



February 22, 2019

VIA ELECTRONIC FILING

Mr. Daniel Wolf, Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101-2147

Re: Docket E002/CI-18-251 In the Matter of the Distribution System Planning for Xcel Energy

Dear Mr. Wolf,

Clean Energy Economy Minnesota (CEEM), respectfully submits these comments on Xcel Energy's integrated distribution system plan. Our mission at CEEM is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies. We work to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans.

On November 19, 2018, the Minnesota Public Utilities Commission requested comments on Xcel Energy's Integrated Distribution Plan (IDP) for the 10-year period following the submittal. Our comments focus on opportunities related to the plan and provide perspectives on the development of effective distribution planning.

Please feel free to contact us with any questions that you may have. We hope that the comments below provide you with useful insights.

Regards,

A handwritten signature in black ink, appearing to read "Ben AS".

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A handwritten signature in black ink, appearing to read "Gregg Mast".

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State of Minnesota  
Before the  
Minnesota Public Utilities Commission

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In the Matter of the Distribution System Planning  
for Xcel Energy

Docket E002/CI-18-251

**COMMENTS**

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**Introduction**

Clean Energy Economy Minnesota (CEEM) appreciates the opportunity to provide these comments in response to the Minnesota Public Utilities Commission’s (hereafter PUC or Commission) Notice of Comment Period on Xcel Energy’s Integrated Distribution Plan issues on November 19, 2018.

CEEM is a 501(c)(3) organization whose mission is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies. CEEM works to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans. We are focused on sharing the stories and perspectives of clean energy businesses and employees, and are committed to working across industries and political divides to support a prosperous economy for Minnesotans.

CEEM is fueled by support of our member businesses, partners, and individuals working across Minnesota’s sustainable energy economy. CEEM’s members and partners represent a wide array of businesses providing and seeking energy solutions, and across energy technologies and business models.

CEEM staff has significant experience in participating in regulatory reform, grid modernization, and “utility of the future” discussion and regulatory proceedings across the country. Our staff has been active in previous roles in grid modernization and planning proceedings in Hawaii, Michigan, Minnesota, Ohio, Pennsylvania, and Rhode Island.

**Comments**

Distribution system planning will continue to evolve to address, accommodate, and benefit from changing technologies on both the grid- and customer-side of meters, including increasing customer adoption of distributed energy resources (DER).<sup>1</sup> Minnesota continues to lead discussions about changes, establishing several planning and regulatory mechanisms, including the discussions from the series of Grid Modernization workshops (2015-2016) and the development of new filing requirements for the planning processes of the state’s regulated utilities. We commend Minnesota and the

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<sup>1</sup> We define DER broadly to include energy efficiency, demand response, distributed generation of all types, energy storage, electric vehicles and microgrids.

Commission for this vision and leadership, and we greatly appreciate the opportunity to engage in this proceeding.

The Minnesota PUC is viewed as a national leader in regulatory efforts related to distribution system planning. By engaging in a variety of ways in recent years, the Commission identified strategic objectives and considered the capabilities of clean energy technologies in meeting those objectives. The Commission continues to examine ways to create a comprehensive and coordinated IDP process in Minnesota, guided by sound principles and planning objectives, including to:

- Maintain and enhance the safety, security, reliability, and resilience of the electricity grid, at fair and reasonable costs, consistent with the state’s energy policies;
- Enable greater customer engagement, empowerment, and options for energy services;
- Move toward the creation of efficient, cost-effective, accessible grid platforms for new products, new services, and opportunities for adoption of new distributed technologies; and,
- Ensure optimized utilization of electricity grid assets and resources to minimize total system costs.
- Provide the Commission with the information necessary to understand Xcel’s short-term and long-term distribution system plans, the costs and benefits of specific investments, and a comprehensive analysis of ratepayer cost and value.<sup>2</sup>

The Commission’s August 30, 2018 Order adopted Integrated Distribution Planning (IDP) filing requirements for Xcel Energy for the next 10-year horizon beginning November 1, 2018.<sup>3</sup> This process does not involve Xcel Energy seeking certification of any modernization investments under Minn. Stat. 216B.2425. Filing requirements included information related to “short-term and long-term distribution system modifications and investments, considerations used in related planning processes, non-traditional distribution system alternatives, and long-term distribution system forecasts, among other requirements.”

On November 1, 2018, Xcel Energy filed “Integrated Distribution Plan (2019-2028): Advancing the Grid at the Speed of Value.”<sup>4</sup> The filing intended to present “a detailed view of our distribution system and how we plan the system to meet [Xcel’s] customers’ current and future needs.”<sup>5</sup>

### **Review of Xcel Energy’s IDP**

In its Notice of Comment Period on Xcel Energy’s Integrated Distribution Plan, the Commission indicated four topic(s) open for comment:

1. Should the Commission accept or reject Xcel Energy’s Integrated Distribution Plan (IDP)?
2. Does the IDP filed by Xcel Energy achieve the planning objectives outlined in the filing requirements approved in the Commission’s August 30, 2018 Order in this docket?
3. What, if any, adjustments should be made to future filing requirements?

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<sup>2</sup> MN PUC ORDER APPROVING INTEGRATED DISTRIBUTION PLANNING FILING REQUIREMENTS FOR XCEL ENERGY (August 30, 2018), Docket. No. E-002/CI-18-251

<sup>3</sup> *ibid*

<sup>4</sup> Xcel Energy, Compliance Filing – Integrated Distribution Plan (November 1, 2018), Docket No. E002/CI-18-251 4

<sup>5</sup> *Ibid.* pg 1.

4. Are there other issues or concerns related to this matter?

In reviewing Xcel Energy's IDP we will use these topics to frame our comments, while also recognizing the Commission's principles and planning objectives.

**1. Should the Commission accept or reject Xcel Energy's IDP?**

We believe the Commission should approve Xcel Energy's IDP while clarifying what approval means in the context of related Commission decisions. The Commission's Order of August 30, 2018 notes IDP filing requirements ensure the Commission "either accept or reject a distribution plan... upon the plan content and conformance with the filing requirements and Planning Objectives."<sup>6</sup> Further, within the filing requirements, the Commission notes "The plan will be reviewed and may be combined with the Biennial Distribution System Plan required by Minn. Stat. 216B.2425 and associated certification requests, as authorized in that docket (E002/M-17-776)." While we believe the Commission is well-intentioned in wanting a decision about the IDP, it is not clear what approval of a IDP means in terms of impacts on and connections with other proceedings.

In total, CEEM believes Xcel's IDP filing, combined with the company's efforts to engage with stakeholders before and after the filing, represent a strong effort to facilitate comprehensive, coordinated, and transparent planning. We recommend that the Commission approve the IDP and utilize the outputs from the plans to inform other Commission processes.<sup>7</sup> We suggest that the plan approvals should not constitute a formal finding of prudence, nor any pre-approval commitment.<sup>8</sup> We believe that remaining outside of such approvals ensures stakeholders will continue to weigh in on appropriateness of the plan and give the Commission the opportunity to confirm whether Xcel (and other utilities in future IDP processes) is adhering to and learning from the filing requirements.

In addition, the Commission can learn practices from other state's distribution planning proceedings. In Michigan, for example, the Public Service Commission used distribution system plans to gather additional input from regulated utilities, consider how plans can inform ratemaking and other regulatory processes, and to consider the role of performance-based metrics.<sup>9</sup> We recognize the Minnesota Commission's leadership in performance-based regulation considerations.<sup>10</sup> We also note the effort in the current docket is also considering refinements to Hosting Capacity and other important distribution planning topics.

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<sup>6</sup> Ibid

<sup>7</sup> For example, as noted in IDP filing requirements, DERs Scenarios should connect with other planning, including a requirement to "Indicate whether or not these methodologies and inputs are consistent with Integrated Resource Plan inputs." (IDP filing requirements, at page 5)

<sup>8</sup> Pre-approval of an action, such as "approving" a distribution system plan, assumes the appropriateness of costs may be determined later. This embeds risk that approval of plans implies spending, in some cases. Regulatory approval should be thoughtfully crafted and clear. See Hempling, S., & Strauss, S. H. (2008). Pre-Approval Commitments: When and under What Conditions Should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects.

<sup>9</sup> Michigan Public Service Commission. Order of April 18, 2018 Case No. U-18383 – In the matter on the Commission's own motion to implement the provisions of Sections 173 and 183(1) of 2016 PA 342, and Section 6a(14) of 2016 PA 341.1 ([LINK](#))

<sup>10</sup> Including ongoing proceeding in Docket Number E002/CI-17-401 In the Matter of a Commission Investigation to Identify and Develop Performance Metrics, and Potentially, Incentives for Xcel Energy's Electric Utility Operations.

**2. Does the IDP filed by Xcel Energy achieve the planning objectives outlined in the filing requirements approved in the Commission’s August 30, 2018 Order in this docket?**

In particular, the Commission set forth a strong objective that Xcel:

“Provide the Commission with the information necessary to understand Xcel’s short-term and long-term distribution system plans, the costs and benefits of specific investments, and a comprehensive analysis of ratepayer cost and value.”<sup>11</sup>

CEEM commends Xcel Energy for putting forth a detailed view of their distribution systems, and providing the stakeholder community with a view of how Xcel plans to meet system needs. We applaud the comprehensive nature of the plan, given the broad array of issues put forth in the new filing requirements, and the limited time available to develop the IDP. CEEM believes Xcel’s IDP filing meets the spirit of IDP discussion and is comprehensive in scope.

CEEM also believes the filing could be improved in many areas. First, we believe more customer opportunities exist in the short-term. The current IDP focuses on Xcel’s success of Demand Side Management (DSM) programs. We applaud Xcel’s leadership in energy efficiency efforts. Many of CEEM’s member organizations support Xcel as vendors and program partners, saving ratepayers money and employing thousands of Minnesotans. We believe that a model focusing more aggressively on customer and demand-side empowerment (not solely management), functioning alongside operational excellence, is a vision consistent with the Commission’s goals.

Related to customer empowerment, Xcel notes customer platform advancements to allow for greater engagement for customers. We encourage the Commission to review this and future IDPs related to the desired outcomes, while considering the IDP’s proposed timing for those desired outcomes. Xcel’s IDP proposes a “Walk-Jog-Run” approach to Distributed Energy Resources (DER) adoption, and associated customer benefits to be realized over time. In the IDP, Xcel works toward defining core ideas of enabling data, potential new offerings to customers, and realized benefits. The planning, operational, and deployment changes proposed in the IDP reflect sound planning for operations, but significantly delay important near-term customer benefits. Related to customer empowerment and DER adoption, most customer-facing elements are forecasted as “long-term” benefits to be realized later in system planning (2028-2032). Given the amount of readily available and proven customer-facing technologies available today, Xcel’s plan may forego significant near-term opportunities realizing a wide range of benefits, including ratepayer cost savings, grid flexibility, and other objectives.

Second, DER adoption forecasts will and must be more refined. We agree that methodologies to forecast DER adoption are still being developed. Xcel refers to both the market for DER and methodologies for forecasting as “emergent and immature” and “nascent.”<sup>12</sup> We encourage the Commission to either convene stakeholders or encourage Xcel to acquire resources to define objectives of such tools and methodologies.<sup>13</sup> CEEM notes that such market activity is critical to growing an

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<sup>11</sup> Ibix, pg 1

<sup>12</sup> Xcel IDP pp. 11-12

<sup>13</sup> For example, we recognize that there is a separate hosting capacity component to this case in which system conditions and locations where DERs may be cited are becoming more clear.

ecosystem that helps stakeholders understand the economic benefits of DERs under various distribution planning scenarios.

CEEM believes that enabling customers and market-driven solutions should be benefits realized much earlier, and system plans should reflect a commitment to prioritizing customer benefits in initial and early investments. Many such benefits do not require significant investments, such as advanced metering infrastructure, or Xcel to develop a customer portal. It is important that utilities provide access to energy data, where use of that data directly advances customer engagement and choice. Access should be timely, actionable, and enable the customers to self-manage or engage third-parties to meet their energy usage objectives. Many utilities have ensured energy data is shared with authorization in line with responsible data practices and within appropriate technical requirements.

The filing also could encompass more creative thinking around future applications of electricity. There are policy discussions surrounding important considerations as decarbonization goals coincide with increased reliance on the electricity system for energy needs. For example, transportation electrification and increased opportunities for use of localized demand flexibility.

### **3. What, if any, adjustments should be made to future filing requirements?**

We at CEEM appreciate and applaud the efforts of the Commission Staff, Xcel Energy, and the broad array of stakeholders that continue to use the IDP to discuss ways to increase public benefits as Xcel modernizes the grid. We think that the Commission should continue to evaluate stakeholders' experiences and ability to effectively engage with filing requirements. CEEM encourages the Commission to consider broad policy goals in future IDPs, with particular focus on customer benefits, more refined forecasting practices surrounding DER, continued refinement of operational system goals, and development of cost/benefit frameworks.

#### **Structure IDPs around benefits to customers**

We look forward to future IDPs providing more data and transparency surrounding customer benefits. We believe it is essential that customers are empowered with information as well as system operators. Customers become engaged through data, effective programs, technologies, and communications. Those efforts can deliver considerable benefits to the grid, grid operators, and society.

CEEM appreciates Xcel's discussion of strategic priorities within the IDP. In particular, Xcel notes efforts to lead the clean energy transition, enhance the customer experience, and to keep bills low. We believe that clean energy technologies and energy management solutions are critical for the public interest. We further believe that those customer-facing benefits should be prioritized alongside the operational experience Xcel will develop as the grid modernizes.

#### **Develop a Cost/Benefit framework**

We believe cost/benefit analysis plays a critical role in transparent IDP discussions and decision-making. Xcel Energy's filing provides little explicit information with respect to cost/benefit analysis. The high-level description provides a helpful starting point. Future plans should provide stakeholders and the Commission with more explicit information on cost/benefit methodologies and calculations. Further, the Commission, the Department of Commerce, and stakeholders can work with Xcel to provide

cost/benefit quantification and analysis related to important policy outcomes. The current filing could be improved by adding explicit calculations related to the Commission's IDP objectives.

#### **Develop refined DER forecast expectations**

We are encouraged by Xcel's willingness to engage stakeholders and facilitate opportunities for shared learning. Changing technologies on both the grid and customer premises, including the adoption of DER are making planning processes more complex, but those processes could also be capable of delivering increased value for customers and grid operators. The evolving needs and expectations of customers and changing energy technology options require increased information sharing and engagement, including with respect to future planning processes at multiple levels (e.g. integrated distribution plans, integrated resource plans, and/or transmission planning). These trends are naturally leading to higher penetrations of DER on the electricity grid, and regulatory requirements should reflect best practices and changing circumstances. Those practices will continue to include:

- Probabilistic DER forecasting
- Hosting capacity analysis
- Locational value of DER
- Xcel's use of and preparation for standards and codes for DER into IDP and operations

#### **4. Are there other issues or concerns related to this matter?**

There is no one-size-fits-all approach to distribution system planning. States have different policy objectives, levels of DER adoption, and market participation constructs. Thus, planning processes must facilitate planning appropriate for Minnesota's circumstances. Still, many states and jurisdictions are developing more transparent approaches to electric utility distribution planning. These approaches open planning and decision-making processes to meaningful stakeholder engagement, while ensuring strengthened public oversight over significant distribution system expenditures. Such an approach encourages longer-term planning, ensures that planning processes have the most up-to-date information on DER cost, performance and functionality, and brings visibility and accountability to decision-making around infrastructure proposals.

To this end, we encourage the Commission to consider not only compliance with filing requirements, but other outcomes of IDP processes. In particular, there are opportunities to highlight where clean energy delivers significant public benefits, to focus on customer empowerment alongside operational expertise, and to create communities of practice around a modern grid.

We believe it is important to prioritize efforts to identify where clean energy delivers the most public benefits. Planning for a future includes concerns for equitable deployment of energy infrastructure. Performing hosting capacity analysis and DER forecasts should also identify potential deployment scenarios that would deliver benefits to disadvantaged, vulnerable and low-income communities. The clean energy transition should create opportunities across the state and across territories of regulated public utilities.

We believe it is vital to focus simultaneously on customer opportunities and operational excellence. While we agree with a gradual, Walk-Jog-Run approach to grid modernization, we must consider if and when direct customer empowerment is prioritized in system planning.

We also encourage the Commission to use the IDP process to create communities of practice. It is vital that the stakeholder community, the Commission, and Xcel all learn with and from each other as IDP evolves. The IDP can help serve as a basis for stakeholders co-operate outside of formal processes. The IDP can help facilitate value creation for customers and system operators alike.

## **CONCLUSION**

We applaud the Commission for beginning the important discussion with Minnesota's utilities and stakeholders through the IDP process. We are encouraged by Xcel's first IDP filing, and by Xcel's efforts to engage a broad set of stakeholders. We thank the Commission and staff for their continued hard work to make system planning more transparent. Minnesota's electricity grids deliver essential services to the businesses and citizens of the state. The distribution system infrastructure that delivers electricity will continue to change to adapt to trends related to technology changes, public policy objectives, and market activity.