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Xcel Energy Data Request No. 1-27

Docket No.: EL24-016

Response To: South Dakota Public Utilities Commission

Requestor: Eric Paulson
Date Received: August 2, 2024

## Question:

Provide a lost margin calculation showing the amount of annual lost revenues and the annual lost revenue rate per kWh that is a direct result of the DSM portfolio.

## Response:

The calculation of lost margins expected from DSM is dependent on several factors, including: the rates of DSM program participants which may vary significantly given the wide variety of rates among residential and non-residential customers; the frequency of rate cases; the use of historical or future test years in rate cases which determine the persistence of the lost margins; the portion of the rates that are dedicated towards recovery of fixed costs which are not reduced by DSM.

To show the likely magnitude of lost margins from a single program year of DSM achievement, Attachment "EL24-016-1-27- Lost Margins" includes calculations based on the 2025 DSM portfolio proposed in this docket, and the most recent electric rates approved for the Company's electric customers in South Dakota.

The following assumptions were made in this estimation:

- 1. Average Annual Energy Charge per kWh of \$0.10170 from E01 represents the annual lost margin rate from Residential DSM programs.
- 2. Half of the achievement from the Business Segment in the DSM portfolio is from customers on the E13 Small General Service rate and the Energy Charge per kWh of \$0.09641 from annual lost margin rate from this half of achievement from Business DSM programs.
- 3. Half of the achievement from the Business Segment in the DSM portfolio is from customers on the E15 General Service rate and the Energy Charge per kWh of \$0.05399 and the Demand Charge per Month per kW of \$9.94 represents the annual lost margin rate from this half of achievement from Business DSM programs.
- 4. Gross Annual kWh Saved at Customer represents the annual billed kWh from the DSM programs.

5. Gross kW Saved at Customer represents the monthly billing demand reduction from the Business DSM programs. For the calculation of the annual lost margins from this demand charge, the total Business Segment value is halved assuming half of the achievement is on the E15 rate which has a billed demand charge, and the monthly billed kW is multiplied by 12 to represent the 12 monthly bills expected in a year.

The table below shows the results across an expected persistence range of 1.5 years to 2.5 years. This assumes that historical test years are used in future rate cases, with rates effective one full year after the historical test year and that the frequency of rate cases occurs every year (1.5 years of persistence) up to every 3 years (2.5 years of persistence). For instance, if rates that become effective January 1, 2025 are based on a 2023 historical test year, the average persistence of reduced consumption range from 2 years (installed January 1, 2023) to 1 year (installed December 1, 2023), or an average persistence of 1.5 years. If rate cases occur every other year, one program year of DSM achievement will occur the year before the historical test year, representing 2.5 years of persistence, and one program year will occur during the historical test years, representing 1.5 years of persistence, or an average of 2.0 years of persistence. Assuming rate cases every three years adds a program year two full years before the historical rate case, or 3.5 years of persistence. Adding that to the 2.5 years and 1.5 years of persistence from the other two program years, results in average persistence of 2.5 years of persistence.

Estimated 2025 DSM Program Load Margins -	
Based on Expected Persistence	
1.5 years Persistence	\$616,018
2.0 years Persistence	\$821,357
2.5 years Persistence	\$1,026,697

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Telephone: 612-330-7934 Date: August 23, 2024