

March 1, 2024

Mr. Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 East Seventh Place, Suite 350
Saint Paul, MN 55101-2147

RE: DOCKET E002/M-23-452

Dear Mr. Seuffert:

The City of Minneapolis (“Minneapolis”) appreciates the opportunity to provide comments on Xcel Energy’s (“Xcel” or “the Company”) 2023 Integrated Distribution Plan (“IDP” or “Plan”).¹ We also appreciate Xcel’s efforts to develop a plan that considers grid modernization, electrification, the energy transition, resiliency, and reliability. Minneapolis shares an interest in these priority areas as they are intertwined with public health and safety.

Customers are at the forefront of the grid transition, and must therefore be centered in the planning process. Our comments are focused on accelerating a fair and equitable clean energy transition to a modernized grid that is customer-inspired and community-centered.

Below we address the questions from the Commission’s November 17, 2023 Notice of Comment Period:

14. Should the Commission accept or reject Xcel Energy’s Integrated Distribution Plan?

Minneapolis recommends that the Commission accept Xcel Energy’s 2023 IDP with modifications.

15. Did Xcel Energy adequately address the Commission’s IDP filing requirements and prior Orders, as outlined in Attachment A to this notice? Is additional information necessary for improved clarity?

Minneapolis comments on topics within 3.A.5. below. Related, we appreciate Xcel’s creation of the Integrated System Planning unit to “bridge the gaps between modeling tools with human processes in addition to tackling challenges of the overall planning landscape, such as inflection points with technologies – such as EVs and beneficial electrification – and pricing.” However, Minneapolis disagrees with Xcel that the IDP process is intended to be informational in nature.² The IDP statute calls for:

(1) a forecast of distribution system upgrades necessary to accommodate the interconnection of distributed generation resulting from the utility’s compliance with sections [216B.1641](#) and [216B.1691, subdivision 2h](#), and other customer-sited projects,

¹ Docket No. E-002/M-23-452. Xcel Energy 2023 Integrated Distribution System Plan and Transportation Electrification Plan. Nov. 1, 2023.

² Xcel IDP. Appendix A1 p. 22.

*including energy storage systems*³

The IDP is informational but also evaluates the health of the existing system and identifies areas where Xcel needs to make investments.⁴

IDP Requirement 3.A.5. requires ‘discussion of how the distribution system planning is coordinated with the integrated resource plan (including how it informs and is informed by the IRP), and planned modifications or planned changes to the existing process to improve coordination and integration between the two plans:

a. Setting the forecasts for distributed energy resources consistently in its resource plan and its IDP.

Minneapolis appreciates the explanation of the discrepancies between Xcel’s IRP and IDP.

b. Conducting advanced forecasting to better project the levels of distributed energy resource deployment at a feeder level, using Xcel's advanced planning tool.

As a supplement to LoadSEER, Minneapolis recommends forecasting also consider DER adoption trends in markets where:

- State greenhouse gas reduction and clean transportation goals have been in place longer than Minnesota policies
- Electricity pricing is higher

The experience of other states can help Minnesota know what to expect. For example, in multiple markets, residential solar adoption has reached 1 in 8 to 1 in 3 rooftops,⁵ and electric vehicle adoption continues to accelerate. This level of customer interest in DER deployment is likely in Minnesota as well within the lifetime of distribution system upgrades made during the planning horizon for this Plan.

c. Proactively planning investments in hosting capacity and other necessary system capacity to allow distributed generation and electric vehicle additions consistent with the forecast for distributed energy resources.

Here, Xcel requests stakeholder input on how to approach proactive investments in hosting capacity, including how to prioritize such investments.⁶

Minneapolis recommends that the overarching goal be serving communities equitably and targeting investments where needs are greatest. We offer the following:

1. Identify hosting capacity service gaps: analyze whether hosting capacity equitably serves all communities and neighborhoods in the service area, including opportunities for rooftop solar, beneficial electrification, and electric vehicles. Invest first in ensuring adequate hosting capacity in historically marginalized areas for planned investments.
 - This can be accomplished by layering the hosting capacity map with equity indicators as done with Pacific Power’s Distribution System Planning Map.⁷

³ Minn Stat. 216B.2425.Subd. 9.

⁴ IDP. p.4.

⁵ Spring 2023 Solar Industry Update. National Renewable Energy Lab. April 27, 2023.

⁶ *Id.* p. 25.

⁷ See <https://experience.arcgis.com/experience/9de589f4f0604262a0867692e58a13a2> Accessed Feb. 22, 2024.

- Non-wires alternatives (NWA) should be deployed when possible to address service gaps and grid needs because NWA has the added benefit of reducing energy burden for customers and improving housing quality and local resiliency.
- 2. Access to benefits: Consider how DERs and non-wires alternatives could be leveraged to provide more resilient power, energy cost savings, jobs, etc. with a goal of better serving low-income communities and households.
- 3. Local Government Goals: Overlay hosting capacity with data obtained from local governments on local climate and energy goals within the DER Scenario Analysis⁸ to determine where investments may be necessary to support municipal goals and ordinances.

d. Improving non-wires alternatives analysis, including market solicitations for deferral opportunities to make sure Xcel can take advantage of distributed energy resources.

Minneapolis appreciates that Xcel identified three potential NWA projects within the 2023 IDP. For system needs identified in an IDP or IRP, analyzing whether an issue can be solved with NWAs is critical because of the potential to lower customer bills whereas traditional infrastructure investments generally put upward pressure on all customer rates without an opportunity for lowering or shifting energy use in homes and businesses.

Regarding the three NWA possibilities for which market solicitations have not yet been issued, Minneapolis requests a comment opportunity for any Request for Proposal for input related to eligible programs and technology solutions and better ensure a variety of solutions are considered. We also encourage consideration of factors beyond traditional cost and risk, like the pace of emissions reductions, community benefits and impacts, and equity considerations.⁹

17. What guidance should the Commission give on budgets and cost allocation for distribution system upgrades to accommodate distributed energy resources (DER), including but not limited to:

- a. Solar sited with customer load
- b. Solar sited in front of the meter
- c. Energy storage devices
- d. Electric Vehicles
- e. Space heating, water heating, and other electrification use cases
- f. Proactive grid upgrades in anticipation of future DER growth

Relating to (f), given 1) customer interest in and 2) state, federal, and local policies promoting these policies, it is imperative that electric utilities not replace ‘like for like’ when changing out system components. Some utilities have adopted service standards phasing out undersized transformers and/or updated design standards that reduce the number of customers being served by a single transformer.

‘Proactive grid upgrades in anticipation of future DER growth’ is necessary to allow customers to adopt distributed solar and electrify their energy use. Xcel’s ongoing proactive investments in the distribution grid are also necessary to allow customers to benefit from federal incentives for DERs.

Generally, Minneapolis believes that cost allocation for interconnection and electrification should not fall 100 percent on the customer. Costs should be pro-rated to reflect the years in service and subtract costs already recovered for equipment being replaced. In some cases, equipment may be at or near the end of its

⁸ Order. Docket 21-694. IDP Requirement 3.C.1 regarding DER scenario analysis.

⁹ Order No. 22-477 Public Utility Commission of Oregon. Disposition: Staff’s Recommendation Adopted. Appendix A p.8 Dec 14, 2022. <https://apps.puc.state.or.us/orders/2022ords/22-477.pdf>

life. Other factors should be considered as well, such as whether the equipment being taken out of service can be deployed elsewhere.

19. Should the Commission require cost-benefit analysis for discretionary distribution system investments?

Minneapolis supports requiring a cost-benefit analysis for discretionary distribution system investments. According to the Regulatory Assistance Project, CBA is a useful tool for comprehensively evaluating investments as the grid system becomes more complex.¹⁰

For major investments, a sensitivity analysis with varying assumptions and inputs (cost estimates, expected benefits/savings, project life, discount rate, etc.) can improve understanding about the conditions under which an investment is economically viable.

20. Should the Commission discontinue IDP Requirement 3.A.9 as requested by Xcel?

Minneapolis does not take a position on discontinuing 3.A.9: For the portions of the system with SCADA capabilities, the maximum hourly coincident load (kW) for the distribution system as measured at the interface between the transmission and distribution system.

22. What should the Commission consider or address related to enhancing the resilience of the distribution system within Xcel's IDP?

Minneapolis appreciates the proposed \$200 M opportunity over 5 years to increase interconnection capacity. However, it is imperative that the investments be made with equity in mind. After speaking with Xcel, it is not clear to us that any of the funds are aimed at addressing hosting capacity limits in the Minneapolis Green Zones, the city's environmental justice areas. These areas were also documented as experiencing racial and income disparities in electricity reliability. In the most recent rate case, Researcher Gabriel Chan showed that the Minneapolis Northside and Southside Green Zones have between 59 percent and 85 percent higher incidence of long-duration outages than other Xcel customers in Hennepin County.¹¹

23. Has Xcel Energy appropriately discussed its plans to maximize the benefits of the Inflation Reduction Act (IRA) and the IRA's impact on the utility's planning assumptions pursuant to Order Point 1 of the Commission's September 12, 2023 Order in Docket No. E,G-999/CI-22-624?

Minneapolis applauds Xcel's incorporating IRA incentives into the forecasted adoption rates for electric vehicles and solar.¹² However, our sense is that a 20 percent increase in EV adoption and 30 percent increase in solar adoption beyond the standard scenarios may be low compared to customer interest and IRA opportunity.

For example, Minneapolis residents' and businesses' interest in solar is growing, and the city recently adopted a goal of 15,000 rooftop solar installations by 2032 based on the lower range estimate of the city's share of IRA funding for solar.¹³ The ability of our city's 425,000 residents and 40,000 businesses to meet this

¹⁰ Shenot, John, Elaine Prause and Jessica Shipley. Using Benefit-Cost Analysis to Improve Distribution System Investment Decisions: Reference Report. Nov 2022. <https://www.raponline.org/wp-content/uploads/2023/09/rap-shenot-prause-shipley-using-benefit-cost-analysis-reference-report-2022-november.pdf> p. 22.

¹¹ Docket E002/GR-21-630; Exhibit Just Solar Coalition (JSC)6 p. 21.

¹² IDP. Appendix A1. p. 47-48.

¹³ Minneapolis has ~1,800 solar installations today or less than 2 percent of rooftops.

goal and tap into IRA funding depends on adequate hosting capacity for interconnection. We recommend at least doubling adoption rate assumptions when factoring in IRA funding.

We also note it may be beneficial to consider electrification adoption rates generally due to new federal incentives for space heating and water heating and ask that the Company complete an analysis of this as part of the next IDP if it is impractical to modify assumptions for this Plan.

24. Other areas of Xcel's IDP not listed above, along with any other issues or concerns related to this matter.

1) Decreased Hosting Capacity

Minneapolis is concerned about a misalignment between increasing distribution infrastructure spending and decreasing hosting capacity. As customers pay for grid modernization, ideally their opportunities to adopt solar and electrify would expand. The Minnesota Technical Planning Standard alone reduces hosting capacity system-wide for Xcel's customers by 20 percent today¹⁴ and could grow to 50 percent if its proposed new limit on 40 kW and larger systems¹⁵ is approved.

This comes at a time when customers are more interested in DERs and state, federal and local policy trends and incentive programs are encouraging DER adoption. It is imperative to the public interest that the Company manage the grid in a way that unlocks opportunities for energy bill savings and local economic development.

That said, we are encouraged by advancements such as smart inverters, advanced metering infrastructure, LoadSEER and other software, updated IEEE standards and more that hold promise to increase hosting capacity. We ask that the Company and Commission help ensure that the full measure of benefits flow to customers.

2) Inadequate Infrastructure for Level 2 Charging in Multifamily Housing

The City of Minneapolis is aware of issues in our municipality for at least five multi-family housing associations that have sought Level 2 EV charging capability but have been unable to move forward without costly upgrades. Quotes from Xcel have ranged from \$160,000 to \$500,000+ for customers to upgrade the grid. In these examples, the customers have not been able to proceed with Level 2 EVSE due to the cost of upgrades.

Minneapolis raises this issue while appreciating Xcel's acknowledgement that *"Grid expectations are changing with customer usage patterns, increased DERs, technical developments, and policy changes. We need to ensure our investments support the evolving needs of the grid and keep up with technology and customers."*¹⁶ Minneapolis strongly agrees that it is important for the utility to anticipate changing needs. We ask that the Company and Commission keep customer interest in electrification and interconnection in mind as the Plan is evaluated and finalized.

3) Increased Utilization of Demand Response is Needed

Minneapolis encourages more aggressive pursuit of demand response within the IDP as a cost-effective solution for grid flexibility and resilience. This will become increasingly important at higher levels of variable

¹⁴ XCEL DER INTERCONNECTION MINNESOTA ENGINEERING PRACTICE – TECHNICAL PLANNING STANDARD. p.2.

¹⁵ Docket 16-521 Xcel Proposal. Nov. 1, 2023. p.3.

¹⁶ IDP. p.4.

generation.

In summary, Minneapolis appreciates the IDP process, including the efforts of the Commission, Xcel, and other stakeholders to ensure we make prudent decisions related to this critical public infrastructure. We appreciated Xcel's update on the Resilient Minneapolis Pilot Program¹⁷ within this IDP and note plans for an additional update by March 19, 2024. We thank the Commission for consideration of our comments.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "K. W. Havey". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

Kim W. Havey (He/Him)
Division Director
Sustainability, Healthy Homes, and the Environment

¹⁷ IDP. Appendix B3. p. 7.