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Xcel Energy Information Request No. 55
Docket No.: E002/RP-24-67
Response To: Clean Energy Organizations
Requestor: Amelia Vohs
Date Received: April 29, 2024

Question:

Please reference Table N-1: 2024 Preferred Plan Carbon-Free Energy, from IRP Appendix N, page 5, and the associated discussion.

Table N-1: 2024 Preferred Plan Carbon-Free Energy

	2030	2035	2040
Carbon-Free Generation (GWh)	46,515	52,681	60,162
MN Allocated CF Generation (GWh)	35,644	40,668	46,666
MN Elec Retail Sales (GWh)	35,725	39,668	44,624
Carbon Free Standard Requirement	80%	90%	100%

- Please provide the workbook, with all formulas and links intact, used to develop Table N-1.
- Describe how Xcel calculated the values in the row labeled “MN Allocated CF Generation (GWh).”
- What is the total generation or procurement from all electricity sources, whether carbon-free or carbon-emitting, allocated to Minnesota for 2030, 2035, and 2040?
- What percentage of the total generation or procurement from all electricity sources allocated to Minnesota does Xcel predict to be lost due to line losses in 2030, 2035, and 2040?
- Does Xcel anticipate for the years 2030, 2035, and 2040 to be a net seller to MISO or a net purchaser, and if so, by how much? Are these net MISO sales or purchases reflected in Table N-1? If Xcel would be a net seller in these years, are those net sales excluded from N-1?
- Explain why the total carbon free generation allocated to Minnesota exceeds the total Minnesota electric retail sales in 2035 and 2040 and nearly exceeds it in 2030.

Response:

- a. Please see Attachment A provided in live Excel spreadsheet format with the Trade Secret version of this response.
- b. The total MN carbon-free generation is calculated by applying a jurisdictional allocator of 73 percent to the entire NSP system total forecast renewable energy and total forecast nuclear energy and summing those resulting quantities to obtain the MN Allocated Carbon Free Generation total.
- c. We forecast that we will generate a total of 58,652 GWh in 2030. Applying the 73 percent energy allocator used to calculate the compliance with the CFS to all generation results in 42,816 GWh's allocated to Minnesota in 2030. Similarly, applying the 73 percent allocator to total generation results in a forecasted total of 48,337 GWhs in 2035 and 53,269 GWhs in 2040.
- d. Based on the total generation from all electricity generated by sources allocated to MN, we are forecasting that 9.66 percent of generation will be lost due to line losses in 2030, 9.65 percent in 2035, and 9.65 percent in 2040. These percentages represent our predictions for the amount of electricity that will be lost due to line losses during those years. Line losses are not included in the calculation shown in Table N-1 above, or in the calculations for RES or SES compliance.
- e. Based on EnCompass modeling results of the Preferred Plan, the Company will be a net seller to MISO in year 2030, 2035 and 2040 as shown in the table below. The MISO sales and purchases are not included in the calculation shown in Table N-1 above, or in the calculation for RES or SES compliance.

	2030	2035	2040
NSP Sales to MISO (GWh)	9,118	9,435	10,360
NSP Purchases from MISO (GWh)	3,924	4,421	5,305
MISO Net Sales (GWh)	5,194	5,014	5,055

- f. Our Preferred Plan includes more generated energy than load throughout the planning period. The carbon-free generation on our system allocated to Minnesota is compared to our forecasted Minnesota retail sales in Table N-1. This methodology mirrors the methodology for compliance with the RES and SES. The supporting calculations are provided in Attachment A to this response.

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Attachment A to this response is marked as Trade Secret information pursuant to Minnesota Statute § 13.37, subd, 1(b). The information designated as Trade Secret derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

Attachment A is marked as Trade Secret in its entirety. Pursuant to Minnesota Rule 7829.0500, subp. 3, we provide the following description of the protected material:

1. **Nature of the Material:** Attachment A is a workbook, provided in live Excel spreadsheet format, used to calculate the data provided in Table N-1: 2024 Preferred Plan Carbon-Free Energy, from IRP Appendix N, page 5.
2. **Authors:** Company's Purchased Power personnel.
3. **Importance:** Energy and specific resource generation forecast data is confidential and proprietary to the Company.
4. **Date the Information was Prepared:** The file was created for purposes of developing the 2024-2040 Upper Midwest Integrated Resource Plan and to show the ability to achieve compliance with specific state targets of renewable energy and carbon reduction standards.

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