

OTTER TAIL POWER COMPANY
Docket No: EL22-011

Response to: SD Public Utilities Commission

Analyst: Staff

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Responding Witness: Jason A. Grenier, Manager Market Planning - (218) 739-8639

Data Request:

1-1. Refer to the totals for the air conditioner control program on page 3. In the 2021 filing the cumulative number remained unchanged, gained 12 and lost 12. In this filing the cumulative number dropped 15, gained 19 and lost 34. Explain why the overall cumulative number has not increased for at least the last 2 years and dropped from the previous year. Specifically, why are customers leaving the program?

Attachments: 0

Response:

Otter Tail points to increased economic load control hours during 2021 as the primary reason why some customers withdrew their participation in the summer cycling demand response program. The additional economic load control hours coincided with high temperatures and humidity and resulted in some customers choosing to cancel their participation.

In 2020, Otter Tail controlled air-conditioning systems over six days totaling eight hours and 14 minutes of cycled load control for applicable heat pumps and air conditioners through its Air Conditioning Control Rider (CoolSavings). In comparison, during 2021 Otter Tail controlled cooling systems 59 days totaling just over 212 hours, a significant increase over the previous year but under the 300-hour seasonal limit allowed by the Air Conditioning Control Rider.

The Company uses the load control system for economic load control which avoids the purchase of high-priced energy in the MISO market. These savings are passed directly on to customers through the Energy Adjustment Rider. Residential customers receiving service under the CoolSavings rider receive a bill credit of \$8.25 per month during the summer season months. For some, this bill credit was not adequate compensation for the amount of load control experienced.

Customers participating in summer cycling through other off-peak rates such as our Dual Fuel and Deferred Load Rates experienced a similar increase in control hours starting during the winter season in response to the February winter storm. As a result, some of these customers also chose to leave those load control rates. Anecdotal comments by customers included reports of inadequate or broken back-up systems and concerns about high back-up fuel (propane, natural

gas, fuel oil) prices. Those that left during the heating season were also lost to summer season cycling control.

In normal weather conditions with properly sized air conditioning systems, the Company has not typically seen challenges with bringing new customers into the CoolSavings program and with maintaining past participation numbers. However, in 2021 the Company also experienced declining numbers in its CoolSavings program in other jurisdictions because of increased hours of load control. Otter Tail is evaluating energy control patterns to ensure customer comfort while participating in the summer cycled control program. We are also building off a study started in 2021 to further examine control impacts for residential air conditioning systems. Preliminary results indicate the program is providing more load control benefits than believed in the original design. Further evaluation could point the Company toward revising the program to offer potential and existing participants more incentive to enroll and stay enrolled in the program.