Otter Tail Power Company
South Dakota Energy Efficiency Program 2018 Status Report

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INTRODUCTION

The purpose of this Status Report is to present the results of direct impact, indirect impact, and miscellaneous programs completed from January 1, 2018, through December 31, 2018, through Otter Tail Power Company's (Otter Tail, the Company) South Dakota Energy Efficiency Partnership (EEP) program. Cost recovery and the financial incentive calculations for the program are also detailed in this report. Otter Tail has filed this annual filing with the South Dakota Public Utilities Commission (Commission, SDPUC) since its first EEP Status Report annual filing in 2010 which summarized partial-year 2008 and full-year 2009 conservation activities.

Direct Impact Programs

Residential

- Air Conditioning Control
- Air Source Heat Pumps
- Geothermal Heat Pumps
- Lighting

Commercial

- Air Source Heat Pumps
- Custom Efficiency
- Drive Power
- Geothermal Heat Pumps
- Lighting

Indirect Impact Programs

- Advertising & Education

Miscellaneous and Inactive Programs

- EEP Development

Financial Incentive

Regulatory Requirements

Background

- On April 29, 2016, Otter Tail requested approval of its 2017-2019 EEP, Docket No. EL16-020.
- At the November 17, 2016 SDPUC meeting, the Commission voted unanimously to approve Otter Tail's proposed EEP for 2017-2019.
- At the December 11, 2018 SDPUC meeting, the Commission voted unanimously to approve an increase of $250,000 annually to the Company's EEP for years 2019 through 2021 and approve the rebate amount cap of $250,000 per year in years 2019 through 2021 for the single large industrial customer.

Overview

Overall results for the 2018 South Dakota EEP Program show the Company achieved 154 percent of projected participation goals, 140 percent of projected energy savings goals, and 127 percent of projected demand savings while maintaining spending at 110 percent of the budget.

Summary of Budget to Actuals – 2018			
	Budget	**Actual**	**% of Budget**
Expenses All Programs	$449,000	$493,353	110%
Participation	2,050	3,116	152%
Energy Savings - kWh	3,795,876	5,326,674	140%
Demand Savings - kW	1,026.4	1,301.9	127%

The Company's 2018 EEP program achieved significant energy and demand savings, stayed within allowed budget parameters, and resulted in a cost-effective effort for program participants and South Dakota ratepayers. Otter Tail appreciates the Commission's support for our program, and we applaud customers' response. Energy efficiency is a long-term commitment that continues to evolve in South Dakota. Otter Tail is confident that working together we can continue to create a sustainable energy future for South Dakota, of which energy efficiency will play a critical role.

Approved 2018 South Dakota EEP program goals, budgets, net benefits, benefit-cost ratios, and lifetime kWh savings are listed in Appendix A, Tables 1 through 4, along with actual results for 2018.

DIRECT IMPACT – RESIDENTIAL

AIR CONDITIONING CONTROL

The Air Conditioning Control Program targets residential customers with central air conditioning systems. Customers are encouraged to enroll in the program and receive a $7/month credit for each of the four summer months (June-September).

In 2018, Otter Tail controlled air conditioning 18 days totaling of 20 hours and 9 minutes. This control time is within the 300-hour control limit approved for the air conditioning rider.

Otter Tail promotes air conditioning control using various resources listed below:

- *Programs and Services Guide* sent to contractors.
- Bill inserts sent in February, March, and December of 2018.
- Customer care booklet that is sent to all new customers.
- Home page hero spots in February, May, and June on www.otpco.com.
- Service representative training.
- Bill messages in May.
- Brochures available upon request.
- Return envelope spot in January, February, and March.
- Program, rate, and rebate pages described within the Company's web site at www.otpco.com.

This Program has been approved for continuation in the 2019 EEP. Pending completion of a general rate case, the monthly bill credit may increase to $8.25 per month during the summer season for residential customers. A new offering for small commercial customers may be added that would provide a bill credit of $6 per ton, per month during the summer season.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Air Conditioning Control	**Actual**	**Proposed**	**% of Goal**
Participation	635	591	107%
Budget $	$3,476	$14,000	25%

Evaluation Methodology

Otter Tail extracted interval customer data from its load research database to analyze customer's 15-minute loads. Otter Tail used this interval data to compare energy consumption on non-control days to control days when the weather was similar between the periods.

Energy Savings & Adjustments

Air Conditioning Control	Actual Savings at the Generator	Budgeted Savings at the Generator	% of Budget
Energy Savings – kWh	19,630	19,413	101%
Demand Savings – kW Summer Coincident Peak	468.1	462.9	101%

AIR SOURCE HEAT PUMPS

The Air Source Heat Pump program targets residential customers currently using or considering the installation of less efficient resistance electric heating and cooling systems by offering rebates for high-efficiency air source heat pumps.

For 2018, Otter Tail relied on Energy Star qualifications for the minimum equipment efficiency requirement for this program:

Energy Star – ASHP	HSPF	SEER	EER
Split System	> or = 8.5	> or = 15.0	12.5
Package Terminal			> or = 12

A special category of air source heat pump, the cold climate heat pump (CCHP), was included in our 2018 program. CCHPs are identified as rated with a heating seasonal performance factor (HSPF) of 10 or greater and labeled as Energy Star or have minimum ratings of 15 seasonal energy efficiency ratio (SEER) and 12.5 energy efficiency ratings (EER).

Otter Tail promotes energy efficient air source heat pumps through the following resources:

- Media advertising including television, radio, and digital media.
- *Programs and Services Guide* sent to contractors.
- Training material covered with service representatives.
- Bill messages included on customer monthly service statements.
- Bill inserts featuring heat pump efficiency and rebates.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.

This program has been approved for continuation in the 2019 EEP program. Equipment efficiency levels will follow Energy Star standards.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Air Source Heat Pumps (R)	**Actual**	**Proposed**	**% of Goal**
Participation*	17	20	85%
Budget $	$19,410	$20,000	97%

* Participation is based on the number of units installed.

Evaluation Methodology

Energy savings estimates utilize the State of Minnesota's Division of Energy Resources' Technical Reference Manual (MN TRM) energy savings algorithms. The Company has modified the MN TRM assumptions to reflect the climate conditions in its South Dakota service area.

Energy Savings & Adjustments

Air Source Heat Pumps (R)	**Actual Savings at the Generator**	**Proposed Savings at the Generator**	**% of Budget**
Energy Savings – kWh	201,963	298,204	68%
Demand Savings – kW Summer Coincident Peak	15.7	28.3	56%

GEOTHERMAL HEAT PUMPS

Geothermal heat pumps are most often used in the coldest climates where the winter season ground temperature is significantly warmer and less variable than outside air temperatures. Because of the consistent, steady ground temperatures, geothermal heat pumps can achieve efficiencies over 400 percent. The Geothermal Heat Pump program capitalizes on a renewable technology and targets customers currently using or considering the installation of less efficient resistance electric heating and cooling systems.

A minimum coefficient of performance (COP) efficiency level qualification is required for this program. During 2018 units were required to meet Energy Star qualifications listed in the chart below. Starting in 2019 requirements will also include proof of the minimum EER, along with COP for Geothermal Heat Pumps.

Type	COP	
	Open	Closed
Water to air	4.1	3.6
Water to water	3.5	3.1
Direct exchange	3.6	

Otter Tail promotes energy efficient geothermal heat pumps using the following promotional resources:

- *Programs and Services Guide* sent to contractors.
- Training material covered with service representatives.
- Bill messages included on customer monthly service statements.
- Promotional bill inserts about heat pump efficiency and rebates.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.

This program has been approved for continuation in the 2019 EEP program. Equipment efficiency specification levels will follow the minimum Energy Star COP and EER ratings.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Geothermal Heat Pumps (R)	**Actual**	**Proposed**	**% of Goal**
Participation*	2	9	22%
Budget $	$4,813	$30,000	16%

* Participation is based on the number of units installed.

Evaluation Methodology

Energy savings estimates utilize the MN TRM algorithms for energy savings. The Company has modified the MN TRM assumptions to reflect the climate conditions for the Company's South Dakota service area.

Energy Savings & Adjustments

Geothermal Heat Pumps (R)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Budget
Energy Savings – kWh	50,907	321,779	16%
Demand Savings – kW Summer Coincident Peak	0.0	23.9	0%

LIGHTING

The Lighting program provides rebates to residential customers for retrofit installations of energy-efficient lighting technologies. Measures available for implementation by customers include retrofits from inefficient incandescent and linear fluorescent lighting systems to more efficient technologies such as LED lighting.

In addition to the rebate program, Otter Tail received SDPUC approval to include an LED bulb giveaway to students participating in the *Energy Connections* educational outreach component of the Advertising and Education program conducted by the Minnesota Science Museum in 2018. Each student was given an LED bulb as a take home action item. A total of 1,596 bulbs were given out with the expectation the students would install the bulbs in higher usage areas in their homes with the help of their parents.

Otter Tail actively promotes the Lighting program through a variety of promotional resources:

- Media campaign that included television, radio, and digital media.
- *Programs and Services Guide* sent to contractors.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.
- Bill inserts promoting EEP program opportunities for South Dakota customers.

This program has been approved for continuation in the Company's 2019 EEP program.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Lighting (R)	**Actual**	**Proposed**	**% of Goal**
Participation*	1,819	900	202%
Budget $	$6,724	$11,000	61%

* Participation is based on the number of units installed.

Evaluation Methodology

Engineering calculations and the MN TRM are used for impact savings for energy and demand from the Residential Lighting program.

The Company compares existing lighting wattage removed at each site to the energy efficient lighting wattage being installed to calculate energy savings.

Energy Savings & Adjustments

Lighting (R)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	131,560	33,209	396%
Demand Savings – kW Summer Coincident Peak	11.4	3.9	295%

DIRECT IMPACT – COMMERCIAL

AIR SOURCE HEAT PUMPS

The Air Source Heat Pump program targets commercial customers currently using resistant electric heat or considering the installation of less efficient heating and cooling systems by offering rebates for high-efficiency air source heat pumps.

For 2018, Otter Tail relied on Energy Star qualifications for the minimum equipment efficiency requirement for this program:

Energy Star – ASHP	HSPF	SEER	EER
Split System	> or = 8.5	> or = 15	12.5
Package Terminal			> or = 12

A special category of air source heat pump, the CCHP, was included in our 2018 program. CCHPs are identified as rated with a HSPF of 10 or greater and labeled as Energy Star or have minimum ratings of 15 SEER and 12.5 EER.

Otter Tail promotes energy efficient heat pumps using various resources:

- Media campaign that included television, radio, and digital media.
- *Programs and Services Guide* sent to contractors.
- Bill messages included on customer statements.
- Bill inserts about heat pump efficiency and rebates.
- Training material covered with service representatives.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.

This program has been approved for continuation in the 2019 EEP program. Equipment efficiency specification levels will follow the minimum Energy Star guidelines.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Air Source Heat Pumps (C)	**Actual**	**Proposed**	**% of Goal**
Participation*	5	25	20%
Budget $	$6,657	$18,000	37%

* Participation is based on the number of units installed.

Evaluation Methodology

Energy savings estimates utilize the MN TRM algorithms for energy savings. The Company has modified the MN TRM assumptions to reflect the climate conditions for the Company's South Dakota service area.

Energy Savings & Adjustments

Air Source Heat Pumps (C)	**Actual Savings at the Generator**	**Proposed Savings at the Generator**	**% of Goal**
Energy Savings – kWh	80,731	291,112	28%
Demand Savings – kW Summer Coincident Peak	7.3	25.6	28%

CUSTOM EFFICIENCY

The Custom Efficiency program pays incentives to commercial and industrial customers for energy saving installations such as process changes and new, energy efficient equipment that the Company does not incentivize through prescriptive programs.

Otter Tail promotes the custom efficiency program through a variety of promotional resources:

- *Programs and Services Guide* available to contractors.
- *Company* newsletter for commercial customers.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.
- EEP bill inserts for South Dakota customers.

This program has been approved for continuation in the Company's 2019 EEP program.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Custom Efficiency	**Actual**	**Proposed**	**% of Goal**
Participation	14	7	200%
Budget $	$77,252	$40,000	193%

Otter Tail provided incentives for 14 Custom Efficiency projects in 2018:

Building Envelope Improvements	2
Heating System – Air Source Heat Pump	4
Lighting	5
Production Equipment	1
Refrigeration	2
Total	**14**

The four air source heat pumps did not meet all qualifiers under Otter Tail's prescriptive program and were evaluated within the Custom Efficiency program. The five lighting projects were new lighting projects for which Otter Tail does not have a prescriptive program.

Evaluation Methodology

Otter Tail assists as needed our commercial and industrial customers to help determine the energy and demand savings on a per measure basis needed to develop a grant proposal and often works with internal or third-party engineers to determine and verify savings. The Company will also consider and verify estimated energy savings when submitted by a qualified and independent third-party energy services provider.

Energy Savings & Adjustments

Custom Efficiency Program	**Actual Savings at the Generator**	**Proposed Savings at the Generator**	**% of Goal**
Energy Savings – kWh	1,064,853	130,729	815%
Demand Savings – kW Summer Coincident Peak	233.1	45.3	515%

DRIVE POWER

The U.S. Department of Energy (DOE) reports that electric motors, taken together, make up the single largest end use of electricity in the United Sates. In the U.S manufacturing sector alone, electric motors used for pumps, conveyors, compressors, fans, mixers, grinders, and other processing equipment account for about 54 percent of electricity consumption. The U.S. Department of Energy estimates that on average, the manufacturing sector could reduce industrial electric motor usage 11 to 18 percent by using proven efficiency technologies and practices.

The goal of the Drive Power program is to educate dealers and customers on the benefits of installing adjustable speed drives and new and replacement electric motors that meet or exceed the National Electrical Manufacturers Association (NEMA) Premium® efficiency requirements. The program provides incentives for customers to reduce peak demand and energy use by purchasing motors that meet or exceed NEMA Premium® efficiency. Otter Tail reduced rebate incentives for adjustable speed drive installations by approximately 60 percent in 2018.

Otter Tail promotes the Drive Power program through a variety of promotional resources:

- *Programs and Services Guide* available to contractors.
- *Company* newsletter for commercial customers.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.
- EEP bill inserts for South Dakota customers.

This program has been approved for continuation in the Company's 2019 EEP program.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Drive Power	**Actual**	**Proposed**	**% of Goal**
Participation*	140	44	318%
Budget $	$158,371	$79,000	200%

* Participation is based on the number of units installed.

Evaluation Methodology

The Company uses estimates from the MN TRM, the Company's engineering estimates, and motor usage information from customers to determine the energy savings for each installed motor. The Company also used data from Bonneville Power's MotorMaster software project to develop standard motor efficiency numbers.

For adjustable speed drive projects, Otter Tail relies on methodologies developed by the Electric

Power Research Institute (EPRI) for fan-and pump-based adjustable speed drive systems. Hours of operation for associated loading factors are provided by the customer as inputs for the energy and demand savings calculations.

Energy Savings & Adjustments

Drive Power	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	1,370,254	1,013,339	135%
Demand Savings – kW Summer Coincident Peak	193.5	133.5	145%

GEOTHERMAL HEAT PUMPS

Geothermal heat pumps are most often used in the coldest climates where the ground temperature is significantly warmer and less variable than outside air temperatures. Because of the consistent, steady ground temperatures, geothermal heat pumps can achieve efficiencies of up to 400 percent. The Geothermal Heat Pump program capitalizes on a renewable technology and targets customers currently using or considering the installation of less efficient resistance electric heating and cooling systems.

For 2018, Otter Tail relied on Energy Star qualifications as the minimum equipment COP efficiency requirement for this program.

Type	COP	
	Open	Closed
Water to air	4.1	3.6
Water to water	3.5	3.1
Direct exchange	3.6	

Starting in 2019 requirements will also include proof of the minimum EER along with COP for Geothermal Heat Pumps.

Otter Tail promotes energy efficient heat pumps using various promotional resources:

- *Programs and Services Guide* available to contractors.
- Bill messages included on customer statements.
- Bill inserts about heat pump efficiency and rebates.
- Training material covered with service representatives.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.

This program has been approved for continuation in the 2019 EEP program. Equipment efficiency levels will follow Energy Star guidelines in 2019 including minimum COP and EER ratings.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Geothermal Heat Pumps (C)	**Actual**	**Proposed**	**% of Goal**
Participation*	4	16	25%
Budget $	$20,126	$73,000	28%

* Participation is based on the number of units installed.

Evaluation Methodology

Energy savings estimates utilize the MN TRM algorithms for energy savings. The Company has modified the MN TRM assumptions to reflect the climate conditions for the Company's South Dakota service area.

Energy Savings & Adjustments

Geothermal Heat Pumps (C)	**Actual Savings at the Generator**	**Proposed Savings at the Generator**	**% of Goal**
Energy Savings – kWh	212,994	730,265	29%
Demand Savings – kW Summer Coincident Peak	27.1	93.0	29%

LIGHTING

The U.S. Energy Information Administration estimates that in 2018, about 232 billion kWh of electricity were used for lighting by the commercial and residential sectors in the U.S, representing about 6 percent of total U.S. electricity consumption. The commercial sector alone, including commercial and institutional buildings, and public street and highway lighting, consumed about 141 billion kWh for lighting, equal to about 10 percent of total commercial sector electricity consumption in 2018.

The Lighting program creates opportunities for customers in commercial and industrial sectors to significantly reduce electricity consumption by retrofitting to energy-efficient lighting technologies. Possible measures implemented by customers include retrofits from inefficient incandescent, high intensity discharge, and linear fluorescent lighting systems to the LED and

high-efficiency fluorescent fixtures. The 2018 program continued offering customers a tremendous opportunity to accelerate change-out of their old, inefficient lighting systems.

Otter Tail actively promotes the Lighting program through a variety of promotional resources:

- *Programs and Services Guide* sent to contractors.
- *Make It Electric* newsletter for commercial and industrial customers.
- Program, technology, and rebate information available on the Company's web site at www.otpco.com.
- EEP bill inserts for South Dakota customers.

This program has been approved for continuation in the Company's 2019 EEP program.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
Lighting (C)	**Actual**	**Proposed**	**% of Goal**
Participation	102	38	268%
Budget $	$170,651	$127,000	134%

Advancements in LED product technology continued to play a key role in participation that exceeded expectations in Otter Tail's 2018 Lighting program. Product efficiency, improved light quality, reduced maintenance costs, and utility incentives have all contributed in increasing program participation. Otter Tail reduced incentive levels for customers by 50 percent in 2018 in interest of controlling program expenses. The Company will monitor participation levels for possible impacts of reduced incentives.

Evaluation Methodology

Engineering calculations are used for impact savings for energy and demand from the Commercial Lighting Program.

The Company documents all existing lighting wattage removed at each site and compares it to the actual energy efficient lighting wattage being installed to calculate energy savings. Hours of operation are determined by the MN TRM according to customer building type. Company personnel conduct visual verification of retrofit projects as needed.

Energy Savings & Adjustments

Lighting (C)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	2,193,782	957,826	229%
Demand Savings – kW Summer Coincident Peak	345.6	210.0	165%

INDIRECT IMPACT

ADVERTISING & EDUCATION

The residential Advertising & Education program for 2018 includes:

- Educational outreach to South Dakota school children in third through fifth grades.
- Educational and energy savings information provided through the Home Energy Analyzer (HEA), an online home energy audit tool for customer access.
- General advertisement of energy efficiency program opportunities through bill inserts, newsletters, and through resources posted on the company website www.otpco.com.

The educational outreach program was operated by the Minnesota Science Museum on behalf of Otter Tail and provided an energy-focused lyceum, *Energy Connections,* during May 2018. The 50-minute assembly focused on the science of energy, energy resources, and energy conservation and efficiency.

Energy Connections helps schools meet their academic standards for science. It delivers and reinforces messages to make conserving energy a lifestyle and includes a component to educate students about energy production.

The program rotates yearly to one of three sections of the Otter Tail South Dakota service area. This ensures that each South Dakota school in the service area is offered the program every fourth year.

The Science Museum visited the following schools during 2018: Summit, Lake Preston Elementary, Hamlin Elementary, Rutland Elementary, and Elkton Elementary. Because most assemblies target third through fifth grades, Otter Tail expects no student to participate more than once.

Following the school visit, the Science Museum was not successful in gathering teacher/administrator feedback through the online survey link sent. The Science Museum staff will be meeting with their evaluation/survey staff early in 2019 to review their survey strategies.

The Home Energy Analyzer is an online educational and energy savings resource available to South Dakota residential customers. The tool helps residential customers analyze their energy use and identify ways to reduce energy use and costs. Customers may complete a home profile, receive a personalized plan to reduce energy consumption, and compare their electric bills. The HEA provides insights into the possible reasons for variations among bills. The HEA was accessed by 10 South Dakota residential customers in a total of 19 sessions during 2018.

During 2019 an updated version of the Home Energy Analyzer will be launched that offers improved usability for mobile devices. Because 54 percent of customers access the company website through a mobile device, this upgraded tool is expected to help increase participation among residential customers.

The general advertisement component of the Advertising and Education program includes support for developing and producing bill inserts and online materials that promote programs available through the EEP portfolio, including the Air Conditioning Control program and the HEA tool.

This program has been approved for continuation in the 2019 EEP program.

Participation & Budget

SD 2018 A&E Detailed Participation	
Science Museum School Tour	399
Home Energy Analyzer	10
Total	409

PARTICIPATION AND BUDGET – 2018			
Advertising and Education	**Actual**	**Proposed**	**% of Goal**
Participation	409	400	102%
Budget $	$13,227	$12,000	110%

MISCELLANEOUS / INACTIVE PROJECT COSTS

EEP DEVELOPMENT

The EEP Development program includes EEP strategic market planning analysis, EEP-related planning work, and EEP-related regulatory coordination. It also includes program development time for research and studying new energy-efficient technologies.

Participation & Budget

PARTICIPATION AND BUDGET – 2018			
EEP Development	**Actual**	**Proposed**	**% of Goal**
Participation	N/A	N/A	N/A
Budget $	$12,64	$25,000	51%

FINANCIAL INCENTIVE

On June 26, 2012, the Commission's Order approved financial incentive investments in energy efficiency based on a percent of budgeted spending. The Commission's approval was consistent with South Dakota Staff's June 8, 2012, letter which recommended, "…this method is the appropriate and most reasonable methodology based on prior mechanisms and recovery options."

As shown in Appendix A, Table 2, the Company spent $493,353 in 2018. The approved budget for 2017 was $449,000. The maximum incentive that can be awarded is 30 percent of $449,000, or $134,700. Total net benefits provided to South Dakota customers by 2018 EEP projects was $2,755,335. **The proposed incentive is 4.89 percent of net benefits provided by the program.**

Otter Tail requests approval of a financial incentive of $134,700 as calculated and shown in Appendix A, Table 5.

REGULATORY REQUIREMENTS

ENERGY ADJUSTMENT RIDER / CARRYING COSTS

The South Dakota EEP account was established on February 1, 2007, when the Company started active development of an energy efficiency plan for South Dakota. This filing includes information regarding the tracker balance as of December 31, 2018. In addition, carrying charges and any applicable incentives (discussed in the financial incentive section), as well as any offsets or adjustments have been included. The Company has calculated the monthly carrying charge equivalent to the Company's approved rate of return.

The tracker will also account for amounts collected from customers through the **"**ENERGY EFFICIENCY ADJUSTMENT FACTOR." The energy efficiency adjustment factor was collected monthly based on a kWh charge on customers' bills. For billing purposes, the charge was a separate line item on customers' electric service bills. Otter Tail is not currently recovering any of these costs in base rates; therefore, the Company proposes the energy efficiency adjustment charge recovery mechanism continues as an appropriate means to recover costs associated with developing and implementing the South Dakota Energy Efficiency Partnership.

The current Energy Efficiency Adjustment Factor is $0.00155/kWh. Otter Tail proposes changing the EEP factor to $0.00169. Appendix A, Table 7 presents the EEP tracker account balances for year-end 2018 and projections for 2019 through June 2020. When including the financial incentive amount of $134,700 in the tracker, carrying charges, and approval to increase the EEP factor, Otter Tail forecasts the tracker balance to be approximately ($26,700) on July 1, 2019. The proposed EEP surcharge will keep the tracker balance near zero, which keeps carrying charges for South Dakota customers as low as possible.

The following table summarizes the expenses and revenues discussed above.

	January 2019 - June 2019	**July 2019 - June 2020**
Beginning Balance	**$62**	**($24,519)**
Carrying Charges	$530	$8,561
EEP Program Expenses	$355,647	$699,000
EEP Incentive Proposed	$0	$134,700
EEP Rider Revenue	($380,758)	($844,442)
Ending Balance	**($24,519)**	**($26,700)**
EEP Factor	**$0.00155/kWh**	**$0.00169/kWh**

Otter Tail has included a redline and final version of the EEP cost recovery rider rate schedule in this filing with a July 1, 2019 effective date (Appendix B: Energy Efficiency Adjustment Rider). The EEP cost recovery rider included in this filing reflects the proposed EEP factor of $0.00169/kWh.

Pursuant to ARSD 20:10:13:18, Otter Tail will post a Notice of Proposed Changes (Appendix C, Attachment 1). This Notice will be placed in a conspicuous place outside Otter Tail's Milbank customer service center for at least 30 days before the change becomes effective.

Pursuant to Codified Law 49-34A-12, Otter Tail will include, upon approval, the following bill message at least 30 days before the change in EEP factor becomes effective.

> *On [Date of Approval], the South Dakota Public Utilities Commission approved an updated adjustment factor for the Energy Efficiency Partnership (EEP) Cost Recovery Rider. The factor increased approximately 9% from $0.00155/kWh to $0.00169/kWh and is effective with bills rendered on and after July 1, 2019. The panel below shows the residential customer impact at different kWh levels.*
>
> ***Monthly residential customer impacts***
> *250 kWh, $0.39 to $0.42, increase $0.04*

500 kWh, $0.78 to $0.85, increase $0.07
750 kWh, $1.16 to $1.27, increase $0.11
1,000 kWh, $1.55 to $1.69, increase $0.14
1,500 kWh, $2.33 to $2.54, increase $0.21
2,000 kWh, $3.10 to $3.38, increase $0.28

Otter Tail has also included a report on tariff schedule changes (Appendix C, Attachment 2). This report complies with ARSD 20:10:13:26, which requires the Utility to report all rate schedule changes and customer impacts. Appendix C, Attachment 3 is also provided to show the monthly billing impacts of the proposed EEP adjustment factor for each revenue class.