742	977,083	1,169,525	1,247,335	1,422,628	1,510,679	1,656,956	1,702,080	2,040,115	2,131,573	1,140,707	1,379,637
CapEx	2,825,726	52,495	196,535	88,118	178,462	92,515	148,197	47,299	344,755	96,266	179,687	245,579	258,365
Less Internal Cost	-99,347	-384	-4,093	-10,308	-3,169	-4,464	-1,921	-2,175	-6,721	-4,807	-3,086	-6,649	-11,099
AFUDC	32,821	3,278	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-317	-48	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-2,316,080	0	0	0	0	0	0	0	0	0	-1,167,467	0	-1,148,614
EOM		977,083	1,169,525	1,247,335	1,422,628	1,510,679	1,656,956	1,702,080	2,040,115	2,131,573	1,140,707	1,379,637	478,289
Return on CWIP													
After Tax Return on Equity			5,039	5,674	6,268	6,886	7,436	7,886	8,785	9,794	7,682	5,917	3,239
Income Tax Component			3,556	4,004	4,423	4,859	5,247	5,564	6,199	6,911	5,421	4,175	2,285
Interest Expense Component			2,272	2,558	2,826	3,104	3,352	3,555	3,960	4,415	3,463	2,667	1,460
Total Return on CWIP			10,867	12,235	13,517	14,850	16,036	17,005	18,945	21,119	16,566	12,759	6,984
Unit 5 Flood Insp/Refurb ID# 106999 In Service 6/30/2015	194,739												
BOM		2,114,397	2,086,351	2,295,709	2,366,898	2,546,648	2,567,160	2,750,624	1,666,556	1,736,515	1,731,757	887,450	888,118
CapEx	2,973,929	-31,398	228,447	74,558	185,505	26,484	188,737	-1,054,932	1,285,507	-3,872	-43,627	669	-3,899
Less Internal Cost	-172,339	-2,689	-19,089	-3,369	-5,755	-5,972	-5,274	-29,135	-15,548	-885	-681	-1	783
AFUDC	40,119	6,406	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-2,291	-366	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-2,644,679	0	0	0	0	0	0	0	-1,200,000	0	-800,000	0	-644,679
EOM		2,086,351	2,295,709	2,366,898	2,546,648	2,567,160	2,750,624	1,666,556	1,736,515	1,731,757	887,450	888,118	240,323
Return on CWIP													
After Tax Return on Equity			10,288	10,946	11,535	12,005	6,027						
Income Tax Component			7,259	7,724	8,139	8,471	4,253						
Interest Expense Component			4,638	4,935	5,200	5,412	2,717						
Total Return on CWIP			22,184	23,604	24,875	25,889	12,996						

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Electrical Infrastructure ID# 106262 In Service 11/13/2014	9,725,376												
BOM		9,764,026	9,818,959	9,858,832	9,916,723	10,031,713	10,044,571	10,063,642	10,148,244	10,137,120	10,160,729	10,169,921	10,154,522
CapEx	14,258,258	66,670	61,738	72,888	126,827	39,862	32,962	96,919	-3,756	34,466	30,632	-356	23,123
Less Internal Cost	-1,520,280	-11,737	-21,864	-14,996	-11,837	-27,004	-13,891	-12,316	-7,369	-10,856	-21,441	-15,043	-14,446
AFUDC	1,224,519	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-118,953	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-4,118,168	0	0	0	0	0	0	0	0	0	0	0	-147,935
EOM		9,818,959	9,858,832	9,916,723	10,031,713	10,044,571	10,063,642	10,148,244	10,137,120	10,160,729	10,169,921	10,154,522	10,015,264
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Cathodic Protection Grnd Rpl ID# 106286 In Service 12/9/2014	827,641												
BOM		827,641	828,843	829,070	835,251	835,251	837,913	943,605	943,764				
CapEx	821,796	1,204	228	6,189	0	2,667	105,810	159	-116,259				
Less Internal Cost	-9,853	-2	0	-8	0	-6	-118	0	136				
AFUDC	16,319	0	0	0	0	0	0	0	0				
Less AFUDC on Internal Cost	-622	0	0	0	0	0	0	0	0				
Less Insurance Proceeds	0	0	0	0	0	0	0	0	0				
EOM		828,843	829,070	835,251	835,251	837,913	943,605	943,764	827,641				
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Rpl Penstock Vlv Operators 2-6 ID# 106501 In Service 4/17/2015	24,936												
BOM		369,067	319,649	383,601	396,072	426,769	430,115	431,314	431,314	431,314	431,314	431,314	437,448
CapEx	549,816	-42,227	71,942	30,196	41,459	6,811	1,410	0	0	0	0	6,144	-611
Less Internal Cost	-98,891	-7,173	-7,990	-17,724	-10,763	-3,464	-211	0	0	0	0	-11	611
AFUDC	0	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-21	-18	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-425,968	0	0	0	0	0	0	0	0	0	0	0	-425,968
EOM		319,649	383,601	396,072	426,769	430,115	431,314	431,314	431,314	431,314	431,314	437,448	11,480
Return on CWIP													
After Tax Return on Equity			1,651	1,830	930								
Income Tax Component			1,165	1,292	656								
Interest Expense Component			744	825	419								
Total Return on CWIP			3,560	3,947	2,005								
Basement Lead Abatement ID# 106373 In Service 12/31/2016	15,096												
BOM		164,462	168,266	173,414	176,368	244,129	237,846	238,930	238,930	238,930	239,924	240,039	240,039
CapEx	1,732,593	3,810	5,158	2,958	67,862	-6,296	1,085	0	0	996	115	0	22,040
Less Internal Cost	-45,421	-6	-10	-4	-102	13	-1	0	0	-1	0	0	609
AFUDC	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
Less Insurance Proceeds	-1,672,076	0	0	0	0	0	0	0	0	0	0	0	-446,729
EOM		168,266	173,414	176,368	244,129	237,846	238,930	238,930	238,930	239,924	240,039	240,039	-184,040
Return on CWIP													
After Tax Return on Equity			802	821	987	1,132	1,119	1,122	1,122	1,124	1,127	1,127	131
Income Tax Component			566	579	697	798	790	792	792	793	795	795	93
Interest Expense Component			362	370	445	510	505	506	506	507	508	508	59
Total Return on CWIP			1,730	1,771	2,129	2,440	2,414	2,419	2,419	2,424	2,430	2,430	283

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

	Total Project	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
Electrical Infrastructure ID# 106262 In Service 11/13/2014	9,725,376												
BOM		10,015,264	10,053,926	10,048,624	10,042,552	10,042,534	10,042,624						
CapEx	14,258,258	50,762	-5,284	-6,096	-18	91	-317,459						
Less Internal Cost	-1,520,280	-12,101	-17	24	0	0	210						
AFUDC	1,224,519	0	0	0	0	0	0						
Less AFUDC on Internal Cost	-118,953	0	0	0	0	0	0						
Less Insurance Proceeds	-4,118,168	0	0	0	0	0	0						
EOM		10,053,926	10,048,624	10,042,552	10,042,534	10,042,624	9,725,376						
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Cathodic Protection Grnd Rpl ID# 106286 In Service 12/9/2014	827,641												
BOM													
CapEx	821,796												
Less Internal Cost	-9,853												
AFUDC	16,319												
Less AFUDC on Internal Cost	-622												
Less Insurance Proceeds	0												
EOM													
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Rpl Penstock Vlv Operators 2-6 ID# 106501 In Service 4/17/2015	24,936												
BOM		11,480	11,480	11,480	11,480	11,480	11,480						
CapEx	549,816	0	0	0	0	0	13,445						
Less Internal Cost	-98,891	0	0	0	0	0	11						
AFUDC	0	0	0	0	0	0	0						
Less AFUDC on Internal Cost	-21	0	0	0	0	0	0						
Less Insurance Proceeds	-425,968	0	0	0	0	0	0						
EOM		11,480	11,480	11,480	11,480	11,480	24,936						
Return on CWIP													
After Tax Return on Equity													
Income Tax Component													
Interest Expense Component													
Total Return on CWIP													
Basement Lead Abatement ID# 106373 In Service 12/31/2016	15,096												In-Service 13/31/2016
BOM		-184,040	-183,843	-109,800	-64,308	-62,475	-17,904	15,096	15,096	15,096	15,096	15,096	15,096
CapEx	1,732,593	198	74,379	46,107	2,015	44,662	33,000	0	0	0	0	0	0
Less Internal Cost	-45,421	-1	-336	-614	-182	-91	0	0	0	0	0	0	0
AFUDC	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
Less Insurance Proceeds	-1,672,076	0	0	0	0	0	0	0	0	0	0	0	0
EOM		-183,843	-109,800	-64,308	-62,475	-17,904	15,096	15,096	15,096	15,096	15,096	15,096	15,096
Return on CWIP													
After Tax Return on Equity		-864	-689	-409	-298	-189	-7	71	71	71	71	71	35
Income Tax Component		-609	-486	-288	-210	-133	-5	50	50	50	50	50	25
Interest Expense Component		-389	-311	-184	-134	-85	-3	32	32	32	32	32	16
Total Return on CWIP		-1,862	-1,487	-881	-642	-407	-14	153	153	153	153	153	76

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

Total	Total Project 82,536,104	<u>Jan-15</u>	<u>Feb-15</u>	<u>Mar-15</u>	<u>Apr-15</u>	<u>May-15</u>	<u>Jun-15</u>	<u>Jul-15</u>	<u>Aug-15</u>	<u>Sep-15</u>	<u>Oct-15</u>	<u>Nov-15</u>	<u>Dec-15</u>
BOM		83,121,886	85,290,844	87,808,967	89,811,558	90,150,071	90,599,251	91,683,297	85,894,026	86,394,311	86,873,950	81,188,440	82,299,316
CapEx	106,670,450	2,144,057	2,632,051	2,120,811	428,841	557,147	1,131,349	-5,718,484	6,569,754	536,145	-734,283	1,195,047	2,449,149
Less Internal Cost	-7,295,339	-84,003	-113,928	-118,220	-90,327	-107,966	-47,304	-70,787	-69,474	-56,519	-83,760	-84,172	-78,034
AFUDC	4,602,876	113,809	0	0	0	0	0	0	6	12	0	1	10
Less AFUDC on Internal Cost	-297,252	-4,905	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-21,144,630	0	0	0	0	0	0	0	-6,000,000	0	-4,867,467	0	-4,981,583
EOM		85,290,844	87,808,967	89,811,558	90,150,071	90,599,251	91,683,297	85,894,026	86,394,311	86,873,950	81,188,440	82,299,316	79,688,858
Return on CWIP													
After Tax Return on Equity	751,840	0	150,680	160,726	108,493	52,343	41,266	27,180	25,417	27,012	23,794	19,166	13,276
Income Tax Component	530,507	0	106,322	113,410	76,554	36,934	29,118	19,179	17,934	19,060	16,789	13,524	9,368
Interest Expense Component	338,935	0	67,928	72,456	48,910	23,597	18,603	12,253	11,458	12,177	10,726	8,640	5,985
Total Return on CWIP	1,621,281	0	324,930	346,592	233,957	112,873	88,986	58,612	54,809	58,248	51,309	41,330	28,630

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

Total	Total	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
	Project												
	82,536,104												
BOM		79,688,858	79,754,283	79,842,781	79,778,636	79,794,200	79,869,031	79,209,957	79,336,957	79,463,957	79,553,957	79,643,957	79,643,957
CapEx	106,670,450	100,658	101,365	-56,087	43,918	93,572	-592,992	187,127	187,127	135,957	139,269	30,638	30,638
Less Internal Cost	-7,295,339	-35,249	-12,885	-8,057	-28,354	-18,741	-66,082	-60,127	-60,127	-45,957	-49,269	-30,638	-30,638
AFUDC	4,602,876	17	17	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-297,252	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-21,144,630	0	0	0	0	0	0	0	0	0	0	0	0
EOM		79,754,283	79,842,781	79,778,636	79,794,200	79,869,031	79,209,957	79,336,957	79,463,957	79,553,957	79,643,957	79,643,957	79,643,957
Return on CWIP													
After Tax Return on Equity	751,840	8,076	8,299	8,610	7,869	7,146	7,516	8,049	8,646	9,155	9,578	9,789	9,754
Income Tax Component	530,507	5,699	5,856	6,075	5,552	5,042	5,304	5,680	6,101	6,460	6,758	6,907	6,882
Interest Expense Component	338,935	3,641	3,741	3,881	3,547	3,221	3,388	3,629	3,898	4,127	4,318	4,413	4,397
Total Return on CWIP	1,621,281	17,416	17,897	18,566	16,968	15,409	16,209	17,358	18,644	19,742	20,654	21,109	21,033

Minnesota Power
2017 Renewable Resources Rider: Thomson Hydro
Plant Additions, AFUDC and Return on CWIP

Total	Total	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
	Project												
	82,536,104												
BOM		79,643,957	79,660,957	79,680,957	79,710,957	79,965,957	80,520,957	81,125,957	81,775,957	82,425,957	82,512,540	82,539,561	82,564,242
CapEx	106,670,450	21,596	26,128	37,660	265,723	584,106	641,766	686,766	686,766	123,349	54,596	43,064	5,564
Less Internal Cost	-7,295,339	-4,596	-6,128	-7,660	-10,723	-29,106	-36,766	-36,766	-36,766	-36,766	-27,574	-18,383	-33,702
AFUDC	4,602,876	0	0	0	0	0	0	0	0	0	0	0	0
Less AFUDC on Internal Cost	-297,252	0	0	0	0	0	0	0	0	0	0	0	0
Less Insurance Proceeds	-21,144,630	0	0	0	0	0	0	0	0	0	0	0	0
EOM		79,660,957	79,680,957	79,710,957	79,965,957	80,520,957	81,125,957	81,775,957	82,425,957	82,512,540	82,539,561	82,564,242	82,536,104
Return on CWIP													
After Tax Return on Equity	751,840	9,758	9,845	9,962	10,631	12,533	15,256	18,203	21,254	22,984	23,250	23,372	11,715
Income Tax Component	530,507	6,885	6,947	7,030	7,502	8,843	10,765	12,844	14,997	16,218	16,406	16,491	8,266
Interest Expense Component	338,935	4,399	4,438	4,491	4,793	5,650	6,878	8,206	9,582	10,361	10,481	10,536	5,281
Total Return on CWIP	1,621,281	21,042	21,230	21,483	22,926	27,026	32,899	39,252	45,833	49,562	50,138	50,399	25,262

Minnesota Power
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				Pre-tax	After-Tax	
		Amount	% of Total	Component Cost	Weighted Cost	Rate	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%	
	\$	1,524,211	100.00%		8.180%	12.150%	7.130%	
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							12.1500%	

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
Renewable Resources Rider
Allocation Factors

Allocation factors used from 1/1/2010 until 3/31/11

	D-01		D-02	
	Rate Case	Normalized	Rate Case	Normalized
MN Jurisdiction	0.83057	1.0000	0.78623	1.0000
Residential	0.10527	0.12674	0.09965	0.12674
General Service	0.06914	0.08324	0.06545	0.08325
Large Light & Power	0.10909	0.13134	0.10326	0.13134
Large Power	0.53911	0.64908	0.51033	0.64908
Municipal Pumping	0.00568	0.00684	0.00538	0.00684
Lighting	0.00228	0.00275	0.00216	0.00275

The D-01 Power Supply Production - Demand allocator and D-02 Transmission - Demand allocator used in 2010 and until 3/31/2011 are from MP's 2008 MPUC rate case, Docket No. E-015/GR-08-415. Because the revenue tracker amounts are 100% MN Jurisdictional, the factors are normalized to obtain class allocations.

Allocation factors used beginning 4/1/2011

	D-01		D-02	
	Rate Case	Normalized	Rate Case	Normalized
MN Jurisdiction	0.82017	1.0000	0.77570	1.0000
Residential	0.11259	0.1373	0.10649	0.1373
General Service	0.06213	0.0758	0.05876	0.0758
Large Light & Power	0.12471	0.1521	0.11795	0.1521
Large Power	0.51269	0.6251	0.48489	0.6251
Municipal Pumping	0.00568	0.0069	0.00537	0.0069
Lighting	0.00237	0.0029	0.00224	0.0029

The D-01 and D-02 allocators from MP's 2009 MPUC rate case Docket No. E-015/GR-09-1151 were applied in 2011 Factor Filing beginning April 2011. Because the revenue tracker amounts are 100% MN Jurisdictional, the factors are normalized to obtain class allocations.

Minnesota Power
Docket No. E-015/GR-08-415
Demand Responsibility of Power Supply Cost Based on Peak & Average Methodology: D-01 & D-02
Test Year 7/08 - 6/09

		<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)	9,126,513	1,077,380	706,210	1,151,501	6,103,175	66,306	21,941
2	Average Demand	1,041,839	122,989	80,618	131,450	696,709	7,569	2,505
3	Percent	100.000	11.805	7.738	12.617	66.873	0.727	0.240
4	Annual CP Demand (loss adjusted)	1,332,068	210,331	138,987	199,685	770,636	7,093	5,337
5	Percent	100.000	15.790	10.434	14.991	57.853	0.532	0.401
6	Annual Load Factor (Line 2 / Line 4)	0.78212						
7	1.0 - Load Factor	0.21788						
8	Average Factor (Line 3 x Line 6 total)	78.212	9.233	6.052	9.868	52.303	0.568	0.188
9	Peak Factor (Line 5 x Line 7 total)	21.788	3.441	2.273	3.266	12.605	0.116	0.087
10	Composite Factor - D-01 (Line 8 + Line 9)	100.000	12.674	8.325	13.134	64.908	0.684	0.275
11	Power Supply Production - D-01 Adjusted for Jurisdictional Split (Line 10 x .83057)	83.057	10.527	6.914	10.909	53.911	0.568	0.228
12	Power Supply Transmission - D-02 Adjusted for Jurisdictional Split (Line 10 x .78623)	78.623	9.965	6.545	10.326	51.033	0.538	0.216

Notes:

Residential, General Service, Large Light and Power and Municipal Pumping CP Demands from load research: CP demand per customer multiplied by budgeted number of customers and adjusted for losses. Large Power CP demand estimated based on actual measured 2007 CP adjusted for losses and ratio of 2007 to Test Year average demand. Lighting CP is average load based on Test Year budgeted total energy and 4,200 burning hours and adjusted for losses.

Minnesota Power
Docket No. E-015/GR-09-1151
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.

	Total Retail	Residential	General Service	Large Light & Power	Large Power	Municipal Pumping	Lighting
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.

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

AFFIDAVIT OF SERVICE VIA
ELECTRONIC FILING

SUSAN ROMANS of the City of Duluth, County of St. Louis, State of Minnesota, says that on the **2nd day of November, 2016**, she served Minnesota Power’s Petition in the Matter of Minnesota Power’s Renewable Resources Rider and 2017 Renewable Factor on the Minnesota Public Utilities Commission and the Minnesota Department of Commerce via electronic filing. Parties on the attached Service List were served as requested.



Susan Romans

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	GEN_SL_Minnesota Power_Minnesota Power General Service List
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	Yes	GEN_SL_Minnesota Power_Minnesota Power General Service List
Emma	Fazio	emma.fazio@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Minnesota Power_Minnesota Power General Service List
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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