STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS
FROM: PATRICK STEFFENSEN AND LOGAN SCHAEFBAUER
RE: EL25-021 - In the Matter of Otter Tail Power Company's 2024 South Dakota Energy Efficiency Plan Status Report and 2025 Annual Filing to Update the Energy Efficiency Adjustment Rider
DATE: June 11, 2025

OVERVIEW

With this filing, Otter Tail Power Company (Otter Tail) submitted its Energy Efficiency Plan (EEP) results for the 2024 calendar year. Further, Otter Tail requests approval of a \$195,000 financial incentive for 2024 and supports this request with its 2024 EEP status report and other supporting documentation and tables. Otter Tail also requests the Energy Efficiency Adjustment Factor be set at \$0.00187/kWh for July 2025 through June 2026.

DISCUSSION

2024 Budget vs. Actuals

Results for the 2024 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 was 77% percent of the approved budget for the residential programs and 115% percent of the approved budget for the commercial programs. Notably, the commercial drive power program was over budget by \$184,578 due to the participation of two large industrial customers. These two customers, one with a multi-million-dollar factory expansion and one with a large renovation project, accounted for approximately \$236,000 in rebates and over 11 million in kWh savings for the commercial drive power program. The overspend in the commercial drive power program was mostly offset with a \$39,368 underspend in the residential heat pump program, \$47,976 underspend in the commercial lighting program, a \$50,524 underspend in the commercial custom energy efficiency projects, and underspending in other programs.

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Table 1. 2024 Residential Program Budget							
Program		B A			V		
AC Control	\$	8,250	\$	4,325	52%		
Home Lighting	\$	25,750	\$	29,460	114%		
Residential Heat Pumps	\$	153,000	\$	113,632	74%		
Smart Thermostats	\$	8,000	\$	1,938	24%		
Total Residential	\$	195,000	\$	149,355	77%		

Table 2. 2024 Commercial Program Budget							
Program		В		А	V		
Direct Install	\$	13,000	\$	10,682	82%		
Commercial Heat Pumps	\$	132,000	\$	107,255	81%		
Commercial Lighting	\$	115,000	\$	67,024	58%		
Custom Energy Efficiency Projects	\$	59 <i>,</i> 000	\$	8,476	14%		
Drive Power	\$	80,000	\$	264,578	331%		
Total Commercial	\$	399,000	\$	458,016	115%		

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.¹ Otter Tail continues to put forth an overall cost-effective effort for program participants and its customers.

Table 3. 2024 Total EEP Budget							
Program	B A V			V			
Total Residential	\$	195,000	\$	149,355	77%		
Total Commercial	\$	399,000	\$	458,016	115%		
Advertising and Education	\$	41,000	\$	32,241	79%		
EEP Development	\$	15,000	\$	14,650	98%		
Total EEP	\$	650,000	\$	654,261	101%		

2024 Energy Savings

Table 4 provides the energy savings Otter Tail's EEP produced in 2024. Overall, the EEP achieved energy savings of 15,822,891 kWh for the year. This was 199% of the energy savings planned to be

¹ See Order Approving South Dakota Energy Efficiency Plan for 2024-2026: Docket EL23-019

achieved for the year. Driving the energy savings achieved in 2024 was the commercial drive power program with energy savings of 12,669,889 kWh.

Table 4. 2024 EEP Energy Savings (kWh)						
Program	В	А	V			
Res - AC Control	29,102	27,651	95%			
Res - Home Lighting	86,818	159,823	184%			
Res - Heat Pumps	918,760	893,229	97%			
Res - Smart Thermostats	49,782	9,877	20%			
Total Residential	1,084,462	1,090,579	101%			
Com - Direct Install	48,638	30,655	63%			
Com - Heat Pumps	761,629	550,188	72%			
Com - Lighting	2,355,018	1,467,763	62%			
Com - Custom Energy Efficiency Projects	286,910	13,817	5%			
Com - Drive Power	3,428,036	12,669,889	370%			
Total Commercial	6,880,231	14,732,312	214%			
Advertising and Education	-	-	-			
EEP Development	-	-	-			
Total EEP	7,964,693	15,822,891	199%			

2024 Benefit/Cost Tests

Table 5 provides the results from the 2024 benefit-cost test results. All programs passed the Total Resource Cost (TRC) test during the year. The total TRC test for the EEP was 2.10. Staff inquired about the TRC ratios for the individual measures within the Residential Heat Pump and Commercial Heat Pump programs, as many of the measures were new in 2024.

In Otter Tail's response to Staff DR 1-3, the company provided the benefit cost ratios for the Residential Heat Pump measures, which revealed that the Quality Installation of an Energy Star air conditioning unit was the only measure with a TRC ratio less than 1.0. Otter Tail went on to explain that the measure only had one participant, the rebates are not heavily marketed, and the primary goal of the measure is to identify missed opportunities for installing heat pumps. Thus, the analysis should focus on the 1.55 TRC ratio the Residential Heat Pump program achieved as a whole.

In Otter Tail's response to Staff DR 1-5, the company provided the benefit cost ratios for the Commercial Heat Pump measures, which revealed that the Ductless Cold Climate Heat Pump unit was the only measure with a TRC ratio less than 1.0. Otter Tail went on to explain that the four participants averaged 1.75 tons per rebate, and the participation level did not allow for the typical three-ton average to be realized. The estimated incremental cost is based on the assumed three-ton average, so the estimated cost did not tie proportionally to the lower benefits provided with the smaller systems.

Otter Tail indicated that during its next triennial filing, each heat pump and air conditioning measure will be evaluated based upon a per ton basis to better showcase accurate TRC ratios when lower tons per unit participation occurs for specific measures.

Based on Otter Tail's responses and explanations provided in discovery, Staff is not inclined to advocate for changes to the Residential Heat Pump or Commercial Heat Pump programs at this time.

Table 5. 2024 Benefit Cost Tests							
Program	TRC	RIM	PART	UTIL	SOC		
Res - AC Control	13.46	7.79	inf.	13.46	13.46		
Res - Home Lighting	1.74	0.32	8.62	2.58	2.33		
Res - Heat Pumps	1.55	0.35	5.92	3.85	2.05		
Res - Smart Thermostats	1.10	0.30	4.91	1.59	1.28		
Total Residential	1.72	0.38	6.22	3.85	2.23		
Com - Direct Install	1.06	0.31	inf.	0.74	1.22		
Com - Heat Pumps	1.11	0.40	3.00	2.18	1.40		
Com - Lighting	2.27	0.52	4.57	10.33	2.85		
Com - Custom Energy Efficiency Projects	3.07	0.72	5.09	3.75	3.84		
Com - Drive Power	2.25	0.54	4.19	21.10	2.83		
Total Commercial	2.17	0.53	4.16	14.30	2.73		
Advertising and Education	-	-	-	-	-		
EEP Development	-	-	-	-	-		
Total EEP	2.10	0.51	4.36	10.89	2.64		

2024 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 2024, 30% of the approved budget is \$195,000, and 30% of actual spending is \$196,278. Therefore, Otter Tail is requesting approval for the lesser amount of \$195,000.

Energy Efficiency Adjustment Factor

Otter Tail requests the Energy Efficiency Adjustment Factor be increased to \$0.00187/kWh for July 2025 through June 2026. Table 6 provides the estimated monthly bill impact for a typical customer's bill as a result of the proposed increase to the Energy Efficiency Adjustment Factor.

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Table 6. 2025-26 Estimated Monthly Bill Decrease from Current Rates							
					Estimated		
	Current	Calculated		Average	Monthly		
Rate Class	EEA Factor	EEA Factor	Difference	kWh/Bill	Bill Impact		
Residential	0.00134	0.00187	0.00053	927	\$0.49		
Farm	0.00134	0.00187	0.00053	1,730	\$0.92		
General Service	0.00134	0.00187	0.00053	2,604	\$1.38		
Large General Service	0.00134	0.00187	0.00053	274,707	\$145.59		
Irrigation	0.00134	0.00187	0.00053	2,036	\$1.08		
Outdoor Lighting	0.00134	0.00187	0.00053	79	\$0.04		
Municipal Pumping	0.00134	0.00187	0.00053	2,870	\$1.52		
Water Heating Control	0.00134	0.00187	0.00053	198	\$0.10		
Interruptible Load	0.00134	0.00187	0.00053	1,777	\$0.94		
Deferred Load	0.00134	0.00187	0.00053	2,159	\$1.14		

1) Otter Tail proposes the rate be increased to \$0.00187

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 2024 financial incentive of \$195,000;
- 2) Staff recommends the Commission approve the 2024 Energy Efficiency Plan Status Report; and
- 3) Staff recommends the Commission approve Otter Tail's request for an Energy Efficiency Adjustment Factor of \$0.00187/kWh for July 2025 through June 2026.