

**TO:** COMMISSIONERS AND ADVISORS  
**FROM:** ERIC PAULSON AND AMANDA REISS (STAFF)  
**SUBJECT:** EL20-016 STAFF RECOMMENDATION  
**DATE:** JUNE 17, 2020

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STAFF MEMORANDUM

**OVERVIEW**

With this filing, Otter Tail Power (OTP) submitted its Energy Efficiency Plan (EEP) results for the 2019 calendar year. Further, the company requests approval of a \$209,700 financial incentive for 2019 and supports this request with its 2019 EEP status report and other supporting documentation and tables. The company also requests the commission approve the updated Energy Efficiency Adjustment Factor of \$0.00195/kWh.

**DISCUSSION**

2019 Budget vs. Actuals

Results for the 2019 EEP budgets to actuals are provided in the tables below. Tables 1 and 2 show the results for the residential programs and commercial programs. Actual spending for the residential programs was 65 percent of the approved budget and was 109 percent of the approved budget for commercial programs. Notably, the commercial air source heat pumps, drive power, and lighting programs were over budget \$16,473, \$161,263, and \$95,895 respectively. The overspend in the commercial air source heat pumps, drive power, and lighting programs were partially offset with a \$26,512 underspend in the residential programs and a \$219,284 underspend in the remaining commercial programs.

<b>Table 1. 2019 Residential Program Budget</b>			
<b>Program</b>	<b>B</b>	<b>A</b>	<b>V</b>
AC Control	\$ 14,000	\$ 3,476	25%
Air Source Heat Pumps	\$ 20,000	\$ 31,804	159%
Geothermal Heat Pumps	\$ 30,000	\$ 9,028	30%
Lighting	\$ 11,000	\$ 4,180	38%
<b>Total Residential</b>	<b>\$ 75,000</b>	<b>\$ 48,488</b>	<b>65%</b>

<b>Table 2. 2019 Commercial Program Budget</b>			
<b>Program</b>	<b>B</b>	<b>A</b>	<b>V</b>
Air Source Heat Pumps	\$ 18,000	\$ 34,473	192%
Custom Efficiency Projects	\$ 168,000	\$ 21,716	13%
Drive Power	\$ 201,000	\$ 362,263	180%
Geothermal Heat Pumps	\$ 73,000	\$ -	0%
Lighting	\$ 127,000	\$ 222,895	176%
<b>Total Commercial</b>	<b>\$ 587,000</b>	<b>\$ 641,347</b>	<b>109%</b>

Table 3 shows the results for the entire EEP. Overall, the EEP came in slightly over budget; however, it should be noted that actual expenses remained within the maximum spending cap set at 110% of the budget.<sup>1</sup>

<b>Table 3. 2019 Total EEP Budget</b>			
<b>Program</b>	<b>B</b>	<b>A</b>	<b>V</b>
Total Residential	\$ 75,000	\$ 48,488	65%
Total Commercial	\$ 587,000	\$ 641,347	109%
Advertising and Education	\$ 12,000	\$ 13,667	114%
EEP Development	\$ 25,000	\$ 12,482	50%
<b>Total EEP</b>	<b>\$ 699,000</b>	<b>\$ 715,984</b>	<b>102%</b>

#### 2019 Energy Savings

Table 4 provides the energy savings OTP's EEP produced in 2019. Overall, the EEP achieved energy savings of 13,217,098 kWh for the year. This was 119% of the energy savings planned to be achieved for the year. Driving the energy savings achieved in 2019 were the Residential Air Source Heat Pumps, Residential Lighting, Commercial Drive Power, and Commercial Lighting programs.

<sup>1</sup> See Order Approving South Dakota Energy Efficiency Plan for 2017-19: Docket EL16-020

<b>Program</b>	<b>B</b>	<b>A</b>	<b>V</b>
Res - AC Control	20,498	19,940	97%
Res - Air Source Heat Pumps	298,204	481,523	161%
Res - Geothermal Heat Pumps	321,779	103,046	32%
Res - Lighting	33,209	83,472	251%
<b>Total Residential</b>	<b>673,690</b>	<b>687,980</b>	<b>102%</b>
Com - Air Source Heat Pumps	291,112	123,974	43%
Com - Custom Efficiency Projects	4,274,737	318,012	7%
Com - Drive Power	4,207,940	7,779,015	185%
Com - Geothermal Heat Pumps	730,265	0	0%
Com - Lighting	957,826	4,308,116	450%
<b>Total Commercial</b>	<b>10,461,880</b>	<b>12,529,117</b>	<b>120%</b>
Advertising and Education	-	-	-
EEP Development	-	-	-
<b>Total EEP</b>	<b>11,135,570</b>	<b>13,217,098</b>	<b>119%</b>

### 2019 Benefit/Cost Tests

Table 5 provides the results from the 2019 benefit-cost test results. All programs, with the exception of the Commercial Air Source Heat Pumps, passed the Total Resource Cost (TRC) test during the year. The total TRC test for the EEP was 4.57. This is the first time the Commercial Air Source Heat Pumps has been below 1.0 for a TRC score under this plan and at this time Staff doesn't have a concern with the low score but if it continues into the next plan year further considerations regarding the program will need to be looked at.

<b>Program</b>	<b>TRC</b>	<b>RIM</b>	<b>PART</b>	<b>UTIL</b>	<b>SOC</b>
Res - AC Control	17.13	11.47	inf.	17.13	17.13
Res - Air Source Heat Pumps	2.04	0.59	5.33	10.12	2.93
Res - Geothermal Heat Pumps	1.90	0.73	3.91	9.53	2.72
Res - Lighting	52.43	0.58	3,335.52	11.39	71.10
<b>Total Residential</b>	<b>2.48</b>	<b>0.69</b>	<b>5.62</b>	<b>10.62</b>	<b>3.42</b>
Com - Air Source Heat Pumps	0.30	0.51	0.61	2.08	0.41
Com - Custom Efficiency Projects	2.45	1.31	2.27	9.14	3.13
Com - Drive Power	4.58	1.03	4.80	15.09	6.24
Com - Geothermal Heat Pumps	inf.	inf.	inf.	inf.	inf.
Com - Lighting	13.95	0.92	19.60	11.53	18.53
<b>Total Commercial</b>	<b>4.90</b>	<b>0.99</b>	<b>5.49</b>	<b>12.95</b>	<b>6.61</b>
Advertising and Education	-	-	-	-	-
EEP Development	-	-	-	-	-
<b>Total EEP</b>	<b>4.57</b>	<b>0.96</b>	<b>5.50</b>	<b>12.32</b>	<b>6.18</b>

2019 Financial Incentive

Otter Tail is awarded a financial incentive in order to compensate the company for lost revenues associated with energy savings derived from the EEP. The financial incentive is the lesser of: 1) 30% of the approved budget, or, 2) 30% of the actual spending. For 2019, 30% of the approved budget is \$209,700 and 30% of actual spending equaled \$214,795. Therefore, OTP is requesting approval for the lesser amount of \$209,700.

Energy Efficiency Adjustment Factor

Otter Tail requests that the Commission approve an increase to the Energy Efficiency Adjustment Factor from the current rate of \$0.00164/kWh to a new rate of \$0.00195/kWh. Table 6 provides the breakdown of the proposed rate. Table 7 provides the estimated monthly bill impact for a typical customer’s utility bill from the Energy Efficiency Adjustment Factor.

Description	Amount	Rate Impact
Tracker Account Under Recovery <sup>1</sup>	\$ 25,076	\$ 0.00005
2019 Financial Incentive	\$ 209,700	\$ 0.00043
Remainder of 2020 EEP Budget <sup>2</sup>	\$ 340,520	\$ 0.00071
Forecasted 2021 EEP Expenses <sup>3</sup>	\$ 358,480	\$ 0.00074
Forecasted Carrying Costs	\$ 8,119	\$ 0.00002
<b>Total</b>	<b>\$ 941,895</b>	<b>\$ 0.00195</b>

1) Forecasted at end of June 30, 2020

2) 2020 budget was approved by the Commission in Docket EL16-020. The dollars reflected here are OTP's forecasted spending for the remainder of the 2020 budget.

3) 2021 budget was approved by the Commission in Docket EL16-020. The dollars reflected here are OTP's forecasted spending through June 30, 2021.

Rate Class	2018 EEA Factor	Proposed EEA Factor	Difference	Average kWh/Bill	Estimated Monthly Bill Impact
Residential	0.00164	0.00195	0.00031	927	\$0.29
Farm	0.00164	0.00195	0.00031	1,730	\$0.54
General Service	0.00164	0.00195	0.00031	2,604	\$0.81
Large General Service	0.00164	0.00195	0.00031	274,707	\$85.16
Irrigation	0.00164	0.00195	0.00031	2,036	\$0.63
Outdoor Lighting	0.00164	0.00195	0.00031	79	\$0.02
Municipal Pumping	0.00164	0.00195	0.00031	2,870	\$0.89
Water Heating Control	0.00164	0.00195	0.00031	198	\$0.06
Interruptible Load	0.00164	0.00195	0.00031	1,777	\$0.55
Deferred Load	0.00164	0.00195	0.00031	2,159	\$0.67

## **STAFF RECOMMENDATION**

Staff makes the following recommendations:

- 1) Staff agrees with Otter Tail's calculation of the financial incentive and recommends that the commission approve a 2019 financial incentive of \$209,700;
- 2) Staff recommends the Commission approve the 2019 Energy Efficiency Plan Status Report; and
- 3) Staff recommends the Commission approve the proposed Energy Efficiency Adjustment Factor of \$0.00195/kWh with an effective date of July 1, 2020.