

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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September 21, 2017

**In the Matter of the Commission
Investigation into Grid Modernization:
Focus on Distribution System Planning**

Docket Number E999/CI-15-556

Reply Comments of Fresh Energy

Fresh Energy submits these comments in response to the Commission's April 26, 2017 [Notice of Comment Period](#). Fresh Energy's initial comments proposed a procedural process to further develop the record on specific issues, with an initial focus on Xcel Energy. Specifically, we recommended developing a record on load forecasting and scenario planning for Distributed Energy Resources (DERs) through a Lead Commissioner-led stakeholder process. Overall, we believe the parties' initial comments are largely consistent with our recommendations. Below, we highlight areas of consensus and respond to additional issues raised by parties.

Areas of consensus

Several parties highlighted the importance of—and their interest in—further inquiry into distribution system planning. Nearly all parties acknowledged the value of the Commission continuing its inquiry into distribution system planning. Not surprisingly, each of the stakeholder groups also emphasized the importance of stakeholder engagement. The Interstate Renewable Energy Council in particular made a compelling case for stakeholder engagement, noting the robust stakeholder processes employed in other state commissions' distribution planning dockets.¹ Notably, most of the utilities also saw value in additional stakeholder input on distribution system planning. Dakota Electric is “always looking”² for new ideas to improve its distribution system, Minnesota Power “welcomes input from many stakeholder groups, including customers and community organizations,”³ and Xcel Energy provided detailed suggestions for areas in which stakeholder input would be particularly valuable.⁴

¹ The Interstate Renewable Energy Council, Initial Comments on Section C, 8/21/2017, at pages 12-14 ([link](#)).

² Dakota Electric Association, Initial Comments on Section C, 7/20/2017, at page 2 ([link](#)).

³ Minnesota Power, Initial Comments on Section C, 8/21/2017, at page 2 ([link](#)).

⁴ Xcel Energy, Initial Comments on Section C, 7/21/2017, at page 13 ([link](#)).

We especially appreciate Xcel's openness to stakeholder input on DER scenarios and forecasting, which were topics of considerable interest among parties. Xcel's belief that "the planning process would benefit from using multiple scenarios"⁵ was shared by nearly all parties, including the Department of Commerce.⁶ We believe developing DER scenarios and forecasts should be a main focus moving forward. We also agree with the Citizens Utility Board of Minnesota's assessment of the importance of accurate load forecasting:

[T]he Commission should focus on that data which is most useful to the Commission's role of ensuring distribution service, which is probably first and foremost forecast data. To be accurate, forecast data should also take into account the effects of efficiency and demand-side resources as well as changes in usage patterns (e.g. reductions in peak load).⁷

Xcel Energy's comments also contemplated a process that would be consistent with our recommendations. As noted above, Xcel acknowledged the value of DER scenarios and stakeholder engagement. Xcel also envisioned an iterative process that would evolve over time. Xcel offered that:

Utilities could submit an annual report summarizing the results of their present annual planning process – and to the extent they do not yet have the tools to incorporate the Commission's planning guidance, also provide an update on where they are in that process. This would increase transparency into utility planning processes for the Commission and stakeholders, and allow processes that are fundamentally needed to maintain customer reliability to continue uninterrupted.⁸

These comments fit well with the procedural process recommended in our initial comments: after Xcel's compliance filing on DER scenarios and load forecasting, the Company could participate in the written comment periods and stakeholder meetings (if necessary) facilitated by the Lead Commissioner. Xcel could then incorporate the Commission's directives into its Q4 2018 planning and file a report on its plan in early 2019. This Report would provide valuable transparency and would also provide an opportunity for parties and the Commission to review the utility's progress and consider possible improvements.

Developing Guiding Principles

One common theme in parties' initial comments was support for establishing guiding principles and objectives for distribution system planning. Fresh Energy is persuaded by these arguments, and we believe our recommended procedural process would provide an ideal forum for the development of the guiding principles.

⁵ Xcel Energy, Initial Comments on Section C, 7/21/2017, at page 19 ([link](#)).

⁶ Minnesota Department of Commerce, Initial Comments on Section C, 8/21/2017, at page 3 ([link](#)).

⁷ Citizens Utility Board of Minnesota, Initial Comments on Section C, 8/21/2017, at page 8 ([link](#)).

⁸ Xcel Energy, Initial Comments on Section C, 7/21/2017, at page 9 ([link](#)).

The Interstate Renewable Energy Council noted that several other state commissions have provided clear guidance to utilities on their goals and objectives for distribution system planning. A similar process would be helpful in Minnesota, they argued:

IREC emphasizes the importance of providing upfront guidance to the Minnesota utilities regarding the content, format, and timing for their distribution planning filings. Such guidance should also provide high-level direction regarding the ultimate goals for the utilities' distribution planning processes, such as improved integration and optimal utilization of DERs. [...] Ultimately, IREC believes Minnesota's goal should be one seamless process in which DER integration and grid modernization investments are just part of broader distribution planning. In the nearer term, however, this extra guidance, transparency, and review are appropriate in light of the utilities' current business model and cost-recovery framework, which do not necessarily fully align their incentives with the public interest and various state policies, as discussed above.⁹

The Citizens Utility Board highlighted the value in identifying goals, citing the detailed objectives established by the Illinois Commerce Commission for smart grid investments.¹⁰ The Advanced Energy Economy Institute noted the importance of principles and goals in guiding utilities and moving toward consistency.¹¹ Xcel also argued the Commission “could issue guiding principles that would aid utilities in evolving their planning processes and supporting planning tools,” and argued that “if the Commission wishes to get to a common planning framework, scenarios, or sensitivities, it will likely need to evolve over time – perhaps starting with guiding principles that shape the evolution of utility planning tools.”¹²

Fresh Energy is persuaded that there would be value in developing guiding principles and goals for distribution system planning. If the Commission agrees, this topic could easily be incorporated into the procedural process recommended in our initial comments. Specifically, the Commission could include this as a topic for written comments after Xcel has made its compliance filing. This would offer an opportunity for record development, and, equally importantly, the Lead Commissioner's Report could include draft principles and objectives, which could guide the Commission's deliberation at an Agenda meeting and help focus the discussion.

Non-wires alternatives

Another common theme in the initial comments was interest in non-wires alternatives. Nearly all parties discussed non-wires alternatives at some point. The Citizens Utility Board, for example, noted the potential for customer savings when non-wires alternatives are more cost

⁹ The Interstate Renewable Energy Council, Initial Comments on Section C, 8/21/2017, at page 10 ([link](#)).

¹⁰ Citizens Utility Board of Minnesota, Initial Comments on Section C, 8/21/2017, at page 2 ([link](#)).

¹¹ The Advanced Energy Economy Institute, Initial Comments on Section C, 7/20/2017, at pages 6 and 11 ([link](#)).

¹² Xcel Energy, Initial Comments on Section C, 7/21/2017, at pages 9 and 15 ([link](#)).

effective than traditional utility investments, and the Interstate Renewable Energy Council pointed out that “[i]n some cases, NWAs may have advantages over traditional large infrastructure projects in that they can be procured in phases over time, which may be useful in dealing with uncertainty in forecasted growth.”¹³ Xcel itself recognized the potential for non-wires alternatives in its discussion of long-term area studies.¹⁴

Several parties also identified the primary obstacle to non-wires alternatives: the current utility business model. As Advanced Energy Economy explained:

The traditional cost-of-service utility business model based on earning a regulated rate of return on capital investments is not a natural fit with distribution planning that attempts to maximize the benefits of DER deployments and give customers more options for managing energy use and costs with DER. As customers deploy more DER, the opportunity for utilities to invest in traditional distribution assets may decrease.¹⁵

Advanced Energy Economy’s discussion of alternative business models—such as performance based ratemaking and allowing a return on certain operational expenses—offer possible solutions to this problem that are worthy of consideration.

Fresh Energy believes consideration of non-wires alternatives will be an integral component of distribution system planning going forward. As we stated in our initial comments, solar and battery storage costs are declining at a break-neck pace, and new software and hardware options are increasing the value and practicality of demand response. It is inevitable that non-wires alternatives will be cost-effective in Minnesota eventually, and they may already be so for some applications today. Eventually, the Commission will need to address this issue. If the Commission believes the time is ripe to address this topic, we believe it can be incorporated into the procedural process outlined in our initial comments.

Integration of hosting capacity, interconnection, and distribution system planning

The Interstate Renewable Energy Council’s initial comments provide an insightful assessment of the interrelation between interconnection, hosting capacity analyses, locational valuation, non-wires alternatives, and distribution system planning.¹⁶ The Interstate Renewable Energy Council also raised concerns that:

The current analysis does not directly connect to the utility’s planning process, particularly in light of hosting capacity’s potential benefits in the distribution planning context and Xcel’s substantial investment in its analysis. If hosting capacity is not currently a part of Xcel’s planning process, its application or relevance in the

¹³ The Interstate Renewable Energy Council, Initial Comments on Section C, 8/21/2017, at page 25 ([link](#)).

¹⁴ Xcel Energy, Initial Comments on Section C, 7/21/2017, at page 13 ([link](#)).

¹⁵ The Advanced Energy Economy Institute, Initial Comments on Section C, 7/20/2017, at page 18 ([link](#)).

¹⁶ The Interstate Renewable Energy Council, Initial Comments on Section C, 8/21/2017, at page 11-12 and 25-26 ([link](#)).

context of this proceeding is seemingly quite limited. Yet, there are clear areas of overlap between Xcel’s efforts and this proceeding, and IREC strongly encourages the Commission to take necessary steps to ensure the two efforts do not continue to be divergent and unrelated. Indeed, there could be considerable consequences from a ratepayer prudence standpoint, as well as a time and resource standpoint for the Commission and parties involved in both proceedings.¹⁷

In our initial comments, Fresh Energy argued that: “Eventually, the Commission will want to determine how best to merge Xcel’s work in Docket 15-962 with Xcel’s broader integrated distribution planning work. For the time being, however, it may be reasonable to continue addressing hosting capacity separately.”¹⁸ We believe this issue has merit, and the Interstate Renewable Energy Council makes a compelling case for addressing it now. If the Commission is persuaded that it would be appropriate to address this topic at this time, we believe it can be incorporated into the procedural process outlined in our initial comments.

Conclusion

In conclusion, Fresh Energy appreciates the initial comments of the parties, which raise many interesting and relevant questions. We continue to recommend the procedural process outlined in our initial comments; we believe this process can accommodate the major issues identified in party comments. We are also persuaded that it is appropriate to develop guiding principles at this time, and this could easily be accomplished through our recommended process. Parties’ initial comments also highlight other relevant issues—such as non-wires alternatives and the integration of hosting capacity, interconnection, and distribution system planning—that could be incorporated into our procedural process if the Commission is persuaded that the time is ripe.

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¹⁷ The Interstate Renewable Energy Council, Initial Comments on Section C, 8/21/2017, at page 28 ([link](#)).

¹⁸ Fresh Energy, Initial Comments on Section C, 8/21/2017, at page 9 ([link](#)).