
STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS
FROM: JOSEPH REZAC AND AMANDA REISS
RE: EL23-012 - In the Matter of Otter Tail Power Company’s 2022 South Dakota Energy Efficiency Plan Status Report and 2023 Annual Filing to Update the Energy Efficiency Adjustment Rider
DATE: June 1, 2023

OVERVIEW

With this filing, Otter Tail Power Company (Otter Tail) submitted its Energy Efficiency Plan (EEP) results for the 2022 calendar year. Further, Otter Tail requests approval of a \$157,500 financial incentive for 2022 and supports this request with its 2022 EEP status report and other supporting documentation and tables. Otter Tail also requests the Energy Efficiency Adjustment Factor be set at \$0.00160/kWh for July 2023 through June 2024.

DISCUSSION

2022 Budget vs. Actuals

Results for the 2022 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 80% percent of the approved budget and was 124% percent of the approved budget for commercial programs. Notably, the residential heat pumps were over budget by \$17,252, the commercial heat pumps were over budget by \$72,389 and the commercial lighting was over budget by \$62,962. The overspend in those programs were offset with an underspending in other programs including the discontinuation of the appliance recycling program ordered last year in EL22-011.

Table 1. 2022 Residential Program Budget			
Program	B	A	V
AC Control	\$ 12,000	\$ 4,285	36%
Appliance Recycling	\$ 28,000	\$ 6,515	23%
Home Lighting	\$ 35,000	\$ 26,187	75%
Residential Heat Pumps	\$ 91,000	\$ 108,252	119%
Smart Thermostats	\$ 17,000	\$ 1,933	11%
Total Residential	\$ 183,000	\$ 147,172	80%

Table 2. 2022 Commercial Program Budget			
Program	B	A	V
Direct Install	\$ 26,000	\$ 630	2%
Commercial Heat Pumps	\$ 45,000	\$ 117,389	261%
Commercial Lighting	\$ 110,000	\$ 172,962	157%
Custom Energy Efficiency Projects	\$ 42,000	\$ 1,601	4%
Drive Power	\$ 69,000	\$ 68,899	100%
Total Commercial	\$ 292,000	\$ 361,481	124%

Table 3 shows the results for the entire EEP. Overall, the EEP came in slightly over budget; it should be noted that actual expenses remained within the maximum spending cap set at 110% of the budget.¹ Otter Tail continues to put forth an overall cost-effective effort for program participants and its customers.

Table 3. 2022 Total EEP Budget			
Program	B	A	V
Total Residential	\$ 183,000	\$ 147,172	80%
Total Commercial	\$ 292,000	\$ 361,481	124%
Advertising and Education	\$ 35,000	\$ 12,359	35%
EEP Development	\$ 15,000	\$ 4,873	32%
Total EEP	\$ 525,000	\$ 525,885	100%

2022 Energy Savings

Table 4 provides the energy savings Otter Tail's EEP produced in 2022. Overall, the EEP achieved energy savings of 6,067,575 kWh for the year. This was 130% of the energy savings planned to be achieved for the year. Driving the energy savings achieved in 2022 were the Residential Air Source Heat Pumps, Commercial Lighting, and Commercial Drive Power programs.

¹ See Order Approving South Dakota Energy Efficiency Plan for 2021-2023: Docket EL20-022

Program	B	A	V
Res - AC Control	9,006	8,137	90%
Res - Appliance Recycling	97,307	2,994	3%
Res - Home Lighting	295,269	182,761	62%
Res - Heat Pumps	384,572	907,511	236%
Res - Smart Thermostats	48,020	11,154	23%
Total Residential	834,174	1,112,557	133%
Com - Direct Install	243,985	0	0%
Com - Heat Pumps	223,355	646,183	289%
Com - Lighting	1,159,616	3,038,239	262%
Com - Custom Energy Efficiency Projects	604,106	0	0%
Com - Drive Power	1,604,366	1,270,597	79%
Total Commercial	3,835,428	4,955,019	129%
Advertising and Education	-	-	-
EEP Development	-	-	-
Total EEP	4,669,602	6,067,576	130%

2022 Benefit/Cost Tests

Table 5 provides the results from the 2022 benefit-cost test results. All programs with the exception of the discontinued Residential Appliance Recycling passed the Total Resource Cost (TRC) test during the year. The total TRC test for the EEP was 3.67.

Program	TRC	RIM	PART	UTIL	SOC
Res - AC Control	3.62	3.04	inf.	3.62	3.62
Res - Appliance Recycling	0.17	0.13	inf.	0.16	0.19
Res - Home Lighting	1.56	0.50	4.69	4.07	2.06
Res - Heat Pumps	1.64	0.47	4.61	4.97	2.26
Res - Smart Thermostats	1.24	0.38	4.62	1.24	1.48
Total Residential	1.62	0.48	4.63	4.52	2.20
Com - Direct Install	0.00	0.00	inf.	0.00	0.00
Com - Heat Pumps	2.95	0.58	5.20	2.95	3.80
Com - Lighting	12.69	0.74	17.80	9.30	16.49
Com - Custom Energy Efficiency Projects	0.00	0.00	inf.	0.00	0.00
Com - Drive Power	3.01	0.76	4.00	9.81	3.90
Total Commercial	5.57	0.72	7.97	7.28	7.23
Advertising and Education	-	-	-	-	-
EEP Development	-	-	-	-	-
Total EEP	3.67	0.65	6.45	6.27	4.80

2022 Financial Incentive

Otter Tail is awarded a financial incentive in order to compensate Otter Tail 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 2022, 30% of the approved budget is \$157,500 and 30% of actual spending equaled \$157,765. Therefore, Otter Tail is requesting approval for the lesser amount of \$157,500.

Energy Efficiency Adjustment Factor

Otter Tail requests the Energy Efficiency Adjustment Factor be lowered to \$0.00160/kWh for July 2023 through June 2024. Previous annual filings requested the factor be held constant based on the reduction of budgets as we move into 2023. These lower budgets have now come into play and the rate can be calculated to fully recover the carryover balance that has existed in previous annual filings. The calculated rate of \$0.00160/kWh is based on the projected revenue requirement of \$822,566 and projected sales of 508,903,758 kWh. Otter Tail believes the rate will trend slightly down in July 2024 due to the forecasted revenues collected from the rider. Table 6 provides the estimated monthly bill impact for a typical customer’s bill as a result of the proposed lower Energy Efficiency Adjustment Factor.

Table 6. 2023-24 Estimated Monthly Bill Decrease from Current Rates					
Rate Class	Current EEA Factor	Calculated EEA Factor	Difference	Average kWh/Bill	Estimated Monthly Bill Impact
Residential	0.00195	0.00160	-0.00035	927	(\$0.32)
Farm	0.00195	0.00160	-0.00035	1,730	(\$0.61)
General Service	0.00195	0.00160	-0.00035	2,604	(\$0.91)
Large General Service	0.00195	0.00160	-0.00035	274,707	(\$96.15)
Irrigation	0.00195	0.00160	-0.00035	2,036	(\$0.71)
Outdoor Lighting	0.00195	0.00160	-0.00035	79	(\$0.03)
Municipal Pumping	0.00195	0.00160	-0.00035	2,870	(\$1.00)
Water Heating Control	0.00195	0.00160	-0.00035	198	(\$0.07)
Interruptible Load	0.00195	0.00160	-0.00035	1,777	(\$0.62)
Deferred Load	0.00195	0.00160	-0.00035	2,159	(\$0.76)

1) Otter Tail proposes the rate be lowered to \$0.00160

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 2022 financial incentive of \$157,500,
- 2) Staff recommends the Commission approve the 2022 Energy Efficiency Plan Status Report, and
- 3) Staff recommends the Commission approve Otter Tails request that the Energy Efficiency Adjustment Factor of \$0.00160/kWh for July 2023 through June 2024.