# Otter Tail Power Company South Dakota Energy Efficiency Program 2020 Status Report

# **Table of Contents**

ı.	IN	(TRODUCTION	2
II.		DIRECT IMPACT – RESIDENTIAL	3
A	۸.	AIR CONDITIONING CONTROL	3
I	<b>3.</b>	AIR SOURCE HEAT PUMPS	5
(	<b>C.</b>	GEOTHERMAL HEAT PUMPS	6
I	<b>D.</b>	LIGHTING	8
***	=	DIDECT IMPACTE COMMEDIAL	0
Ш		DIRECT IMPACT - COMMERCIAL	
P	<b>4.</b>	AIR SOURCE HEAT PUMPS	
I	<b>B.</b>	CUSTOM EFFICIENCY	11
(	<b>C.</b>	DRIVE POWER	12
I	<b>D.</b>	GEOTHERMAL HEAT PUMPS	
I	Ε.	LIGHTING	15
IV		INDIRECT IMPACT	16
A		ADVERTISING & EDUCATION	
<b>T</b> 7		MIGGELL ANDOUG ANA CENTE PROJECT COCEG	10
V.		MISCELLANEOUS / INACTIVE PROJECT COSTS	
A	<b>1</b> .	EEP DEVELOPMENT	18
VI	•	FINANCIAL INCENTIVE	18
VI	I.	REGULATORY REQUIREMENTS	19
A		ENERGY ADJUSTMENT RIDER / CARRYING COSTS	

## I. INTRODUCTION

The purpose of this Status Report is to present the results of direct impact, indirect impact, and miscellaneous programs completed from January 1, 2020, through December 31, 2020, 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

## <u>Indirect Impact Programs</u>

• 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.
- At the June 25, 2019 SDPUC meeting, the Commission voted unanimously to approve extending the 2017-2019 SD EEP Triennial through 2020.

#### Overview

Overall results for the 2020 South Dakota EEP Program show the Company achieved 60 percent of projected participation goals, 98 percent of projected energy savings goals, and 108 percent of projected demand savings while maintaining spending at 109 percent of the budget.

Summary of Budget to Actuals – 2020					
	Budget	Actual	% of Goal		
Expenses All Programs	\$699,000	\$760,590	109%		
Participation	2,296	1,387	60%		
Energy Savings - kWh	11,135,198	10,909,182	98%		
Demand Savings - kW	2,052.7	2,224.6	108%		

The Company's 2020 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 with customers we can continue to create a sustainable energy future for South Dakota, of which energy efficiency will play a critical role.

Approved 2020 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 2020.

## II. DIRECT IMPACT – RESIDENTIAL

# A. 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 \$8.25/month credit for each of the four summer months (June-September).

In 2020, Otter Tail controlled air conditioning 6 days totaling of 8 hours and 14 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 insert sent in February.
- Customer care booklet that is sent to all new customers.
- Home page hero spots on the Company website during March and April.
- Service representative training.
- Bill messages in January and March.
- Brochures available upon request.
- Program, rate, and rebate pages described within the Company's website.

PARTICIPATION AND BUDGET – 2020					
	Actual			% of	
	Annual	Actual	Proposed	Cumulative	
Air Conditioning Control	Added <sup>1</sup>	Cumulative	Cumulative	Goal	
Participation	12	643	649	99%	
Budget \$		\$5,883	\$14,000	42%	

## **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.

<sup>&</sup>lt;sup>1</sup> At the June 23, 2020 South Dakota Public Utility Commission meeting, Commissioner Fiegen requested the Company report the number of participants added annually.

	Actual Savings	<b>Budgeted Savings</b>	
<b>Air Conditioning Control</b>	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	19,940	20,126	99%
Demand Savings – kW	475.5	479.9	99%
Summer Coincident Peak			

#### **B.** 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. The Company relies on Energy Star qualifications as a guide for the minimum equipment efficiency requirement for its air source heat pumps.

In 2020 air source heat pumps met the following minimum rating requirements.

Air Source Heat Pumps				
	HSPF	SEER	EER	
Split System	> or $= 8.5$	> or $= 15.0$	> or = 12.5	
Package Terminal	-	-	> or = 12	
CCHP- Ducted	> or $= 9.0$	> or = 15.0	-	
CCHP- Ductless	> or $= 10.0$	> or = 15.0	-	

A special category of air source heat pump, the cold climate heat pump (CCHP), was included in our 2020 program. CCHPs are identified as ducted systems rated with a heating seasonal performance factor (HSPF) of 9 or greater, or ductless systems rated with an HSPF of 10 or greater, and labeled as Energy Star or have minimum ratings of 15 seasonal energy efficiency ratio (SEER).

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 during April, May, July, and August.
- Bill inserts featuring heat pump efficiency and rebates sent in February, May, and June.
- Program, technology, and rebate information available on the Company's website.

PARTICIPATION AND BUDGET – 2020					
Air Source Heat Pumps (R)   Actual   Proposed   % of Goal					
Participation*	41	20	205%		
Budget \$	\$106,386	\$20,000	532%		

<sup>\*</sup> 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	Actual Savings	<b>Proposed Savings</b>	
Heat Pumps (R)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	692,612	298,204	232%
Demand Savings – kW Summer Coincident Peak	52.6	28.3	186%

#### C. 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 electric heating and cooling systems.

In 2020 geothermal heat pumps met the following minimum rating requirements:

Geothermal Heat Pumps				
Type	Loop Type	COP	EER	
Water to air	Open loop	4.1	21.1	
Water to air	Closed loop	3.6	17.1	
Water to water	Open loop	3.5	20.1	
Water to water	Closed loop	3.1	16.1	
Direct exchange		3.6	16.0	

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.
- Promotional bill inserts about heat pump efficiency and rebates sent in February.
- Program, technology, and rebate information available on the Company's website.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020				
Geothermal Heat Pumps (R)	Actual	Proposed	% of Goal	
Participation*	5	9	56%	
Budget \$	\$16,523	\$30,000	55%	

<sup>\*</sup> 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.

Geothermal	Actual Savings	<b>Proposed Savings</b>	
Heat Pumps (R)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	124,848	321,779	39%
Demand Savings – kW	10.2	23.9	43%
Summer Coincident Peak			

#### D. LIGHTING

The U.S. Energy Information Administration reports that in 2020 U.S. electricity consumption for residential lighting was about 62 billion kWh, or about 28 percent of the total electricity use for lighting in the residential and commercial sectors combined. 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.

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 website.
- Bill inserts promoting EEP program opportunities for South Dakota customers.
- Messages on customer billing statements.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020					
Lighting (R)	Actual	Proposed	% of Goal		
Participation*	227	900	25%		
Budget \$ \$3,580 \$11,000 33%					

 $<sup>\</sup>ensuremath{^{*}}$  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

	Actual Savings	<b>Proposed Savings</b>	
Lighting (R)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	56,903	33,209	171%
Demand Savings – kW	1.8	3.9	46%
Summer Coincident Peak			

# III. DIRECT IMPACT - COMMERCIAL

## A. 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. The Company relies on Energy Star qualifications as a guide for the minimum equipment efficiency requirement for its air source heat pumps.

In 2020 air source heat pumps met the following minimum rating requirements.:

Air Source Heat Pumps				
	HSPF	SEER	EER	
Split System	> or $= 8.5$	> or $= 15.0$	> or = 12.5	
Package Terminal	-	-	> or = 12	
CCHP- Ducted	> or $= 9.0$	> or = 15.0	-	
CCHP- Ductless	> or $= 10.0$	> or $= 15.0$	-	

A special category of air source heat pump, the CCHP, was included in our 2020 program. CCHPs are identified as ducted systems rated with a HSPF of 9 or greater, or ductless systems rated with an HSPF of 10 or greater, and labeled as Energy Star or have minimum ratings of 15 SEER.

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 during April, May, July, and August.
- Bill inserts about heat pump efficiency and rebates sent in February, May, and June.
- Training material covered with service representatives.
- Program, technology, and rebate information available on the Company's website.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020				
Air Source Heat Pumps (C)   Actual   Proposed   % of Goa				
Participation*	11	25	44%	
Budget \$	\$39,371	\$18,000	219%	

<sup>\*</sup> 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.

Air Source	Actual Savings	<b>Proposed Savings</b>	
Heat Pumps (C)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	211,606	291,112	73%
Demand Savings – kW	13.8	25.6	54%
Summer Coincident Peak			

#### **B.** 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.
- Program, technology, and rebate information available on the Company's website.
- Direct contact between customers and Otter Tail program implementation and sales staff.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020				
<b>Custom Efficiency</b>	Actual Proposed % of Go			
Participation	7	88	8%	
Budget \$	\$32,174	\$168,000	19%	

Otter Tail provided incentives for 7 Custom Efficiency projects in 2020:

Building Envelope Improvements	2
Lighting	4
Refrigeration Equipment	1
Total	7

# Evaluation Methodology

Otter Tail assists our commercial and industrial customers as needed 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**

<b>Custom Efficiency</b>	Actual Savings	<b>Proposed Savings</b>	
Program	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	252,195	4,274,737	6%
Demand Savings – kW	56.0	598.5	9%
Summer Coincident Peak			

#### C. DRIVE POWER

The U.S. Energy Information Administration (EIA) reports that in 2020 total U.S. electricity consumption was about 3.8 trillion kWh—a figure 13 times greater than electricity use in 1950. Commercial and industrial electricity sales represented 60% of the 2020 total. EIA further reports that machine drives (electric motors, pumps, and fans) account for about half of the manufacturing sector's electricity use.

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

- *Programs and Services Guide* available to contractors.
- Program, technology, and rebate information available on the Company's website.

PARTICIPATION AND BUDGET – 2020				
Drive Power Actual Proposed % of C				
Participation*	177	151	117%	
Budget \$	\$284,850	\$201,000	142%	

<sup>\*</sup> 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

	Actual Savings	<b>Proposed Savings</b>	
Drive Power	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	6,998,269	4,207,940	166%
Demand Savings – kW	1,246.2	589.6	211%
Summer Coincident Peak			

### D. 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.

In 2020 geothermal heat pumps met the following minimum rating requirements.

Geothermal Heat Pumps			
Туре	Loop Type	COP	EER
Water to air	Open loop	4.1	21.1
Water to air	Closed loop	3.6	17.1
Water to water	Open loop	3.5	20.1
Water to water	Closed loop	3.1	16.1
Direct exchange		3.6	16.0

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

- Programs and Services Guide available to contractors.
- Bill inserts about heat pump efficiency and rebates sent in February.
- Training material covered with service representatives.
- Program, technology, and rebate information available on the Company's website.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020				
Geothermal Heat Pumps (C)   Actual   Proposed   % of G				
Participation*	21	16	131%	
Budget \$	\$86,168	\$73,000	118%	

<sup>\*</sup> 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.

Geothermal	Actual Savings	<b>Proposed Savings</b>	
Heat Pumps (C)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	585,153	730,265	80%
Demand Savings – kW	70.2	93.0	75%
Summer Coincident Peak			

#### E. LIGHTING

The U.S. Energy Information Administration estimates that in 2020, about 219 billion kWh of electricity were used for lighting by the commercial and residential sectors in the U.S, representing about eight percent of total U.S. electricity consumption. The commercial sector alone, including commercial and institutional buildings, and public street and highway lighting, consumed about 157 billion kWh for lighting, equal to about 12 percent of total commercial sector electricity consumption in 2020.

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 2020 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.
- Program, technology, and rebate information available on the Company's website.

## Participation & Budget

PARTICIPATION AND BUDGET – 2020				
Lighting (C)	Actual	Proposed	% of Goal	
Participation	79	38	208%	
Budget \$	\$152,708	\$127,000	120%	

Advancements in LED product technology continued to play a key role in participation that exceeded expectations in Otter Tail's 2020 Lighting program. Product efficiency, improved light quality, reduced maintenance costs, and utility incentives have all contributed to increasing program participation.

# **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**

	Actual Savings	<b>Proposed Savings</b>	
Lighting (C)	at the Generator	at the Generator	% of Goal
Energy Savings – kWh	1,967,655	957,826	205%
Demand Savings – kW	298.2	210.0	142%
Summer Coincident Peak			

### IV. INDIRECT IMPACT

#### A. ADVERTISING & EDUCATION

The residential Advertising & Education program for 2020 was planned to include:

- Educational outreach to South Dakota school children in third through sixth 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.

A planned component of the Advertising and Education program was *Energy Connections*, an educational outreach program to school age children that is focused on the science of energy, energy resources, conservation, and efficiency. The offering was cancelled in the Spring of 2020 due to COVID-19 school shutdowns as well as the suspension of programs at the Minnesota Science Museum, which operates the program on behalf of Otter Tail.

While the loss of this outreach has affected the Advertising and Education participation numbers for 2020, Otter Tail is working with the Science Museum to resume offering the *Energy Connections* program, if feasible, in 2021.

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, develop 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 176 South Dakota residential customers during 2020. 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, develop 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 176 South Dakota residential customers during 2020.

The general advertisement component of the Advertising and Education program includes support for developing and producing bill inserts, contractor educational information, and online materials that promote energy saving opportunities for customers and programs available through the EEP portfolio, including the HEA tool.

The general advertisement component of the Advertising and Education program includes support for developing and producing bill inserts, contractor educational information, and online materials that promote energy saving opportunities for customers and programs available through the EEP portfolio, including the HEA tool.

SD 2020 A&E Detailed Participation		
Science Museum School Tour	0	
Home Energy Analyzer	176	
Total	176	

PARTICIPATION AND BUDGET – 2020				
Advertising and Education	Actual	Proposed	% of Goal	
Participation	176	400	44%	
Budget \$	\$10,142	\$12,000	85%	

# V. MISCELLANEOUS / INACTIVE PROJECT COSTS

#### A. 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 – 2020			
<b>EEP Development</b>	Actual	Proposed	% of Goal
Participation	N/A	N/A	N/A
Budget \$	\$22,806	\$25,000	91%

## VI. 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 \$760,590 in 2020. The approved budget for 2020 was \$699,000. The maximum incentive that can be awarded is 30 percent of \$699,000, or \$209,700. Total net benefits provided to South Dakota customers by 2020 EEP projects was \$7,291,062. **The proposed incentive is 2.88 percent of net benefits provided by the program.** 

Otter Tail requests approval of a financial incentive of \$209,700 as calculated and shown in Appendix A, Table 5.

# VII. REGULATORY REQUIREMENTS

## A. 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, 2020. 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 (ROR).

On May 30, 2019, the SDPUC issued an order approving an overall ROR of 7.09% in Otter Tail's electric rate increase request, Docket No. EL 18-021, and further approved a credit or refund of the interim rate's over-collection. It was discovered that the ROR used in the calculation of the carrying costs in the EEP tracker was not updated to reflect the approved ROR of 7.09% for the interim rate timeframe. To the customers' benefit, the correction to the ROR reduced the carrying charge by \$62.92 between 2018 and 2019. The carrying costs in Appendix A, Table 6 have been updated for 2018 and 2019 to reflect the updated rate of return of 7.09%.

The tracker also accounts for amounts collected from customers through the "ENERGY EFFICIENCY ADJUSTMENT FACTOR." The energy efficiency adjustment factor is collected monthly based on a kWh charge on customers' bills. For billing purposes, the charge is 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 \$0.00195/kWh. Otter Tail does not propose to change the EEP factor at this time. Appendix A, Table 7 presents the EEP tracker account balances for year-end 2020 and projections for 2021 through June 2022. When including the financial incentive amount of \$209,700, carrying charges, and the continuation of the current EEP surcharge in the tracker, Otter Tail forecasts the tracker balance to be approximately \$5,244 on July 1, 2022. The current 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 2021 - June 2021	July 2021 - June 2022
Beginning Balance	\$204,311	\$206,237
Carrying Charges	\$9,603	\$14,218
EEP Program Expenses	\$475,364	\$553,466
EEP Incentive Proposed	\$0	\$209,700
EEP Rider Revenue	(\$483,042)	(\$978,378)
Ending Balance	\$206,237	\$5,244
EEP Factor	\$0.00195/kWh	\$0.00195/kWh