STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

Katie Sieben Joseph Sullivan Hwikwon Ham Valerie Means John Tuma Chair Vice Chair Commissioner Commissioner Commissioner

April 12, 2024

In the Matter of Xcel Energy's 2023 Integrated Distribution Plan

Docket No. E002/M-23-452

REPLY COMMENTS OF FRESH ENERGY

I. INTRODUCTION

Fresh Energy submits these Reply Comments in response to the Commission's November 17, 2023, *Notice of Comment Period* ("Notice") regarding Northern States Power Company dba Xcel Energy's ("Xcel") 2023 Integrated Distribution Plan ("IDP"). These comments are a response to the comments filed by parties on March 1, 2024, and comments filed by Xcel on March 22, 2024. These comments build on many of the same Notice topics as Fresh Energy's Initial Comments and pose recommendations to the Commission. Fresh Energy is also filing separate comments today as part of the Clean Energy Groups, focused on electric vehicles and distribution grid upgrades.

II. RESPONSE TO XCEL REPLY COMMENTS

Fresh Energy appreciates the Company's responses to many of the questions posed in our Initial Comments. These comments respond with specific recommendations related to (1) Xcel's Non-Wires Alternatives approach, (2) Integrated Volt-Var Optimization, (3) LoadSEER forecasting results and methodology, (4) Planned Net Load and 15% Dependability Factor, (5) Proactive upgrades for electrification and DER growth, (6) Costbenefit analyses for certain discretionary capital investments, and (7) Equity in the Company's distribution system.

1. Non-Wires Alternatives (NWAs)

Xcel has identified three projects as potentially viable for cost-effective NWAs to address capacity deficiencies, and all three projects have in-service dates in 2028. Xcel is not

intending to proceed with a formal NWA solicitation until it conducts further analysis later this year. $^{\rm 1}$

The Company plans to compensate NWA developers a pro-rated amount reflecting only the DER output used to address the specific hours of the load reduction requirement (called the Avoided Revenue Requirement or ARR split). Xcel acknowledges that the total developer cost to install the DER would be considerably higher than the "ARR split," and that the NWA solutions could potentially be deployed for other "use cases" during times when there is no load reduction requirement to generate additional developer revenue. In Initial Comments, Fresh Energy asked if Xcel has confirmed that developers would accept this form of compensation and asked which utilities have offered only "ARR split" compensation in successful NWA solicitations. We also asked for clarification on the additional NWA "use cases" Xcel envisions for additional developer revenue. The Company did not respond to these questions in its Reply Comments.

Fresh Energy understands that the Public Service Company of Colorado ("PSCo") conducted an unsuccessful NWA solicitation in 2023 (receiving zero proposals) and requested its consultant to conduct a review of the NWA process and recommend potential changes for improvement. Based on PSCo's 2023 experience and its consultant's review of the NWA process, we asked Xcel what learnings it will apply to its NWA process to increase the likelihood of a successful solicitation. The Company did not respond to these questions in its Reply Comments.

Fresh Energy is concerned about the feasibility of Xcel's NWA approach and the likelihood of a successful solicitation. NWA solicitations are time consuming and resource-intensive for all involved parties, and it is important to verify that NWA developers are likely to submit proposals before launching the solicitation. Therefore:

Fresh Energy recommends that the Commission require Xcel to conduct a Request for Information (RFI) process to assess the feasibility of its planned NWA solicitation, including the proposed "ARR split" compensation, and make a compliance filing reporting on the results of the RFI within 12 months of the Commission's order in this proceeding.

An RFI process will allow the Company to assess developer interest, capabilities, and willingness to pay for DER installations in exchange for only the "ARR split." This developer feedback may also help to identify whether changes are needed to the methodology Xcel uses to identify potential NWA to better reflect viable projects. The RFI should include a

¹ Xcel Energy 2023 IDP, Appendix F, p. 41.

high-level description of the load reduction requirements, explain the "ARR split" concept, and explain the additional "use cases" from which Xcel believes additional compensation may be available. In its RFI, Xcel should request developers to provide (1) feedback on the proposed approach including the "ARR split", (2) a description of potential technologies or combinations of technologies that could address the load reduction requirements, and (3) recommendations for specific information that Xcel should include in future NWA solicitations to assist developers in providing competitive proposals.

2. Integrated Volt-Var Optimization (IVVO)

In Fresh Energy's Initial Comments, we explained that PSCo and other utilities have deployed IVVO as a cost-effective peak demand reduction and energy efficiency measure. In its 2022 Distribution System Plan, PSCo explains:

"IVVO is an advanced application that automates and optimizes the operation of the distribution voltage regulating devices and VAR control devices through ADMS. Enhanced voltage control will help achieve the following benefits to the operation of the distribution system and our customers:

- Reduction of distribution electric losses
- Reduction of demand (MW)
- Reduction of energy consumption (MWh)
- Increased ability to host DER."²

PSCo forecasts IVVO to deliver 44 MW of demand reduction and 330,000 MWh of annual energy savings for its customers.³ This represents 0.6% of summer peak demand reduction and 1% reduction of annual MWh usage.⁴ Importantly, IVVO requires no customer action or behavioral change to realize these benefits, and its operation is not limited to specific emergency events as many DR products are.

In contrast to PSCo and other utilities, the Company has concluded that IVVO is not in the public interest. To support this conclusion, Xcel interprets its denied 2019 IDP IVVO certification request as a lack of stakeholder support, and claims that IVVO benefits would now be lower now than they were in 2019.⁵ Fresh Energy supported the Company's IVVO request in 2019, and we do not see opposition to IVVO as a *technology* in that record. Stakeholder concerns were largely focused on the AGIS package overall and the use of

² PSCo Distribution System Plan, May 2, 2022, p. 48.

³ Colorado PUC Proceeding No. 16A-0588E, Public Service Company of Colorado AGIS CPCN Annual Forecast Report for 2024, October 31, 2023, p. 11.

⁴ See Energy and Demand Forecast for 2023: PSCo, 2021 Electric Resource Plan and Clean Energy Plan, 120-Day Report, p. 66, <u>available here</u>.

⁵ Xcel Energy 2023 IDP, Appendix B1, pp. 28-32.

certification as a process. Fresh Energy requested evidence supporting the Company's claim of lower IVVO benefits at present compared to 2019. In its Reply Comments, Xcel did not respond to these questions and offered no new explanations for why it believes that IVVO, in 2024, is not in the public interest.

The Grid Equity Commenters also recommended that Xcel re-evaluate IVVO, and noted in Initial Comments that even if "the addition of new constant power loads for electrification may decrease overall CVR factors...it does not reduce the CVR factor for the individual equipment that remains connected."⁶ In other words, new electrified loads may reduce the overall CVR factor we can expect in the future, but do not necessarily reduce the MWh that can be reduced from *existing* equipment. As a result, CVR likely remains an effective tool, and especially so in areas with older housing stock and slower uptake of new electrification technologies. This makes it possible that targeting deployment to high-impact areas of the grid may also result in deployment to disadvantaged communities where the bill savings will have greater benefits for individual customers.

Grid Equity Commenters recommend Xcel evaluate whether IVVO can be deployed in "environmental justice areas" as well as lower-cost/higher-impact areas (e.g., those with relatively flat voltage profiles and where static var compensators would not be necessary.) Fresh Energy supports investigation of both these opportunities as part of a revised IVVO analysis.

Fresh Energy recommends that the Commission require Xcel to re-evaluate IVVO for its Minnesota service area (applying the new Minnesota Test for cost-effectiveness and updated assumptions informed by PSCo's experience with IVVO). As part of this analysis, Xcel shall identify feeders where IVVO is most cost-effective, discuss the potential for targeted deployment to these areas and/or in under-resourced communities, and report on its updated evaluation within 6 months of the Commission's order in this proceeding.

3. LoadSEER Forecasting Results and Methodology

Fresh Energy appreciates Xcel's response to our recommendations to improve beneficial electrification forecasts, evaluate the accuracy of LoadSEER forecasts, and explore using different forecast levels to perform sensitivities on capital budgets. In each of these areas, the Company indicates it is working on (or planning to work in the future on) forecasting improvements:

⁶ Grid Equity Commenters, Initial Comments, p. 31

- Regarding the accuracy of LoadSEER's forecasts, Xcel notes that it is "currently considering methods for how to measure forecast accuracy, and we are constantly looking for ways to improve our forecasting abilities."⁷
- Regarding scenario analysis for investment plans, Xcel "agree[s] that our forecast would be more well-rounded if we followed up the forecast scenario analysis with a capital expense analysis and envision that a high-level analysis could be realistic in the future."⁸

Fresh Energy understands that these are complex endeavors that may require iteration. We recommend that Xcel continue to report on its progress on these items in the next IDP.

Regarding beneficial electrification forecasts, we are glad to hear that the Company plans to develop a C&I beneficial electrification forecast in the future.⁹ Given the large load growth in Xcel's current residential electrification forecast – as the Department notes, an incremental 716 MW by 2033, while the residential sector comprises just 23% of Xcel's sales¹⁰ – the C&I forecast is likely to be a hugely significant piece of information for both distribution and resource planning, as well as load management programs. Therefore, we recommend Xcel present an initial C&I electrification forecast as part of the next IDP, or if the Company is unable to complete one by that time, the Company should explain why not, including a detailed explanation of how it is thinking about this forecast, information challenges it raises, and approaches Xcel is considering. Similarly, we recommend Xcel report on progress to refine its residential beneficial electrification forecasts to include low, medium, and high adoption scenarios.

4. Planned Net Load (PNL) and 15% Dependability Factor

Fresh Energy appreciates Xcel taking an initial step to include the load-reducing impact of solar PV in its feeder and substation load forecasts. However, we strongly believe that the Company's proposed approach for calculating PNL is overly conservative, significantly underestimates PV's impact, and may be leading to unnecessary capital investments.

The Grid Equity Commenters (GECs) share this view, stating "Xcel's overly conservative dependability factor means that it is leaving usable capacity on the table rather than maximizing the value of available DER capacity. Not only is this inefficient, it is also costly."¹¹

⁷ Xcel Reply Comments, p. 43

⁸ Xcel Reply Comments, p. 42

⁹ Xcel Reply Comments, p. 42

¹⁰ Initial Comments of Department of Commerce, p. 47-48

¹¹ Initial Comments of Grid Equity Commenters, March 1, 2024, p. 39.

As we described in our Initial Comments, Xcel provided PNL calculations for an example feeder to illustrate its proposed methodology. Fresh Energy's analysis of the example revealed that Xcel's proposed methodology would consider only 57 kW out of the 10 MW (0.6%) of PV nameplate capacity on the example feeder as 'dependable' for reducing the feeder's peak load.¹² This is extremely conservative since, as the Department noted in its initial comments, "The key point is that Xcel's data shows that, at least on average, there is very little chance that less than 15 percent of nameplate solar capacity will be online during critical hours in any season during non-nighttime (or daylight) hours."¹³ In other words, 15% of nameplate capacity may be a more reasonable starting point than 0.6% for calculating PNL during daylight hours.

Fresh Energy also questioned why Xcel derived its initial dependability factor from average winter PV output instead of average summer output,¹⁴ when the majority of Xcel's feeders peak in the summer months. The Company responded:

"... the dependability factor ... was derived using average winter solar PV output. Winter has lower generation on average due to limited sunlight. Although many feeders in our service territory currently peak in the summer, as electrification increases over the next 30 years, many feeders will likely begin to experience peak demands in the winter that are similar or greater than peaks in the summer. It is important that we plan for peaks that could occur throughout all times of the year, both summer and winter, and the PNL methodology has been developed in a way that is flexible and able to be applied in either case. Since feeders may change from summer to winter peaking throughout the course of the forecast, applying seasonally differentiated dependability factors would require unique values to be determined and applied for each feeder and for each year of the forecast. This would require a large effort by the Company and a significant amount of resources."

Fresh Energy appreciates that developing seasonal dependability factors will require additional work for Xcel, however doing so will more accurately reflect the load-reducing impact of PV at the time of each feeder's peak load. At minimum, establishing two different

¹² Xcel is proposing to apply its proposed 15% dependability factor to the PV generation *impact* (the difference between native and net load) and not the total *nameplate capacity* of PV generation. ¹³ Public comments of the Minnesota Department of Commerce, March 1, 2024, p. 53.

¹⁴ PV output is typically higher in the summer months than winter months. Xcel's 2023 IDP, Appendix A1,

Table A1-11, p. 78 shows average PV output as a percentage of nameplate capacity in Nov-Feb as 17.4% for tracking systems and 23.6% for fixed systems. In contrast, average PV output in May-Aug is 38.6% for tracking systems and 46.3% for fixed systems.

dependability factors (one for summer-peaking feeders and one for winter-peaking feeders) would be a reasonable next step.

The Department also noted that Xcel's proposed PNL methodology would result in few avoided risks and have very little impact on avoided distribution upgrades.¹⁵ Fresh Energy believes that this is because of how Xcel is applying its proposed dependability factor (i.e., to the difference between native and net peaks [in different hours] instead of to nameplate capacity), and that a more reasonable approach may result in more avoided upgrades.

Rather than abandon the PNL concept, Fresh Energy believes an assessment of alternative approaches would be of interest to stakeholders and better inform the Commission's decision on whether to direct further work on PNL. Fresh Energy understands that the Department arrived at its conclusion to not apply the current PNL methodology in planning (supported by Xcel) because of the proposed methodology's low impact on planned investments. It is Fresh Energy's understanding that this conclusion was not necessarily made as a judgement on the merits of how Xcel applies the 15% factor, or the value a different methodology may provide.

Given the large volume of upgrades Xcel is proposing for capacity expansion, Fresh Energy believes it is reasonable for the Company to take a second look at its PNL methodology and evaluate the impact of methodology refinements. As the GECs stated, "Xcel should continue to refine its (PNL) approach in the future, learning from and contributing to industry best practices in order to maximize DER capacity contributions and, subsequently, reduce unnecessary infrastructure investment."¹⁶

Fresh Energy recommends that the Commission require Xcel to refine its PNL methodology by increasing the dependability factor for summer-peaking areas. Xcel shall also evaluate alternative approaches to applying the dependability factor, including applying it to hourly PV generation and to PV nameplate capacity. Xcel shall engage parties that commented on PNL in this proceeding as it evaluates seasonal dependability factors and alternative PNL approaches. Xcel shall include a report describing the results of this evaluation and changes to its proposed PNL methodology in its next IDP.

5. Proactive Upgrades for Electrification and DER Growth

Fresh Energy appreciates the comments from other parties on this topic. Several parties noted a need for more discussion and investigation on both cost allocation for DERs

¹⁵ Public comments of the Minnesota Department of Commerce, March 1, 2024, p. 54.

¹⁶ Initial Comments of Grid Equity Commenters, March 1, 2024, p. 39.

(including electrification) and proactive planning approaches. Fresh Energy believes Xcel's proposal for two structured stakeholder workshops is a reasonable path forward, and we agree with the Company's assessment that workshops are more productive when there is a clear scope and intended outcome for the process.¹⁷ Two meetings may not produce a universal solution to this issue, but will help to ensure that interested parties understand the nuances of others' positions and have an opportunity to ask questions about potential approaches.

Fresh Energy is supportive of having one meeting focused on stakeholder recommendations and one on a presentation of Xcel's proposed framework or recommendations on how to proceed. We recommend that participants and Xcel make slides from these workshops available in this docket prior to the workshop, and that Xcel include summaries of the stakeholder proposals and stakeholder questions in its next IDP, along with a discussion of its own framework or proposal.

Given the large increases in load growth Xcel forecasts from residential beneficial electrification (716 MW by 2033),¹⁸ and the discussion underway about waiving contribution in aid of construction (CIAC) for residential EV charging customers on a managed charging program, these stakeholder conversations may identify a need to revisit, and potentially revise, other CIAC policies affecting electrification customers. If so, parallel, or additional processes regarding CIAC revisions may be helpful.

6. Cost-Benefit Analyses (CBAs) for Discretionary Capital Investments

Xcel is planning significant increases in spending across almost all IDP categories, resulting in more than \$2 billion of increased capital expenditures from 2024-2028 compared to the previous five years. Increased distribution spending is a trend occurring across the country, but that does not mean it does not deserve scrutiny. These increases create upward pressure on electric rates and affordability, at the same time that Minnesota policy requires electrification of more of our lives. Fresh Energy believes transparency into the customer benefits from this increased spending (especially the discretionary portions of it) is critical, and CBAs can provide an important measure of transparency.

In our Initial Comments, Fresh Energy proposed that Xcel work with stakeholders to develop a CBA methodology for six programs (encompassing \$1.26 billion of planned 2024-2028 expenditures, 34% of the 2024-2028 total). Xcel stated in its Reply Comments, "Performing a CBA for each of the six programs proposed by Fresh Energy would be

¹⁷ Xcel Reply Comments, p. 36

¹⁸ Xcel IDP, Appendix A1

impractical and complex." The Company also stated, "While we oppose conducting CBAs for all discretionary projects, and for the six specific categories of projects recommended by Fresh Energy, we are open to discussing these issues with stakeholders, collaborating with them, and having additional conversations on approaches for applying CBAs, or a similar type of evaluation, strategically to program-level investments."¹⁹ We appreciate the Company's willingness to continue engaging with us and other stakeholders on this important issue. Such conversations will be important for ensuring confidence that spending levels are in alignment with customer benefits and are being made as efficiently and effectively as possible.

Fresh Energy recommends that the Commission accept the Company's proposal to engage in additional stakeholder discussions on approaches to apply CBAs for discretionary program-level expenditures, and direct Xcel to report on these discussions in the next IDP.

Among stakeholders, a common concern is the ability to convene and spend limited resources (largely staff time) in workgroups or workshops. Each IDP since 2018 has resulted in requests for additional stakeholder conversations and/or workshops led by the Company or the Commission. Many, if not all, stakeholders are willing and interested in working together to analyze the complex issues presented in the IDP, but each group has varying levels of resource limitations.

One option is for the Commission to identify a standing workgroup as a "hub" for IDP stakeholder work. However, Fresh Energy is concerned that a standing workgroup may exacerbate concerns about already-strained resources, including from Xcel. As a result, Fresh Energy suggests that stakeholder directives resulting from the IDP need not require every commenting party. Parties should have the opportunity to participate in discussions relevant to their work, but an expectation that all parties will participate may not be realistic and may hamper beneficial conversations between smaller groups. For issues like proactive upgrades, where many parties may want to engage, we offer that a single full-day meeting may be more time-efficient than several shorter meetings over a span of months. Fresh Energy is very interested in comments from other parties on how to move forward productively and efficiently in this area.

7. Equity in Xcel's Distribution System

The Company states in the opening of its Reply Comments that incorporating equity considerations into its distribution system planning process is a "priority" and that its "goal

¹⁹ Xcel Energy Reply Comments, p. 29.

is to integrate equity and environmental justice concerns into the design of a broad range" of programs. Fresh Energy applauds the Company for this commitment. However, later in its Reply, the Company appears to retreat from its commitment to integrate equity considerations, referring to equity as a "non-traditional" goal which should be treated as a separate category.²⁰ Incorporating equity into the Company's programming, and in particular investment decisions, requires an intentional process of permeating principles of equity throughout decision-making, especially decisions which have impacts on historically marginalized communities. Given the Company's plans for massive spending on the distribution system, Fresh Energy believes integrating principles of equity into spending decisions is appropriate and consistent with the Company's obligation to serve its customers.

The Company also provides a high-level response to the analysis performed by Drs. Bhavin Pradhan and Gabriel Chan (Pradhan and Chan study). Xcel states that its own analysis found a "strong relationship" between CELI-12 and race in neighborhoods that have both a high proportion of people of color and older housing stock vintage.²¹ The Company recognizes the impact that long, extended outages can have on its customers. Fresh Energy is concerned about the customers in neighborhoods with long outages. Such customers may be more at risk of medical issues or other hardships as a result of long outages. In addition, these issues have the potential to exacerbate over time, particularly given an aging housing stock.

We encourage the Company to take the necessary steps to resolve these longer outages. *Fresh Energy recommends the Commission require the Company to report the CELI-12 in these neighborhoods in its 2025 IDP in addition to its service quality reports and locational reliability map, and to recalculate racial disparities as part of this reporting. Xcel should discuss steps being taken and changes in CELI-12 disparities.* If the disparity does not resolve, the Commission may want to consider setting year-over-year improvement targets in Xcel's service quality docket.

Similarly, the Company states that its analysis with respect to disconnections "shows similar results as Pradhan and Chan . . . the number of disconnections is higher in identified lower-income areas and increases when the proportion of people of color increases within an income group."²² While the Company states that it has robust procedures to help customers avoid disconnections, those procedures are accounted for in the study. Given the affected population and the negative impacts of disconnection, it is possible that the

²⁰ Xcel Reply Comments, p. 38

²¹ Id, p. 6

²² Id., p. 7

Company may need to alter its existing policies to eliminate this disparity. More specifically, while current disconnection policies may be effective for some populations, they may be less effective for areas with lower-income customers of color.

As with CELI-12, we encourage the Company to take the necessary steps to resolve this higher level of disconnections. *Fresh Energy recommends the Commission require the Company to track and report disconnections in these neighborhoods in its 2025 IDP in addition to its service quality reports and locational reliability map, and to recalculate racial disparities as part of this reporting. Xcel should discuss steps being taken and changes in disconnection data.* If the disparity does not resolve, the Commission may want to consider setting year-over-year improvement targets in Xcel's service quality docket.

In its Reply, Xcel states that it believes the best place to consider the results of the Pradhan and Chan study and the results of the Company's study is in the Annual Reliability and Service Quality report. Fresh Energy is agnostic as to where the disparities analysis is reported as long as the issues are resolved. We see the logic of reporting in the service quality report and recommend that docket be used for discussion of possible targets on these metrics. However, Fresh Energy believes that the purpose of the Integrated Distribution Planning docket is precisely to determine where and how to sequence investments in the distribution system. Certainly, investments in lower-income communities must be a part of that planning and, therefore, long-term strategies for how to best serve lower-income communities are also pertinent to this docket.

III. Response to Other Parties' Initial Comments

Fresh Energy also supports the following recommendations from other stakeholders.

8. DERMS

In its comments, the Grid Equity Commenters (GEC) recommended the Commission require Xcel to file a "Roadmap to DERMS Deployment" that would require Xcel to provide a clear vision for deployment and full implementation of DERMS technology. This process would include a roadmap detailing the expected pathway from present state to basic functions, to full implementation of DERMS and the answers to seven questions the GEC have identified in its initial comments.²³

Fresh Energy appreciates and supports this walk-jog-run approach to DERMS deployment to allow for deliberate planning and stakeholder involvement. As mentioned by Mr. Davis in

²³ Initial Comments of Grid Equity Commenters, March 1, 2024. Attachment 1, p. 2

GEC Attachment 1, DERMS are managing primarily customer-located equipment, and as such require a high level of scrutiny that reflects stakeholder needs and customer feedback.²⁴ Such collaborative scrutiny is also paramount given the technical components of DERMS that can impact operational and implementation costs that ultimately impact customers' ability to engage with potential programs.²⁵

A mapped approach allows for time and consideration of these concerns, potentially even before the company has requested cost recovery of a DERMS product. Fresh Energy is supportive of the GEC's recommendations to engage experts as well as DER owners and developers during creation of the roadmap. Early engagement of these parties allows for the greatest possibility to create programs that are successful, inclusive, and most positively impactful to the distribution system.

Fresh Energy concurs with the GEC recommendation that prior to Commission approval of and Xcel implementation of any DERMS investments, Commission should require Xcel to: (1) provide a detailed roadmap for DERMS deployment that addresses at least the questions in GEC initial comments and (2) conduct robust stakeholder outreach, including with DER owners/operators, and describe in a filing with the Commission its stakeholder engagement process, the materials it used to inform stakeholders about DERMS (addressing, e.g., costs, benefits, alternatives, purpose, problems it is solving, etc.), the feedback it received, and how it has addressed it. Fresh Energy suggests that this DERMS roadmap be filed as part of the 2025 IDP, or alongside a request for certification or cost recovery of any DERMS technology, whichever is first.

Fresh Energy also supports the GEC's recommendation for a phased approach to flexible interconnection and the development of a plan by the time Xcel requests approval of a DERMS product. Flexible interconnection gives consumers more options when seeking to interconnect a DER to the distribution system. Options like static flexible interconnection, as discussed by Mr. Davis, allow customers to avoid potentially costly interconnection costs by only discharging up to a pre-set threshold.²⁶ As with the DERMS discussion above, Fresh Energy supports taking a walk-jog-run approach and providing a plan that ensures transparency and stakeholder comprehension.

Fresh Energy concurs with the GEC recommendation that prior to Commission approval of and Xcel implementation of any DERMS investments, Commission should require Xcel to demonstrate the Company's ability to integrate DERs with the tools available to it today and in the near term, including specifically through: (1) implementing static Flexible Interconnection prior to implementing full, dynamic Flexible Interconnection; and (2) pursuing a staged approach to Flexible Interconnection, DERMS, and Dynamic Hosting Capacity implementation.

²⁴ Id.

²⁵ Id.

²⁶ Id. pp. 1-2

IV. Summary of Recommendations:

Fresh Energy recommends the Commission direct Xcel:

- 1. Xcel shall conduct a Request for Information (RFI) process to assess the feasibility of its planned NWA solicitation, including the proposed "ARR split" compensation, and make a compliance filing reporting on the results of the RFI within 12 months of the Commission's order in this proceeding.
- 2. Xcel shall re-evaluate IVVO for its Minnesota service area (applying the new Minnesota Test for cost-effectiveness and updated assumptions informed by PSCo's experience with IVVO). As part of this analysis, Xcel shall identify feeders where IVVO is most cost-effective, discuss the potential for targeted deployment to these areas and/or in under-resourced communities, and report on its updated evaluation within 6 months of the Commission's order in this proceeding.
- 3. In its next IDP, Xcel shall report on its progress to improve forecasting, including:
 - a. Refining its residential beneficial electrification forecasts to include low, medium, and high adoption scenarios.
 - b. Presenting an initial C&I beneficial electrification forecast, or if the Company is unable to complete one by that time, the Company shall explain why not and include a detailed explanation of how it is thinking about this forecast, information challenges it raises, and approaches Xcel is considering.
 - c. Evaluating the accuracy of LoadSEER forecasts.
 - d. Utilizing IDP forecast scenarios to perform sensitivities on grid capacity or capital expense plans.
- 4. Xcel shall refine its PNL methodology by increasing the PV dependability factor for summer-peaking areas. Xcel shall also evaluate alternative approaches to applying the dependability factor, including applying it to hourly PV generation and to PV nameplate capacity. Xcel shall engage parties that commented on PNL in this proceeding as it evaluates seasonal dependability factors and alternative PNL approaches. Xcel shall include a report describing the results of this evaluation and changes to its proposed PNL methodology in its next IDP.
- 5. Xcel shall host two workshops to advance a framework on DER cost allocation and proactive upgrades. The workshops should include proposals from stakeholders as well as a proposal from Xcel recommending a path forward. Parties will file meeting materials in this docket, and Xcel will include summaries of stakeholder proposals and stakeholder questions in its next IDP, along with a discussion of its own framework or proposal.

- 6. Xcel shall include in its next IDP a discussion of the results of stakeholder conversations about ways to conduct program-level cost benefit analyses for relevant discretionary distribution expenditures.
- 7. In addition to the reporting in its service quality reports and locational reliability map, Xcel shall:
 - a. Report in its 2025 IDP the CELI-12 in neighborhoods where analysis by both the Pradhan and Chan Report and the Company has shown a "strong relationship" between CELI-12 and race when the neighborhood has both a high proportion of people of color and older housing stock.²⁷
 - Report in its 2025 IDP the level of disconnections in neighborhoods where analysis by both the Pradhan and Chan Report and the Company has shown "the number of disconnections is higher in identified lower-income areas and increases when the proportion of people of color increases within an income group."²⁸
 - c. Describe in its 2025 IDP the steps the Company is taking to reduce and eliminate the racial disparities seen in CELI-12 and disconnections in these neighborhoods. Xcel shall recalculate racial disparities as part of this reporting to identify the level of improvement over time.
- 8. With the filing of its 2025 IDP, or at the time of request for certification or cost recovery for any DERMS investments, whichever is sooner, Xcel shall: (1) provide a detailed roadmap for DERMS deployment that addresses at least the questions in GEC initial comments and (2) conduct robust stakeholder outreach, including with DER owners/operators, and describe in a filing with the Commission its stakeholder engagement process, the materials it used to inform stakeholders about DERMS (addressing, e.g., costs, benefits, alternatives, purpose, problems it is solving, etc.), the feedback it received, and how it has addressed it.
- 9. Prior to any Commission acceptance of or Xcel implementation of DERMS investments, Xcel shall demonstrate the Company's ability to integrate DERs with the tools available to it today and in the near term, including specifically through: (1) implementing static Flexible Interconnection prior to implementing full, dynamic Flexible Interconnection; and (2) pursuing a staged approach to Flexible Interconnection.

²⁷ Xcel Reply Comments, p. 6

²⁸ Xcel Reply Comments, p. 7

Respectfully submitted,

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