

March 6, 2024

Via Electronic Filing

Will Seuffert

Executive Secretary

Minnesota Public Utilities Commission

121 7th Place East, Suite 350

St. Paul, MN 55101

RE: Docket E002/M-23-466 In the Matter of the Xcel Energy d/b/a Northern States Power Company's Distribution System – Hosting Capacity Program Report

Dear Mr. Seuffert:

The Institute for Local Self-Reliance¹ (ILSR), Minnesota Solar Energy Industries Association² (MnSEIA), and Cooperative Energy Futures³ (collectively, Joint Solar Commenters) respectfully submit to the Minnesota Public Utilities Commission (Commission) the following comments regarding Xcel Energy's 2023 Hosting Capacity Program Report.

The Commission should accept Xcel Energy's 2023 Hosting Capacity Program Report, as it achieves most of the requirements outlined in prior Commission Orders and Minn. Stat. §216B.2425, subd. 8, but the Commission should order Xcel to continue conducting the Load-HCA. To improve the Hosting Capacity Program's usefulness, the Commission should also direct Xcel to make some targeted improvements to its Hosting Capacity Analysis and Gen-HCA Heat Map.

¹ The Institute for Local Self-Reliance is a national research and advocacy nonprofit focused on building local power to fight corporate control of the economy. Our Energy Democracy program documents the advantages of distributed clean energy ownership and power, in contrast to monopoly utility ownership of electricity system assets.

² MnSEIA is a nonprofit association that represents Minnesota's solar and storage industry, with over 160 members ranging from rooftop installers, CSG developers, and nonprofits, to manufacturers and cooperative utilities, with many others that support the industry, which employ more than 5,000 Minnesotans.

³ Cooperative Energy Futures (CEF) is a member-owned clean energy cooperative with around 1100 members across Minnesota. CEF develops, owns, and operates community solar gardens that are focused on residential subscribers with a particular focus on subscribers from low-income communities and communities of color.

1. Xcel Energy's 2023 Hosting Capacity Program Report achieves the requirements outlined in prior Commission Orders and Minn. Stat. §216B.2425, subd. 8, with a few exceptions.

As required by the Commission's September 2023 Order, Xcel Energy (the Company) has included hosting capacity program costs in its annual filing. The Company, however, failed to provide actual historical expenditures as requested.

The Commission has noted that the approach of using native load for Load HCA is different from Xcel's other planning processes, which use net load. Through Order Point 6 of the Commission's September 2023 Order, the Commission required Xcel to "employ a net loading methodology consistent with other Company planning processes for its Load-HCA."⁴ Xcel indicated compliance with this order in its compliance matrix, yet has continued to use native load and states "the use of native loading on a feeder is appropriate and follows our current planning processes."⁵ We ask the Commission to direct Xcel to clarify which parameter is used in each of its planning processes.

2. We ask the Commission to require that the Company continues conducting the Load-HCA, consistent with Xcel Energy's analysis that load growth will be meaningful.

In its 2022 Hosting Capacity Program Report, Xcel stated that Load HCA would be useful internally as an economic development tool. The Company also recommended that, if further updates were desired, the Load-HCA should be updated in alignment with the Gen-HCA update schedule.⁶ The Company maintained its position on the internal benefit of Load-HCA in its reply comments and noted that, similarly to the Gen-HCA, Load-HCA can inform the likelihood of a new secondary interconnection and could be useful to third parties.⁷

At the same time, the Company has projected in its 2024-2040 Upper Midwest Resource Plan a "marked divergence" in annual growth rates and "new anticipated load coming from large new

⁴ Minnesota Public Utilities Commission, Order Accepting Hosting Capacity Report and Establishing Additional Requirements, *In the Matter of the Xcel Energy 2022 Hosting Capacity Report Under Minn. Stat. §216B.2425, Subd. 8*. Docket No. E-002/M-22-574 (Sept. 15, 2023).

⁵ Xcel Energy, Distribution System – Hosting Capacity Program Report, Docket E002/M-23-466 (Oct. 31, 2023)

⁶ Xcel Energy, Distribution System – Hosting Capacity Program Report, Docket No. E-002/M-22-574 (Nov. 1, 2022).

⁷ Xcel Energy, Reply Comments, *In the Matter of the Xcel Energy 2022 Hosting Capacity Report Under Minn. Stat. §216B.2425, Subd. 8*. Docket No. E-002/M-22-574 (June 16, 2023).

data centers and accelerating adoption of electric vehicles.”⁸ We will reserve our feedback on the Company’s prediction for the 2024 Resource Plan docket, but note that it would be inconsistent within the Company’s own predictions and planning to discontinue conducting the Load-HCA. Furthermore, Order Point 6 of the Commission’s September 15, 2023, Order indicates that the Load-HCA should be a part of future HCA annual reports.⁹ Since Xcel has interpreted its order on Load-HCA as one-off, the Commission should clarify its orders for the Load-HCA, including a determination of frequency. We also suggest that the Company be directed to include existing distributed generation in its Load-HCA, as stated in our prior comments.¹⁰

Based on the lack of interest, it is reasonable to assume that the costs of the FTSRS exceed the perceived benefits. Accordingly, it is perhaps advisable for Xcel to determine ways to reduce the costs of implementing the FTSRS and/or increase the benefits. In the case that developers are asked to pay for implementing the FTSRS use case, the Company needs to create internal cost centers specifically for this case, as it has failed to do for the HCA.

3. The publicly available Hosting Capacity Analysis information is useful to some stakeholders, but increasing frequency, including queued distributed energy resources, and cleaning up the heat map would all help to overcome the barriers that limit its usefulness.

There are many errors in the Company’s Hosting Capacity Program, particularly the Gen-HCA. MnSEIA members report typos in queue reports and inconsistent substation names. There are also discrepancies between feeders that Xcel reports as having capacity, yet customers are on hold, or vice-versa. There are feeders that haven’t been updated in over a year, including RAM072 and AFT314. Feeders APA061, MEL088, and SLP083 have not been updated in almost a year.

Stakeholders agree that a more frequent Gen-HCA would be more useful. In discussing how limited data inhibits sound engineering judgements and, as a result, limits opportunities for solar, ILSR, Solar United Neighbors, and Cooperative Energy futures recently identified “requiring

⁸ Xcel Energy, Initial Filing - 2024-2040 Upper Midwest Integrated Resource Plan, Docket No. E002/RP-24-67 (Feb. 1, 2024).

⁹ Minnesota Public Utilities Commission, Order Accepting Hosting Capacity Report and Establishing Additional Requirements, *In the Matter of the Xcel Energy 2022 Hosting Capacity Report Under Minn. Stat. §216B.2425, Subd. 8.*, Docket No. E-002/M-22-574 (Sept. 15, 2023).

¹⁰ Joint Solar Commenters, Comments, *In the Matter of the Xcel Energy 2022 Hosting Capacity Report Under Minn. Stat. §216B.2425, Subd. 8.*, Docket No. E-002/M-22-574 (June 2, 2023).

monthly hosting capacity updates as a tool to address this and related distribution capacity challenges.”¹¹ The Company states that it is not aware of any utility that has implemented, pursued, or explored real-time HCA updates. There are, however, intermediary stages between monthly and real-time updates. Hawaii’s Locational Value Maps are updated nightly.¹² California’s monthly HCA (called Integration Capacity Analysis) provides hourly profiles, allowing developers to design beneficial projects and avoid any capacity constraints.¹³ California also requires that utilities run Integration Capacity Analysis for a specific electrical node if, during the Initial Review process, it is found that the hosting capacity values at the proposed Point of Interconnection need updating.¹⁴

As we have stated in previous comments, including Distributed Energy Resources (DERs) that are in the queue would make the analysis more useful and would not introduce excessive variability as the HCA moves toward greater frequency. MnSEIA members have been deterred from using the Gen-HCA heat map because it does not provide enough insight into the interconnection queue. It is often used to determine what feeder the customer is on, then developers must go to the public queue to find out more information about how severe the limited capacity is and look at the existing projects in the queue. The heat map would have more value if it contained the number of applications actively on hold and the number of applications in the queue that are going through review – not the design and construction stage or other post-review stages. MnSEIA members have also found the public queue report to be not user friendly and poorly maintained for accuracy.

We find many areas of improvement specific to the Gen-HCA Heat Map. In general, only those with a high level of knowledge are able to interpret the heat map and pop-up data. It would be useful to have a clear key with straightforward descriptions of each field and better descriptions of limiting factors. For example, multiple fields in the clickable report on the map report number values with no units, use acronyms that are not explained, and use technical terms that require a glossary or legend for most people to follow. In cases where there is more than one limiting

¹¹ ILSR/SUN/CEF, Reply Comments, *In the Matter of Updating the Generic Standards for the Interconnection and Operation of Distributed Generation Facilities Established Under Minn. Stat. . §216B.1611*, Docket No. E999/CI-16-521 (Feb. 2, 2024).

¹² Hawaiian Electric, Locational Value Maps, <https://www.hawaiianelectric.com/clean-energy-hawaii/integration-tools-and-resources/locational-value-maps> (accessed Feb. 23, 2024).

¹³ IREC, “Key Decisions for Hosting Capacity Analyses,” (Sept. 16, 2021), <https://irecusa.org/resources/key-decisions-for-hosting-capacity-analyses/>.

¹⁴ California Public Utilities Commission, Decision Adopting Recommendations from Working Groups Two, Three, and Subgroup, *Order Instituting Rulemaking to Consider Streamlining Interconnection of Distributed Energy Resources and Improvements to Rule 21*, Docket No. 17-07-007 (Sept. 24, 2020).

factor, a prioritization of these factors would help stakeholders interpret grid conditions. The Company could also provide short descriptions of what types of remedies tend to be required to address various limiting factors. While this will not provide a cost estimate, it would help reasonably informed individuals make decisions about whether exploring a project in an area with limited capacity is likely worth the effort. The heat map currently provides relatively limited information as to whether hosting capacity constraints are likely to be very difficult or expensive to overcome. Some areas may be red on the map even if the grid upgrades needed to address the issue are small enough to be well within the cost constraints of projects seeking to interconnect. Lastly, the Company could consider making the map more colorblind-friendly.

4. The Joint Solar Commenters have lingering concerns about proactive system upgrades, grid security, and the Technical Planning Limit.

The Company has a budget for proactive system upgrades to increase DER hosting capacity in its 2023 Integrated Distribution Plan. As we previously commented, the Company should use knowledge of its secondary circuits to address problem areas.¹⁵

Experts from the Minnesota Department of Commerce and the Interstate Renewable Energy Council have testified that releasing distribution grid data does not necessarily impair grid security.¹⁶ Xcel has not made any changes in its approach to grid security and confidentiality, so the Joint Solar Commenters' concerns remain: the Company is needlessly withholding data.

The Technical Planning Limit (TPL), also referred to as the Technical Planning Standard (TPS), continues to create obstacles for providing accurate information regarding what feeders and substations are actually capacity constrained by limiting the capacity of Xcel's entire distribution system by two to three gigawatts. The PUC recently issued its second order on the TPL/TPS and continues to refuse to approve it as a reasonable rule/policy/standard as required by Minnesota law.¹⁷ This may be because Xcel admitted at the December 14, 2023, hearing on the TPL/TPS that it was not actually imposed because of safety or reliability issues, but, rather, was a policy decision. If safety were the concern, it would be undermined by the fact that Xcel proposed using up to 100 percent of the capacity of its distribution system for small solar projects that are sized to load in docket 16-521. Accordingly, until an appellate court rules on the

¹⁵ Joint Solar Commenters, Comments, *In the Matter of the Xcel Energy 2022 Hosting Capacity Report Under Minn. Stat. §216B.2425, Subd. 8*. Docket No. E-002/M-22-574 (June 2, 2023).

¹⁶ *Ibid.*

¹⁷ See Minnesota Public Utilities Commission, Order Dismissing Complaint, Docket No. 23-424, p. 6 (Feb. 27, 2024) (dismissing complaint without determining that TPL/TPS is a reasonable rule/practice/policy/standard).

Comments of the Joint Solar Commenters

legality of the TPL/TPS, it will continue to increase the time and cost to interconnect projects in Minnesota.

Thank you for the opportunity to comment and for taking up this important conversation.

Sincerely,

/s/

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