

**STATE OF SOUTH DAKOTA
BEFORE THE
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

In the Matter of Otter Tail Power Company's
2015 South Dakota Energy Efficiency Plan Status
Report and 2016 Annual Filing to Update the
Energy Efficiency Adjustment Rider

Docket No. EL16-

SUMMARY OF FILING

Status Report

Overall results for the 2015 South Dakota Energy Efficiency Plan (EEP) Program show Otter Tail Power Company (Otter Tail, the Company) achieved 105 percent of budget, 378 percent of participation goals, 151 percent of projected energy savings goals, and 141 percent of proposed demand savings. A brief summary of each of the programs offered to South Dakota customers in 2015 is presented. Summary tables of actual results compared to goals are provided in Appendix A, Tables 1 through 3.

Financial Incentive

The South Dakota Public Utilities Commission approved a "percent of approved budget" method for calculating the financial incentive, which would equal \$105,900. A summary spreadsheet is presented in Appendix A, Table 4.

Energy Adjustment Rider

The Company is proposing a decrease to the Energy Efficiency Adjustment Rider from \$0.00152 to \$0.00114. This adjustment is to be reflected on customers' bills as a separate line item starting with bills rendered (dated) on or after July 1, 2016. The EEP tracker balance is provided in the attached report under the section "ENERGY ADJUSTMENT RIDER." A summary spreadsheet is presented in Appendix A, Table 5 and Appendix B presents a copy of the Energy Efficiency Adjustment Rider.

Conclusion

Otter Tail requests approval of the 2015 Financial Incentive, totaling \$105,900. The Company also requests an update to the Energy Efficiency Adjustment Rider to \$0.00114 on customer's bills. The next status report will be filed on May 1, 2017, with the program subject to modifications as proposed and approved by the Commission at that time.

**Otter Tail Power Company
South Dakota Energy Efficiency Program 2015 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, 2015, through December 31, 2015, 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. This filing is the seventh Status Report provided to the South Dakota Public Utilities Commission (Commission, SDPUC) and summarizes the results of the seventh full year of EEP activity since the Program's inception.

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 May 1, 2013, Otter Tail requested approval of its 2014-2015 EEP, Docket no. EL13-016.
- On June 24, 2013, Otter Tail resubmitted its 2014-2015 EEP. The revised EEP plan reflected avoided costs based on a summer peak, which is consistent with the Midcontinent Independent System Operator (MISO) region. All tables and benefit/cost test were updated to reflect Otter Tail's capacity resource needs based on summer peak.
- At the November 5, 2013 SDPUC meeting, the Commission voted unanimously to approve Otter Tail's proposed EEP for 2014-2015.
- At the December 3, 2013 SDPUC meeting, the Commission voted unanimously to reconsider the 30 percent over-budget provision within the 2014-2015 EEP. The majority of the SDPUC voted to amend the approval previously given in the Order by changing the 30 percent allowance to exceed the budget, to a 10 percent over budget allowance.

- At its July 7, 2015 SDPUC meeting, the Commission voted unanimously to approve Otter Tail’s 2014 financial incentive allowance of \$105,445; revise its EEP tariff rate and effective date; and to extend its 2014-15 Energy Efficiency Plan, and annual budgets therein, through 2016.

Overview

Overall results for the 2015 South Dakota EEP Program show the Company achieved 378 percent of projected participation goals, 151 percent of projected energy savings goals, and 141 percent of projected demand savings while maintaining spending at 105 percent of the budget.

Summary of Budget to Actuals – 2015			
	Budget	Actual Results	% of Budget
Expenses All Programs	\$353,000	\$371,902	105%
Participation	904	3,413	378%
Energy Savings - kWh	2,808,649	4,239,371	151%
Demand Savings - kW	409.120	575.481	141%

The Company’s 2015 EEP achieved significant energy and demand savings, stayed within allowed budget, 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 2015 South Dakota EEP goals and budgets are listed in Appendix A, Tables 1 through 3, along with actual results for 2015.

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 2015, Otter Tail controlled air conditioning on 24 separate occasions for a total of 39 hours and 16 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 January, March, June, and December of 2015.
- Television and radio campaign conducted in conjunction with other company promotions.
- Customer care booklet that is sent to all new customers.
- Home page hero spots in April and May on www.otpco.com.
- Presentations and literature distribution at workshops.
- Annual and monthly service rep training.
- Brochures available in customer service center lobbies and by request.
- 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 2016 EEP. Equipment efficiency levels will be extended through 2016.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Air Conditioning Control	Actual	Proposed	% of Goal
Participation	29	30	97%
Budget \$	\$7,772	\$14,000	56%

Evaluation Methodology

Otter Tail analyzed a sample of air conditioning control customer's interval data to estimate energy savings. Otter Tail examined the interval data prior to load-control, during load-control, and for several hours post load-control to establish estimated savings.

Energy Savings & Adjustments

Air conditioning control per participant produces energy savings of approximately 48 kWh per household, and impacts summer peak demand by approximately 0.71 kW at the generator.

Air Conditioning Control	Actual Savings at the Generator	Budgeted Savings at the Generator	% of Budget
Energy Savings – kWh	1,399	1,448	97%
Demand Savings – kW Summer Coincident Peak	20.602	21.310	97%

AIR SOURCE HEAT PUMPS (Residential)

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 2015, 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 = 8.2	> or = 14.5	12.0
Package Terminal			> or = 11.0

Otter Tail Power Company promotes energy efficient heat pumps through the following resources:

- *Programs and Services Guide* sent to contractors.
- Brochures available in customer service center lobbies and by request.
- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- Training material covered with service representatives in annual and monthly training.
- Bill messages included on customer monthly service statements.
- Bill inserts featuring heat pump efficiency and rebates.
- Program, rate, and rebate descriptions on the Company's web site www.otpc.com.

This Program has been approved for continuation in the 2016 EEP. Equipment efficiency levels will be extended through 2016.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Air Source Heat Pumps (R)	Actual	Proposed	% of Goal
Participation	17	25	68%
Budget \$	\$9,102	\$19,000	48%

Evaluation Methodology

Energy savings estimates from the State of Minnesota’s Division of Energy Resources Technical Reference Manual (MN TRM) are used for cooling energy savings assumptions. The Company’s engineering estimates are used to determine energy savings for heating for each air source heat pump system installed.

Energy Savings & Adjustments

The 2015 average annual energy savings at the generator are 9,100 kWh per unit, with summer peak demand savings of 0.26 kW per unit installed. Average size units installed in 2015 was 2.6 tons.

Air Source Heat Pumps (R)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Budget
Energy Savings – kWh	154,705	222,277	70%
Demand Savings – kW Summer Coincident Peak	4.392	6.460	68%

GEOTHERMAL HEAT PUMPS (Residential)

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 2015, units were required to meet Energy Star qualifications listed in the chart below.

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 heat pumps using the following promotional resources:

- *Programs and Services Guide* sent to contractors.
- Brochures available in customer service center lobbies and by request.
- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- Training material covered with service representatives in annual and monthly training.
- Bill messages included on customer monthly service statements.
- Promotional bill inserts about heat pump efficiency and rebates.
- Program, rate, and rebate descriptions within the Company’s web site at www.otpco.com.

This Program has been approved for continuation in the 2016 EEP. Required COP levels are the same for 2016.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Geothermal Heat Pumps (R)	Actual	Proposed	% of Goal
Participation	6	10	60%
Budget \$	\$11,580	\$23,000	50%

Evaluation Methodology

Engineering estimates are used to determine energy savings from each geothermal heat pump system installed.

Energy Savings & Adjustments

On average, the 2015 energy savings at the generator is 21,423 kWh per unit, with summer peak demand savings of 1.74 kW for the seven units installed. Average size unit installed in 2015 was 4.7 tons.

Geothermal Heat Pumps (R)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Budget
Energy Savings – kWh	128,540	206,583	62%
Demand Savings – kW Summer Coincident Peak	10.463	17.440	60%

LIGHTING (Residential)

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 the following efficient technologies: screw-in compact fluorescent; fluorescent fixtures with T-8 and T-5 lamps and various electronic ballast configurations; and LED lighting. To further promote energy efficient lighting, Otter Tail offered ten free CFLs to each of its South Dakota residential customer accounts through a special one-day campaign. On September 1, 2015, the Company promoted this offer via radio stations in the Milbank area. Customers were required to bring in a copy of their current bill to receive ten free bulbs. 598 CFL bulbs were given away to 63 customers through this promotion.

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

- Presentations and literature distribution at Builder, Electrical and Electric Technologies Workshops for contractors.
- *Programs and Services Guide* sent to contractors.
- Program, technology, and rebate information available on the Company's web site at www.otpc.com.
- Bill inserts promoting EEP program opportunities for South Dakota customers.
- Radio promotion in September for free CFL bulb give away.

This Program has been approved for continuation in the Company's 2016 Plan.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Lighting (R)	Actual	Proposed	% of Goal
Participation	651	340	191%
Budget \$	\$8,603	\$4,000	215%

Evaluation Methodology

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

The Company has documented all existing lighting wattage that is removed at each site and compared that to the actual energy efficient lighting wattage being installed to calculate energy savings.

Energy Savings & Adjustments

For retrofit lighting, lighting systems being installed are compared with systems being removed to determine the change in wattage.

Lighting (R)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	96,292	24,098	400%
Demand Savings – kW Summer Coincident Peak	3.660	2.160	169%

DIRECT IMPACT – COMMERCIAL

AIR SOURCE HEAT PUMPS (Commercial)

The Air Source Heat Pump Program targets commercial 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 2015, Otter Tail relied on Energy Star qualifications as the minimum equipment efficiency requirement for this program:

Energy Star – ASHP	HSPF	SEER	EER
Split System	> or = 8.2	> or = 14.5	12.0
Package Terminal			> or= 11.0

Otter Tail promotes energy efficient heat pumps using various resources:

- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- *Programs and Services Guide* sent to contractors.
- Brochures available in customer service center lobbies and by request.
- Bill messages included on customer statements.
- Bill inserts about heat pump efficiency and rebates.
- Training material covered with service representatives in annual and monthly training.
- Program, rate, and rebate descriptions within the Company’s web site at www.otpc.com.

This Program has been approved for continuation in the 2016 EEP. Equipment efficiency specification levels will be extended through 2016.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Air Source Heat Pumps (C)	Actual	Proposed	% of Goal
Participation	14	15	93%
Budget \$	\$11,417	\$13,000	88%

Evaluation Methodology

Engineering estimates from the MN TRM are used for cooling energy savings assumptions. The Company's engineering estimates are used to determine heating energy savings assumptions.

Energy Savings & Adjustments

Annual energy savings on average at the generator in 2015 are 13,915 kWh with summer peak demand savings of 0.26 kW per unit installed. The average size unit installed was 4 tons.

Air Source Heat Pumps (C)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	194,811	134,044	145%
Demand Savings – kW Summer Coincident Peak	3.617	3.880	93%

CUSTOM EFFICIENCY PROGRAM

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.

Efficiency Custom Projects Type of System Installation	Quantity
Custom Efficiency Program projects	0

Prior to Otter Tail developing a prescriptive incentive for adjustable speed drive (ASD) technology in the EEP Drive Power program, Otter Tail offered incentives for ASD installations through the Custom Efficiency Program. Customers and equipment installers alike have come to appreciate the more efficient ASD incentive process offered through the prescriptive Drive Power program. This process has subsequently reduced participation in the Custom Efficiency Program for ASD installations. Otter Tail looks forward to working with customers interested in other Custom Efficiency Projects such as building envelope upgrades and process improvements in the future.

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

- Presentations and literature distribution at Builder and Electrical Workshops

- for contractors.
- *Programs and Services Guide* available 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.otpc.com.
- EEP bill inserts for South Dakota customers.

This Program has been approved for continuation in the Company's 2016 Plan.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Custom Efficiency	Actual	Proposed	% of Goal
Participation	0	5	0%
Budget \$	\$8,794	\$71,000	12%

Evaluation Methodology

The information required to calculate savings estimates for projects in the Custom Efficiency Program come from the customer, third party engineers, and/or contractors. In cases where the customer provides savings estimates, the Company verifies the feasibility of the proposed savings, and, if necessary, makes modifications to the analysis. In most cases, Otter Tail offers assistance to its commercial and industrial customers to help determine energy and demand savings required to develop a Custom Efficiency Program proposal.

Energy Savings & Adjustments

Energy savings are based on custom efficiency proposals and reviewed and verified by Otter Tail engineering staff.

Custom Efficiency Program	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	0	968,760	0%
Demand Savings – kW Summer Coincident Peak	0	134.550	0%

Lack of participation in the Custom Efficiency Program in 2016 resulted in no reportable energy or coincident peak demand savings for the year. Relatively low participation is inherent to this program as more prescriptive programs become available to commercial

and industrial customers and the need to participate in the Custom Efficiency Program declines. However, one or two large industrial projects can significantly influence results. The Company is optimistic about exploring custom efficiency opportunities with large commercial and industrial customers and continuing the program through 2016.

DRIVE POWER

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:

- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- *Programs and Services Guide* available 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.otpc.com.
- EEP bill inserts for South Dakota customers.

This Program has been approved as the Drive Power program for continuation in the Company’s 2016 Plan.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Drive Power	Actual	Proposed	% of Goal
Participation	79	31	255%
Budget \$	\$173,902	\$63,000	276%

To ensure adequate rebate dollars are available for all customers, Otter Tail has a rule that no single customer can receive rebate dollars that exceed twenty percent of the overall EEP budget. For 2015, the maximum rebate at twenty percent of the \$353,000 budget is \$70,600.

In 2014, one customer had a very large Drive Power project that qualified for rebates in excess of forty percent of budget. Due to the nature of these large capital intensive projects being infrequent, Otter Tail developed a plan to pay the customer twenty percent of the budget in 2014 and an additional twenty percent of budget in 2015. Since there

were adequate dollars in the budget at the end of 2015, Otter Tail paid additional rebate dollars to the customer for the qualifying equipment in 2015. Otter Tail also claimed the second half of the project's kWh and kW savings in 2015.

This plan ensures all customers can participate in EEP including those with infrequent, large capital intensive projects. The plan also provides the majority of the budget to be available for other EEP participants. Otter Tail recognizes that large projects like the one included in 2014/2015 are very important to the EEP plan. Industrial customers typically pay a large portion of EEP costs through the EEP surcharge making it necessary to provide them with the ability to participate in the program. The large energy savings from projects like this are especially important at reducing energy costs for all South Dakota customers.

Prior to implementing this plan in 2014, Otter Tail discussed it with SDPUC Staff. SDPUC Staff indicated that Otter Tail should explain how it handled these larger projects through Status Reports. Consistent with its 2014 EEP Status Report, Otter Tail has explained this project here.

Otter Tail also referred to this rule in Docket no. EL13-016, question no. SD-PUC-01-07. Otter Tail stated, "...no single customer will be paid more than 20 percent of the South Dakota EEP total budget in a single year unless approved by Otter Tail management."

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.

Energy Savings & Adjustments

Engineering estimates from the MN TRM and the Company's engineering estimates are being used to calculate impact savings in the Drive Power program. 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.

Drive Power	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	2,779,026	482,713	576%
Demand Savings – kW Summer Coincident Peak	387.947	104.760	370%

GEOHERMAL HEAT PUMPS (Commercial)

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 2015, 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	

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

- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- *Programs and Services Guide* available to contractors.
- Brochures available in customer service center lobbies and by request.
- Bill messages included on customer statements.
- Bill inserts about heat pump efficiency and rebates.
- Training material covered with service representatives in annual and monthly training.
- Program, rate, and rebates described within the Company’s web site at www.otpc.com.

This Program has been approved for continuation in the 2016 EEP. Equipment efficiency levels will be extended through 2016.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Geothermal Heat Pumps (C)	Actual	Proposed	% of Goal
Participation	4	25	16%
Budget \$	\$44,482	\$57,000	78%

Evaluation Methodology

Engineering estimates are used to determine energy savings from each geothermal heat pump system installed.

Energy Savings & Adjustments

The 2015 average annual energy savings at the generator is 128,074 kilowatt-hours, with summer peak demand savings of 1.74 kW per unit installed. The average unit size was 27.5 tons in 2015.

Geothermal Heat Pumps (C)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	512,295	523,938	98%
Demand Savings – kW Summer Coincident Peak	40.0876	43.590	94%

LIGHTING (Commercial)

The Lighting Program provides rebates to commercial and industrial customers for retrofit installations of energy-efficient lighting technologies. Possible measures implemented by customers include retrofits from inefficient incandescent, high intensity discharge, and linear fluorescent lighting systems to the following efficient technologies: screw-in compact fluorescent; fluorescent fixtures with T-8 and T-5 lamps and various electronic ballast configurations; and LED lighting systems. The 2015 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:

- Presentations and literature distribution at Builder and Electrical Workshops for contractors.
- *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.otpc.com.
- EEP bill inserts for South Dakota customers.

This Program has been approved for continuation in the Company's 2016 Plan.

Participation & Budget

PARTICIPATION AND BUDGET – 2015			
Lighting (C)	Actual	Proposed	% of Goal
Participation	22	23	96%
Budget \$	\$61,099	\$54,000	113%

Evaluation Methodology

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

The Company has documented all existing lighting wattage that is removed at each site, and compared that 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.

Energy Savings & Adjustments

For retrofit lighting, lighting systems being installed are compared with systems being removed to determine the change in wattage. The hours of operation are multiplied by the watts to determine energy savings. Company personnel conduct verification of retrofit projects as needed.

Lighting (C)	Actual Savings at the Generator	Proposed Savings at the Generator	% of Goal
Energy Savings – kWh	372,303	244,790	152%
Demand Savings – kW Summer Coincident Peak	103.925	74.970	139%

INDIRECT IMPACT

ADVERTISING & EDUCATION (Residential)

The residential Advertising & Education Program for 2015 includes:

- Educational outreach to South Dakota school children in grades four through six.
- General advertisement of energy efficiency program opportunities through bill inserts and newsletters.
- Promotion and education about energy efficient technologies through resources posted on the company website www.otpco.com.

The educational outreach program was operated by the Minnesota Science Museum through a contract with Otter Tail Power Company and provided an energy-focused lyceum, *Energy Connections*, during April 2015 schools located in the company's South Dakota service territory. The 50-minute assembly focuses on the science of energy and energy conservation. Through demonstrations and audience participation using unique equipment displays, students are encouraged to use energy wisely. *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 is offered to schools for free on a first-come, first-served basis for those schools that respond to the invitation. During 2015, five assemblies were conducted reaching 264 students.

The general advertisement component of the Advertising and Education program included support for developing and producing bill inserts that promote the EEP program portfolio, including the heat pump, lighting, and Drive Power rebates, and the CoolSavings air conditioning cycling program.

Online resources available to South Dakota customers include website pages detailing EEP programs offered, YouTube videos demonstrating how to make energy efficient repairs to homes, and access to the Home Energy Analyzer (HEA) tool that helps residential customers analyze their energy use and identify ways to reduce energy use. Calculation of website page visits and YouTube video views by South Dakota customers is estimated at ten percent of overall unique visits to energy efficiency topic pages. In addition, visits to South Dakota EEP program specific pages are counted. During 2015, an estimate 2,227 page views and YouTube video view were accessed by South Dakota customers. The Home Energy Analyzer tool was accessed by 100 South Dakota customers.

This Program has been approved for continuation in 2016.

Participation & Budget

SD 2015 A&E Detailed Participation	
Science Museum School Tour	264
Website page and video views	2,227
Home Energy Analyzer	100
Total	2,591

PARTICIPATION AND BUDGET – 2015			
Advertising and Education	Actual	Proposed	% of Goal
Participation	2,591	400	648%
Budget \$	\$12,843	\$10,000	128%

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 – 2015			
EEP Development	Actual	Proposed	% of Goal
Participation	N/A	N/A	N/A
Budget \$	\$22,307	\$25,000	89%

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 \$371,902 in 2015. The approved budget for 2015 was \$353,000. The maximum incentive that can be awarded is 30 percent of \$353,000, or \$105,900. Total net benefits provided to South Dakota customers by 2015 EEP projects was \$3,975,392. **The proposed incentive is only 2.66 percent of net benefits provided by the program.**

Otter Tail requests approval of a financial incentive of \$105,900 as calculated and shown in Appendix A, Table 4.

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, 2014. 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 \$0.00152/kWh. Otter Tail proposes changing the EEP factor to \$0.00114. Appendix A, Table 6 presents the EEP tracker account balances for year-end 2015 and projections for 2016 through June 2017. When including the financial incentive amount of \$105,900 in the tracker, carrying charges, and approval to increase the EEP factor, Otter Tail forecasts the tracker balance to be approximately \$0 on July 1, 2017. 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 2016 - June 2016	July 2016 - May 2017
Beginning Balance	\$77,456	(\$55,545)
Carrying Charges	\$1,075	(\$521)
EEP Program Expenses	\$196,575	\$424,233
EEP Incentive Proposed	\$0	\$105,900
EEP Rider Revenue	(\$330,651)	(\$474,067)
Ending Balance	(\$55,545)	\$0
EEP Factor	\$0.00152/kWh	\$0.00114/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, 2016 effective date (Appendix B: Energy Efficiency Adjustment Rider). The EEP cost recovery rider included in this filing reflects the proposed EEP factor of \$0.00114/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.

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.