

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
Joseph K. Sullivan	Commissioner
John A. Tuma	Commissioner

In the Matter of Xcel Energy's Integrated
Distribution Plan and Advanced Grid
Intelligence and Security Certification
Request

ISSUE DATE: July 23, 2020

DOCKET NO. E-002/M-19-666

ORDER ACCEPTING INTEGRATED
DISTRIBUTION PLAN, MODIFYING
REPORTING REQUIREMENTS, AND
CERTIFYING CERTAIN GRID
MODERNIZATION PROJECTS

PROCEDURAL HISTORY

Over the last several years, the Commission has investigated the modernization of the electric grid and distribution-system planning as they relate to rate-regulated utilities. As part of this effort, in 2018, the Commission directed Xcel Energy (Xcel, the Company) to file annual Integrated Distribution Plan (IDP) reports.¹ Xcel filed its first IDP on November 1, 2018.

On November 1, 2019, Xcel filed its 2019 IDP, based on the amended filing requirements in the Commission's July 16, 2019 order in Docket No. E-002/CI-18-251.² As part of the 2019 IDP, Xcel also requested certification of its Advanced Grid Intelligence and Security (AGIS) Initiative and its Advanced Planning Tool (APT).

On March 5, 2020, during the Commission's agenda meeting, the Commission heard a presentation from Xcel on how the proposed AGIS investments would relate to the Company's overall strategy, planning, and related filings.

On March 17, 2020, initial comments were received from the following parties:

- Fresh Energy³
- Environmental Law and Policy Center and Vote Solar (ELPC/VS)

¹ *In the Matter of Distribution Planning for Xcel Energy*, Docket No. E-002/CI-18-251, Order Approving Integrated Distribution Planning Filing Requirements for Xcel Energy (August 30, 2018).

² *In the Matter of Xcel Energy's 2018 Integrated Distribution Plan*, Docket No. E-002/CI-18-251, Order Accepting Report and Amending Requirements (July 16, 2019).

³ Fresh Energy filed additional Information Request responses on March 18, 2020.

- Xcel Large Industrials (XLI)⁴
- Department of Commerce, Division of Energy Resources (the Department)
- Interstate Renewable Energy Council, Inc. (IREC)
- Clean Energy Economy Minnesota
- Innovative Power Systems Solar Group (IPS Solar)
- City of Minneapolis
- Office of the Attorney General, Residential Utilities Division (OAG)
- Citizens Utility Board of Minnesota (CUB)

On April 10, 2020, reply comments were received from the following parties:

- Xcel
- The Department
- OAG
- ELPC/VS
- Institute for Local Self Reliance (ILSR)

On April 22, 2020, supplemental reply comments were received from the following parties:

- Xcel
- The Department
- Fresh Energy
- City of Minneapolis
- XLI
- CUB
- ELPC/VS
- IPS Solar

On May 29, 2020, the Commission met to consider the matter.

⁴ XLI is an ad-hoc consortium of large industrial customers of Xcel Energy, comprising, for purposes of this docket, Flint Hills Resources Pine Bend, LLC; Marathon Petroleum Corporation; and USG Interiors, Inc.

FINDINGS AND CONCLUSIONS

I. Summary of Commission action

The Commission will accept Xcel's 2019 IDP, modify the timeline for future filings, establish additional filing requirements, and certify the Advanced Metering Infrastructure, Field Area Network, and Advanced Planning Tool projects.

II. Background

Utility distribution systems have historically functioned without substantial oversight of system planning by regulators. These systems have generally been used only for one-way delivery of electricity, with the associated costs relatively straightforward to evaluate. Consequently, regulators have played very little role in scrutinizing and understanding distribution system planning and operational processes.

However, the Commission recognized that distribution system planning is necessary to understand the need, cost, and benefits of upcoming distribution system investments. These investments involve more sophisticated technology with significant cost and long-term implications for the power system. Over the past several years, the Commission has investigated utility distribution system planning and the modernization of the electric grid.

In 2018, draft utility-specific IDP filing requirements were developed through a Commission-led stakeholder process. The Commission first approved IDP filing requirements for Xcel on August 30, 2018, and amended the filing requirements on July 16, 2019. Xcel filed its first IDP on November 1, 2018 and its second IDP, in the current docket, on November 1, 2019.

III. IDP planning objectives and filing requirements

The Commission's 2018 order establishing IDP filing requirements set out the following objectives for Xcel's distribution system planning:

- 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;
- Ensure optimized utilization of electricity grid assets and resources to minimize total system costs; and
- Provide the Commission with the information necessary to understand the utility'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.

Specific IDP filing requirements are contained in the Commission's 2018⁵ and 2019⁶ IDP orders.

IV. 2019 IDP filing

In its 2019 IDP filing, Xcel provided various information on its distribution system, outlined below, and requested that the Commission:

- Accept the 2019 IDP;
- Allow the Company to file IDPs biennially instead of annually;
- Certify the AGIS Initiative and APT; and
- Set January 25th as the annual deadline for the Advanced Distribution Management System (ADMS) compliance report (required to be cross-filed in the Transmission Cost Recovery Rider and IDP dockets).⁷

A. System overview

First, Xcel discussed its distribution system and its financial and distributed energy resources. The Company noted that it serves about 1.3 million customers in Minnesota with a network of over 26,000 miles of distribution lines, and that it has about 1,300 employees serving its Minnesota distribution system. Xcel explained that its strategic priorities are to lead the clean energy transition, enhance the customer experience, and keep bills low.

Xcel stated that from 2014 to 2018, it spent \$950.2 million on distribution capital projects, and that for 2019 to 2024, it was proposing to spend over \$2.28 billion. Xcel also estimated that between 2014-2018 and 2019-2024, it would increase its spending on distribution operations and maintenance by approximately 9% (including spending outside Minnesota).

B. System planning

Xcel described the system planning process and its analysis of the distribution system's ability to serve existing and future loads, including the role of the Company's proposed advanced planning tool. The Company noted that as customers adopt technologies to control their own energy usage, such as smart thermostats, electric vehicle chargers, and smart home devices, customers also expect more choices and levels of electric service from their utility, as well as greater control over their energy sources.

Xcel stated that industry-wide technological advances now provide new capabilities for utilities to better manage the electric grid and provide service to customers, pointing to advanced electric

⁵ *In the Matter of Distribution Planning for Xcel Energy*, Docket No. E-002/CI-18-251, Order Approving Integrated Distribution Planning Filing Requirements for Xcel Energy (August 30, 2018).

⁶ *In the Matter of Xcel Energy's 2018 Integrated Distribution Plan*, Docket No. E-002/CI-18-251, Order Accepting Report and Amending Requirements (July 16, 2019).

⁷ On May 19, 2020, the Commission issued a Notice of ADMS Annual Filing Date explaining that the Executive Secretary had considered comments from Xcel and the Department and would grant Xcel's request to set January 25 as the deadline for the ADMS report. Because this item has been resolved, the Commission will not address it further in this order.

meters, improved grid data sources, and real-time response to circumstances that would normally result in power outages. Overall, Xcel described an increasingly flexible grid environment with greater ability to adapt to future developments.

Finally, Xcel noted that as penetration of distributed energy resources (DER)⁸ increases, resource planning and distribution planning will become more integrated. However, Xcel stated that before this can occur, distribution planning tools and system capabilities will need to advance.

In this section, Xcel also discussed the Advanced Planning Tool, noting that enhanced planning capabilities are necessary to facilitate more targeted and granular distribution forecast analyses, more systematically evaluate non-wires alternatives (NWAs),⁹ and better assess DER growth. Xcel explained that, with the introduction of DER onto the system, minimum and maximum load information becomes more important for planning purposes and also harder to predict; the Company stated that the APT would evaluate hourly load data on a more granular level, enabling the Company to better assess potential NWAs. Xcel also stated that the APT would allow the Company to evaluate scenarios with various levels of DER adoption and forecast potential system overload conditions and upgrade needs. Finally, Xcel explained that a key aspect of the APT is its ability to integrate different sources of data and communicate with other planning tools, allowing for more efficient and effective distribution planning overall and reducing the need for manual calculations.

Xcel anticipated that the full up-front cost to procure and implement the APT would be approximately \$9.3 million, with \$4 million attributed to Xcel's Minnesota operations.

C. Non-wires alternatives analysis

Xcel stated that NWAs are emerging as another advanced distribution planning application and discussed their potential use for different types of projects. The Company concluded that NWAs are most useful for capacity-related projects where the capacity deficiency can be offset or otherwise deferred with DER.

Xcel stated that it would likely need approximately three years to appropriately consider and incorporate a NWA solution, including internal analysis, requests for proposals, negotiations, and construction. The Company identified several capacity projects that fit the criteria for further consideration for NWAs.

⁸ Distributed energy resources are supply and demand side resources that can be used throughout an electric distribution system to meet energy and reliability needs of customers, can be installed on either the customer or utility side of the electric meter, and may include resources such as distributed generation, energy storage, electric vehicles, demand side management, or energy efficiency. *See In the Matter of Distribution System Planning for Xcel Energy*, Docket No. E002/CI-18-251, Order Approving Integrated Distribution Planning Filing Requirements for Xcel Energy (August 30, 2018).

⁹ Non-wires alternatives are electric utility system investments and operating practices intended to reduce transmission congestion or distribution system constraints at times of maximum demand in specific grid areas, allowing utilities to defer or avoid installation of traditional 'wires and poles' infrastructure.

D. Asset health and reliability management

Xcel discussed electric distribution construction standards and their effects on reliability. Specifically, Xcel addressed the health of the Company's electric distribution system assets, including issues with cable and pole failure rates.

Xcel also explained its incremental system investment (ISI) initiative, which involves expansion of existing asset health programs and creation of new programs to address areas of the system that had not received as much focus, in order to improve overall reliability and also provide the infrastructure to support increases in DER. Xcel summarized its capital expenditures for ISI, including overhead tap programs, underground programs, substation programs, and overhead mainline programs, with total expenditures of \$81 million in 2021 and \$88 million per year in 2022 through 2024.

E. Distribution operations

Xcel discussed its distribution operations, including its response to unplanned events that impact the system and its day-to-day work to provide reliable electric service. For unplanned events such as severe storms, the Company outlined its incident response plan, including regularly-performed readiness drills. The Company discussed the steps it takes before and during a weather event, including sending regular updates to staff, staging field crews near the relevant area, and dispatching crews to perform repairs.

Xcel also outlined its regular distribution operations, including vegetation management, damage prevention, and fleet and equipment management.

F. Grid modernization

Xcel discussed its grid modernization plans, noting that an advanced grid would provide benefits to customers and to Xcel's operations into the future. Xcel explained that the AGIS initiative is the Company's "long-term strategic plan to transform [the] electric distribution system to update system technology and capabilities, meet changing customer demands, enhance transparency into the distribution and to system data, to promote efficiency, and reliability, and to safely integrate more distributed resources."¹⁰

Xcel noted that the core components of AGIS are the Advanced Distribution Management System (ADMS), Advanced Metering Infrastructure (AMI), and the Field Area Network (FAN). Xcel is currently implementing ADMS and recovering costs in the TCR Rider. In this filing, Xcel proposed to implement AMI, FAN, and two additional projects that the Company stated would provide substantial benefits to customers: Integrated Volt-VAR Optimization (IVVO) and Fault Location Isolation and Service Restoration (FLISR).

Specifically, Xcel explained that AMI is the Company's proposed advanced metering system, including advanced meters, communication networks, and data processing and management systems to enable secure two-way communication with customer meters. FAN is a secure two-way communication network to enable communication to, from, and among field devices and Xcel's information systems. FLISR is an ADMS application that improves reliability by

¹⁰ Xcel 2019 IDP Filing, at 146 (November 1, 2019).

automating distribution, including automated switching devices that detect issues and automatically restore power. IVVO is an ADMS application that optimizes voltage as power travels from substations to customers.

Xcel stated that the AGIS initiative is intended to provide a better customer experience, giving customers more information and control over their energy usage. Furthermore, Xcel stated that implementation of AGIS would enable advanced rate design, as contemplated in other dockets. Xcel also noted that its existing meter reading technology is nearing end of life, and the vendor will no longer manufacture replacement parts for the system after 2022. Therefore, Xcel explained, it is the right time to implement the AGIS initiative. Xcel noted that it had conducted a cost-benefit analysis and found that although the AGIS initiative as a whole had a cost-benefit ratio of 0.87, this number did not factor in qualitative benefits such as customer satisfaction and enhancements in the areas of power quality, safety, and operations.

Xcel anticipated incurring capital expenditures of \$582 million and operations and management costs totaling \$152 million for the overall AGIS initiative between 2020 and 2029.

G. Distributed Energy Resources

In this section, Xcel provided various information on distributed energy resources required by previous Commission orders. The Company explained how DER is factored into planning forecasts and discussed current and projected future levels of DER deployment. The Company stated that modernization of distribution infrastructure, new planning approaches, and investment in advanced technologies all help to replace aging or obsolete infrastructure and manage the increasingly complex distribution system that results from higher penetration of DER.

Xcel also summarized how the Company's hosting capacity analysis (HCA) fits with the DER interconnection process. Xcel highlighted how annual HCA studies serve to indicate distribution feeder capacity for certain types of DER, provide insight into potential streamlining of interconnection studies, and inform annual long-term distribution planning. In 2019, Xcel began to track distribution system upgrade costs paid for by DER customers through the Minnesota Distributed Energy Resource Interconnection Process (MN DIP), and the Company stated that it would report these costs in the future. Xcel noted that, in the long term, the Company plans to use HCA for interconnection processing rather than the MN DIP "fast track" screens that are currently used for this purpose.¹¹

V. Issues

A. 2019 IDP filing and future filing requirements

1. Party comments

Xcel requested that the Commission accept the 2019 IDP and allow the Company to file IDPs biennially instead of annually. Xcel argued that a biennial filing schedule would allow more time for the Company to engage with stakeholders and make progress on its goals between filings.

¹¹ See Xcel 2019 IDP Filing, table 48, at 186 (November 1, 2019). Table 48 refers to DRIVE, which is the software that Xcel uses for HCA.

Overall, no party objected to the Commission accepting Xcel's 2019 IDP filing or allowing biennial filings going forward. The Department supported Xcel's request for biennial filings but recommended that Xcel file an annual update of baseline financial data and NWA analysis. The Department stated that these two topics are helpful to understand how ratepayer funds are spent on the distribution system and the potential to defer utility investments in capital assets.

In reply comments, Xcel requested more information on this recommendation, noting that these two items, and particularly the NWA analysis, are two of the IDP components that require the most effort to produce. In supplemental reply comments, the Department explained that its intention was to help the Commission and stakeholders gain information about alternatives to traditional capital investments in the distribution system, especially because distribution-system technologies seem to be changing rapidly.

Parties recommended adding or modifying various IDP filing requirements, including items related to locational reliability and equity, local energy and climate goals, DER integration, and NWA analysis. Additionally, during the Commission meeting, Xcel committed to considering a broader set of values and revenue streams in future NWA analyses.

Finally, during the Commission meeting, Xcel agreed that its long-term goal was to use HCA in interconnection review instead of the MN DIP's fast track screens, and that as part of this process, the Company would make frequent updates to the HCA, vet technical assumptions, and validate results.

2. Commission action

The Commission has carefully reviewed Xcel's 2019 IDP filing and finds that it is in compliance with the reporting requirements; consequently, the Commission will accept Xcel's 2019 IDP. Acceptance of the IDP has no bearing on prudence or certification of specific proposed investments, as discussed in detail below.

The Commission will require Xcel to file IDPs biennially going forward, with the next IDP to be filed no later than November 1, 2021. However, the Commission concurs with the Department's recommendation that the Company should continue to file annual updates of baseline financial data and NWA analysis. These annual filings will allow the Commission to stay up to date on rapidly-changing information that could affect capital investment planning for various distribution system projects.

The Commission will require Xcel to provide additional detail in future IDPs on how its DER analysis reflects customer preference trends and the energy and climate goals of the communities the Company serves, as recommended by the City of Minneapolis. Many municipalities rely on Xcel's infrastructure and cannot reach their own environmental goals without the Company's cooperation. For example, some municipalities seek to increase rooftop solar or electric vehicle charging options within their boundaries, and Xcel's distribution planning should reflect these goals.

Additionally, the Commission will require Xcel to allow any interested person to participate in stakeholder engagement meetings and will specifically direct Xcel to engage stakeholders in further advancing the Company's NWA analysis. During the Commission meeting, parties noted that Xcel had previously limited stakeholder participation in order to keep meetings to a

manageable size; Xcel agreed to open meetings to all stakeholders going forward. Xcel also stated that the Company intends to continue working with stakeholders on NWA analysis. The Commission believes that stakeholder input will improve the distribution planning process and supports Xcel's commitments in this area.

B. Xcel's eligibility under Minn. Stat. § 216B.2425

1. Background

Under Minn. Stat. § 216B.2425, utilities "operating under a multiyear rate plan approved by the commission" must file biennial reports identifying "investments that [they consider] necessary to modernize the transmission and distribution system by enhancing reliability, improving security against cyber and physical threats, and by increasing energy conservation opportunities by facilitating communication between the utility and its customers through the use of two-way meters, control technologies, energy storage and microgrids, technologies to enable demand response, and other innovative technologies."¹² Subsequently, the Commission must certify, certify as modified, or deny certification of proposed projects.¹³

Minn. Stat. § 216B.16 provides that the Commission may approve a tariff that "allows the utility to recover costs associated with investments in distribution facilities to modernize the utility's grid that have been certified by the commission under section 216B.2425."¹⁴

In its 2019 IDP filing, Xcel requested that the Commission certify the AGIS Initiative and APT.

2. Party comments

XLI asserted that Xcel is not eligible for certification under Minn. Stat. § 216B.2425 because the Company is no longer under a multi-year rate plan (MYRP). XLI noted that, pursuant to a settlement agreed upon by the parties and approved by the Commission, Xcel's previous MYRP expired in 2019, and the IDP addresses the period from 2020 to 2029. Therefore, according to XLI, the Company is not eligible to request certification, and the Commission is not authorized to grant certification, because the statute specifically applies to utilities "operating under a multiyear rate plan." In their comments and reply comments, CUB and the OAG echoed this concern.

Xcel argued that although the Company is no longer operating under a MYRP, it was operating under a MYRP at the time it filed the IDP and sought certification. Therefore, the Company argued, under the language of the statute, it was actually required to make an IDP filing and identify the projects for which certification would be appropriate.

In response, XLI reiterated that because the investments contemplated in the IDP filing are not within a MYRP, Commission approval would be inappropriate.

¹² Minn. Stat. § 216B.2425, subd. 2, para. (e).

¹³ Minn. Stat. § 216B.2425, subd. 3.

¹⁴ Minn. Stat. § 216B.16, subd. 7b, para. (b), item (5).

3. Commission action

The Commission finds that, because Xcel was under a MYRP at the time the IDP filing was due, it was appropriate for Xcel to make an IDP filing and request certification of projects. According to the statute, the Commission “shall certify, certify as modified, or deny certification” of the projects in the report. Therefore, the Commission has the statutory authority to consider Xcel’s certification requests.

C. Certification procedures and standards

1. Background and party comments

a. Impact of certification

Certification of distribution projects under Minn. Stat. § 216B.2425 is referenced in Minn. Stat. § 216B.16, subd. 7b (the transmission cost recovery (TCR) rider statute), which states, in part, “the commission may approve a tariff mechanism for the automatic annual adjustment of charges for the Minnesota jurisdictional costs net of associated revenues of. . . new transmission or distribution facilities that are certified as a priority project or deemed to be a priority transmission project under section 216B.2425.” Parties disagree about the ultimate impact of certification – in other words, what effect the Commission’s certification would have on future cost recovery determinations for certified projects.

Xcel describes certification as a “gate-keeping function for investments to become eligible (but not approved) for recovery through a TCR Rider in a subsequent and separate proceeding,”¹⁵ noting that even after a project is certified, the company would still need to prove that investments were prudent in order to recover costs. Xcel stated that during the Commission’s later prudence review, the Commission would have the opportunity to review actual costs and expenditures.

Other parties argued that certification has a much more significant benefit to Xcel and that it essentially pre-judges the issue of cost recovery, shifting the burden to ratepayers to show that costs are not prudent. The Department stated that “certification imbues a favorable decision on the project costs’ necessity, prudence, and reasonableness,”¹⁶ and expressed concern that the record before the Commission was not sufficiently developed to make this type of determination for such a large project.

In response, Xcel pointed to the TCR Rider statute, noting that the statute itself requires that costs included for recovery under the tariff are “prudently incurred and achieve transmission system improvements at the lowest feasible and prudent cost to ratepayers.”¹⁷ Furthermore, Xcel noted that in the Commission’s June 28, 2016 order certifying ADMS, the Commission explicitly stated that the Company would have the burden of establishing prudence in its petition for rider recovery.

¹⁵ Xcel supplemental comments, at 6 (April 22, 2020).

¹⁶ Department comments, at 20 (March 17, 2020).

¹⁷ Minn. Stat. § 216B.16, subd. 7b, para. (d); Xcel supplemental comments, at 6 (April 22, 2020).

XLI and other parties also argued that it would be inappropriate to certify Xcel's certification requests outside a MYRP for policy reasons. Parties expressed concern that the burden of proving prudence would be inappropriately shifted to ratepayers if the Commission made a preliminary determination regarding cost recovery without the benefit of a full rate case, and that combining resource planning and rate issues in one docket would make it more difficult to monitor utility compliance. Furthermore, parties argued that certification would incentivize utilities to avoid traditional rate case filings in favor of pursuing cost recovery through individual dockets and riders, and that this would decrease overall oversight of utility rates and obscure the true impacts on ratepayers. Finally, parties asserted that the projects for which Xcel requests certification in this docket are fundamentally different from the types of projects usually recovered outside a general rate case, such as fuel costs (which are presumed to be largely outside the utility's control).

CUB expressed concern that permitting Xcel to recover large capital expenditures through riders rather than base rates would shift risk away from Xcel and onto customers, thereby reducing the importance, efficacy, and transparency of rate case proceedings.

In response, Xcel stated that the legislature, in Minn. Stat. § 216B.2425, subd. 2(e), had specifically directed the identification of grid modernization technologies for potential rider recovery, and noted that other similarly complex projects with similar levels of capital expenditures had routinely been recovered through riders in the past. Xcel stated that rider implementation would still allow for regulatory review and oversight of costs through regular filings.

b. Potential certification standards

Minn. Stat. § 216B.2425 originally applied only to transmission projects, and certification was an alternative to a certificate of need. In 2015, the legislature added distribution projects to the existing statute. However, distribution projects do not require certificates of need, and many of the criteria set out in the certificate of need statute are not relevant to distribution projects; therefore, there is no clear statutory standard for assessing certification requests. Several parties recommended that the Commission establish a standard for certification requests in this order and suggested standards that could be used.

Xcel pointed to the Commission's June 28, 2016 order certifying ADMS, which relied on language in Minnesota Statutes. In its order, the Commission stated that ADMS fell squarely within the definition provided in Minn. Stat. § 216B.2425 – in other words, it was an investment “necessary to modernize the . . . distribution system by enhancing reliability . . . and by increasing energy conservation opportunities by facilitating communication between the utility and its customers through the use of two-way meters, control technologies, energy storage and microgrids, technologies to enable demand response, and other innovative technologies.”¹⁸

Other parties argued that simply requiring consistency with the statute is not a clear, logical, or workable standard for evaluating certification requests. ELPC/VS argued that the statute does not establish a standard of review; rather, it simply lists the items that need to be included in the utility's report. Consequently, ELPC/VS argued, if the Commission uses the statutory language as its standard for certification, this would mean that the Commission would essentially be

¹⁸ Minn. Stat. § 216B.2425, subd. 2, para. (e).

required to certify anything that a utility included in its report, which the Commission has not always done in the past. Furthermore, ELPC/VS noted that even if the Commission used only the latter portion of the language as its standard, according to the plain language of the statute, a project would need to achieve all of the criteria listed in the statute, and few projects would meet this standard.

Parties proposed various additional standards for certification, including a demonstration that a project is a “priority project,” that it is in the public interest, or that there is a specific reason that cost recovery through a rider rather than a rate case is warranted. The Department suggested that standards could be set through rulemaking to apply to all utilities seeking certification in the future.

2. Commission action

In this specific case, it is reasonable for the Commission to consider Xcel’s certification requests for potential rider recovery. The Minnesota legislature has specifically listed modernization of the distribution system as a special category for which the Commission must consider certification. The Commission will continue to conduct stringent fact-based analysis on rider recovery requests as they arise to ensure that rider recovery is only permitted when appropriate.

The Commission clarifies in this order that certification does not constitute a pre-judgment of whether costs will be recovered through riders or base rates. Certification simply permits a utility to request rider recovery in the future, which the Commission may approve or deny based on the facts available at that time.

Furthermore, the Commission finds that certification of the AMI and FAN projects in this order is made with the recognition that future cost recovery will be based upon a utility accomplishing Commission-approved metrics and performance evaluations for the certified projects. Any future proposals for cost recovery of investments certified in this order must be accompanied by a proposal for specific metrics and evaluation methods, and a detailed plan describing how the company will maximize the benefits of the investments for ratepayers.

Regarding the potential adoption of additional criteria for certification, the Commission continues to hold the opinion it expressed in its 2016 order certifying ADMS¹⁹ – that it is most appropriate to apply the statute on a case-by-case basis and to develop more detailed criteria, if necessary, over time, as the Commission gains further experience with grid modernization.²⁰ At this time, the Commission believes that it is appropriate to look to the language of the statute to guide its review.

¹⁹ *In the Matter of Xcel Energy’s 2015 Biennial Distribution-Grid-Modernization Report*, Docket No E-002/M-15-962, Order Certifying Advanced Distribution-Management System (ADMS) Project Under Minn. Stat. § 216B.2425 and Requiring Distribution Study (June 28, 2016).

²⁰ *See id.*, at 9.

D. APT certification request

1. Party comments

Xcel requested that the Commission certify the Advanced Planning Tool (APT), stating that it would enhance NWA, DER, and load forecast scenario analysis, and help facilitate greater alignment and integration of distribution, transmission, and resource planning. Xcel noted that the benefit/cost ratio is only 0.35 over the full seven-year assumed financial life of the software, but that the Company believed the investment was essential to perform the more sophisticated analyses required to address the evolving distribution grid.

Xcel argued that rider recovery is appropriate for the APT because it is a foundational tool supporting modernization efforts, enhancing reliability, and facilitating analysis the Commission and stakeholders have requested in various dockets.

The Department recommended that the Commission certify the APT, limit cost recovery to \$4 million, and include in the Commission's order the expected scope and functionality of the tool as outlined in the Company's filing. The Department reasoned that the benefits of the APT have been proven by other utilities that have used similar technology, and that the APT would help resolve technical limitations that have arisen in several dockets.

Fresh Energy and IPS Solar also supported certification of the APT, noting that the tool is state-of-the-art and would be a major upgrade to the Company's distribution planning capabilities.

Although various parties opposed certification of projects generally, no party raised specific concerns regarding the APT.

2. Commission action

The Commission will certify the Advanced Planning Tool. The Commission recognizes that, beginning in 2020, the APT offers enhanced capabilities to consider DER adoption scenarios, hosting capacity, and non-wires alternatives, as well as more efficient planning, enhanced load forecasting, and better integration with the Company's other planning efforts. Because of these benefits, the Commission believes that certification is in the public interest. This certification does not imply any finding of prudence with respect to the recovery of costs in a petition for rider recovery under Minn. Stat. § 216B.16, subd. 7b(b), or certification or approval of any investments beyond those specifically associated with the APT.

Cost recovery for the APT will be limited to a cost cap of \$4 million unless Xcel can show by clear and convincing evidence that the costs were reasonable, prudent, and beyond their control. The Commission concurs with the Department that a cost cap is appropriate in this instance. Xcel has estimated that the full up-front cost to procure and implement the APT will be \$4 million. This is a relatively small amount compared to its other certification requests, and development of APT is at a point where expected costs can be estimated with some confidence. It is reasonable to cap cost recovery at that amount unless additional costs are specifically justified.

E. AGIS certification request

1. Party comments

Xcel requested that the Commission certify its AGIS initiative, including AMI, FAN, FLISR, and IVVO. Xcel stated that the AGIS initiative would advance the Company's strategic priorities to lead the clean energy transition, enhance the customer experience, and keep bills affordable; meet customer needs and expectations; meet needs of the distribution system; and comply with Commission policy and direction.

Some parties questioned whether the AGIS projects were a high priority for Xcel and whether they were appropriate for rider recovery. Xcel responded that the projects were fundamental to the Company's grid modernization plans and would provide substantial benefits to customers.

Parties also argued that Xcel did not demonstrate that rider recovery was in the public interest. In response, Xcel pointed to its overall modernization efforts and explained how the projects contribute to those efforts, including customer experience improvements, coordination of grid modernization projects in various dockets, and protecting against future technology obsolescence.

Furthermore, parties challenged Xcel's suggestion that it could not move forward with AGIS implementation without certification in this proceeding, arguing that this response from Xcel demonstrated that certification should be viewed as a form of pre-determination of cost recovery. Xcel responded that delaying certification would cause uncertainty and put unnecessary pressure on the process.

The Department expressed concern about uncertain facts and lack of assurances from the Company and recommended that the Commission decline to certify AGIS without further process, such as a contested case. If the Commission did decide to certify AGIS, the Department recommended that the Commission set cost caps and include clear descriptions of what is certified. Other parties, such as XLI and IPS Solar, opposed the recommendation for a contested case. Xcel argued that a contested case was unwarranted and stated that much of what would be covered in a contested case was already included in the current docket; furthermore, Xcel argued that because few parties engaged in discovery in the current docket, it was not demonstrated that there were contested material facts.

Finally, parties suggested tracking various performance metrics and comparing them against targets as a condition of cost recovery. Xcel responded that additional process is more appropriately focused on the cost recovery stage of the docket, after the Commission certifies the projects.

2. Commission action

Based on the record and applicable statutory language, the Commission will certify AMI and FAN. These are core components of the AGIS initiative and are necessary for modernizing the distribution system and enhancing reliability, improving security, and increasing energy conservation opportunities. Specifically, they are technologies that "[facilitate] communication between the utility and its customers through the use of two-way meters," a category explicitly included in Minn. Stat. § 216B.2425, subd. 2. As Xcel's generation profile moves toward renewable sources, the ability to shape and shift load to match the variable profile of renewable

generation is increasingly important. Being able to see loads in real time, understand their impact, and shape or shift load through advanced rates and other demand response methods can help reduce system costs and give customers more control over their energy consumption.

The Commission will not certify IVVO and FLISR at this time. Although the Commission generally supports the goals of IVVO and FLISR, these two components of AGIS do not yet rise to the level of necessary and foundational for grid modernization and there has not been sufficient record development or analysis. Denial of certification does not prevent Xcel from continuing its work on IVVO and FLISR or seeking cost recovery through traditional means, only that Xcel may not request rider recovery of IVVO or FLISR.

As previously explained, certification of AMI and FAN is made with the recognition that future cost recovery will be based upon the company accomplishing Commission-approved metrics and performance evaluations.

Although the Commission will not adopt specific performance metrics or order a contested case at this time, the Commission does intend to put in place a process for evaluating metrics and determining criteria for cost recovery before a cost recovery proposal is made. Based on the record and discussions at the agenda meeting, the Commission believes that the following process will ensure stakeholder engagement and most effectively produce the information the Commission will need to make appropriate decisions on prudence and cost recovery.

First, the Commission requests that the Department file a report by November 1, 2020, that includes recommendations on specific metrics, detailed methods for evaluating performance, and consumer protections or other conditions, including cost caps, that should be applied to the certified projects. The report should be informed by a stakeholder process and will be made part of the record for any future cost recovery proceedings. Xcel must participate in the stakeholder process, which must be open to all interested parties, and must fully cooperate with the Department.

Furthermore, 60 days prior to a petition to seek rider recovery for AGIS costs, Xcel Energy shall file preferred procedural paths forward with one option being a contested case. The Commission will make a procedural and scoping decision prior to the consideration of a rider recovery determination. The Executive Secretary is authorized to establish a comment and reply schedule prior to the procedural and scoping hearing.

When Xcel does makes a cost recovery proposal, it must include a discussion of mechanisms that maximize cost reductions and minimize cost increases. Because these projects will take place over the course of several years, there must be plans to manage costs going forward, such as the use of requests for proposals or similar cost management mechanisms.

Additionally, Xcel's future cost recovery proposals must include a demonstration that the utility has thoroughly considered the feasibility, costs, and benefits of alternatives, and that the proposed approach is preferable to alternatives. In discussing the alternatives, Xcel should compare different types of the same technology and explain the process by which it considered alternatives and made the final decision.

Finally, Xcel must produce a draft rate design "roadmap" with input from stakeholders and file it with the Commission by October 1, 2020, including the items listed in ordering paragraph 12.

The projects certified in this docket overlap with other plans and proposals; this roadmap will be a helpful addition to the record and will clarify how various projects interact. The roadmap is intended to compile and centralize largely pre-existing information and discussions, making information more readily available to stakeholders.

ORDER

1. The Commission accepts Xcel Energy's 2019 IDP Report as in compliance with IDP reporting requirements. Acceptance of the 2019 IDP has no bearing on prudence nor certification under Minn. Stat. § 216B.2425, subd. 3.
2. Xcel must file Integrated Distribution Plans biennially going forward. The Company's next IDP must be filed no later than November 1, 2021.
3. Xcel must continue to file an annual update of baseline financial data and non-wires alternatives analysis.
4. In the DER Scenario Analysis of future IDPs, Xcel must provide detail on how, in aggregate, the energy and climate goals of the Minnesota communities it serves, along with customer preference trends, are reflected. In particular, distribution generation planning should include consideration of local community generation goals and beneficial electrification.
5. Xcel must allow any interested person to participate in stakeholder engagement meetings regarding its IDP and HCA.
6. Xcel must engage stakeholders in further advancing the Company's NWA Analysis, including, but not limited to, screening criteria, analysis methodology and assumptions, and NWA evaluation parameters.
7. The Commission certifies the following components of Xcel's Advanced Grid Intelligence and Security (AGIS) Initiative:
 - a. Advanced Metering Infrastructure (AMI)
 - b. Field Area Network (FAN)
8. Certification of the projects in ordering paragraph 7 is made with the recognition, and acceptance from Xcel, that all future cost recovery will be based upon the Company accomplishing Commission-approved metrics and performance evaluations for the certified projects. Any future proposals for cost recovery of investments certified in this Order must be accompanied by a proposal for specific metrics and evaluation methods, and a detailed plan describing how the company will maximize the benefits of the AGIS investments for ratepayers.
9. The Commission requests that the Department file a report by November 1, 2020, including recommendations on specific metrics, detailed methods for evaluating performance, and consumer protections or other conditions, including cost caps, that should be applied to the certified projects. The report should be informed by a stakeholder process and will be made part of the record for any future cost recovery proceedings. Xcel must participate in the stakeholder process, which must be open to all interested parties, and fully cooperate with the Department.

10. When Xcel makes any future cost recovery proposal, in addition to requirements from previous orders, it must include:
 - a. a discussion of mechanisms that will be employed to maximize cost reductions and minimize cost increases, and
 - b. a demonstration that the utility has thoroughly considered the feasibility, costs, and benefits of alternatives, and that the proposed approach is preferable to alternatives. In discussing the alternatives, Xcel should compare different types of the same technology, for example, by comparing different AMI meters.
11. By certifying these projects, the Commission clarifies that it is not pre-judging whether costs will be recovered through riders or base rates. Certification will permit Xcel to request rider recovery in the future, which the Commission may approve or deny based on the facts available at that time.
12. Xcel must produce a draft rate design “roadmap” with input from stakeholders and file it with the Commission by October 1, 2020. The Commission delegates authority to the Executive Secretary to set schedules and gather information on, or refer to the appropriate docket(s), the following:
 - a. A summary of the Company’s current advanced rate designs and demand management programs, advanced rate designs in development, and relevant industry best practices.
 - b. A timeline for proposing advanced rates and/or demand management programs for all customer classes.
 - c. A discussion on what should be discussed in petitions for rate design changes, including:
 - i. Whether program design strategies will be needed to support low income customer participation in these offerings,
 - ii. Application to distributed energy resources and beneficial electrification,
 - iii. Implementation plans, including education and outreach to customers, and
 - iv. Evaluation plans.
13. 60 days prior to a petition to seek rider recovery for AGIS costs, Xcel Energy shall file preferred procedural paths forward with one option being a contested case. The Commission will make a procedural and scoping decision prior to the consideration of a rider recovery determination. The Executive Secretary is authorized to establish a comment and reply schedule prior to the procedural and scoping hearing.
14. The Commission certifies the Advanced Planning Tool and limits cost recovery to a cost cap of \$4 million unless Xcel can show by clear and convincing evidence that the costs were reasonable, prudent, and beyond their control. This certification does not imply any finding of prudence with respect to the recovery of costs in a petition for rider recovery under Minn. Stat. § 216B.16, subd. 7b(b), or certification or approval of any investments beyond those specifically associated with the APT.

15. The Commission recognizes that, beginning in 2020, the APT offers enhanced capabilities to consider DER adoption scenarios, hosting capacity, and non-wires alternatives; as well as more efficient planning, enhanced load forecasting, and better integration with the Company's other planning efforts.
16. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Will Seuffert
Executive Secretary



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