

TO: COMMISSIONERS AND ADVISORS
FROM: PATRICK STEFFENSEN AND KRISTEN EDWARDS
SUBJECT: EL21-015 STAFF RECOMMENDATION
DATE: JUNE 15, 2021

STAFF MEMORANDUM

OVERVIEW

With this filing, Otter Tail Power (Otter Tail) submitted its Energy Efficiency Plan (EEP) results for the 2020 calendar year. Further, the company requests approval of a \$209,700 financial incentive for 2020 and supports this request with its 2020 EEP status report and other supporting documentation and tables. The company also requests the Energy Efficiency Adjustment Factor remain at \$0.00195/kWh for July 2021 through June 2022.

DISCUSSION

2020 Budget vs. Actuals

Results for the 2020 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 176 percent of the approved budget and was 101 percent of the approved budget for commercial programs. Notably, the residential air source heat pumps were over budget by \$86,386 and the commercial air source heat pumps, drive power, geothermal heat pumps, and lighting programs were over budget by \$21,371; \$83,850; \$13,168; and \$25,708, respectively. The overspend in residential air source heat pumps and the commercial air source heat pumps, drive power, geothermal heat pumps, and lighting programs was partially offset with a \$29,014 underspend in the remaining residential programs and a \$135,826 underspend in the commercial custom efficiency program.

Table 1. 2020 Residential Program Budget			
Program	Budget	Actual	% of Goal
AC Control	\$ 14,000	\$ 5,883	42%
Air Source Heat Pumps	\$ 20,000	\$ 106,386	532%
Geothermal Heat Pumps	\$ 30,000	\$ 16,523	55%
Lighting	\$ 11,000	\$ 3,580	33%
Total Residential	\$ 75,000	\$ 132,372	176%

Table 2. 2020 Commercial Program Budget			
Program	Budget	Actual	% of Goal
Air Source Heat Pumps	\$ 18,000	\$ 39,371	219%
Custom Efficiency Projects	\$ 168,000	\$ 32,174	19%
Drive Power	\$ 201,000	\$ 284,850	142%
Geothermal Heat Pumps	\$ 73,000	\$ 86,168	118%
Lighting	\$ 127,000	\$ 152,708	120%
Total Commercial	\$ 587,000	\$ 595,271	101%

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

Table 3. 2020 Total EEP Budget			
Program	Budget	Actual	% of Goal
Total Residential	\$ 75,000	\$ 132,372	176%
Total Commercial	\$ 587,000	\$ 595,271	101%
Advertising and Education	\$ 12,000	\$ 10,142	85%
EEP Development	\$ 25,000	\$ 22,806	91%
Total EEP	\$ 699,000	\$ 760,591	109%

2020 Energy Savings

Table 4 provides the energy savings Otter Tail's EEP produced in 2020. Overall, the EEP achieved energy savings of 10,909,181 kWh for the year. This was 98% of the energy savings planned to be achieved for the year. Driving the energy savings achieved in 2020 were the Residential Air Source Heat Pumps, Residential Lighting, Commercial Drive Power, and Commercial Lighting programs.

¹ See Order Approving South Dakota Energy Efficiency Plan for 2017-19 and Order Approving Extension of South Dakota Energy Efficiency Plan: Docket EL16-020

Table 4. 2020 EEP Energy Savings (kWh)			
Program	Budget	Actual	% of Goal
Res - AC Control	20,126	19,940	99%
Res - Air Source Heat Pumps	298,204	692,612	232%
Res - Geothermal Heat Pumps	321,779	124,848	39%
Res - Lighting	33,209	56,903	171%
Total Residential	673,318	894,303	133%
Com - Air Source Heat Pumps	291,112	211,606	73%
Com - Custom Efficiency Projects	4,274,737	252,195	6%
Com - Drive Power	4,207,940	6,998,269	166%
Com - Geothermal Heat Pumps	730,265	585,153	80%
Com - Lighting	957,826	1,967,655	205%
Total Commercial	10,461,880	10,014,878	96%
Advertising and Education	-	-	-
EEP Development	-	-	-
Total EEP	11,135,198	10,909,181	98%

2020 Benefit/Cost Tests

Table 5 provides the results from the 2020 benefit-cost test results. All programs passed the Total Resource Cost (TRC) test during the year. The total TRC test for the EEP was 4.18.

Table 5. 2020 Benefit/Cost Tests					
Program	TRC	RIM	PART	UTIL	SOC
Res - AC Control	10.12	7.84	inf.	10.12	10.12
Res - Air Source Heat Pumps	2.34	0.54	6.86	4.27	3.37
Res - Geothermal Heat Pumps	1.47	0.76	2.90	6.81	2.09
Res - Lighting	13.81	0.50	70.47	7.95	18.73
Total Residential	2.35	0.62	5.98	4.94	3.28
Com - Air Source Heat Pumps	2.80	0.54	6.10	3.02	3.80
Com - Custom Efficiency Projects	2.42	1.21	2.38	5.94	3.16
Com - Drive Power	6.10	1.03	6.41	18.35	8.27
Com - Geothermal Heat Pumps	1.07	0.85	1.33	5.90	1.44
Com - Lighting	8.49	0.91	12.19	8.85	11.50
Total Commercial	4.58	0.98	5.17	12.43	6.20
Advertising and Education	-	-	-	-	-
EEP Development	-	-	-	-	-
Total EEP	4.18	0.94	5.28	10.59	5.67

2020 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 2020, 30% of the approved budget is \$209,700 and 30% of actual spending equaled \$228,177. Therefore, OTP is requesting approval for the lesser amount of \$209,700.

Energy Efficiency Adjustment Factor

Otter Tail requests the Energy Efficiency Adjustment Factor remain at the existing rate of \$0.00195/kWh for July 2021 through June 2022. This rate would be in place of the calculated rate of \$0.00212 that is based off the July 2021 through June 2022 projected revenue requirement of \$1,066,059 and projected sales of 501,732,125 kWh. Otter Tail claims in response to data request 1-16 this would increase the carrying charge by a projected \$2,797; however, the budget is projected to be lower in 2022 and 2023, causing a rate decrease. Thus, Otter Tail states this would provide for more stable rates for its customers. Table 6 provides the breakdown of the calculated rate of \$0.00212. Table 7 provides the estimated monthly bill impact for a typical customer's utility bill from the Energy Efficiency Adjustment Factor if the rate was increased to the calculated rate.

Description	Amount	Rate Impact
Tracker Account Under Recovery ¹	\$ 221,577	\$ 0.00044
2020 Financial Incentive	\$ 209,700	\$ 0.00042
Remainder of 2021 EEP Budget ²	\$ 284,388	\$ 0.00057
Forecasted 2022 EEP Expenses ³	\$ 332,350	\$ 0.00066
Forecasted Carrying Costs	\$ 18,044	\$ 0.00004
Total	\$ 1,066,059	\$ 0.00212

1) Forecasted at end of June 30, 2021

2) 2021 budget was approved by the Commission in Docket EL20-022. The dollars reflected here are Otter Tail's forecasted spending for the remainder of the 2021 budget.

3) 2022 budget was approved by the Commission in Docket EL20-022. The dollars reflected here are Otter Tail's forecasted spending through June 30, 2022.

Table 7. 2021-22 Estimated Monthly Bill Increase¹ from Current Rates					
Rate Class	Current EEA Factor	Calculated EEA Factor	Difference	Average kWh/Bill	Estimated Monthly Bill Impact
Residential	0.00195	0.00212	0.00017	927	\$0.16
Farm	0.00195	0.00212	0.00017	1,730	\$0.29
General Service	0.00195	0.00212	0.00017	2,604	\$0.44
Large General Service	0.00195	0.00212	0.00017	274,707	\$46.70
Irrigation	0.00195	0.00212	0.00017	2,036	\$0.35
Outdoor Lighting	0.00195	0.00212	0.00017	79	\$0.01
Municipal Pumping	0.00195	0.00212	0.00017	2,870	\$0.49
Water Heating Control	0.00195	0.00212	0.00017	198	\$0.03
Interruptible Load	0.00195	0.00212	0.00017	1,777	\$0.30
Deferred Load	0.00195	0.00212	0.00017	2,159	\$0.37

1) Otter Tail proposes the rate remain at \$0.00195

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 2020 financial incentive of \$209,700,
- 2) Staff recommends the Commission approve the 2020 Energy Efficiency Plan Status Report, and
- 3) Staff recommends the Commission approve Otter Tail's request that the Energy Efficiency Adjustment Factor remain at \$0.00195/kWh for July 2021 through June 2022.