215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpco.com (web site)



July 31, 2015

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

Re: In the Matter of Otter Tail Power Company's Petition for Approval of the Annual Rate Update to its Environmental Upgrades Cost Recovery Rider Rate, Rate Schedule 13.08 Docket No. E017/M-15-\_\_\_ Initial Filing

Dear Mr. Wolf:

Otter Tail Power Company ("Otter Tail") hereby submits this Petition to the Minnesota Public Utilities Commission ("Commission") for approval of its annual update ("update") to the Environmental Upgrades Cost Recovery Rider Rate under Otter Tail's Rate Schedule 13.08.

Otter Tail has electronically filed this document with the Commission. In compliance with Minn. Rule 7829.1300, subp. 2, Otter Tail is serving a copy of this filing on the Minnesota Department of Commerce- Division of Energy Resources and the Minnesota Office of Attorney General-Antitrust and Utilities Division. A Summary of the filing has been served on all persons on Otter Tail's general service list. A Certificate of Service is also enclosed.

If you have any questions regarding this filing, please contact me at 218-739-8607 or at <a href="mailto:pbeithon@otpco.com">pbeithon@otpco.com</a>.

Sincerely,

/S/ PETE BEITHON
Pete Beithon, Manager
Regulatory Recovery

jch Enclosures By electronic filing c: Service List



# STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's Petition for Approval of the Annual Rate Update to its Environmental Upgrades Cost Recovery Rider, Rate Schedule 13.08 Docket No. E017/M-15-\_\_\_\_

#### **SUMMARY OF FILING**

Otter Tail Power Company ("Otter Tail") submits this Petition to the Minnesota Public Utilities Commission ("Commission") for approval of its annual update to the Environmental Upgrades Cost Recovery Rider rate ("ECR Rider Rate") under Otter Tail's Rate Schedule 13.08. In this petition Otter Tail updates costs and requests the ECR Rider Rate remain the same as is currently in effect.

## STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's Petition for Approval of the Annual Rate Update to its Environmental Upgrades Cost Recovery Rider, Rate Schedule 13.08 Docket No. E017/M-15-\_\_\_\_

#### **PETITION**

#### I. INTRODUCTION

Otter Tail Power Company ("Otter Tail") submits this Petition to the Minnesota Public Utilities Commission ("Commission") for approval of its annual update ("Update") to the Environmental Upgrades Cost Recovery Rider ("ECR Rider") Rate under Otter Tail's Rate Schedule 13.08.

On December 18, 2013, the Commission approved Otter Tail's ECR Rider rate schedule and the initial ECR Rider rate in Docket No. E017/M-13-648. The ECR Rider allows OTP to recover its share of eligible costs for the Big Stone Plant's Air Quality Control System ("AQCS"). On November 26, 2014, the Commission approved Otter Tail's first annual update to the ECR Rider rate in Docket No. E017/M-14-647. Otter Tail is now filing its second annual update to the ECR rate, which includes actual AQCS project cost and revenue information through May 2015 and updated forecast cost and revenue information through September 2016.

The updated forecast cost and revenue information includes updated monthly actual and budget amounts. The initial budget for the AQCS project was \$491 million. In the spring of 2013, that budget was decreased to \$405 million. The budget was again decreased in 2014, to \$384 million (Otter Tail's Minnesota share is approximately \$103 million).

For this annual update, Otter Tail recommends leaving the ECR Rider rate at 7.006 percent. Otter Tail makes this recommendation because the calculated percent-of-bill rate for this annual period is 7.056 percent, which is an increase of only 0.050

percent from the currently approved 7.006 percent. The percentage rate has been calculated based on an annual recovery period of October 2015 through September 2016.

Otter Tail has updated the in-service date of the project from October 2015 to December 2015. The primary reason for the updated in-service date is extended maintenance at the plant during the planned outage. By pushing the in-service date back two months; the revenue requirement during the collection period has dropped slightly due to the shift in the month depreciation begins to be recognized. Additionally, growing sales and revenue have helped keep the rate lower even as the revenue requirement increases.

As described below (in Section IV. B. 2015 ECR Rider Revenue Requirement Calculations), Otter Tail has excluded baghouse capital costs, ACI capital costs, various operating and maintenance expenses and reagent costs which will begin to be incurred once the AQCS goes into service. <sup>1</sup> The total exclusions equate to approximately \$2.85 million in annual revenue requirements (Minnesota share) or 20 percent.

The next expected update to be filed in 2016 for the period October 2016 through September 2017.

#### II. SUMMARY OF FILING

Pursuant to Minn. Rules 7829.1300, subp. 1, a one-paragraph summary of the filing accompanies this Petition.

#### III. GENERAL FILING INFORMATION

Pursuant to Minn. Rules 7829.1300, subp. 3, the following information is provided.

#### A. Name, address, and telephone number of utility

(Minn. Rules 7829.1300, subp. 3(A))

Otter Tail Power Company 215 South Cascade Street Fergus Falls, Minnesota 56538-0496 (218) 739-8200

<sup>1</sup> In Docket E017/M-14-649 the Commission denied recovery of reagent costs through the fuel adjustment clause.

#### B. Name, address, and telephone number of utility attorney

(Minn. Rules 7829-1300, subp. 3(B))

Cary Stephenson Associate General Counsel Otter Tail Power Company 215 South Cascade Street Fergus Falls, Minnesota 56538-0496 (218) 739-8956

#### C. Date of filing and proposed effective date of rates

(Minn. Rules 7829.1300, subp. 3(C))

The date of the filing is July 31, 2015. Otter Tail proposes the updated rates to become effective October 1, 2015, or on the first day of the month following Commission approval, should its decision be thereafter.

#### D. Statutes controlling schedule for processing the filing

(Minn. Rules 7829.1300, subp. 3(D))

This filing is a "miscellaneous tariff filing" as defined by the Commission's rules at Minn. Rules 7829.0100, subp. 11. No determination of Otter Tail's overall revenue requirement is necessary (or required under the Statute). Minn. Rules 7829.1400, subps. 1 and 4 permit comments in response to a miscellaneous tariff filing to be filed within 30 days and reply comments to be filed no later than 10 days thereafter.

#### E. Title of utility employee responsible for filing

(Minn. Rules 7829.1300, subp. 3(E))

Pete Beithon Manager, Regulatory Services Otter Tail Power Company 215 South Cascade Street Fergus Falls, Minnesota 56538-0496 (218) 739-8607

#### F. Service List

(Minn. Rules 7829.0700)

Otter Tail requests that the following persons be placed on the Commission's official service list for this matter and that any trade secret comments, requests, or information be provided to the following on behalf of Otter Tail:

Pete Beithon Manager, Regulatory Recovery Otter Tail Power Company 215 South Cascade Street Fergus Falls, MN 56538-0496 (218) 739-8607 pbeithon@otpco.com Cary Stephenson Associate General Counsel Otter Tail Power Company 215 South Cascade Street Fergus Falls, MN 56538-0496 (218) 739-8956 cstephenson@otpco.com

#### G. Service on other parties

(Minn. Rules 7829.1300, subp. 2; Minn. Rules 7829.0600)

Otter Tail has served a copy of this Petition on the Division of Energy Resources of the Department of Commerce and the Residential Utilities Division of the Office of the Attorney General. A summary of the filing was served on all parties on the attached list.

#### IV. DESCRIPTION AND PURPOSE OF FILING

#### A. Background

On July 31, 2013, Otter Tail filed an ECR tariff and proposed rates in Docket No. E017/M-13-648 to recover the jurisdictional allocated costs incurred in complying with federal environmental mandates at the Big Stone generating station. On December 18, 2013, the Commission approved Otter Tail's ECR tariff and rate. The Company implemented the approved ECR rate of 3.958 percent (applied to base rates) effective with bills rendered on and after January 1, 2014. On November 26, 2014, the Commission approved Otter Tail's first annual update to the ECR rate in Docket No. E017/M-14-647. The approved rate of 7.006 percent was effective for bills rendered on and after December 1, 2014.

In this second annual update, Otter Tail is requesting to update its ECR rate to reflect actual costs incurred through May 2014 and projected costs through September 2016. The updated forecast of project costs over this period is based on the project budget of \$384 million. The original total project budget was \$491 million (inclusive of

\$40 million for a new baghouse and \$2.1 million for ACI system, which are excluded from the ECR Rider). That budget was reduced to \$405 million in March of 2013. The budget was again reduced to \$384 million in the 2015 filing, a 21.8 percent reduction from the original budget.<sup>2</sup>

As shown in Attachment 1, the Revenue Requirements Summary, the revenue requirement allocated to Minnesota is \$12,764,911 with a projected over-recovery of the current period's costs of \$601,473 and a carrying cost (in this case a <u>credit</u> to customers) during the collection period of \$59,747 for a total revenue requirement of \$12,103,691 to be recovered through the ECR rate over the period October 1, 2015 through September 30, 2016. The calculated ECR Rider rate from this update is 7.056 percent, an increase of 0.050 percent from the currently approved 7.006 percent using the currently approved percent-of-bill rate design method, for the period of December 2014 through September 2015. Otter Tail is proposing that the rate remain the same, at 7.006 percent. By doing this, Otter Tail will minimize impact on customers and reduce the administrative costs of changing the rate.

#### B. 2015 ECR Rider Revenue Requirement Calculations

Our 2015 Environmental Upgrades Revenue Requirements Calculations (Attachment 2) includes calculations for the AQCS project. The revenue requirement for the project included in the Rider includes several components described below.

- Rate base section. Lines 1-22 of the tracker provide details on the amount of:
  - o *Plant in service*. (When applicable)
  - Accumulated Depreciation. (When applicable)
  - o Construction Work in Progress. ("CWIP"). Minn. Stat. §216B.1692 allows a current return on CWIP
  - o Allowance for Funds Used During Construction. ("AFUDC"). Earned return prior to rate implementation
  - o *Baghouse Exclusion*. Removal of costs associated with the baghouse and ACI construction.
  - o Accumulated Deferred Taxes. (When Applicable)

<sup>2</sup> The most recent Quarterly Report on the AQCS Project progress can be found in Docket No. E017/M-10-1082.

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- o Average Rate Base. This amount is based on a 13-month average calculation
- Return on Rate Base. The return on investment utilizes the cost of capital approved in Otter Tail's most recent general rate case which is 8.61 percent.
- o Available for Return. This amount is the equity portion of the Return on Rate base.
- Expense section. The expenses applicable to the project are listed on lines 25-37 and include operation costs, property taxes, depreciation and income taxes.
  - O&M Expenses. Otter Tail will track O&M costs specifically related to the AQCS project. Otter Tail is not requesting any of the AQCS specific O&M expenses at this time. Reagents are not included (pebble lime, powdered activated carbon and anhydrous ammonia in the amount of approximately \$1.3 million, Minnesota share), reagent disposal costs of approximately \$150,000 other material \$150,000, and labor costs of approximately \$250,000 for additional employees to operate the AQCS (\$550,000 Minnesota share). Total O&M and reagent revenue requirements not included in the ECR Rider Rate are approximately \$1.85 million.
  - Property taxes. The property tax calculation is based on Otter Tail's composite tax rate for South Dakota, the jurisdiction where Big Stone is located and will be calculated in accordance with the procedures specified by each state.
  - o *Depreciation Expense*. Depreciation expense is calculated using Otter Tail's latest composite depreciation rate.
  - o *Income Tax Expense*. Total income tax expense is based on the combined federal and MN tax rate.
- Revenue requirement section. Lines 41-53 show the components of the revenue requirements calculation. Included are the items computed from the sections previously mentioned, including expenses and return on rate base.
  - Jurisdictional allocator. Otter Tail applied jurisdictional allocators E1 and D1 as determined by the Commission in Otter Tail's most recent general rate case.
- Baghouse and ACI exclusion. The Commission's ADP approval did not include the new baghouse portion of the AQCS project or the ACI system that is being added to comply with the MATS rule. The baghouse and ACI system were not part of the ADP approval because they were determined to be beyond the scope of the ADP statute, not because they were found imprudent. The construction of the baghouse is expected to cost \$38 million in the revised budget (total project). The construction of the ACI system equipment is expected to cost approximately \$2 million in the revised budget (total project). To remove these costs, a portion of the monthly CWIP balance, and AFUDC, is removed in the same ratio as the cost of the baghouse and ACI as compared

to the total AQCS project cost. The ratio is found by dividing the total projected cost of the baghouse and ACI by the total projected cost of the AQCS project (inclusive of the baghouse and ACI). The ratio is approximately 10.40 percent and this amount is removed from the project costs to arrive at the AQCS costs excluding the baghouse and ACI. The AFUDC calculation does not exclude the baghouse directly. Rather, the baghouse exclusion is calculated in the CWIP calculation section (Attachment 2, pages 1-3, lines 13 and 14). Within that section, the baghouse portion of each month's CWIP and AFUDC amounts are removed from the totals. When the AQCS goes into service in December 2015 the exclusion reduces Otter Tail's recovery of capital by approximately \$1 million in annual revenue requirements, Minnesota share.

#### C. Tracker Balance

Otter Tail maintains a tracker account worksheet and accounting system to track and account for retail revenue requirements associated with the project compared to the actual collections received through the billing and collections received under the Rider's approved rates. Project costs will remain in the tracker until all costs have either been fully recovered within the Rider, or the costs have been moved into rate base and reflected in base rates as part of a general rate case. The tracker account information compares Otter Tail's Minnesota jurisdictional costs and the amount recovered through Minnesota retail revenue. The tracker balance (either positive of negative) will accrue monthly carrying charges at a rate of 1/12 of Otter Tail's cost of capital times the tracker balance. Carrying charges on a negative tracker balance will accrue to the benefit of retail customers and carrying charges on a positive tracker balance will accrue to the benefit of Otter Tail. The Order in Docket E017/M-13-648 states: "Approved OTP's overall proposed tracker recovery method, including a monthly 1/12 rate of return charged on any under or over recovery balance."

Unless rolled into a general rate case filing, Otter Tail will continue making annual filings to revise the Environmental Cost Recovery rates to reflect updated revenue requirements and additional new environmental measure projects which qualify for ECR Rider recovery, if any. When submitting annual filings, the tracker account is updated so that any over/under recovered amount at the end of the previous year will be reflected in

the Rider adjustment for the upcoming year. This approach ensures that no under/over recovery occurs. The tracker balance detail is included in Attachment 3.

#### D. Rate Design

Otter Tail proposes to continue use of the "percent of bill" method to allocate costs to classes. This method appropriately matches the rate design with other baseload plant rate base and operating expenses by applying the percent to only base rates. The customer's rate charges in the bill are an appropriate reflection of energy and demand components in base rates and therefore, the percent of bill method provides a fair and suitably representative rate design for cost responsibility among and within classes. Furthermore, this method is also simple to administer. The rate design is shown on Attachment 4.

#### E. Revenue Requirements, Rate Application and Impact

Otter Tail proposes that the Rider continue to be applicable to electric service under all of Otter Tail's retail rate schedules as defined in Rate Schedule 13.08. The charge will continue to be included as part of the Resource Adjustment line on customers' bills

The total 2015 revenue requirement, as shown on line 4 in Attachment 1 is \$12,103,691. With Otter Tail's proposal to have the rate remain unchanged for the next collection period, October 2015 through September 2016 there is no changed impact to customers.

The above rate has been calculated based on an expected implementation date of October 1, 2015. Revenue Requirement calculations are based on October 2015 through September 2016 costs, assuming revenue collection occurs October 2015 through September 2016. If the effective date is significantly later than October 1, 2015, Otter Tail requests the option to recalculate the rate in order to recover all approved costs over the remainder of the proposed recovery period.

F. Customer notification and billing

Otter Tail is not requesting any changes be made to the rate and therefore no

notice of a change in rate is necessary. If the Commission determines that the rate should

be changed, a notice will be required.

V. ENVIRONMENTAL COST RECOVERY RIDER RATE SCHEDULE

An updated rate schedule Section 13.08 is not necessary as Otter Tail is not

requesting a change in the rate. If the Commission determines that the rate should be

changed, the rate schedule will be updated accordingly.

VI. CONCLUSION

Otter Tail respectfully requests the Commission approve this 2015 Update to its

Environmental Upgrades Cost Recovery Rider and leave the rate at 7.006 percent

effective October 1, 2015, as explained in this Petition.

Date: July 31, 2015

Respectfully submitted:

OTTER TAIL POWER

COMPANY

By: /s/ PETE BEITHON

\_\_\_\_\_

Pete Beithon Manager, Regulatory Recovery

215 South Cascade Street

P.O. Box 496

Fergus Falls, MN 56538-0496

Phone (218) 739-8607

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## OTTER TAIL POWER COMPANY ENVIRONMENTAL COST RECOVERY RIDER FILING ATTACHMENTS

Attachment 1 Revenue Requirements Summary

Attachment 2 Revenue Requirements Calculations

Attachment 3 Environmental Cost Recovery Rider Tracker Report

Attachment 4 Rate Design

Otter Tail Power Company
Environmental Cost Recovery Rider
Docket No. E017/M-15-\_\_\_\_

#### **Summary of Revenue Requirements**

Line No.	Revenue Requirements	2015 - 2016
1	Air Quality Control System	\$12,764,911
2	Carrying Cost	(59,747)
3	True Up	(601,473)
4	Total	\$12,103,691

## Otter Tail Power Company Environmental Cost Recovery Rider Revenue Requirement Calc Docket No. E017/M-14-\_\_\_\_

Line No.	Year>>	2012 Actual Total	2013 Actual January	2013 Actual February	2013 Actual March	2013 Actual April	2013 Actual May	2013 Actual June	2013 Actual July	2013 Actual August	2013 Actual September	2013 Actual October	2013 Actual November	2013 Actual December	2013 Actual Total
1	RATE BASE Plant Balance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Accumulated. Depreciation Net Plant in Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	CWIP Calculation	U	_		-	-	-	_	-	-	-	_	-	-	Ü
5 6	Eligible AFUDC CWIP Additional CWIP		21,057,583 254,904	21,312,487 1,321,829	22,634,317 4,720,242	27,354,559 1,351,072	28,705,631 2,410,661	31,116,292 6,108,524	37,224,815 7,746,167	44,970,982 10,540,167	55,511,149 6,790,335	62,301,483 8,125,883	70,427,366 8,344,818	78,772,183 7,038,696	
7	Ending Eligible AFUDC CWIP	21,057,583	21,312,487	22,634,317	27,354,559	28,705,631	31,116,292	37,224,815	44,970,982	55,511,149	62,301,483	70,427,366	78,772,183	85,810,879	85,810,879
8	AFUDC Additional AFUDC		133,819	137,920	158,007	161,640	172,088	208,725	261,280	314,216	367,428	472,238	542,328	615,308	
10 11	Ending AFUDC AFUDC Rate		133,819 7.5800%	271,739 7.5320%	429,745 7.5860%	591,386 6.9200%	763,473 6.9040%	972,198 7.3300%	1,233,478 7.6290%	1,547,694 7.5050%	1,915,122 7.4850%	2,387,360 8.5390%	2,929,688 8.7238%	3,544,995 8.9726%	3,544,995
12	Bag House Exclusion														
13 14	Additional Bag House Exclusion Total Bag House Exclusion	(1,914,879)	(46,935) (1,961,815)	(150,141) (2,111,956)	(505,568) (2,617,524)	(155,255) (2,772,779)	(267,049) (3,039,827)	(655,003) (3,694,830)	(831,035) (4,525,866)	(1,127,131) (5,652,996)	(742,657) (6,395,653)	(892,209) (7,287,862)	(922,260) (8,210,122)	(793,885) (9,004,007)	(9,004,007)
15	Accumulated Deferred Income Taxes Fedederal & State	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 17	Ending Rate Base	19,142,703		20,794,099	25,166,780	26,524,238	28,839,938	34,502,183	41,678,594	51,405,846	57,820,952	65,526,864	73,491,749	80,351,868	80,351,868
18	Average Rate Base		3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	3,491,861	41,902,331
19 20	Return on Rate Base		2013 does not use	a revenue requi	rments calculat	ion, only the AFU	DC accrual.								
21															
22 23	Available for Return (equity portion of rate base)														
24 25	EXPENSES O&M and Depreciation														
26	Operating Costs														
27 28	Property Tax Book Depreciation														
29 30	Total O&M and Depreciation Expense														
31	Income before Taxes														
32 33	Available for Return (from above) Taxable Income (grossed up) 1.7056														
34 35	Income Taxes														
36	Current and Def Income Taxes 41.37%														
37 38	Total Income Tax Expense														
39	DELIENUE DEGLIDENENTO														
40 41	REVENUE REQUIREMENTS Expenses														
42 43	Return on Rate Base Subtotal Revenue Requirements														
44	Adjustments														
45 46	Total Revenue Requirements														
47 48	Base Demand Factor         75.29%           Peak Demand Factor         24.71%														
49															
50 51	Minnesota share - E1 factor 51.5408% Minnesota share - D1 factor 48.3009%														
52 53	Minnesota Revenue Requirements														
33	Millinesota Revenue Requirements														
_		-		-	-		-		-	-	-	-			
Line No.															
	SUPPORTING INFORMATION / DATA														
1 2			MN Cap Structure	with allowed ROF	per order.										
3			Capital Structure		Ratio	Cost	WA Cost				_	Property tax			
4 5			Debt Preferred equity		48.28% 0.00%	6.33% 0.00%	3.06% 0.00%				2	013 composite ra	te	0.00%	
6			Common equity Total	_	51.72% 100.00%	10.74%	5.55%	Verall Return							
8			- Out			_	0.01%	-voidii Notuiii							
9 10			Project life (years)		Book 30	Tax 7-year MACRS									
11						Federal	State								
13				tutory Tax Rate	41.37%	31.57%	9.80%								
14 15			Tax co	nversion factor Demand Factor	1.70561 75.29%										
16 17			Peak	Demand Factor	24.71% 51.5408%										
18			MN si	hare - E1 factor hare - D1 factor	51.5408% 48.3009%										
19 20	Deferred Tax														
21	Book depreciation		0	0	0	0	0	0	0	0	0	0	0	0	0
22 23	Tax depreciation-Federal Tax depreciation-State		0	0	0	0 0	0	0 0	0	0	0	0	0	0 0	0
24 25	Federal deferred income taxes 35.00% State deferred income taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
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## Otter Tail Power Company Environmental Cost Recovery Rider Revenue Requirement Calc Docket No. E017/M-14-\_\_\_\_\_

Encoe  ted. Depreciation  Service  culation  FUDC CWIP  al CWIP  al CWIP  al AFUDC CWIP  di AFUDC CWIP  di AFUDC CRIP  Rate  Exclusion  al Sag House Exclusion  gl House Exclusion  del Deferred Income Taxes Fedederal & :  Base  te Base	State	85,810,879 6,369,190 92,180,069 0 3,544,995 0,00% (662,377) (9,666,384) 0 86,058,680	0 0 0 0 92,180,069 5,733,986 97,914,055 0 3,544,995 0,00% (595,741) (10,262,126) 0	97,914,055 4,981,513 102,895,569 0 3,544,995 (518,083) (10,780,208)	0 0 0 102,895,569 4,056,828 106,952,397 0 3,544,995 0.00%	0 0 0 106,952,397 4,370,174 111,322,571 0 3,544,995 0.00%	0 0 0 111,322,571 5,544,169 116,866,740 0 3,544,995 0.00%	0 0 0 116,866,740 5,190,488 122,057,229 0 3,544,995	0 0 0 122,057,229 4,595,010 126,652,239 0 3,544,995	0 0 0 126,652,239 5,041,181 131,693,420 0 3,544,995	0 0 0 131,693,420 4,952,185 136,645,605 0 3,544,995	0 0 0 136,645,605 4,798,730 141,444,335	0 0 0 141,444,335 4,467,724 145,912,059	0 0 0
led. Depreciation Service culation FFUDC CWIP al CWIP al AFUDC CWIP al AFUDC CWIP al AFUDC CWIP al AFUDC AFUDC Rate 6 Exclusion al Bag House Exclusion g House Exclusion g House Fixed Taxes Fedederal & : Base	State _	0 85,810,879 6,369,190 92,180,069 0 3,544,995 0,00% (662,377) (9,666,384) 0	0 0 92,180,069 5,733,986 97,914,055 0 3,544,995 0.00% (595,741) (10,262,126) 0	0 97,914,055 4,981,513 102,895,569 0 3,544,995 0.00% (518,083)	0 0 102,895,569 4,056,828 106,952,397 0 3,544,995	0 0 106,952,397 4,370,174 111,322,571 0 3,544,995	0 0 111,322,571 5,544,169 116,866,740 0 3,544,995	0 0 116,866,740 5,190,488 122,057,229 0 3,544,995	0 0 122,057,229 4,595,010 126,652,239 0 3,544,995	0 0 126,652,239 5,041,181 131,693,420 0	0 0 131,693,420 4,952,185 136,645,605 0	0 0 136,645,605 4,798,730 141,444,335	0 0 141,444,335 4,467,724 145,912,059 0	0
Service cutation AFUDC CWIP al AFUDC	State _	0 85,810,879 6,369,190 92,180,069 0 3,544,995 0.00% (662,377) (9,666,384)	0 92,180,069 5,733,986 97,914,055 0 3,544,995 0.00% (595,741) (10,262,126) 0	0 97,914,055 4,981,513 102,895,569 0 3,544,995 0.00% (518,083)	0 102,895,569 4,056,828 106,952,397 0 3,544,995	0 106,952,397 4,370,174 111,322,571 0 3,544,995	0 111,322,571 5,544,169 116,866,740 0 3,544,995	0 116,866,740 5,190,488 122,057,229 0 3,544,995	0 122,057,229 4,595,010 126,652,239 0 3,544,995	0 126,652,239 5,041,181 131,693,420 0	0 131,693,420 4,952,185 136,645,605 0	0 136,645,605 4,798,730 141,444,335	0 141,444,335 4,467,724 145,912,059 0	0
culation AFUDC CWIP al CWIP al AFUDC CWIP ligible AFUDC CWIP al AFUDC AFUDC Rate 6 Exclusion al Bag House Exclusion g House Exclusion g House Facility and Second Second Second Second Second Second Second Second Second Se	State _	85,810,879 6,369,190 92,180,069 0 3,544,995 0.00% (662,377) (9,666,384)	92,180,069 5,733,986 97,914,055 0 3,544,995 0.00% (595,741) (10,262,126) 0	97,914,055 4,981,513 102,895,569 0 3,544,995 0.00% (518,083)	102,895,569 4,056,828 106,952,397 0 3,544,995	106,952,397 4,370,174 111,322,571 0 3,544,995	111,322,571 5,544,169 116,866,740 0 3,544,995	116,866,740 5,190,488 122,057,229 0 3,544,995	122,057,229 4,595,010 126,652,239 0 3,544,995	126,652,239 5,041,181 131,693,420 0	4,952,185 136,645,605 0	136,645,605 4,798,730 141,444,335	141,444,335 4,467,724 145,912,059	145,912,059
AFUDC CWIP al CWIP al AFUDC AFUDC AFUDC Rate 6 Exclusion al Bag House Exclusion g House Exclusion g House Exclusion	State _	6,369,190 92,180,069 0 3,544,995 0.00% (662,377) (9,666,384) 0	5,733,986 97,914,055 0 3,544,995 0.00% (595,741) (10,262,126) 0	4,981,513 102,895,569 0 3,544,995 0.00% (518,083)	4,056,828 106,952,397 0 3,544,995	4,370,174 111,322,571 0 3,544,995	5,544,169 116,866,740 0 3,544,995	5,190,488 122,057,229 0 3,544,995	4,595,010 126,652,239 0 3,544,995	5,041,181 131,693,420 0	4,952,185 136,645,605 0	4,798,730 141,444,335 0	4,467,724 145,912,059	145,912,059
Eligible AFUDC CWIP at AFUDC Ratio Ratio B Exclusion at Bag House Exclusion g House Exclusion g House Exclusion et Exclusion at Bag House Exclusion begins at the Exclusion at Sage Base	State _	92,180,069 0 3,544,995 0.00% (662,377) (9,666,384) 0	97,914,055 0 3,544,995 0.00% (595,741) (10,262,126) 0	0 3,544,995 0.00% (518,083)	106,952,397 0 3,544,995	111,322,571 0 3,544,995	116,866,740 0 3,544,995	122,057,229 0 3,544,995	126,652,239 0 3,544,995	131,693,420	136,645,605	141,444,335	145,912,059	145,912,059
al AFUDC AFUDC Rate e Exclusion al Bag House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & : Base	State _	0 3,544,995 0.00% (662,377) (9,666,384) 0	0 3,544,995 0.00% (595,741) (10,262,126) 0	0 3,544,995 0.00% (518,083)	0 3,544,995	0 3,544,995	0 3,544,995	0 3,544,995	0 3,544,995	0	0	0	0	145,912,059
NFUDC Rate Exclusion al Bag House Exclusion g House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & Base	State _	3,544,995 0.00% (662,377) (9,666,384) 0	3,544,995 0.00% (595,741) (10,262,126) 0	3,544,995 0.00% (518,083)	3,544,995	3,544,995	3,544,995	3,544,995	3,544,995					
NFUDC Rate Exclusion al Bag House Exclusion g House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & Base	State _	3,544,995 0.00% (662,377) (9,666,384) 0	3,544,995 0.00% (595,741) (10,262,126) 0	3,544,995 0.00% (518,083)	3,544,995	3,544,995	3,544,995	3,544,995	3,544,995					
Rate e Exclusion al Bag House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & 9 Base	State _	0.00% (662,377) (9,666,384) 0	0.00% (595,741) (10,262,126) 0	0.00%						3.544.995				
e Exclusion al Bag House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & : Base	State _	(662,377) (9,666,384) 0	(595,741) (10,262,126) 0	(518,083)	0.00%	0.00%			0.000/	0.0001		3,544,995	3,544,995	3,544,995
al Bag House Exclusion g House Exclusion ted Deferred Income Taxes Fedederal & : Base	State _	(9,666,384) 0	(10,262,126)					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
g House Exclusion ted Deferred Income Taxes Fedederal & : Base	State _	(9,666,384) 0	(10,262,126)		(421,954)	(454,507)	(576,601)	(539.814)	(477,890)	(524,293)	(514,970)	(499.076)	(464.639)	
e Base	State _	0	0		(11,202,163)	(11,656,670)	(12,233,271)	(12,773,085)	(13,250,975)	(13,775,268)	(14,290,238)	(14,789,314)	(15,253,952)	(15,253,952)
Base		86,058,680		0	0	0	0	0	0	0	0	0	0	0
te Base			91,196,925	95,660,356	99,295,229	103,210,897	108,178,464	112,829,139	116,946,259	121,463,147	125,900,363	130,200,017	134,203,102	134,203,102
te Base														
		9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	9,009,580	108,114,957
tate Base		775,790	775,790	775,790	775,790	775,790	775,790	775,790	775,790	775,790	775,790	775,790	775,790	9,309,476
Return (equity portion of rate base)		500,429	500,429	500,429	500,429	500,429	500,429	500,429	500,429	500,429	500,429	500,429	500,429	6,005,143
3														
epreciation														
Costs		0	0	0	0	0	0	0	0	0	0	0	0	0
ax		0	0	0	0	0	0	0	0	0	0	0	0	0
reciation		0	0	0	0	0	0	0	0	0	0	0	0	0
and Depreciation Expense	-	0	0	0	0	0	0	0	0	0	0	0	0	0
ore Taxes														
or Return (from above)		500.429	500.429	500.429	500,429	500.429	500.429	500.429	500.429	500.429	500.429	500.429	500,429	6,005,143
ome (grossed up)	1,7056	853.537	853.537	853,537	853,537	853.537	853.537	853.537	853.537	853.537	853,537	853.537	853.537	10.242.442
sino (grossos ap)	1.1000	000,007	000,007	000,007	000,007	000,007	000,001	000,007	000,007	000,007	000,001	000,007	000,007	10,212,112
es														
nd Def Income Taxes	41.37%	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	4,237,298
e Tax Expense		353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	4,237,298
DECLUDE MENTO			353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	353,108	4.237.298
REQUIREMENTS		252 100												9,309,476
		353,108		775 700										13,546,774
Rate Base		775,790	775,790	775,790 1.128.898			1.128.898	1.128.898	1.128.898	1.128.898	1.128.898	1.128.898		
Rate Base venue Requirements	_			775,790 1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,120,090	10,010,111
Rate Base	-	775,790	775,790				1,128,898 1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	13,546,774
Rate Base venue Requirements its ue Requirements	-	775,790 1,128,898 1,128,898	775,790 1,128,898 1,128,898	1,128,898 1,128,898	1,128,898 1,128,898	1,128,898 1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	13,546,774
Rate Base venue Requirements its ue Requirements and Factor	75.29%	775,790 1,128,898 1,128,898 849,891	775,790 1,128,898 1,128,898 849,891	1,128,898 1,128,898 849,891	1,128,898 1,128,898 849,891	1,128,898 1,128,898 849,891	1,128,898 849,891	1,128,898 849,891	1,128,898 849,891	1,128,898 849,891	1,128,898 849,891	1,128,898 849,891	1,128,898	13,546,774 10,198,698
Rate Base venue Requirements its ue Requirements	75.29% 24.71%	775,790 1,128,898 1,128,898	775,790 1,128,898 1,128,898	1,128,898 1,128,898	1,128,898 1,128,898	1,128,898 1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	1,128,898	13,546,774
Rate Base venue Requirements its ue Requirements nand Factor nand Factor	24.71%	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	13,546,774 10,198,698 3,348,076
Rate Base venue Requirements its ue Requirements vand Factor and Factor	24.71% 51.5408%	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006 438,041	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006 438,041	1,128,898 1,128,898 849,891 279,006 438,041	1,128,898 1,128,898 849,891 279,006 438,041	1,128,898 1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	1,128,898 849,891 279,006 438,041	13,546,774 10,198,698 3,348,076 5,256,492
Rate Base venue Requirements its ue Requirements nand Factor nand Factor	24.71%	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006	775,790 1,128,898 1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	1,128,898 849,891 279,006	13,546,774 10,198,698 3,348,076
	EQUIREMENTS							tte Base 775,790 775,790 775,790 775,790 775,790 775,790	tte Base 775,790 775,790 775,790 775,790 775,790 775,790 775,790			tte Base 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790	tte Base 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790	tte Base 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790 775,790

Line													
No.													
	SUPPORTING INFORMATION / DATA												
1													
2		MN Cap Structure with allowed ROE	per order.										
3		Capital Structure	Ratio	Cost	WA Cost				Prop	erty tax			
4		Debt	48.28%	6.33%	3.06%				2014 0	omposite rate		0.00%	
5		Preferred equity	0.00%	0.00%	0.00%								
6		Common equity	51.72%	10.74%	5.55%								
7		Total	100.00%		8.61% Ove	rall Return							
8													
9			Book	Tax									
10		Project life (years)	30	7-year MACRS									
11													
12		_		Federal	State								
13		_ Statutory Tax Rate	41.37%	31.57%	9.80%								
14		Tax conversion factor	1.70561										
15		Base Demand Factor	75.29%										
16		Peak Demand Factor	24.71%										
17		MN share - E1 factor	51.5408%										
18 19		MN share - D1 factor	48.3009%										
	D-f d T												
	Deferred Tax Book depreciation	0 0	0	0	0	0	0	0	0	0	0	0	0
	Tax depreciation-Federal	0 0	0	0	0	0	0	0	0	0	0	0	0
	Tax depreciation-Federal Tax depreciation-State	0 0	0	0	0	0	0	0	0	0	0	0	0
	Federal deferred income taxes 35.00%		0	0	0	0	0	0	0	0	0	0	0
	State deferred income taxes 35.00%	0 0	0	0	0	0	0	0	0	0	0	0	0
25	Otate deferred income taxes		U	U	U	U	J	U	J	J	0	U	U

Line No.	RATE BASE	Year>>	2015 Actual January	2015 Actual February	2015 Actual March	2015 Actual April	2015 Actual May	2015 Actual June	2015 Projected July	2015 Projected August	2015 Projected September	2015 Projected October	2015 Projected November	2015 Projected December	2015 Projected Total
1 2 3	Plant Balance Accumulated. Depreciation Net Plant in Service		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	183,447,102 0 183,447,102	183,447,102 0 183,447,102
4 5 6 7	CWIP Calculation Eligible AFUDC CWIP Additional CWIP Ending Eligible AFUDC CWIP	ļ	145,912,059 6,860,953 152,773,012	152,773,012 5,501,688 158,274,700	158,274,700 9,351,014 167,625,714	167,625,714 8,551,176 176,176,890	176,176,890 7,575,501 183,752,391	183,752,391 3,734,872 187,487,263	187,487,263 366,648 187,853,911	187,853,911 1,955,569 189,809,480	189,809,480 3,552,875 193,362,355	193,362,355 2,683,021 196,045,376	196,045,376 4,510,215 200,555,591	200,555,591 (183,131,343) 17,424,248	
8 9 10 11	AFUDC Additional AFUDC Ending AFUDC AFUDC Rate		0 3,544,995 0.00%	0 3,544,995 0.00%	0 3,544,995 0,00%	0 3,544,995 0,00%	0 3,544,995 0,00%	0 3,544,995 0,00%	0 3,544,995 0.00%	0 3,544,995 0.00%	0 3,544,995 0.00%	0 3,544,995 0.00%	0 3,544,995 0.00%	0 3,544,995 0.00%	
12 13 14	Bag House Exclusion Additional Bag House Exclusion Total Bag House Exclusion		(713,551) (15,967,503)	(571,925) (16,539,428)	(972,524) (17,511,952)	(889,291) (18,401,243)	(787,863) (19,189,107)	(388,430) (19,577,537)	(38,091) (19,615,627)	(203,336) (19,818,963)	(369,465) (20,188,428)	(278,993) (20,467,421)	(469,030) (20,936,451)	(32,793) (20,969,243)	
15 16 17 18	Accumulated Deferred Income Taxes Fedederal & Stat Ending Rate Base Average Rate Base	te	0 140,350,504 13,662,346	0 145,280,267 13,662,346	0 153,658,757 13,662,346	0 161,320,642 13,662,346	0 168,108,280 13,662,346	171,454,721 13,662,346	171,783,279	173,535,512 13,662,346	0 176,718,922 13,662,346	0 179,122,951 13,662,346	0 183,164,136 13,662,346	(10,822,209) 172,624,894 13,662,346	(10,822,209) 172,624,894 163,948,151
19 20 21	Return on Rate Base		1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	1,176,426	14,117,116
22	Available for Return (equity portion of rate base)		758,862	758,862	758,862	758,862	758,862	758,862	758,862	758,862	758,862	758,862	758,862	758,862	9,106,346
24 25	EXPENSES O&M and Depreciation														
26 27 28 29	Operating Costs Property Tax Book Depreciation Total O&M and Depreciation Expense		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0
30 31 32 33	Income before Taxes Available for Return (from above) Taxable Income (grossed up)	1.7056	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	758,862 1,294,324	9,106,346 15,531,887
34 35 36 37 38	Income Taxes Current and Def Income Taxes Total Income Tax Expense	41.37%	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	535,462 535,462	6,425,542 6,425,542
39 40	REVENUE REQUIREMENTS														
41 42 43 44	Expenses Retum on Rate Base Subtotal Revenue Requirements Adjustments		535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	535,462 1,176,426 1,711,888	6,425,542 14,117,116 20,542,658
45 46	Total Revenue Requirements		1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	1,711,888	20,542,658
47 48 49	Base Demand Factor Peak Demand Factor	75.29% 24.71%	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	1,288,796 423,092	15,465,554 5,077,104
50 51 52 53		51.5408% 48.3009%	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	664,256 204,357 868,613	7,971,072 2,452,287 10,423,358
	imilinesota Revenue Requirements		808,013	000,013	000,013	000,013	600,013	000,013	600,013	000,013	800,013	000,013	808,013	808,013	10,423,336
Line No.															
1 2 3 4 5 6 7	SUPPORTING INFORMATION / DATA		MN Cap Structure of Capital Structure Debt Preferred equity Common equity Total	with allowed ROE	per order. Ratio 48.28% 0.00% 51.72% 100.00%	Cost 6.33% 0.00% 10.74%	WA Cost 3.06% 0.00% 5.55% 8.61%	Overall Return			2	Property tax 2015 composite ra	ite	0.00%	
9 10 11			Project life (years)		Book 30	Tax 7-year MACRS									
12 13 14 15 16 17 18 19			Tax co Base I Peak I MN si	atutory Tax Rate onversion factor Demand Factor Demand Factor share - E1 factor hare - D1 factor	41.37% 1.70561 75.29% 24.71% 51.5408% 48.3009%	Federal 31.57%	State 9.80%								
20 21 22	Deferred Tax Book depreciation Tax depreciation-Federal Tax depreciation-State		0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 26,159,557 26,159,557	0 26,159,557 26,159,557
24	Tax depreciation-state Federal deferred income taxes State deferred income taxes	35.00%	0	0	0	0	0	0	0	0	0	0	0	(8,258,572) (2,563,637)	(8,258,572) (2,563,637)

## Otter Tail Power Company Environmental Cost Recovery Rider Revenue Requirement Calc Docket No. E017/M-14-\_\_\_\_\_

March   Marc	ine No.		Year>>	2016 Projected January	2016 Projected February	2016 Projected March	2016 Projected April	2016 Projected May	2016 Projected June	2016 Projected July	2016 Projected August	2016 Projected September	2016 Projected October	2016 Projected November	2016 Projected December	2016 Projected Total
Manual Expensions   1,000,000   1,010,700   1,020,000   1,020,000   1,010,700   1,000,00	1															
Comparison   Com	2	Accumulated. Depreciation		(509,066)	(1,018,750)	(1,528,850)	(2,039,347)	(2,550,350)	(3,061,757)	(3,573,367)	(4,085,068)	(4,596,793)	(5,108,542)	(5,620,393)	(6,132,281)	(6,132,28
Elizada pilipada ATACIC COUP   Control of the County   Control of the County   Cou	3			183,160,866	182,801,168	182,434,137	182,105,646	181,740,428	181,302,365	180,823,531	180,320,362	179,817,170	179,342,147	178,843,659	178,340,303	178,340,303
Exchange play A FLOC COVP	5	Eligible AFUDC CWIP														
## STACE ## ATTEMPT OF THE PROPERTY OF THE PRO	6															
Finding AST   100   10	8															
## Additional Registrations	9															
Additional Department Trans Preducted Is Size    11,177,177	10 11															
Tod fig files Extractor	12															
Ending Falls Blace  17.1371.002 106.0027018 06.01377.002 107.1045.002 10.107.	13 14															
Number   N	15	Accumulated Deferred Income Taxes Fedederal & Sta	ate	(11,847,277)	(12,872,150)	(13,896,892)	(14,921,509)	(15,945,966)	(16,970,295)	(17,994,560)	(19,018,796)	(20,043,025)	(21,067,247)	(22,091,436)	(23,115,614)	(23,115,614
Memory Representation   13,077,8660   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,8670   13,077,870   13,077,	16 17	Ending Rate Base	-	171,313,589	169,929,018	168,537,245	167,184,137	165,794,463	164,332,070	162,828,971	161,301,566	159,774,145	158,274,900	156,752,223	155,224,690	155,224,690
meturn on file mass on the control of the control o	18 19	Average Rate Base		13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	13,678,666	164,143,993
Control Cont	20 21	Return on Rate Base		1,177,832												14,133,979
Content   Cont	22 23			759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	9,117,223
Operand Coate   O	24 25															
Book Depresation	26			0	0	0	0	0	0	0		0	0	0	0	0
Total Annual Propersistant Expenses   560,008   500,004   511,000   510,007   511,000   511,007   511,000   511,701   511,725   511,749   511,801   511,808   61,922	27 28															6 122 201
Audication Teams   1,700	29															6,132,281
Available for Return (from above)	30 31															
Roome Taxes   Counted Del Income Taxes   41.37%   538.101   538.	32			759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	759,769	9,117,223
Booker Tarsians	33	Taxable Income (grossed up)	1.7056	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	1,295,870	15,550,441
SSE_FORT	34 35	Income Taxes														
Expenses   1,045,167   1,045,168   1,046,509   1,047,104   1,047,508   1,047,712   1,047,803   1,047,827   1,047,850   1,047,852   1,777,832   1,777,8	36		41.37%													6,433,217
REVENUE RECOUREMENTS	37 38	Total Income Tax Expense		536,101	536,101	536,101	536,101	536,101	536,101	536,101	536,101	536,101	536,101	536,101	536,101	6,433,217
Expenses   1,045,167   1,047,896   1,046,202   1,046,599   1,047,1714   1,047,598   1,047,712   1,047,800   1,047,825   1,047,890   1,047,892   1,047,890   1,047,892   1,047,890   1,047,892   1,047,890   1,047,892   1,047,890   1,04	39															
Return on Rate Base   1,177,832   1,177,	40 41			1.045.167	1.045.786	1.046.202	1.046.599	1.047.104	1.047.508	1.047.712	1.047.803	1.047.827	1.047.850	1.047.952	1.047.989	12.565.498
Adjustments Total Revenue Requirements	42	Return on Rate Base		1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	1,177,832	14,133,979
Base Demand Factor 75, 29% 1,673,586 1,674,052 1,674,385 1,674,064 1,675,044 1,675,349 1,675,502 1,675,570 1,675,588 1,675,606 1,675,683 1,675,711 20,100.7 Peak Demand Factor 54,471% 549,245 549,265 549,688 549,766 549,891 559,042 550,044 550,070 550,076 550,170	43 44			2,222,999	2,223,617	2,224,033	2,224,430	2,224,935	2,225,340	2,225,543	2,225,634	2,225,658	2,225,682	2,225,784	2,225,821	26,699,477
Base Demand Factor	45 46	Total Revenue Requirements		2,222,999	2,223,617	2,224,033	2,224,430	2,224,935	2,225,340	2,225,543	2,225,634	2,225,658	2,225,682	2,225,784	2,225,821	26,699,477
Minnesola share - E1 factor 51 5408% 882,881 882,881 882,981 882,981 882,981 883,331 883,488 883,567 883,603 883,621 883,660 883,675 10,389,5 Minnesola share - D1 factor 48,3099% 265,371 265,445 265,495 265,495 265,495 265,692 265,704 265,708 3,187,2 3,1	47 48															20,100,719
Minnesotia share - D1 factor	49															
Minnesotia Revenue Requirements	50 51															10,359,920 3,187,212
Book Tax Project life (years) 30 7 year MACRS  Statutory Tax Rate Tax conversion factor Base Demand Factor MN share - E1 factor MN shar	52 53	Minnesota Revenue Requirements		1.127.951	1.128.265	1.128.476	1.128.476	1.128.934	1.129.139	1.129.242	1.129.288	1.129.300	1.129.312	1.129.364	1.129.383	13,547,131
SUPPORTING INFORMATION / DATA  MN Cap Structure with allowed ROE per order. Capital Structure Debt 48.28% 6.33% 3.06% 2016 composite rate 0.00% Preferred equity Common equity 51.72% 10.00% Total  Book Tax 30 7-year MACRS  Federal State Statutory Tax Rate Tax conversion factor Base Demand Factor Peak Demand Factor Peak Demand Factor MN share - El factor MN share - El factor MN share - El factor MN share - St.5408% MN share				, ,,	, ,, ,,	, ,, ,	, , ,	, .,	, ., .,	, ,	, ., .,	, .,	,	, .,		-,- , -
MN Cap Structure with allowed ROE per order. Capital Structure Debt Performed equity Common equity Total  Project life (years)  Book Tax 30 7-year MACRS  Statutory Tax Rate Tax conversion factor Base Demand Factor Peak Demand Factor Peak Demand Factor MN share -E1 factor MN share - 11 factor MN share - 10 factor MN share - 3,756,036 3,756,03	ine															
Capital Structure Debt 48.28% 6.33% 0.36% 2016 composite rate 0.00% 10.0	No.	SUPPORTING INFORMATION / DATA														
Capital Structure Debt 48.28% 6.33% 0.36% 2016 composite rate 0.00% 10.0	1 2			MN Con Structure	with allowed BOE	nor order										
Preferred equity Common equity 51.72% 51.72% 10.00% 10.00% 5.55% 5	3				WILL AllOWED TOL	Ratio		WA Cost					Property tax			
Common equity   51.72%   10.74%   5.55%   8.61%   Overall Return	4											2	2016 composite ra	ite	0.00%	
Total	5 6			Common equity		51.72%										
Book Tax 3 0 7-yearMACRS	7 8			Total	_	100.00%		8.61%	Overall Return							
Project life (years) 30 7-year MACRS  Federal State Statutory Tax Rate Tax conversion factor Base Demand Factor Peak Demand Factor MM share - ET factor MM share - 1 factor MM share - 1 factor MN share - 51,5400% MN share - 1 factor MN share - 51,5400% MN share - 1 factor MN share - 3,756,036 3,7	9					Book										
Federal State Statutory Tax Rate Tax conversion factor Base Demand Factor Peak Demand Pe	10 11			Project life (years)		30	7-year MACRS									
Statutory Tax Rate 14.37% 9.80% 17.0061 17.006	12						Federal	State								
Base Demand Factor Peak Demand Factor 24,71%, Peak Demand Factor 51,5408%, MN share - E1 factor MN share - D1 factor 48,3009%, MN share - D1 factor 48,3009%, Peak Department of the peak Demand Factor 51,5408%, MN share - D1 factor 48,3009%, Peak Demand Factor 51,5408%, MN share - D1 factor 48,3009%, Peak Demand Factor 51,5408%, MN share - D1 factor 48,3009%, Peak Demand Factor 51,5408%, Pea	13			Sta	tutory Tax Rate			9.80%								
Peak Demand Factor MN share - E1 factor 51,5409% 48.3009% 10.6477 51.6408 51.5409% 10.6477 51.6408 3.756.036 3.756.0	14 15															
MN share - D1 factor 48.3009%   MN share - D1 factor 48.3009%   MN share - D1 factor 48.3009%   MN share - D1 factor 47.20   MN shar	16															
Deferred Tax	17 18															
Book depreciation   509,066   509,684   510,100   510,497   511,002   511,407   511,610   511,701   511,725   511,749   511,851   511,888   61,322     Tax depreciation-Federal   3,756,036   3,756,	19															
Tax depreciation-Federal   3,756,038   3				509.066	509 684	510 100	510 407	511 002	511 407	511 610	511 701	511 725	511 7/10	511 851	511 899	6,132,28
Federal deferred income taxes 35.00% (1,025,068) (1,024,873) (1,024,742) (1,024,616) (1,024,457) (1,024,329) (1,024,265) (1,024,236) (1,024,229) (1,024,221) (1,024,189) (1,024,178) (12,293,416)	22	Tax depreciation-Federal		3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	3,756,036	45,072,429
			35 00%													45,072,429
			50.0070													(3,816,135

Otter Tail Power Company
Environmental Cost Recovery Rider Tracker
Docket No. E017/M-14-\_\_\_\_\_

							2014	4					
	TRACKER SUMMARY	January	February	March	April	May	June	July	August	September	October	November	Collection
No.	Requirements Compared to Billed:	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Period
	Revenue Requirements												
1	Air Quality Control System	572,804	572,804	572,804	572,804	572,804	572,804	572,804	572,804	572,804	572,804	572,804	6,300,839
2													
3	Billed (forecast kWh x adj factor)	641,917	619,350	558,128	531,915	473,531	463,639	478,933	483,222	469,917	477,603	510,935	5,709,089
4													
5	Difference	(69,114)	(46,546)	14,675	40,889	99,273	109,165	93,871	89,582	102,886	95,201	61,869	
6	Carrying Charge	0	(496)	(833)	(734)	(446)	263	1,048	1,729	2,385	3,140	3,846	
7	Cummulative Difference	(69,114)	(116,156)	(102,315)	(62,160)	36,667	146,095	241,014	332,325	437,596	535,937	601,651	
8													
9	Carrying Charge Calculation	(496)	(833)	(734)	(446)	263	1,048	1,729	2,385	3,140	3,846	4,317	14,219
10	Cumulative Carrying Charge	(496)	(1,329)	(2,064)	(2,510)	(2,247)	(1,198)	531	2,916	6,056	9,902	14,219	
11	Carrying cost	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	
12													
13													
14	Forecasted Sales (MWh)												

Approved in Docket E017/M-13-648

SUMMARY	Oct 2013 - Sept 2014
SOMMAK I	3ept 2014
Revenue Requirements	\$6,173,838
Carrying Charge	(38,914)
Total Revenue Requirements	\$6,134,924
Dec 2013 - Sept 2014 projected sales in mWh	2,272,477
Average Rate	\$0.00270

Otter Tail Power Company Environmental Cost Recovery Rider Tracker Docket No. E017/M-14-\_\_\_\_

			2015  VE January Fahruary March April May June July August Sentember Collection											
	TRACKER SUMMARY	December	YE	January	February	March	April	May	June	July	August	September	Collection	
	Requirements Compared to Billed:	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Projected	Projected	Projected	Period	
	Revenue Requirements													
1	Air Quality Control System	572,804	6,873,642	868,613	868,613	868,613	868,613	868,613	868,613	868,613	868,613	868,613	8,390,322	
2														
3	Billed (forecast kWh x adj factor)	995,987	6,705,076	1,094,178	1,085,093	1,014,261	921,247	806,366	795,658	947,653	966,792	951,535	9,578,768	
4														
5	Difference	(423,183)		(225,565)	(216,479)	(145,648)	(52,633)	62,247	72,956	(79,040)	(98,179)	(82,922)		
6	Carrying Charge	4,317		1,312	(298)	(1,853)	(2,911)	(3,310)	(2,887)	(2,384)	(2,969)	(3,694)	(14,678)	
7	Cummulative Difference	182,785		(41,468)	(258,245)	(405,745)	(461,290)	(402,353)	(332,285)	(413,709)	(514,856)	(601,473)		
8														
9	Carrying Charge Calculation	1,312		(298)	(1,853)	(2,911)	(3,310)	(2,887)	(2,384)	(2,969)	(3,694)	(4,316)		
10	Cumulative Carrying Charge	15,530		15,233	13,380	10,468	7,158	4,271	1,887	(1,082)	(4,776)	(9,092)		
11	Carrying cost	8.61%		8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%		
12														
13														
14	Forecasted Sales (MWh)								167,507	199,506	203,535	200,323	770,871	
	, ,													

Approved in Docket E017/M-14-647

SUMMARY	Dec 2014 - Sept 2015
Revenue Requirements	\$8,499,737
Carrying Charge	10,073
2014 True Up	778,895
Total Revenue Requirements	\$9,288,706
Oct 2014 - Sept 2015 projected sales in mWh	1,956,441
Average Rate	\$0.00475

Otter Tail Power Company
Environmental Cost Recovery Rider Tracker
Docket No. E017/M-14-\_\_\_\_\_

			201	5						201	16				
Lin	TRACKER SUMMARY	October	November	December	YE	January	February	March	April	May	June	July	August	September	Collection
No	Requirements Compared to Billed:	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Period
	Revenue Requirements														
1	Air Quality Control System	868,613	868,613	868,613	10,423,358	1,127,951	1,128,265	1,128,476	1,128,476	1,128,934	1,129,139	1,129,242	1,129,288	1,129,300	12,764,911
2															
3	Billed (forecast kWh x adj factor)	876,974	970,219	1,053,312	11,483,287	1,187,726	1,160,543	1,092,060	1,018,526	919,163	908,234	968,508	987,807	960,619	12,103,691
4															
5	Difference	(8,361)	(101,606)	(184,699)		(59,775)	(32,278)	36,416	109,950	209,771	220,905	160,734	141,482	168,682	
6	Carrying Charge	(4,316)	(4,407)	(5,168)	(32,885)	(6,530)	(7,006)	(7,288)	(7,079)	(6,340)	(4,881)	(3,331)	(2,201)	(1,202)	(59,747)
7	Cummulative Difference	(614,150)	(720,163)	(910,029)		(976,334)	(1,015,618)	(986,490)	(883,619)	(680,189)	(464,164)	(306,760)	(167,480)	(0)	
8															
9	Carrying Charge Calculation	(4,407)	(5,168)	(6,530)		(7,006)	(7,288)	(7,079)	(6,340)	(4,881)	(3,331)	(2,201)	(1,202)	(0)	
10	Cumulative Carrying Charge	(13,499)	(18,667)	(25,197)		(32,202)	(39,490)	(46,569)	(52,909)	(57,790)	(61,121)	(63,322)	(64,524)	(64,524)	
11	Carrying cost	8.61%	8.61%	8.61%		8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	8.61%	
12															
13															
14	Forecasted Sales (MWh)	190,380	210,623	228,661	1,400,535	257,841	251,939	237,073	221,110	199,539	197,166	210,251	214,441	208,538	2,627,562

SUMMARY	Oct 2015 - Sep 2016	
Revenue Requirements	\$12,764,911	
Carrying Charge	(59,747)	
2014 - 2015 True Up	(601,473)	
Total Revenue Requirements	\$12,103,691	
Oct 2015 - Sept 2016 projected sales in mWh	2,627,562	
Average Rate	\$0.00461	

Otter Tail Power Company
<b>Environmental Cost Recovery Rider</b>
Docket No. F017/M-15-

Attachment 4 Page 1 of 1

#### Rate Design

#### Minnesota Revenue Requirements

\$12,103,691

#### Percent of Revenue

Forecasted Retail Sales, all classes (Oct 2015 - Sept 2016)	\$171,525,718
12 Month Revenue Requirement	\$12,103,691
Percentage of revenue rate	7.056%

#### **CERTIFICATE OF SERVICE**

RE: In the Matter of Otter Tail Power Company's Petition for Approval of the Annual Rate Update to its Environmental Upgrades Cost Recovery Rider Rate, Rate Schedule 13.08

Docket No. E017/M-15-\_\_\_

I, Jana Hrdlicka, hereby certify that I have this day served a copy of the following, or a summary thereof, on Daniel P. Wolf and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class mail.

Otter Tail Power Company Initial Filing

Dated this 31st day of July, 2015

/s/ JANA HRDLICKA

Jana Hrdlicka Regulatory Filing Coordinator Otter Tail Power Company 215 South Cascade Street Fergus Falls MN 56537 (218) 739-8879

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Michael	Bradley	mike.bradley@lawmoss.co m	Moss & Barnett	150 S. 5th Street, #1200  Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.	12700 West Dodge Road PO Box 2047 Omaha, NE 68103-2047	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
James C.	Erickson	jericksonkbc@gmail.com	Kelly Bay Consulting	17 Quechee St Superior, WI 54880-4421	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Bruce	Gerhardson	bgerhardson@otpco.com	Otter Tail Power Company	PO Box 496 215 S Cascade St Fergus Falls, MN 565380496	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Shane	Henriksen	shane.henriksen@enbridge .com	Enbridge Energy Company, Inc.	1409 Hammond Ave FL 2 Superior, WI 54880	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
James D.	Larson	james.larson@avantenergy .com	Avant Energy Services	220 S 6th St Ste 1300  Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Douglas	Larson	dlarson@dakotaelectric.co m	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Gary	Oetken	goetken@agp.com	Ag Processing, Inc.	12700 West Dodge Road P.O. Box 2047 Omaha, NE 681032047	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Debra	Opatz	dopatz@otpco.com	Otter Tail Power Company	215 South Cascade Street  Fergus Falls,  MN  56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
David G.	Prazak	dprazak@otpco.com	Otter Tail Power Company	P.O. Box 496 215 South Cascade S Fergus Falls, MN 565380496	Electronic Service treet	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Larry L.	Schedin	Larry@LLSResources.com	LLS Resources, LLC	12 S 6th St Ste 1137  Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Otter Tail Power Company_General Service List - Tariff Filing