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August 28, 2017



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-16-373

Supplemental Filing – REVISED ATTACHMENTS

Dear Mr. Wolf:

Enclosed for filing in the above-referenced matter are *Revised Attachments* to Otter Tail Power Company's (Otter Tail) April 29, 2016 Initial Filing in this docket (Initial Filing). Subsequent to Otter Tail's Initial Filing, the Public Utility Commission's May 1, 2017 Order (the Order) in Otter Tail's general rate case, Docket No. E017/GR-15-1033 (Rate Case) established a new return on equity (ROE) for Otter Tail's return on rate base. Otter Tail includes *Revised Attachments* 1-6 that reflect the Order and the rider roll-in information that was provided in Otter Tail's August 21, 2017 Compliance Filing (Compliance Filing) in the Rate Case.<sup>1</sup>

The attachments included in this Supplemental filing include the following changes to Otter Tail's Initial Filing:

#### Revised Attachments 1-6:

- *ROE*. Subsequent to Otter Tail's Initial Filing in this Docket, the Order established a new ROE for Otter Tail's return on rate base.<sup>2</sup>
- Revised Actual and Forecasted Costs and Revenues. This supplement includes actual Big Stone Plant Air Quality Control System (Big Stone AQCS) project cost and revenue information through July 2017 and forecasted cost and revenue information through October 2017 in Revised Attachments 2 and 3.
- *Big Stone AQCS*. As Ordered as part of Otter Tail's Rate Case, the Big Stone AQCS project rolls into base rates with the implementation of final rates in the Rate Case and is

<sup>&</sup>lt;sup>2</sup> The Initial Filing included a 10.40 percent ROE and the Order established a 9.41 percent ROE.



<sup>&</sup>lt;sup>1</sup> Otter Tail's August 21, 2017 Compliance Filing in Docket No. E017/GR-15-1033.

no longer recovered through the Environmental Cost Recovery Rider (ECR Rider) mechanism.

• Revised Recovery Period and Projections. Otter Tail includes new forecasted sales information for the November 2017 through October 2018 recovery period.

The information provided above for the *Revised Attachments* was included in the Rate Case Compliance Filing. Final rates from the Rate Case are expected to be implemented on November 1, 2017; therefore, as of November 1, 2017, *Revised Attachment 1* shows a zero balance in the revenue requirements related to the Big Stone Plant AQCS project. This removal of the rate base amounts from the ECR Rider reflects that recovery for the investment moves to base rates with the implementation of final rates on that date. *Revised Attachment 1, Line 3*, reflects the remaining true-up balances in the existing ECR Rider that will be returned to customers during the proposed recovery period of November 2017 through October 2018.

As shown on Page 1, Line 3, in *Revised Attachment* 1, the ECR Rider tracker balance is an over-collection of \$1,857,668 at the end of October 2017. Otter Tail proposes a November 2017 through October 2018 recovery period to return this balance to customers. The resulting revenue requirement for the recovery period is a credit of \$1,943,044, which includes a carrying credit of \$85,376. *Revised Attachment* 4, provides the rate design, consistent with past ECR Rider updates approved by the Commission.<sup>3</sup>

Revised Attachment 6, Tariff Schedule 13.08, reflects the proposed (0.935) percent of bill rate, a credit, to be implemented November 1, 2017 This new rate is projected to reduce the tracker balance to zero at the end of the recovery period. The tariff sheet footers are also revised to reflect Bruce G. Gerhardson as Director of Regulatory Affairs & Compliance due to Thomas Brause's retirement.

Table 2 below shows the current rate calculated in the initial filing as well as the proposed recovery period with revised calculations as discussed above.

Table 2

	November 2017 –	Calculated ECR Rate
	October 2018	
	Revenue Requirement	
Current Effective Rate	N/A	6.927%
Revised Filing	(\$1,943,044)	(0.935)%

<sup>&</sup>lt;sup>3</sup> Commission's Approval of the Annual Rate Update to OTP's Environmental Upgrades Cost Recovery Rider, Rate Schedule 13.08, in Docket Nos. E017/M-14-647 (November 26, 2014), and E017/M-16-373 (July 5, 2016).

Mr. Wolf August 28, 2017 Page 3

## **Summary**

The overall impact of these changes decreases the factor from 6.927 percent to (0.935) percent of bill. Otter Tail requests that this rate change be approved to be implemented on November 1, 2017 in conjunction with the expected implementation of final rates in Otter Tail's rate case.

If you have any questions regarding this filing, please contact me at 218-739-8385 or <a href="mailto:bhaugen@otpco.com">bhaugen@otpco.com</a>.

Sincerely,

/s/BRYCE C. HAUGEN
Bryce C. Haugen
Senior Rates Analyst, Regulatory Administration

jch Enclosures By electronic filing c: Service List

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

Line No.	Revenue Requirements	Nov 2017 - Oct 2018
1	Air Quality Control System	\$0
2	Carrying Cost	(85,376)
3	True Up	(1,857,668)
4	Total	(\$1,943,044)

# Otter Tail Power Company Environmental Cost Recovery Rider Tracker Docket No. E017/M-16-\_\_\_\_\_

			2015		2016									201	6
Line	TRACKER SUMMARY	November	December	YE	January	February	March	April	May	June	July	August	Collection	September	October
No.	Requirements Compared to Billed:	Actual	Actual	Projected	Actual	Period	Actual	Actual							
	Revenue Requirements														
1	Air Quality Control System	856,491	856,491	10,277,888	1,030,140	1,030,280	1,030,496	1,007,342	981,524	981,516	981,888	985,295	10,597,953	985,573	982,166
2															
3	Billed (forecast kWh x adj factor)	911,661	964,560	11,200,742	1,113,282	1,118,829	1,055,376	983,413	924,273	906,919	910,558	983,335	10,760,361	958,839	870,846
4															
5	Difference	(55,170)	(108,069)		(83,142)	(88,549)	(24,880)	23,929	57,251	74,597	71,329	1,960		26,734	111,320
6	Carrying Charge	(4,317)	(4,744)	(33,862)	(5,553)	(6,190)	(6,870)	(7,097)	(6,977)	(6,616)	(6,128)	(5,660)	(64,213)	(5,687)	(5,536)
7	Cummulative Difference	(661,117)	(773,930)		(862,625)	(957,364)	(989,114)	(972,282)	(922,008)	(854,027)	(788,826)	(792,526)		(771,479)	(665,694)
8															
	Carrying Charge Calculation	(4,744)	(5,553)		(6,190)	(6,870)	(7,097)	(6,977)	(6,616)	(6,128)	(5,660)	(5,687)		(5,536)	(4,777)
	Cumulative Carrying Charge	(19,643)	(25,197)		(31,386)	(38,256)	(45,354)	(52,330)	(58,946)	(65,074)	(70,735)	(76,421)		(81,957)	(86,734)
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)														

# Otter Tail Power Company Environmental Cost Recovery Rider Tracker Docket No. E017/M-16-\_\_\_\_

					1/1/2017	2/1/2017	3/1/2017	4/1/2017	5/1/2017	6/1/2017	7/1/2017	8/1/2017		9/1/2017	10/1/2017
			2016		2017									201	7
Line	TRACKER SUMMARY	November	December	YE	January	February	March	April	May	June	July	August	Collection	September	October
No.	Requirements Compared to Billed:	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Projected	Period	Projected	Projected
	Revenue Requirements														
1	Air Quality Control System	982,679	982,695	11,961,594	883,675	883,678	883,717	883,718	883,717	883,860	883,860	883,860	11,003,200	883,860	883,860
2															
3	Billed (forecast kWh x adj factor)	934,639	1,044,129	11,804,439	1,190,394	1,111,719	1,013,881	987,760	909,763	927,529	900,821	986,052	11,836,373	957,875	920,694
4															
5	Difference	48,040	(61,435)	157,155	(306,719)	(228,041)	(130,164)	(104,042)	(26,046)	(43,669)	(16,961)	(102,192)		(74,015)	(36,833)
6	Carrying Charge	(4,777)	(4,466)		(4,939)	(7,176)	(8,863)	(9,861)	(10,678)	(10,942)	(11,334)	(11,537)	(95,795)	(12,353)	(12,972)
7	Cummulative Difference	(622,431)	(688,332)		(999,990)	(1,235,206)	(1,374,233)	(1,488,136)	(1,524,860)	(1,579,471)	(1,607,766)	(1,721,495)		(1,807,862)	(1,857,668)
8															
9	Carrying Charge Calculation	(4,466)	(4,939)		(7,176)	(8,863)	(9,861)	(10,678)	(10,942)	(11,334)	(11,537)	(12,353)		(12,972)	(13,330)
10	Cumulative Carrying Charge	(91,200)	(96,140)		(12,115)	(20,978)	(30,839)	(41,517)	(52,459)	(63,793)	(75,329)	(87,682)		(100,655)	(113,985)
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)											217,010		210,809	202,626

#### Conditionally approved on July 5, 2016 in Docket E017/M-16- 373

SUMMARY	Sept 2016 - Aug 2017
Revenue Requirements	\$12,487,422
Carrying Charge	(27,494)
2015 - 2016 True Up	(576,215)
Total Revenue Requirements	\$11,883,713
Oct 2016 - Sept 2017 projected sales in mWh	2.615.366
Average Rate	\$0.00454

# Otter Tail Power Company Environmental Cost Recovery Rider Tracker Docket No. E017/M-16-\_\_\_\_\_

11/1/2017 12/1/2017 2017 2018 2018 Line TRACKER SUMMARY December Projected January Projected March May Projected June Projected July Projected August Projected Collection Period November YE February April September October No. Requirements Compared to Billed:

Revenue Requirements

Air Quality Control System Projected Projected Projected Projected Projected Projected Projected 8,837,807 0 0 0 0 0 0 3 Billed (forecast kWh x adj factor) (158,409) (172,614) 9,575,465 (189,966) (184,591) (162,189) (162,146) (146,580) (145,861) (156,098) (159,920) (155,350) (149,320) (1,943,044 5 Difference 6 Carrying Charge 7 Cummulative Difference 172,614 (737,658) 189,966 184,591 162,189 162,146 146,580 156,098 159,920 155,350 149,320 1,943,044 (12,289) (1,552,263) (13,330) (1,712,588) (11,138) (9,855) (1,198,700) (8,601) (7,499)(6,390)(5,384)(4,376) (458,075) (3,287) (2,163) (148,256) (1,064) (85,376 (1,373,436) (1,045,112) (750,275) (609,797) (890,466) (1,064) (59,757) 8.61% 9 Carrying Charge Calculation (11,138) (9,855) (12,289) (8,601) (7,499) (6,390) (5,384) (4,376) (3,287)(2,163) 10 Cumulative Carrying Charge 11 Carrying cost (126,273) 8.61% (137,412) (20,994) 8.61% (29,595) 8.61% (37,094) (43,484) (48,868) (53,243) (56,530) (58,693) (59,757) 8.61% 8.61% 8.61% 8.61% 8.61% 8.61% 8.61% 8.61% 14 Forecasted Sales (MWh) 214,961 234,236 257,783 250,490 220,090 220,031 198,909 197,933 211,824 217,010 210,809 202,626 2,636,702

SUMMARY	Nov 17 - Oct 18
Revenue Requirements	\$0
Carrying Charge	(85,376)
Oct 2017 true up	(1,857,668)
Total Revenue Requirements	(\$1,943,044)
Oct 2016 - Sept 2017 projected sales in mWh	2,636,702
Average Rate	(\$0.00074)

ne o.		Year>>	2015 Actual November	2015 Actual December	2015 Projected Total	2016 Actual January	2016 Actual February	2016 Actual March	2016 Actual April	2016 Actual May	2016 Actual June	2016 Actual July	2016 Actual August	2016 Actual September	2016 Actual October	2016 Actual November	2016 Actual December	2016 Actual Total
R	Plant Balance		0	175,040,234	175,040,234	175,150,273	175,320,412	175,171,397	175,222,909	175,216,438	175,494,207	178,036,683	178,244,481	175,701,945	176,084,545	176,096,302	176,134,842	176,134,
N	Accumulated Depreciation let Plant in Service	-	0	175.040.234	175,040,234	(438,592) 174,711,681	(877,461) 174,442,951	(1,316,755)	(1,755,676) 173,467,233	(2,194,727) 173.021.711	(2,633,761) 172,860,446	(3,073,490)	(3,519,591)	(3,966,212) 171,735,733	(4,406,463) 171,678,082	(4,847,672) 171,248,630	(5,288,911) 170,845,931	(5,288
	CWIP Calculation Eligible AFUDC CWIP		190.165.144	190.719.857														
	Additional CWIP Ending Eligible AFUDC CWIP		554,713 190,719,857	(174,271,215) 16,448,641														
	AFUDC																	
	Additional AFUDC Ending AFUDC		0 3,544,995	3,544,995														
	AFUDC Rate Bag House Exclusion		0.00%	0.00%														
	Additional Bag House Exclusion Total Bag House Exclusion		(57,653) (19,913,669)	(79,968) (19,993,636)														
	Deferred Tax Asset		(19,913,009)	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,769,693	17,7
	Reversal of Deferred Tax Asset Prorated Reversal of Deferred Tax Asset			0	0	(1,034,171) (1,034,171)	(2,068,342) (2,068,342)	(3,102,513)	(4,136,684) (4,136,684)	(5,170,855) (5,170,855)	(6,205,026) (6,205,026)	(7,239,197) (7,239,197)	(8,273,368) (8,273,368)	(9,307,539) (9,307,539)	(10,341,710) (10,341,710)	(11,375,881) (11,375,881)	(12,410,052) (12,410,052)	(12,4
	Non-prorated ADIT ADIT Pro-Rated					(30,988,224)	(31,273,074)	(31,557,748)	(31,842,576)	(32,127,350)	(32,412,132)	(32,696,625)	(32,978,483)	(33,260,125)	(33,544,403)	(33,828,285)	(34,112,154) 1.000000	(34,11
	Accumulated Deferred Income Taxes Federal & inding Rate Base	& State	174,351,183	(30,703,260) 162,106,666	(30,703,260) 162,106,666	(30,988,224)	(31,273,074)	(31,557,748)	(31,842,576)	(32,127,350)	(32,412,132) 152,012,982	(32,696,625)	(32,978,483)	(33,260,125)	(33,544,403) 145,561,661	(33,828,285) 143,814,157	(34,112,154)	(34,11
		-																
41	verage Rate Base		13,471,672	13,471,672	161,660,066	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	12,702,638	152,43
ď	teturn on Rate Base	=	1,160,008	1,160,008	13,920,095	1,093,789	1,093,789	1,093,789	1,023,600	953,412	953,412	953,412	953,412	953,412	953,412	953,412	953,412	13,12
۸	vailable for Return (equity portion of rate base)	-	748,271	748,271	8,979,256	705,556	705,556	705,556	666,555	627,554	627,554	627,554	627,554	627,554	627,554	627,554	627,554	8,4
	EXPENSES																	
Э,	0&M and Depreciation Operating Costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Property Tax Book Depreciation		0	0	0	0 438,592	0 438,868	0 439,295	0 438,921	0 439,050	0 439,034	0 439,730	0 446,101	0 446,621	0 440,251	0 441,209	0 441,239	5,2
Ċ	otal O&M and Depreciation Expense	-	Ö	ő	ő	438,592	438,868	439,295	438,921	439,050	439,034	439,730	446,101	446,621	440,251	441,209	441,239	5,28
)	ncome before Taxes																	
7	Available for Return (from above) axable Income (grossed up)	1.7056	748,271 1,276,260	748,271 1,276,260	8,979,256 15,315,122	705,556 1,203,405	705,556 1,203,405	705,556 1,203,405	666,555 1,136,884	627,554 1.070,363	627,554 1.070,363	627,554 1.070,363	627,554 1.070,363	627,554 1.070.363	627,554 1.070,363	627,554 1.070,363	627,554 1.070,363	8,4 14,4
	ncome Taxes			, ,, .,	.,.												, ,,,,,	,
	Current and Def Income Taxes	41.37%	527,989	527,989	6,335,866	497,848	497,848	497,848	470,329	442,809	442,809	442,809	442,809	442,809	442,809	442,809	442,809	5,9
Ic	otal Income Tax Expense	-	527,989	527,989	6,335,866	497,848	497,848	497,848	470,329	442,809	442,809	442,809	442,809	442,809	442,809	442,809	442,809	5,97
2	REVENUE REQUIREMENTS																	
	Expenses Return on Rate Base		527,989 1 160 008	527,989 1 160 008	6,335,866 13,920,095	936,441 1 093 789	936,717 1 093 789	937,143 1 093 789	909,250 1,023,600	881,860 953 412	881,843 953,412	882,539 953,412	888,910 953,412	889,431 953,412	883,060 953,412	884,019 953,412	884,048 953 412	10,79
Sı	Subtotal Revenue Requirements Adjustments	-	1,687,997	1,687,997	20,255,961	2,030,230	2,030,505	2,030,932	1,932,850	1,835,272	1,835,255	1,835,951	1,842,322	1,842,843	1,836,472	1,837,431	1,837,460	22,72
Γο	otal Revenue Requirements	-	1,687,997	1,687,997	20,255,961	2,030,230	2,030,505	2,030,932	1,932,850	1,835,272	1,835,255	1,835,951	1,842,322	1,842,843	1,836,472	1,837,431	1,837,460	22,7
	Base Demand Factor	75.29%	1,270,809	1,270,809	15,249,714	1,528,460	1,528,667	1,528,988	1,420,501	1,315,890	1,315,878	1,316,377	1,320,945	1,321,318	1,316,750	1,317,438	1,317,459	16,5
	Peak Demand Factor	24.71%	417,187	417,187	5,006,247	501,770	501,838	501,943	512,350	519,382	519,377	519,574	521,377	521,524	519,722	519,993	520,001	6,17
	Minnesota share - E1 factor Minnesota share - D1 factor	51.5408% 48.3009%	654,986	654,986	7,859,826	787,781	787,887	788,053	753,848	718,443	718,436	718,709	721,203	721,406	718,912	719,288	719,299	8,87
		48.3009%	201,505	201,505	2,418,062	242,359	242,392	242,443	253,495	263,082	263,079	263,179	264,092	264,167	263,254	263,391	263,395	3,08
	finnesota Revenue Requirements		856,491	856,491	10,277,888	1,030,140	1,030,280	1,030,496	1,007,342	981,524	981,516	981,888	985,295	985,573	982,166	982,679	982,695	11,96
Λ.		-																•
A		-																
	SUPPORTING INFORMATION / DATA																	
	SUPPORTING INFORMATION / DATA	-				MN Cap Structure	with allowed RO				N li	IN Cap Structure	Interim Rates Ap					
	SUPPORTING INFORMATION / DATA		ate	0.00%		MN Cap Structure Capital Structure Debt	with allowed RO	E per order. Ratio 48.28%	Cost 6.33%	WA Cost 3.06%	h Is	IN Cap Structure inplementation of Ratio 47.50%	with Interim Rates Ap Cost 5.40%	oril 16, 2016 WA Cost 2.57%		Property tax 2016 composite	0.00%	
	UPPORTING INFORMATION / DATA	r.	ate	0.00%		Capital Structure Debt Preferred eq	uity –	Ratio 48.28% 0.00%	6.33% 0.00%	3.06% 0.00%	h h	Ratio 47.50% 0.00%	Cost 5.40% 0.00%	WA Cost 2.57% 0.00%	:	Property tax 2016 composite	0.00%	
	UPPORTING INFORMATION / DATA	- -	ate	0.00%		Capital Structure Debt	uity –	Ratio 48.28%	6.33% 0.00% 10.74%	3.06% 0.00% 5.55% 8.61%	h h	nplementation of Ratio 47.50%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51%	:	Property tax 2016 composite	0.00%	
	SUPPORTING INFORMATION / DATA	-	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total	uity uity	Ratio 48.28% 0.00% 51.72% 100.00%	6.33% 0.00% 10.74%	3.06% 0.00% 5.55%	h li	Ratio 47.50% 0.00% 52.50%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94%		Property tax 2016 composite	0.00%	
	SUPPORTING INFORMATION / DATA	r	ate	0.00%		Capital Structure Debt Preferred eq Common eq	uity uity	Ratio 48.28% 0.00% 51.72% 100.00%	6.33% 0.00% 10.74%	3.06% 0.00% 5.55% 8.61%	ñ li —	Ratio 47.50% 0.00% 52.50%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51%		Property tax 2016 composite	0.00%	
	SUPPORTING INFORMATION / DATA	r	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total  Project life (years)	uity uity	Ratio 48.28% 0.00% 51.72% 100.00% Book 30	6.33% 0.00% 10.74% Tax 7-year MACRS	3.06% 0.00% 5.55% 8.61% Overall Return	h li 	Ratio 47.50% 0.00% 52.50%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51%	:	Property tax 2016 composite	0.00%	
	SUPPORTING INFORMATION / DATA	r	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total  Project life (years) Sta Tax or	uity uity  tutory Tax Rate	Ratio 48.28% 0.00% 51.72% 100.00%  Book 30 41.37% 1.70561	6.33% 0.00% 10.74% Tax 7-year MACRS	3.06% 0.00% 5.55% 8.61% Overall Return	h li —	nplementation of Ratio 47.50% 0.00% 52.50% 100.00%	Interim Rates Ap Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51% Overall Return	:	Property tax 2016 composite	0.00%	
	UPPORTING INFORMATION / DATA	r	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total  Project life (years) Sta Tax oc Base l	uity uity _ tutory Tax Rate	Ratio 48.28% 0.00% 51.72% 100.00% Book 30 41.37% 1.70561 75.29% 24.77%	6.33% 0.00% 10.74% Tax 7-year MACRS	3.06% 0.00% 5.55% 8.61% Overall Return	. N. II	nplementation of Ratio 47.50% 0.00% 52.50% 100.00%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51%	:	Property tax 2016 composite	0.00%	
	SUPPORTING INFORMATION / DATA	r	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total  Project life (years) Sta Tax cc Base I Peak I MN si	uity uity  tutory Tax Rate inversion factor Demand Factor Demand Factor Demand Factor	Ratio 48.28% 0.00% 51.72% 100.00%  Book 30 41.37% 1.70561 75.29% 24.71% 51.5408%	6.33% 0.00% 10.74% Tax 7-year MACRS	3.06% 0.00% 5.55% 8.61% Overall Return	. N. II	Ratio 47.50% 0.00% 52.50% 100.00% Base I Peak I MN sf	Interim Rates Ap Cost 5.40% 0.00% 9.41% 0 Demand Factor Demand Factor Demand Factor	WA Cost 2.57% 0.00% 4.94% 7.51% Overall Return 71.70%	:	Property tax 2016 composite	0.00%	
St		r	ate	0.00%		Capital Structure Debt Preferred eq Common eq Total  Project life (years) Sta Tax cc Base I Peak I MN si	uity uity  tutory Tax Rate inversion factor Demand Factor	Ratio 48.28% 0.00% 51.72% 100.00% Book 30 41.37% 1.70561 75.29% 24.77%	6.33% 0.00% 10.74% Tax 7-year MACRS	3.06% 0.00% 5.55% 8.61% Overall Return	h ii 	Ratio 47.50% 0.00% 52.50% 100.00% Base I Peak I MN sf	Interim Rates Ap Cost 5.40% 0.00% 9.41% Openand Factor Demand Factor	WA Cost 2.57% 0.00% 4.94% 7.51% Overall Return 71.70% 28.30% 54.5975%		Property tax 2016 composite	0.00%	
De Si	referred Tax sook depreciation	r	ate	0	0	Capital Structure Debt Preferred eq Common eq Total  Project life (years) Sta Tax cc Base I Peak i MN si MN si 438,592	tutory Tax Rate inversion factor bemand Factor bemand Factor are - E1 factor are - D1 factor 438,868	Ratio 48.28%, 0.00%, 51.72%, 100.00%  Book 30 41.37%, 1.70561 75.29%, 24.71%, 51.5408%, 48.3009%,	6.33% 0.00% 10.74% Tax 7-year MACRS Federal 31.57%	3.06% 0.00% 5.55% 8.61% Overall Return State 9.80%	li —	mplementation of Ratio 47.50% 0.00% 52.50% 100.00% Base I Peak I MN sh MN sh 439,730	Interim Rates Ap Cost 5.40%. 0.00%. 9.41% 9.41%  Demand Factor Demand Factor Jare - E1 factor Jare - D1 factor 446,101	WA Cost 2.57% 0.00% 4.94% 7.51% Overall Return 71.70% 28.30% 54.5975% 50.6528%	440.251	2016 composite	441,239	5,21
De Bo	efered Tax	r.	o o o o o o o o o o o o o o o o o o o		0 90.802.121 20.786.6230	Capital Structure Debt Preferred eq Common eq Total Project life (years) Sta Tax oc Base I Peak I MN si MN si	tutory Tax Rate nversion factor Jemand Factor	Ratio 48.28% 0.00% 51.72% 100.00% Book 30 41.37% 1.70561 75.29% 24.71% 51.5408% 48.3009%	6.33% 0.00% 10.74% Tax 7-year MACRS Federal 31.57%	3.06% 0.00% 5.55% 8.61% Overall Return State 9.80%	- -	nplementation of Ratio 47.50% 0.00% 52.50% 100.00% Base I Peak I MN st MN st	Interim Rates Ap Cost 5.40% 0.00% 9.41%  Demand Factor Demand Factor Dare - E1 factor Jare - E1 factor Jare - D1 factor	WA Cost 2.57% 0.00% 4.94% 7.51% Overall Return 71.70% 28.30% 54.5975% 50.6528%		2016 composite		5,28 10,31 23,88 (1,58

Otter Tail Power Company Environmental Cost Recovery Rider Revenue Requirement Calc Docket No. E017/M-16-\_\_\_\_

Line No.		Year>>	2017 Actual January	2017 Actual February	2017 Actual March	2017 Actual April	2017 Actual May	2017 Actual June	2017 Actual July	2017 Projected August	2017 Projected September	2017 Projected October	2017 Projected November	2017 Projected December	2017 Projected Total
1	RATE BASE Plant Balance		176 137 379	176 168 635	176 168 704	176 168 633	176 282 985	176 282 911	176 282 912	176 282 912	176 282 912	176 352 329	176 352 329	176 352 329	176 352 32
2 3 4 5 6 7	Accumulated Depreciation  Net Plant in Service  CWIP Calculation  Eligible AFUDC CWIP  Additional CWIP  Ending Eligible AFUDC CWIP		(5,700,024) 170,437,355	(6,111,143) 170,057,492	(6,522,336) 169,646,368	(6,933,528) 169,235,105	(7,344,720) 168,938,264	(7,756,180) 168,526,731	(8,167,639) 168,115,273	(8,579,098) 167,703,814	(8,990,557) 167,292,355	(9,402,016) 166,950,314	(9,813,637) 166,538,693	(10,225,258) 166,127,072	(10,225,258 166,127,072
8 9 10 11 12 13 14 15 16 17 18 19 20 21	AFUDC Additional AFUDC Ending AFUDC Ending AFUDC Ending AFUDC Additional Band House Exclusion Additional Band House Exclusion Totals Bang House Exclusion Deferred Tax Asset Reversal of Deterred Tax Asset Prorated Revensal of Deterred Tax Asset ADIT For-Rated Accumulated Deferred Income Taxes Federal & Sending Rate Base Average Rate Base Return on Rate Base	State	17.769.693 (12.856.689) (12.856.689) (12.856.689) (34.391.940) 1.000000 (34.391.940) 140.958.419 11,292.259	17,769,693 (13,303,326) (13,303,326) (34,671,724) 1.000000 (34,671,724) 139,852,135 11,292,259	17,769,693 (13,749,962) (13,749,962) (34,951,478) 1.000000 (34,951,478) 138,714,621 11,292,259	17,769,693 (14,196,599) (14,196,599) (35,231,231) 1.000000 (35,231,231) 137,576,968 11,292,259	17,769,693 (14,643,236) (14,643,236) (35,510,985) 1.000000 (35,510,985) 136,553,737 11,292,259	17,769,693 (15,089,873) (15,089,873) (35,790,628) 1.000000 (35,790,628) 135,415,924 11,292,259	17,769,693 (15,536,509) (15,536,509) (36,070,271) 1.000000 (36,070,271) 134,278,186 11,292,259	17,769,693 (15,983,146) (15,983,146) (36,349,914) 1.000000 (36,349,914) 133,140,447 11,292,259	17,769,693 (16,429,783) (16,429,783) (36,629,557) 1.000000 (36,629,557) 132,002,708 11,292,259	17,769,693 (16,876,420) (16,876,420) (36,909,201) 1,000000 (36,909,201) 130,934,386 11,292,259	17,769,693 (17,323,056) (16,915,577) (37,188,777) (37,073,755) 130,319,054 11,292,259	17,769,693 (17,769,693) (16,916,800) (37,468,353) 0,002740 (37,227,601) 129,752,363 11,292,259	17,769,693 (17,769,693 (16,916,800 (37,227,601 129,752,363 135,507,105
22	Available for Return (equity portion of rate base)		557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	6,694,517
23	EXPENSES														
25 26 27	O&M and Depreciation Operating Costs Property Tax		0	0	0	0	0	0	0	0	0	0	0	0	C
28 29	Book Depreciation Total O&M and Depreciation Expense		411,113 411,113	411,119 411,119	411,192 411,192	411,192 411,192	411,192 411,192	411,459 411,459	411,459 411,459	411,459 411,459	411,459 411,459	411,459 411,459	411,621 411,621	411,621 411,621	4,936,347 4,936,347
30 31 32	Income before Taxes Available for Return (from above)		557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	557,876	6,694,517
33 34	Taxable Income (grossed up)	1.7056	951,520	951,520	951,520	951,520	951,520	951,520	951,520	951,520	951,520	951,520	951,520	951,520	11,418,245
35 36 37 38	Income Taxes Current and Def Income Taxes Total Income Tax Expense	41.37%	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	393,644 393,644	4,723,728 4,723,728
39 40	REVENUE REQUIREMENTS														
41 42 43	Expenses Return on Rate Base Subtotal Revenue Requirements		804,757 847,554 1,652,312	804,763 847,554 1,652,318	804,836 847,554 1,652,391	804,836 847,554 1,652,391	804,836 847,554 1,652,391	805,103 847,554 1,652,658	805,103 847,554 1,652,657	805,103 847,554 1,652,657	805,103 847,554 1,652,657	805,103 847,554 1,652,657	805,265 847,554 1,652,819	805,265 847,554 1,652,819	9,660,075 10,170,652 19,830,727
44 45	Adjustments Total Revenue Requirements		1,652,312	1.652.318	1.652.391	1.652.391	1.652.391	1.652.658	1.652.657	1.652.657	1.652.657	1.652.657	1.652.819	1,652,819	19.830.727
46															
47 48 49	Base Demand Factor Peak Demand Factor	75.29% 24.71%	1,184,708 467,604	1,184,712 467,606	1,184,764 467,627	1,184,764 467,627	1,184,764 467,627	1,184,955 467,702	1,184,955 467,702	1,184,955 467,702	1,184,955 467,702	1,184,955 467,702	1,185,071 467,748	1,185,071 467,748	14,218,631 5,612,096
50 51		1.5408%	646,820 236,855	646,823 236,856	646,851 236,866	646,851 236,866	646,851 236,866	646,956 236,904	646,956 236,904	646,956 236,904	646,956 236,904	646,956 236,904	647,019 236,928	647,019 236,928	7,763,014 2,842,686
52 53	Minnesota Revenue Requirements		883.675	883.678	883,717	883.718	883.717	883.860	883.860	883.860	883.860	883.860	883.947	883.947	10,605,700
33	willinesota revenue requirements		003,073	003,070	003,717	003,710	603,717	003,000	003,000	003,000	663,660	883,000	003,547	003,347	10,003,700
Line No.															
1 2 3 4 5 6 7 8	SUPPORTING INFORMATION / DATA		MN Cap Structure Implementation of Capital Structure Debt Preferred equ Common equ	Interim Rates Ap	pril 16, 2016 Ratio 47.50% 0.00% 52.50% 100.00%	Cost 5.40% 0.00% 9.41%	WA Cost 2.57% 0.00% 4.94% 7.51%	Overall Return			2	Property tax 2017 composite ra	te	0.00%	
9 10 11			Project life (years)		Book 30	Tax 7-year MACRS	Sta-								
12 13 14 15 16 17 18			Tax co Base [ Peak [ MN sh	tutory Tax Rate onversion factor Demand Factor Demand Factor hare - E1 factor hare - D1 factor	41.37% 1.70561 71.70% 28.30% 54.5975% 50.6528%	Federal 31.57%	State 9.80%								
20	Deferred Tax Book depreciation		411,113	411,119	411,192	411,192	411,192	411,459	411,459	411,459	411,459	411,459	411,621	411,621	4,936,347
	DOUK GEPTECIATION		411,113 810,973	411,119 810,973	411,192 810,973	411,192 810,973	411,192 810,973	411,459 810,973	411,459 810,973	411,459 810,973	411,459 810,973	411,459 810,973	411,621 810,973	411,621 810,973	4,936,347 9,731,675
22	Tax depreciation-Federal		010,9/3												
21 22 23 24	Tax depreciation-Federal Tax depreciation-State Federal deferred income taxes	35.00%	1,977,956 (126,236)	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	1,977,956	23,735,467

Otter Tail Power Company Environmental Cost Recovery Rider Docket No. E017/M-16-\_\_\_\_

## Rate Design

### Minnesota Revenue Requirements

(\$1,943,044)

## **Percent of Revenue**

	4007.007.044
Forecasted Retail Sales, all classes (Nov 2017 - Oct 2018)	\$207,905,011
12 Month Revenue Requirement	(\$1,943,044)
Percentage of revenue rate	-0.935%

**Otter Tail Power Company Environmental Cost Recovery Rider** Docket No. E017/M-16-\_\_\_\_

Attachment 5 Page 1 of 1

\$0

### **ADIT Proration**

_	А	В	С	D
1		Tax Conversion Factor	1.5385	
2		Gross Up of Equity %	7.60%	
3		Equity %_	4.94%	
4		Gross Up Factor	2.66%	
5				
6			Annual	Monthly
7		Debt Return %	2.57%	0.21%
8		Equity Return %	4.94%	0.41%
9		Rate of Return	7.51%	0.63%
10	Та	x RR on Equity Return_	2.66%	0.22%
11	Rate Base Rev	Req Gross Up Factor	10.17%	0.85%
12	Monthly Gross	Up Factor (D11) Multiplie	ed by MN Factors	0.45%

1	3
1	4

15		September 2016 -	September 2017		
16	Month	Original ADIT Balance - All Projects	ADIT Prorate Balance - All Projects	Difference due to ADIT Proration (B - A)	Revenue Requirement Impact C * D12
17	Sep-16	(\$33,260,125)	(\$33,260,125)	\$0	\$0
18	Oct-16	(33,544,403)	(33,544,403)	0	0
19	Nov-16	(33,828,285)	(33,828,285)	0	0
20	Dec-16	(34,112,154)	(34,112,154)	0	0
21	Jan-17	(34,391,940)	(34,391,940)	0	0
22	Feb-17	(34,671,724)	(34,671,724)	0	0
23	Mar-17	(34,951,478)	(34,951,478)	0	0
24	Apr-17	(35,231,231)	(35,231,231)	0	0
25	May-17	(35,510,985)	(35,510,985)	0	0
26	Jun-17	(35,790,628)	(35,790,628)	0	0
27	Jul-17	(36,070,271)	(36,070,271)	0	0
	Aug-17	(36,349,914)	(36,349,914)	0	0
28	Sep-17	(\$36,629,557)	(\$36,629,557)	\$0	\$0
29			Total Revenue Re	equirement Impact	\$0

# REVISED Attachment 6 Environmental Cost Recovery Rider



Page 1 of 2 Second Third Revision

#### ENVIRONMENTAL COST RECOVERY RIDER

DESCRIPTION	RATE CODE
Environmental Cost Recovery Rider	31-570

<u>RULES AND REGULATIONS</u>: Terms and conditions of this electric rate schedule and the General Rules and Regulations govern use of this rider.

**APPLICATION OF RIDER:** This rider is applicable to electric service under all of the Company's retail rate schedules in Sections 9, 10, 11, 12 and 14, except for Section 14.09 (TailWinds) and Section 14.11 (Released Energy).

COST RECOVERY FACTOR: There shall be included on each Minnesota Customer's monthly bill an Environmental Cost Recovery ("ECR") charge based on the applicable cost recovery factor multiplied by the Customer's monthly bill. The Customer's monthly bill shall be based on all applicable charges and credits under the Company's retail rate schedules in Sections 9, 10, 11, 12 and 14, except for Section 14.09 (TailWinds) and Section 14.11 (Released Energy). The Environmental Cost Recovery Charge will not apply to any Mandatory Riders or sales tax and any local assessments as provided in the General Rules and Regulations for the Company's electric service. The Environmental Cost Recovery charge will be included in the Resource Adjustment line item on the Customer's bill.

The Environmental Cost Recovery Factor is 6.927(0.935) percent.

**<u>DETERMINATION OF ECR ADJUSTMENT FACTOR</u>**: An ECR Adjustment Factor shall be determined by dividing the forecasted balance of the ECR Tracker account by the forecasted retail revenue for the upcoming year (or such other period as may be approved by the Minnesota Public Utilities Commission ("Commission")). The ECR Adjustment Factor shall be rounded to the nearest 0.001%. The ECR Adjustment Factor may be adjusted annually (or other approved periods) with approval of the Commission.

Recoverable Environmental Measures Costs shall be the annual revenue requirements associated with environmental measures eligible for recovery under MN Statute 216B.1692 that are determined by the Commission to be eligible for recovery under this ECR Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible measures for the designated period. All costs appropriately charged to the ECR Tracker account shall be eligible for recovery through this Rider, and all revenues recovered from the ECR Adjustment shall be credited to the ECR Tracker account.



Page 2 of 2 Original First Revision

Forecasted retail revenue shall be the estimated total retail electric revenue for the designated recovery period.

**TRUE-UP:** For each recovery period, a true-up adjustment to the ECR Tracker account will be calculated reflecting the difference between actual prior period ECR Adjustment recoveries and the actual prior period revenue requirements. Any resulting over/under recovery will be reflected as a carryover balance and included in calculating the ECR Adjustment Factor.



Page 1 of 2 Third Revision

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#### ENVIRONMENTAL COST RECOVERY RIDER

DESCRIPTION	RATE CODE
Environmental Cost Recovery Rider	31-570

<u>RULES AND REGULATIONS</u>: Terms and conditions of this electric rate schedule and the General Rules and Regulations govern use of this rider.

**APPLICATION OF RIDER:** This rider is applicable to electric service under all of the Company's retail rate schedules in Sections 9, 10, 11, 12 and 14, except for Section 14.09 (TailWinds).

COST RECOVERY FACTOR: There shall be included on each Minnesota Customer's monthly bill an Environmental Cost Recovery ("ECR") charge based on the applicable cost recovery factor multiplied by the Customer's monthly bill. The Customer's monthly bill shall be based on all applicable charges and credits under the Company's retail rate schedules in Sections 9, 10, 11, 12 and 14, except for Section 14.09 (TailWinds). The Environmental Cost Recovery Charge will not apply to any Mandatory Riders or sales tax and any local assessments as provided in the General Rules and Regulations for the Company's electric service. The Environmental Cost Recovery charge will be included in the Resource Adjustment line item on the Customer's bill.

The Environmental Cost Recovery Factor is (0.935) percent.

**DETERMINATION OF ECR ADJUSTMENT FACTOR:** An ECR Adjustment Factor shall be determined by dividing the forecasted balance of the ECR Tracker account by the forecasted retail revenue for the upcoming year (or such other period as may be approved by the Minnesota Public Utilities Commission ("Commission")). The ECR Adjustment Factor shall be rounded to the nearest 0.001%. The ECR Adjustment Factor may be adjusted annually (or other approved periods) with approval of the Commission.

Recoverable Environmental Measures Costs shall be the annual revenue requirements associated with environmental measures eligible for recovery under MN Statute 216B.1692 that are determined by the Commission to be eligible for recovery under this ECR Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible measures for the designated period. All costs appropriately charged to the ECR Tracker account shall be eligible for recovery through this Rider, and all revenues recovered from the ECR Adjustment shall be credited to the ECR Tracker account.



Page 2 of 2 First Revision

Forecasted retail revenue shall be the estimated total retail electric revenue for the designated recovery period.

**TRUE-UP:** For each recovery period, a true-up adjustment to the ECR Tracker account will be calculated reflecting the difference between actual prior period ECR Adjustment recoveries and the actual prior period revenue requirements. Any resulting over/under recovery will be reflected as a carryover balance and included in calculating the ECR Adjustment Factor.

#### **CERTIFICATE OF SERVICE**

RE: In the Matter of the Petition of Otter Tail Power Company for Approval of an Environmental Cost Recovery Rider Annual Adjustment Docket No. E017/M-16-373

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 Supplemental Filing – Revised Attachments

Dated this 28th day of August, 2017.

/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	OFF_SL_16-373_16-373
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	No	OFF_SL_16-373_16-373
Peter	Beithon	pbeithon@otpco.com	Otter Tail Power Company	P.O. Box 496 215 South Cascade S Fergus Falls, MN 565380496	Electronic Service treet	No	OFF_SL_16-373_16-373
Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.	12700 West Dodge Road PO Box 2047 Omaha, NE 68103-2047	Electronic Service	No	OFF_SL_16-373_16-373
lan	Dobson	Residential.Utilities@ag.sta te.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	OFF_SL_16-373_16-373
James C.	Erickson	jericksonkbc@gmail.com	Kelly Bay Consulting	17 Quechee St Superior, WI 54880-4421	Electronic Service	No	OFF_SL_16-373_16-373
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN  551012198	Electronic Service	No	OFF_SL_16-373_16-373
Bruce	Gerhardson	bgerhardson@otpco.com	Otter Tail Power Company	PO Box 496 215 S Cascade St Fergus Falls, MN 565380496	Electronic Service	No	OFF_SL_16-373_16-373
Anthony	Harris	aharris@otpco.com	Otter Tail Power Company	215 S Cascade St Fergus Falls, MN 56537-2801	Electronic Service	No	OFF_SL_16-373_16-373
Kimberly	Hellwig	kimberly.hellwig@stoel.co m	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-373_16-373

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Shane	Henriksen	shane.henriksen@enbridge .com	Enbridge Energy Company, Inc.	1409 Hammond Ave FL 2 Superior, WI 54880	Electronic Service	No	OFF_SL_16-373_16-373
Richard	Johnson	Rick.Johnson@lawmoss.co m	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-373_16-373
James D.	Larson	james.larson@avantenergy .com	Avant Energy Services	220 S 6th St Ste 1300  Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-373_16-373
Douglas	Larson	dlarson@dakotaelectric.co m	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_16-373_16-373
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	OFF_SL_16-373_16-373
Andrew	Moratzka	andrew.moratzka@stoel.co m	Stoel Rives LLP	33 South Sixth St Ste 4200  Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-373_16-373
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	OFF_SL_16-373_16-373
Larry L.	Schedin	Larry@LLSResources.com	LLS Resources, LLC	332 Minnesota St, Ste W1390 St. Paul, MN 55101	Electronic Service	No	OFF_SL_16-373_16-373
Cary	Stephenson	cStephenson@otpco.com	Otter Tail Power Company	215 South Cascade Street  Fergus Falls,  MN  56537	Electronic Service	No	OFF_SL_16-373_16-373
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_16-373_16-373

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	OFF_SL_16-373_16-373