



414 Nicollet Mall
Minneapolis, MN 55401

October 31, 2025

—Via Electronic Filing—

Sasha Bergman
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: COMPLIANCE FILING – ANNUAL REPORT
TRANSMISSION COST RECOVERY RIDER
DOCKET NOS. E002/M-21-814 AND E002/M-25-386

Dear Ms. Bergman:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this filing in the above-referenced dockets in compliance with the Commission's June 28, 2023, ORDER APPROVING RIDER RECOVERY, CAPPING COSTS, AND SETTING FILING REQUIREMENTS in Docket No. E002/M-21-814. Order Points 9 and 10 require the Company to submit an annual report of certain AGIS-related information and the metrics outlined in Attachment 1, Tables 1 and 2 of the Staff Briefing Papers-Volume 2 filed on April 26, 2023. In addition to complying to Order Point 7 of the Commission's December 4, 2024, Order in Docket No. E002/M-23-467.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact Jemar Lee at Jemar.w.lee@xcelenergy.com or contact me Matthew.A.Langan@xcelenergy.com with questions regarding this filing.

Sincerely,

/s/

MATTHEW LANGAN
MANAGER, REGULATORY POLICY

Enclosures
cc: Service Lists

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

| | |
|---------------------|--------------|
| Katie J. Sieben | Chair |
| Hwikwon Ham | Commissioner |
| Audrey C. Partridge | Commissioner |
| Joseph K. Sullivan | Commissioner |
| John A. Tuma | Commissioner |

IN THE MATTER OF XCEL ENERGY'S
PETITION FOR APPROVAL OF THE
TRANSMISSION COST RECOVERY RIDER
REVENUE REQUIREMENTS FOR 2021
AND 2022, TRACKER TRUE-UP AND
REVISED ADJUSTMENT FACTORS

DOCKET No. E002/M-21-814

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF THE TRANSMISSION
COST RECOVERY RIDER REVENUE
REQUIREMENTS FOR 2025, TRACKER
TRUE-UP, AND REVISED ADJUSTMENT
FACTORS

DOCKET No. E002/M-25-386

ANNUAL REPORT

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this Annual Report to the Minnesota Public Utilities Commission regarding our Advanced Metering Infrastructure (AMI) and Field Area Network (FAN) projects, in compliance with Order Points 9 and 10 of the Commission's June 28, 2023 Order in Docket No. E002/M-21-814, and Order Point 7 of the Commission's December 4, 2024 Order in Docket No. E002/M-23-467.

Order Point 9 states:

Xcel shall report the following [Advanced Grid Intelligence and Security (AGIS)] information annually, in narrative form, beginning November 1, 2023, in the instant docket and subsequent TCR proceedings:

- a. A comprehensive account of all functionalities achieved and any changes to functionality or potential future uses.
- b. The Company's plan and scope for implementation in the upcoming year.
- c. Implementation and integration status of related information technology systems in comparison to the Company's plans and scope.
- d. Description and explanation of any AMI or FAN functionalities that have been disabled and the number of impacted meters.
- e. Revenue-generating opportunities identified or engaged that relate to the use of AMI, FAN, or the use of associated data or distributed intelligence technologies.
- f. All entities with whom the Company shares AMI data.
- g. Any metrics derived from the quantitative benefits assumed in Xcel's benefit-cost analysis of the AMI and FAN projects that are not represented in Attachment 1, Table 1 of Staff Briefing Papers– Volume 2 filed on April 26, 2023.
- h. An explanation of why any benefits Xcel had promised for AMI and FAN do not materialize.

Order Point 10 states:

Beginning November 1, 2023, Xcel shall file an annual report of the metrics outlined in Attachment 1, Tables 1 and 2 of Staff Briefing Papers– Volume 2 filed on April 26, 2023, in the instant docket and subsequent TCR proceedings unless otherwise directed by the Executive Secretary.

- a. For metrics for which performance may not yet be tracked, the Company must specify when it expects to be able to begin tracking performance.
- b. For any metric that the Company is unable to provide data for, the Company must explain why it is unable to do so and what efforts can be taken to obtain that data in future reports.

Order Point 7 states:

Xcel must report on the implementation of programs and service enabled by AMI, distributed intelligence, and FAN in future Annual AMI Reports.

We address each component of Order Point 9 below. In compliance with Order Point 10, we provide Attachment A in live, Microsoft Excel format. This attachment provides information for the metrics outlined in Attachment 1, Tables 1 and 2 of Staff

Briefing Papers—Volume 2 filed on April 26, 2023 in Docket No. E002/M-21-814. We provide contextual notes directly in Attachment A. We also note that where we cannot provide data, we also provide an explanation (in compliance with the Order) directly in Attachment A. With respect to Order Point 7, it is addressed through the balance of the report.

For metrics we had indicated could be provided quarterly, we provide quarterly data for the first two quarters of 2025 (through June 30, 2025) where available – with the exception of AMI meter deployment, for which we provide Q3 data as well.

I. AMI AND FAN FUNCTIONALITIES

A. Order Point 9.a

Order Point 9.a requires a comprehensive account of all functionalities achieved and any changes to functionality or potential future uses.

AMI is a key element of the grid modernization initiative because it provides a central source of information that interacts with many of the other components of a modern grid. For instance, the capabilities and data delivered by AMI enhance reliability and enable remote functionalities, providing customers with better options for rates, programs, and services. AMI also enhances utility planning and operational capabilities. Access to timely, accurate, and consistent AMI data will provide insights for customers to make informed decisions about their energy sources and usage of reliable and sustainable energy. The AMI meters include an embedded distributed intelligence (DI) platform that has the potential to further enhance the distribution grid capabilities as well as the customer experience. Although the AMI meters are DI-capable, projects and investments to enable DI-specific functionality are separate from the AMI project and are not included in the Transmission Cost Recovery Rider. However, in the interest of providing a comprehensive Annual Report, we include DI customer-facing tools in Table 1.

Approximately 1,395,000 AMI meters have been installed in Minnesota as of September 30, 2025. The Company has developed a variety of tools and capabilities that leverage AMI. Below, we provide more details on the types of tools currently available. We plan to continue building and expanding our portfolio of tools.

As new customer tools are developed, we will notify customers through various channels. Table 1 shows the AMI- and DI-enabled tools for customers, approximate availability, and end-user.

**Table 1
AMI and DI Tools**

| Tools | Available | Target End User | Available before AMI | Enabled by AMI | Enhanced or Enabled by DI |
|--|------------------|-------------------------------|-----------------------------|--|----------------------------------|
| <i>My Energy Portal</i> | Current | Customer | Y | Y – Additional Information Available | N |
| <i>On Demand Meter Reads</i> | Current | Customer | N | Y | N |
| <i>Green Button Connect My Data</i> | Current | Third Party Access (Customer) | Y | Y – Additional Information Available | N |
| <i>High Bill Alerts</i> | Summer 2026 | Customers | N | Y- Additional information available with AMI | N |
| <i>Budget Alerts</i> | Summer 2026 | Customers | N | Y- Additional information available with AMI | N |
| <i>Green Button Download My Data</i> | Current | Third Party Access (Customer) | Y | Y – Additional Information Available | N |
| <i>Software Development Kit</i> | Current | Third Party Access | N | Y | Y |
| <i>Outage Notifications to Company Systems</i> | Current | Customer | N | Y | N |
| <i>Advanced Rates</i> | Coming in 2026 | Customer | Limited | Y | N |
| <i>Energy Action Days</i> | Current | Customer | Y | Y | N |
| <i>My Energy Connection</i> | Current | Customer | N | Y | Y |
| <i>Xcel Energy Launchpad</i> | Current | Third Party Access (Customer) | N | Y | Y |
| <i>High Impedance Detection</i> | Current | Utility | N | Y | Y |
| <i>Remote Disconnect/Reconnect</i> | Current | Utility/ Customer | N | Y | N |
| <i>Power Quality</i> | Current | Utility | N | Y | N |
| <i>Theft Detection</i> | Current | Utility | Y | Y – Enhanced | N |
| <i>Meter Diagnostics</i> | Current | Utility | N | Y | N |

| Tools | Available | Target End User | Available before AMI | Enabled by AMI | Enhanced or Enabled by DI |
|-----------------------------|-----------|-----------------|----------------------|----------------|---------------------------|
| <i>EV Detection</i> | Testing | Utility | N | Y | Y |
| <i>Location Awareness</i> | Testing | Utility | N | Y | Y |
| <i>Grid Visibility Tool</i> | Current | Utility | N | Y | N |
| <i>Momentary Outages</i> | Current | Utility | N | Y | N |

We will continually innovate and iterate these offerings and incorporate new benefits and opportunities as they become available.

The following customer- and grid-facing features and functionalities are available today or will be available in the near term:

- AMI Energy Usage Dashboard in My Energy Portal.** Within My Energy Portal linked to My Account, customers can view their 15-minute interval, hourly, daily, monthly, and yearly usage data. For Colorado customers on Time of Use (TOU) rates, the data is broken out by TOU peak periods (off-peak, mid-peak, and on-peak); this view will also be available for Minnesota customers when TOU rates are available. Customers can toggle between kilowatt-hour usage and cost for each view. Using this presentment tool provides customers with information they previously have not had available that allows them to better control their energy usage.
- My Energy Connection (MEC).** My Energy Connection is a mobile application that provides customers with detailed information on their energy usage. It uses the DI-enabled Home Area Network (HAN) to display real-time energy usage, while in their home, enabling customers better control of their energy usage while providing insights to energy savings and to more Xcel Energy programs that can help them accomplish their energy goals. If customers are away from their homes, data in the app is updated every 15 minutes. Future enhancements will focus on providing customers with appliance-specific usage and cost breakdowns. Having detailed usage and cost by appliance will allow customers to understand where and when they are using the most energy and will provide focus for their energy savings goals
- On Demand Meter Reads.** The On Demand Read functionality in My Account provides customers the ability to see their 15-minute interval kilowatt-hour usage for the last eight hours. The On Demand Read functionality provides customers options to experiment with turning appliances and other

equipment on and off to identify their energy usage patterns.

- **High Bill Alerts.** With this future tool (planned for 2026), electric customers will be automatically enrolled in the High Bill Alert program. This product will notify customers halfway through the billing cycle if their bill is trending higher than historically normal, allowing the customer time to adapt their energy usage or prepare financially for the additional costs.
- **Budget Alerts.** When released in the future (planned for 2026), Budget Alerts will enable customers to set a dollar threshold and be alerted if their bill is projected to exceed their set amount. Customers will be able to sign up for Budget Alerts in the My Energy Portal and set their budget threshold. The system will check customers' bills daily between the 5th and 28th day of their billing cycle. If the projection for the current bill will be higher than their budget amount, customers will receive an email alert notifying them. In the future, alerts will also be sent via the mobile application.
- **Green Button Connect my Data.** Green Button Connect (GBC) is an ongoing electronic data transfer service that allows customers to share their utility data to authorized service providers. These service providers can help customers make smarter choices about their energy usage by providing tools and applications to help them find ways to save energy. Customers can sign up for GBC in the Xcel Energy My Energy Portal and select which service providers to send their data to and how long to share their data with them. GBC sends the premises' billing and usage data down to 15-minute intervals for customers with AMI meters.
- **Green Button Download my Data.** Green Button Download is a one-time secure data download of a customer's energy usage to their computer. Customers can access Download My Data through the My Energy Portal and download their usage for personal records or in Green Button format to share with an energy services vendor. Customers with advanced meters can download 15-minute interval data.
- **Xcel Energy Launchpad.** Xcel Energy Launchpad allows customers to connect applications or devices developed by third parties to the AMI meters through the customer's home Wi-Fi network over the DI-enabled HAN. This permits the customer and third party to directly gather 1-second energy consumption information from the meter. Customers can enroll in Xcel Energy Launchpad through their My Account. The Xcel Energy Launchpad includes a web application that walks the customer through the connection process. As part of the application process, customers are asked to provide consent to connect the meter to their Wi-Fi network. Customers must also provide consent to connect third party devices to the meter via their Wi-Fi

network and the HAN.

- **Software Development Kit.** Software Development Kits (SDKs) for Bring Your Own Device (BYOD) and gateway solutions allow third parties to develop hardware and software products that connect to the customer's smart meter via the HAN. Devices can be energy-related (thermostats, smart appliances) or non-energy-related (security systems, mobile devices). The uses vary depending upon the devices and the functionality enabled.
- **More Timely Outage Communications.** Prior to AMI deployment, customers would receive an initial outage communication in approximately 8 to 44 minutes. AMI meters reduce the time for an initial outage communication for customers with AMI meters to approximately 4 to 26 minutes. As AMI deployment continues, we expect this reduction in notification time to expand to all customers, enhancing the customer experience.
- **Energy Action Days.** Energy Action Days uses digital communications and behavioral science messaging to encourage residential customers to reduce energy consumption during peak events. Participation is voluntary and there are no incentives or penalties for participation or non-participation. Customers with AMI meters receive a follow up email within a couple days of peak events, showing customers how they performed and comparing their performance to their neighbors. This feature is only available to customers with AMI meters.
- **High Impedance Detection.** This grid-facing DI-enabled capability allows the meters to detect deteriorating or loose connections. Without those capabilities, such issues on the secondary system, which carries power from transformers to meters, might only be detected if a customer notices a problem, such as flickering lights, or when they cause outages. By proactively identifying high impedance situations, the Company can promptly dispatch crews to proactively address the issue. A significant benefit of this capability is the prevention of outages, which enhances service quality for our customers and reduces the Company's outage response costs. The Company currently has High Impedance Detection deployed on approximately 62,000 meters in Minnesota.
- **Location Awareness.** This grid-facing DI application can improve accuracy in outage management and notifications, as well as planning and operational modeling. The Location Awareness application will also help to correct the connectivity to mis-mapped customers, reducing this source of error. All processes that rely on the connectivity model in our GIS, including outage management, will benefit from the improved data. Going forward, this use case can also be used to maintain the accuracy of our GIS mapping after

modifications to the secondary system. The Company currently has Location Awareness deployed on approximately 146,000 meters in Minnesota.

- **Remote Connect/Disconnect.** The Riva 4.2 meter's internal service switch can be used to remotely connect or disconnect power to a residential or small commercial customer's electric service using a command transmitted from the AMI head-end application. This capability is now available and in use; additional information can be found in Attachment A.
- **Grid Visibility Tool.** We built a tool that uses AMI data with GIS asset information to help visualize grid information such as power quality information, transformer and feeder loading, which for instance can help the Company identify potential overloading issues before they cause outages or affect power quality.
- **Power Quality.** AMI provides power measurement and voltage data at each meter within the distribution grid, which is used for power quality identification and investigations. This helps ensure voltage is within acceptable limits from the substation all the way to the customer's point of service. In other words, better monitoring of power quality reduces the potential for out-of-range voltages that may interfere with electronic devices in customers' homes or businesses and helps us identify and more efficiently respond to issues. This AMI data is brought into the Grid Visibility Tool.
- **Outage Notifications to Company Systems.** The Riva 4.2 Meter can use its "last gasp" capabilities to send out a message to our system providing notice of an outage. It also provides notice of power restorations and can be "pinged" to check on the status of service at a location. Taken together, these capabilities, which are integrated with our Network (Outage) Management System, provide the Company with quicker and more accurate information regarding outages. We can then use that information to more efficiently and quickly respond to outages, with the result that the Company will spend less time responding to outages. If we know very quickly the exact homes and businesses that lost power, it is much easier to promptly dispatch crews to the appropriate locations.
- **Theft Detection.** AMI has built-in theft detection capabilities; while meter theft/bypasses are infrequent, when they do occur, they create dangers to the public and property. This capability of the new meters allows the Company to systematically become aware of these circumstances, reducing costs. Analytics capabilities for theft use cases were completed in 2022.
- **Meter Diagnostics.** AMI meters can perform and transmit meter diagnostics and data pertaining to the functioning of the meter and communications module.

- **Momentary Outages.** Using AMI event data, momentary outages can be more readily identified, which can help the Company identify potential issues before they cause sustained outages or affect power quality. Capturing these momentary outages will improve the accuracy of our Momentary Average Interruption Frequency Index (MAIFI) reporting.

Future functionalities enabled by AMI may include:

- **Advanced Rates.** The Company is in the process of setting up systems and processes to enable the Residential TOU Rate in alignment with the filing and will have the rate available to all residential customers in Q2 of 2026. The Company has concluded its commercial TOU rate pilot and is using the information gathered from that pilot to inform the design and implementation of a permanent commercial TOU rate. The Company's proposal will be filed in March of next year.
- **EV Detection.** DI capabilities can provide the Company with insights into where EVs are located and charging patterns of customers. This information can be leveraged to support system planning, load balancing, and infrastructure upgrade efforts based on awareness of EVs being added to a customer's load profile. This grid-facing use case will also enable the Company to become aware and proactively respond to possible service quality issues. The Company is currently in the process of completing meter testing and will be starting a limited deployment in Minnesota to approximately 1,000 meters.

B. Order Point 9.d

Order Point 9.d requires *a description and explanation of any AMI or FAN functionalities that have been disabled and the number of impacted meters.*

No AMI or FAN functionalities have been disabled at this time.¹

¹ We note that High Bill and Budget Alerts, which we included in previous iterations of this annual report, have been disabled. While these functionalities were developed in conjunction with AMI, they do not require an AMI meter – and in Minnesota, they were available prior to customers receiving AMI meters. These tools notified customers if their bill was trending higher than usual or reaching a customer-set dollar threshold. The alerts were specific to fuel type; however, customers who received both electricity and natural gas service from the Company could receive multiple alerts, which we found caused customer confusion. As a result, we suspended the alerts until a tool providing a better customer experience could be developed.

II. IMPLEMENTATION PLAN AND SCOPE

A. Order Point 9.b

Order Point 9.b requires *discussion of the Company's plan and scope for implementation in the upcoming year.*

B. AMI and FAN Deployment Plan and Status

Table 2 below provides the latest available AMI meter deployment schedule. We caveat, however, that we expect there will continue to be some uncertainty regarding the specific meter volumes and installations through 2025, so the below should be viewed as estimates.

Table 2
Latest Available AMI Meter Deployment Schedule

| Year | Deployment Volume |
|-------|-------------------|
| 2022 | 128,000 (actual) |
| 2023 | 540,000 (actual) |
| 2024 | 530,000 (actual) |
| 2025* | Target: 202,000 |
| Total | 1,400,000 |

* Actual installs in 2025 as of 9/30/25 were approximately 197,000

As of September 30, 2025, we have installed approximately 1,395,000 AMI meters in total, or approximately 99 percent of the 1.4 million meters we plan to deploy. See Attachment A for additional historical deployment data.

FAN deployment is nearly complete, and Itron – the FAN technology vendor – is undertaking an optimization analysis in which it evaluates the network design to identify any bottlenecks or other areas of improvement. Based on that analysis and Itron's recommendations, the Company may add devices to alleviate bottlenecks and improve service; that work may continue into 2026.

There is a small proportion of customers that will not have an AMI meter installed by the end of mass deployment in 2025. These customers have meters with 'KYZ' contacts, which provide energy pulses or load control signals for energy management purposes. Itron informed the Company that its production timeline for this type of meter is in the 2027-2028 timeframe, which does not align with the Company's plans to complete advanced meter deployment. Itron intended to fully develop the KYZ capabilities in the Riva meter version 4.2, which is commercially available, and the

type of meter that Xcel Energy is deploying across our customer base. However, during deployment, Itron found that the v4.2 hardware could not support the real-time performance expectations of many industry-standard KYZ use cases. As a result, Itron is now developing the KYZ capabilities on the Riva meter version 5.0, expected to be commercially available in the 2027-2028 timeframe. Due to the v4.2 hardware limitations and the delayed availability of v5.0, the timeline is longer than originally expected and what Itron committed to. Customers with 'KYZ' contacts will keep their existing meters until the Itron Riva meters are ready for deployment, likely in 2028.

We note that we are also addressing other deployment-related issues that arise and expect the mass deployment to be substantially complete in 2025. There are a small portion of installations that will carry-over into 2026; for example a small proportion of customer properties where we have been unable to gain access to complete the AMI meter installation, despite multiple physical attempts and customer communications. A very small subset of these are customers who have refused access to our AMI meter installation technicians. To reach these customers, we have expanded our communication touchpoints by adding additional mailings, an additional physical installation attempt, and additional phone calls. If we are not successful in installing an AMI meter after these additional touchpoints, our next communications will notify customers of potential disconnection if meter access continues to be denied or remains inaccessible without customer intervention (i.e., locked gate, inside access required, etc.).

The Company will read any legacy meters including the meters with KYZ contacts that have not been exchanged with an AMI meter after 2025 through Cellnet. The Company has been working with Itron and L&G on an agreement that allows the Company to continue to use Cellnet until the meters with KYZ contacts are commercially available and installed.

C. Order Point 9.c and Information Technology Aspect of AMI Implementation

Order Point 9.c requires *narrative discussion of the implementation and integration status of related information technology systems in comparison to the Company's plans and scope.*

The AMI project is a combination of two main components: Software Deployment and Meter Deployment. The Company has been successful in managing a highly complex project that has included the deployment of AMI meters across the customer base and new software that enables new products and services to both our employees

and customers. When compared to the Company's plan and scope, the only major change was the timing of deploying AMI meters that was impacted by a global shortage of integrated circuits (semi-conductors) that affected Itron, Inc – our advanced meter supplier and installer. The Company has described this in more detail previously.

In terms of software development, we have completed all nine software waves – with the final wave completed in March 2025. Software development began with the AMI head-end and other foundational capabilities and integrations with other Company systems, and expanded over time to support additional customer rates and functionalities such as remote connect/disconnect and integration of AMI data into the outage management system in support of more timely customer outage notifications and more efficient outage response.

Table 3 below summarizes major software releases and the software capabilities that have been implemented over time.

Table 3
AMI Software Development Summary

| Pre-2022² | 2022 | 2023 | 2024 – 2025 |
|---|--|---|---------------------------------------|
| Head-end live with interfaces | Analytics – non-theft use cases | Electric Vehicle (EV) Rate Programs | Complex Rate Interval Billing |
| 2019: Billing of 13,000 meters (CO) 2021: Expanded billing support for mass meter deployment | Non-critical reporting – data warehouse | Benefit Value Realization Reporting | Enhanced Metering capabilities |
| Event processing | My Account/ Mobile – customer on-demand | Enhanced Metering capabilities | Value/Benefits Reporting |
| Over The Air meter (OTA) - basic configuration | AMI-NMS Integration Rel 1 ³ (last gasp notifications) | AMI-NMS Integration Rel 2 ⁴ (Power out and power restored notifications) | Identify and Report Momentary Outages |
| Meter Data Management (MDM) – Itron Enterprise Edition (IEE) Installation and Integration | Initial HAN Functionality (SDK with code examples and working sample) ⁵ | | Grid Visibility Tool |
| Internal Reporting | Net Metering | | |
| Meter Installation Vendor (MIV) Integration | Polyphase metering | | |
| My Account/Mobile – customer access to usage information | Internal Reporting | | |
| Analytics – theft use case | Enhanced Customer Usage Viewability | | |
| Remote connect/disconnect | | | |
| Expanded events processing capability | | | |
| Green Button Connect My Data | | | |
| Expanded Over The Air (OTA) programming and configuration use cases | | | |
| Real-time Customer Care data access | | | |
| Interval Billing Reporting | | | |

III. REVENUE-GENERATING OPPORTUNITIES

A. Order Point 9.e

Order Point 9.e requires *narrative discussion of revenue-generating opportunities identified or engaged that relate to the use of AMI, FAN, or the use of associated data or DI technologies.*

The Company currently does not have plans to monetize use of data associated with AMI, FAN, or DI. That said, should the Company, in the future, seek to implement tools or use cases that would involve revenue, prior to implementation, we would seek any necessary regulatory approvals.

IV. AMI DATA SHARING

A. Order Point 9.f

Order Point 9.f requires *narrative discussion of all entities with whom the Company shares AMI data.*

Fulfillment of third-party data requests is reported in annual compliance filings in Docket Nos. E999/CI-12-1344 & E999/M-19-505. As reported in our February 28, 2025 report, in 2024 we received and fulfilled a total of approximately 122,000 requests for customer energy usage information. Approximately 70 percent of these requests (85,000) were in support of energy assistance for our customers. It is impracticable to attempt to distinguish data requests by meter type; further, when deployment is complete, most customer energy usage data (CEUD) will be AMI data. See our February 28, 2025, report for further information on third-party CEUD requests.

Apart from the third-party data requests reported in the above-mentioned dockets, the Company does not share AMI data with other entities. Customers may choose to share their own AMI data with third parties through GBC or the Xcel Energy Launchpad.

² Projects completed at the end of 2021.

³ While the software development is complete, the AMI-NMS Rel 1 and Rel 2 capabilities are implemented in specific distribution control centers upon AMI meter deployment reaching approximately 30 percent penetration.

⁴ See FN 6.

⁵ The Company implemented an SDK that allows third-parties to offer hardware or software solutions for customers to provide one-second data to third-parties.

V. AMI/FAN BENEFITS

A. Order Point 9.g

Order Point 9.g requires *narrative discussion of any metrics derived from the quantitative benefits assumed in the Company's AMI and FAN cost-benefit analysis (CBA) that are not represented in Attachment 1, Table 1 of Staff Briefing Papers–Volume 2 filed on April 26, 2023.*

The metrics derived from the Company's CBA but not reflected in Attachment 1, Table 1 of Staff Briefing Papers–Volume 2 filed on April 26, 2023 are:

- Reduced field trips for voltage investigations,
- Reduced outage duration,
- Avoided meter reading costs (O&M), and
- Avoided drive-by meter reading capital investment.

We discuss these below.

Customers realize benefits from the AMI meters upon their installation, through the granular usage information provided in My Account that helps them better understand how they are using energy providing opportunities to make changes to save energy. Attachment A outlines additional benefits that the Company and customers are also already realizing, and we highlight avoided truck rolls here as an example. Avoided truck rolls are instances in which we were able to leverage AMI data and/or technology to resolve an issue rather than sending a crew/truck to a field location for resolution.

B. Reduced Field Trips for Voltage Investigations

Regarding the reduction in field trips for voltage investigations, we are currently unable to provide an actual or estimated number. Although AMI meters enable us to detect some power quality issues, they cannot identify all of them. Additionally, customers may report perceived power quality issues, complicating the identification of a meaningful metric. At present, it would be necessary to track these issues manually across multiple business groups, but we lack an efficient method for doing so. As the AMI rollout progresses and we gain more insight into its capabilities, we will continue to explore and evaluate potential tracking methods.

C. Reduced Outage Duration

In 2023, we integrated AMI into our Network (Outage) Management System (NMS),

so that our Distribution Control Centers could use the NMS to detect outages, ping AMI meters, and leverage other capabilities. With respect to the Reduced Outage Duration metric, we are currently developing a report that relies on these capabilities combined with other Company data to estimate the reliability improvement due to AMI. This report is still in development, but we anticipate being able to provide it in future reports.

D. Avoided Meter Reading Costs

Regarding avoided meter reading costs, as we replace our legacy CellNet meters, we are avoiding those meter reading service costs. We approximate that we have avoided approximately \$14.9 million in CellNet AMR meter reading costs through September 30, 2025 by replacing approximately 1,355,000 legacy meters with AMI meters.

E. Avoided Drive-By Meter Reading

Regarding avoided drive-by meter reading capital investment, we confirm that by moving forward with AMI, we have avoided capital investment in a drive-by meter reading solution. In that way, we have realized this benefit.

Finally, we note that the Company is also avoiding truck rolls by leveraging the AMI meter capabilities associated with meter health and outage-related trips such as okay on arrival and customer equipment problems.

VI. MATERIALIZATION OF BENEFITS

A. Order Point 9.h

Order Point 9.h requires *a narrative explanation of why any benefits of AMI and FAN do not materialize.*

Overall, we anticipate that many of the benefits modeled in our CBA will be realized. However, we are still finalizing the AMI rollout and are continuing to learn about and evaluate the potential benefits of AMI. While our CBA reasonably captured potential quantifiable benefits we anticipated AMI and FAN might bring to customers, it used historical data and many assumptions to forecast potential future benefit streams. Additionally, in our CBA model, the benefits ramped up over time or started upon full deployment of AMI meters. As stated in our first Annual Report in 2023, economy-wide supply chain constraints delayed our AMI deployment from what was originally assumed in the CBA, so the benefits will also accrue later, and in some cases, we believe they may be realized differently than contemplated or modeled in

the CBA. That said, as discussed in this Annual Report, customers are already realizing the benefits of AMI.

CONCLUSION

AMI and FAN are providing customers with significant value, which we expect to grow over time. We appreciate the opportunity to provide the Commission this update on AMI and FAN.

Dated: October 31, 2025

Northern States Power Company

| Category | | Reporting | | | |
|----------|--|---|--|--|--|
| Table 1 | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 1 | Distribution Management Efficiency Alternative Proposed Performance Metric: Narrative description of the Company's use of AMI data to inform <i>Metric 1 note: As noted in our 9/25/23 TCR Compliance Filing, AMI provides the Company with information about the connectivity and workings of the distribution system. AMI data can be aggregated at varying levels of the distribution system including tap, transformer, and service lines amongst other distribution system equipment. The Company will be able to use this information to prioritize distribution grid improvements and more efficiently plan and design the system. When we are able to leverage AMI data in planning, the efficiency gains will be realized through engineering judgment. Given the nature of this benefit and the need for at least two full years of AMI data to inform planning, there is currently no way to quantitatively measure or monetize the value of this efficiency. We commit to providing narrative updates about our work to implement and utilize software and processes that leverage AMI data in Distribution Planning with future AMI Annual Reports.</i> | n/a | n/a | n/a | n/a |
| 2 | Outage Management Efficiency Alternative Proposed Performance Metric: # of canceled outage orders due to AMI, all days | 955 | 1,933 | 8,407 | 6,914 |
| 3 | Avoided Meter Purchases Alternative Proposed Performance Metric: Meter failure rate <i>Metric 3 note: NSPM figures are reported at project inception to date, thus 805 failures reported in 2023 include 16 failures from 2022.</i> | 21 Failures 143,309 Meters 0.01 % | 805 Failures 734,779 Meters 0.11 % | 2,253 Failures 1,519,618 Meters 0.15 % | 3,611 Failures 1,645,483 Meters 0.22 % |
| 4 | Reduced Field and Meter O&M Expenses Field trips due to customer equipment damage: Alternative Proposed Performance Metric: # of canceled outage orders due to AMI, all days Percent of disconnects and reconnects done remotely (F&G) | 955 10% of disconnects, 9% of reconnects | 1,933 71% of disconnects, 71% of reconnects | 8,407 91% of disconnects, 90% of reconnects | 6,914 99% of disconnects, 99% of reconnects |
| | <i>Metric 2 & 4 note: Our 9/25/2023 Compliance Filing in Docket No. E002/M-21-814 proposed an alternative performance metric of number of canceled orders due to AMI. Percentage of disconnects and reconnects reflect residential customers.</i> | | | | |
| | | 955 | 1,933 | 8,407 | 6,914 |
| 5 | Reduced Consumption on Inactive Meters Usage on unassigned accounts (I) | 78,200,000 kWh | 74,600,000 kWh | 63,600,000 kWh | 30,500,000 kWh |
| 6 | Reduced Bad Debt Expense Alternative Proposed Performance Metric: # of days to complete disconnection | 15.4 days | 9.8 days | 6.4 days | 6.8 days |
| 7 | Reduced Theft/Meter Tampering Alternative Proposed Performance Metric: # of theft/meter tampering cases completed | 46 cases | 21 cases | 157 cases | 27 cases |
| 8 | Load Flexibility Benefits Customer energy price savings due to time-of-use (TOU) rates (L) | n/a | n/a | n/a | n/a |
| | Avoided tons of CO2 emissions due to TOU Rates (M) | n/a | n/a | n/a | n/a |
| | Customer savings due to critical peak pricing (CPP) (N) | n/a | n/a | n/a | n/a |

| <u>Category</u> | | <u>Reporting</u> | | | | | | | | | | | | |
|---------------------------------|--|------------------|------|-----|-----|-----|------------|-----|-----|-----|------|------------|-----|-----|
| Customer Outreach and Education | | Quarterly | | | | | | | | | | | | |
| Metric | Description | 2022 | 2023 | | | | 2024 | | | | 2025 | | | |
| | | 2022 Total | Q1 | Q2 | Q3 | Q4 | 2023 Total | Q1 | Q2 | Q3 | Q4 | 2024 Total | Q1 | Q2 |
| 1 | <p>Survey results of customer on the adequacy and clarity of communications prior to installation of advanced meters</p> <p><i>NOTE: Percentages reflect the proportion of survey respondents who selected 8, 9, or 10, on a scale of 1-10, when asked how satisfied they were with pre-installation communications.</i></p> | 82% | 84% | 85% | 79% | 83% | 83% | 83% | 77% | 77% | 74% | 78% | 70% | 64% |

| Category | Reporting | | | | | | | | | | | | | | | | 2023 Total (through Q2 or Q3) | GRAND TOTAL | |
|-----------------------------|--|----|----|----|------|----|----|----|------|----|----|----|------------|----|----|----|-------------------------------|-------------|--|
| | 2022 | | | | 2023 | | | | 2024 | | | | 2024 Total | | | | | | |
| Installation and Deployment | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | |
| 2 | <p>2022 Total</p> <p>2023 Total</p> <p>2024 Total</p> | | | | | | | | | | | | | | | | | | |
| Metric 2 | <p>Number of advanced meters installed</p> <p>Metric #2 notes: 2022 and 2024 values reflect updated reporting.</p> | | | | | | | | | | | | | | | | | | |
| 3 | <p>Percentage of advanced meters deployed compared to planned installation</p> <p>Metric #3 notes: Planned deployments are annual; therefore, the percentage shown in 2024 total reflects actual installations compared to 2024 full-year planned deployment.</p> | | | | | | | | | | | | | | | | | | |
| 4 | <p>Percentage of customers with advanced meters</p> <p>Metric #4 notes: FAN deployments are annual; therefore, the percentage shown in 2024 total reflects actual installations compared to 2024 full-year planned deployment.</p> | | | | | | | | | | | | | | | | | | |
| 5 | <p>Percentage of FAN deployed</p> <p>Metric #5 notes: Total deployment updated from 2,058 to 2,045. The installation and progress of additional FAN devices will continue through 2023, with hardware deployment in 2024. FAN deployment is nearly complete, and we are making progress updating the backhaul technology to private LTE.</p> | | | | | | | | | | | | | | | | | | |
| 6 | <p>Percentage of FAN deployed compared to planned installation</p> <p>See metric #3 above. "Planned installation" reflects the total number of FAN devices planned. The planned installation number is reflected in the denominator used to calculate "percentage of FAN deployed." therefore, metrics #3 and #6 are the same.</p> | | | | | | | | | | | | | | | | | | |
| 7 | <p>Number of customers electing to opt-out of AMI installation</p> <p>Metric #7 note: Opt-out values represent the number of customers who opted out of AMI installation in the reporting period. The numbers do not reflect customers who have opted back in to AMI or voided the provision. The numbers do not reflect the actual number of SCADA meters. We report to evaluate this methodology and aim to present a "net" opt-out number in future reports.</p> | | | | | | | | | | | | | | | | | | |
| 8 | <p>Number of calls to Customer Contact Center and meter installation vendor regarding meter installation</p> | | | | | | | | | | | | | | | | | | |
| 9 | <p>Number of complaints regarding AMI installation</p> | | | | | | | | | | | | | | | | | | |
| 10 | <p>Number of Intelligent Field devices enabled by the FAN</p> <p>Metric #10 note: For this metric we report the number of Fault Location Isolation and Service Restoration (FLISR) devices activated plus the number of AMI meters installed in the reporting period. 2023 Q4, 2024 Q1 and Q2 values reflect updated reporting.</p> | | | | | | | | | | | | | | | | | | |
| 11 | <p>Number of missed installation appointments</p> <p>Company-related appointments</p> <p>Customer-related appointments</p> | | | | | | | | | | | | | | | | | | |

| Category | Reporting | | | | | |
|-----------|-----------|---|----------------|----------------|----------------|------------------------------|
| | Annual | | | | | |
| Financial | Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| | | Total AMI project capital spend to-date vs. total AMI project capital budget | | | | |
| 12 | | AMI Project Capital Spend-to-Date | \$ 43,100,000 | \$ 93,900,000 | \$ 125,800,000 | \$ 16,300,000 |
| | | AMI Project Capital Budget | \$ 366,300,000 | \$ 366,300,000 | \$ 366,300,000 | \$ 366,300,000 |
| | | Percentage | 12% | 37% | 72% | 76% |
| | | Total FAN project capital spend to-date vs. total FAN project capital budget | | | | |
| 13 | | FAN Project Capital Spend-to-Date | \$ 19,600,000 | \$ 45,000,000 | \$ 9,900,000 | \$ 2,000,000 |
| | | FAN Project Capital Budget | \$ 98,100,000 | \$ 98,100,000 | \$ 98,100,000 | \$ 98,100,000 |
| | | Percentage | 20% | 66% | 76% | 78% |
| | | Total AMI project O&M spend to-date vs. total AMI project O&M budget | | | | |
| 14 | | AMI Project O&M Spend-to-Date | \$ 5,300,000 | \$ 4,300,000 | \$ 9,100,000 | \$ 8,500,000 |
| | | AMI Project O&M Budget | \$ 92,900,000 | \$ 92,900,000 | \$ 92,900,000 | \$ 92,900,000 |
| | | Percentage | 6% | 10% | 20% | 29% |
| | | Total FAN project O&M spend to-date vs. total FAN project O&M budget | | | | |
| 15 | | FAN Project O&M Spend-to-Date | \$ 800,000 | \$ 400,000 | \$ 100,000 | \$ - |
| | | FAN Project O&M Budget | \$ 6,400,000 | \$ 6,400,000 | \$ 6,400,000 | \$ 6,400,000 |
| | | Percentage | 13% | 19% | 20% | 20% |
| | | <i>Metric 15 note: 2024 value less than \$0.05M</i> | | | | |
| 16 | | O&M cost savings from avoided field visits | \$ 228,000 | \$ 1,801,000 | \$ 4,773,000 | \$ 4,062,000 |
| | | <i>Metric 16 note: The values reported are based on the number of avoided field visits multiplied by the estimated average cost of a field visit.</i> | | | | |

| Category | | Reporting | | | |
|-----------------|--|--|--|--|------------------------------|
| Post-Deployment | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 20 | <p>Survey of customer satisfaction with outage related communications</p> <p>Metric 20 note: Percentages reflect the proportion of survey respondents who selected 8, 9, or 10, on a scale of 1-10, or selected 4 or 5, on a scale of 1-5, when asked how satisfied they were with Xcel Energy's communications about a recent electrical outage.</p> | 73% | 67% | 76% | 83% |
| 28 | <p>Number of customers enrolled in time-varying rate programs</p> <p>0 - No AMI-enabled time-varying rate programs currently exist</p> | | | | |
| 29 | <p>Number of customers enrolled in other AMI-enabled demand management programs</p> <p>0 - No AMI-enabled demand management programs currently exist</p> | | | | |
| 30 | <p>Number of avoided truck rolls/field visits</p> <p>Metric 30 note: The values reflect truck rolls avoided from remote disconnection and reconnection, dead register and outage orders canceled due to AMI. 2022 values revised due to expanded reporting.</p> | 1,823 | 34,093 | 96,941 | 60,609 |
| 31 | <p>Meter accuracy test percentage</p> <p>Metric 31 note: Percentages reflect the weighted average accuracy. 2023 value previously reported was revised due to updated reporting.</p> | 100.03% | 99.85% | 99.75% | 99.98% |
| 32 & 35 | <p>Percentage of interval reads received</p> <p>Metric 32 and 35 note: The data reporting capabilities for this metric are currently under development and we expect to include this data in next year's filing. Because of the volume of raw data and the amount of processing power required to calculate this metric, preparing this information manually is not practicable. Preliminary reporting shows interval read rate is consistently above 99.8%.</p> | n/a | n/a | n/a | n/a |
| 33 | <p>Number of remote meter disconnect operations</p> <p>828 operations accompanied by a field visit</p> | 16,885 fully remote operations and 1,248 operations accompanied by a field visit | 44,216 fully remote operations and 3,151 operations accompanied by a field visit | 27,039 fully remote operations and 2,047 operations accompanied by a field visit | |
| 34 | <p>Number of remote meter connect operations</p> <p>657 fully remote operations</p> <p>Metric 33 and 34 note: 2022 values include remote connection/disconnection operations for credit. 2023 and beyond include operations for credit and start and stop service requests.</p> | 14,380 fully remote operations | 41,925 fully remote operations | 24,760 fully remote operations | |

| Category | | Reporting | | | | | | | | | | | | | | | | |
|---------------------|--|--|--|--|---|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|--|--|---|--|--|--|--|------|
| Customer Engagement | | Quarterly | | | | | | | | | | | | | | | | |
| Metric | Description | 2022 | 2022 Total | Q1 | 2023 | Q2 | Q3 | Q4 | 2023 Total | Q1 | Q2 | 2024 | Q3 | Q4 | 2024 Total | 2025 | Q1 | Q2 |
| 36 | <p>Percentage of customers with advanced meter at least 30 days that are targeted with energy savings messaging</p> <p><i>Metric 36 note: Within 30 days of receiving their new meter, all residential and small business customers receive a communication, via email or mail depending on the customers' preference, that provides energy savings messaging.</i></p> | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 37 | <p>Percentage of low-income customers with advanced meters at least 30 days that are targeted with energy savings messaging</p> <p><i>Metric 37 note: Within 30 days of receiving their new meter, all residential and small business customers receive a communication, via email or mail depending on the customers' preference, that provides energy savings messaging.</i></p> | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 42 | <p>Number of organizational events attended where information on AMI presented, by region</p> <p><i>Metric 42 note: Xcel Energy participates in and hosts many events each quarter. For this metric, we report in two ways: First, we include information from our Community Relations Managers regarding AMI-specific engagements with communities. Second, we include estimates of the number of AMI-specific conversations with attendees ("customer engagements") at MN community events at which Xcel Energy had an event presence; however, we do not present information on AMI specifically.</i></p> | 785 estimated customer engagements at 106 total community events in 2022 | Approximately 1,800 customer engagements at 33 total community events in Q1 and Q2 | Approximately 1,800 customer engagements at 33 total community events in Q1 and Q2 | City of Lilydale: Community Relations presented to the City Council on implementation of AMI and fielded questions to the city's facilities specifically. | 1,638 engagements in 37 events | 1,457 engagements in 17 events | Approximately 6,700 customer engagements at 120 total community events in 15 events | 1,711 engagements in 15 events | 1,711 engagements in 32 events | Approximately 4,700 engagements in 30 events | Approximately 4,700 engagements in 30 events | Approximately 6,800 customer engagements at 110 total community events in 30 events | Approximately 4,700 engagements in 30 events | Approximately 4,700 engagements in 30 events | Approximately 1,700 engagements in 30 events | Approximately 1,700 engagements in 30 events | |
| 46 | <p>Customer access to hourly or sub-hourly data</p> <p><i>Metric 46 note: All customers with AMI have access to hourly and subhourly data through My Account. The reported number reflects the cumulative number of customers with an AMI meter who also have a web portal account (also shown in Metric 23).</i></p> | Not available - reporting capability was built in 2023 | 180,567 | 253,102 | 329,631 | 428,138 | n/a | 499,410 | 603,338 | 667,067 | 754,940 | n/a | 766,082 | 781,052 | | | | |

| Category | | Reporting | | | |
|---------------------|--|---|--|--|--|
| Customer Engagement | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 38 | Percentage of customers aware of AMI | 36% | 42% | 49% | 66% |
| | <i>Metric 38 note: Percentages reflect the proportion of survey respondents that indicate they are aware of new 'smart' electric meters that can provide customers with more detailed information about their energy usage.</i> | | | | |
| 39 | Understanding of AMI technology and benefits | 48% | 47% | 43% | 53% |
| | <i>Metric 39 note: Percentages reflect the proportion of survey respondents aware of AMI (Metric 38) who also select "somewhat agree" or "completely agree" about the statement "I understand 'smart' electric meter technology."</i> | | | | |
| 40 | Percentage of low-income customers aware of AMI | 34% | 33% | 41% | 38% |
| | <i>Metric 40 note: Percentages reflect the proportion of low-income survey respondents that indicate they are aware of new 'smart' electric meters that can provide customers with more detailed information about their energy usage. Low-income respondents are calculated using household income and number of people in household to match LIHEAP guidelines set at 150% of the federal poverty level.</i> | | | | |
| 41 | Number of customers with advanced meters that adopt an advanced rate option (e.g. TOU) tariff, expressed as a number and percentage by each rate | 0 - No AMI-enabled time-varying rate programs currently exist | | | |
| 43 | Demand Response: percentage participation by class | 35% residential participation, 15% commercial and industrial participation | 33% residential participation, 15% commercial and industrial participation | 75% residential participation, 15% commercial and industrial participation | Partial year data not available |
| | <i>Metric 43 note: Increase from 2023 to 2024 includes the addition of Energy Action Days.</i> | | | | |
| 44 | DER: percentage adoption, by class | 0.85% | 1.15% | 1.27% | Partial year data not available |
| | <i>Metric 44 note: Data from 25-10 Annual Report, data not available by class.</i> | | | | |
| 45 | Storage: percentage adoption, by class | 0.03% | 0.04% | 0.03% | Partial year data not available |
| | <i>Metric 45 note: Data not available by class</i> | | | | |
| 47 | Third-party service access to customer data | The Company received and fulfilled a total of approximately 127,000 requests for customer energy usage data in 2022. | The Company received and fulfilled a total of approximately 134,000 requests for customer energy usage data in 2023. | The Company received and fulfilled a total of approximately 122,000 requests for customer energy usage data in 2024. | Not yet available; 2025 information will be provided March 1, 2026 in Docket Nos. E999/Ct-12-1344 & E999/M-19-505. |
| 48 | Variety, quality, accessibility of customer data available (consistent with privacy and CEUD requirements) | <p>Customers may access their account and usage information by logging into their customer web portal (i.e., "MyAccount") via Xcel Energy's website or through Xcel Energy's mobile application branded as "Xcel Energy" in the Google Play Store and the iOS App Store). Customers with/without AMI meters can view monthly usage and cost information for their premise in the "My Energy Portal" accessible through MyAccount or through the new "Xcel Energy" mobile app. Customers with AMI meters can view 15-minute, hourly, daily, and monthly usage and cost information for their premise in the portal. Customers with AMI meters can also authorize third parties to access on the meter data using the Xcel Energy Launchpad functionality. All customers have access to the "Green Button Connection" functionality which allows them to authorize an one-time transfer or an ongoing, periodic data transfers to customer authorized third parties. Data transfers can include 1) monthly billing, usage and demand (if applicable) information, and 2) interval usage and demand (if applicable) information.</p> <p>In addition to the above, customers can also access their energy usage and cost information through a separate mobile app "My Energy Connection." This application, also available in the Google Play Store and iOS Apps Store provides the customer with real time energy usage and cost information along with their recent 15-minute interval data.</p> | | | |

| Category | Reporting |
|-----------------------------------|-----------|
| Customer-Site Asset Effectiveness | Annual |

*Customer Site Asset Effectiveness Notes:
DER and DR-specific information is reported annually in other dockets; we provide the same information here, where available, for 2022, 2023 and 2024. 2025 data is not yet available. Class-specific information is not reported elsewhere and would be overly burdensome to provide because it is a manual process.*

| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
|--------|---|-------------------------------|-----------------------------------|-------------------------------|--|
| 49 | Demand Response: annual max MW reduction total and as a percentage of load, by class <i>Metric 49 note: 2025 data will be filed April 30, 2026 in Docket Nos. E002/C1-17-401, data not available by class.</i> | 772 MW / 11% of system load | 821 MW / 12% of system load | 860 MW / 13% of system load | <i>Partial year data not available</i> |
| 50 | Demand Response: MW enrolled total and as percentage of load, by class <i>Metric 50 note: The Company does not differentiate between annual max MW and MW enrolled.</i> | 772 MW / 11% of system load | 821 MW / 12% of system load | 860 MW / 13% of system load | <i>Partial year data not available</i> |
| 51 | DER: MWh generated as percentage of sales, by class <i>Metric 51 note: MWh is not currently reported and would be overly burdensome to provide.</i> | | Not available - see notes at left | | |
| 52 | DER: MW installed as percentage of load, by class | 2,088 MW / 30% of system load | 2,331 MW / 34% of system load | 2,536 MW / 38% of system load | <i>Partial year data not available</i> |
| 53 | Storage: MWh installed energy capacity as percentage as percentage of sales, by class <i>Metric 53 note: MWh is not currently reported and would be overly burdensome to provide.</i> | | Not available - see notes at left | | |
| 54 | Storage: MW installed capacity as percentage of load, by class | 1.6 MW/ 0.02% of system load | 2.3 MW/ 0.03% of system load | 5.0 MW/ 0.08% of system load | <i>Partial year data not available</i> |
| 55 | Non-Wires Alternatives (NWA): MW as percentage of (peak) load | 0 | 0 | 0 | 0 |
| 56 | NWA: percentage of customers participating, by class | 0 | 0 | 0 | 0 |
| 57 | NWA: savings (\$) per year | 0 | 0 | 0 | 0 |
| 58 | Percentage of grid supporting services provided by DER vs. traditional solutions <i>Metric 58 note: We interpret "grid-supporting services provided by DER" to be equivalent to an NWA. We do not currently have NWAs in service.</i> | 0 | 0 | 0 | 0 |

| Category | | Reporting | | | |
|---------------|--|---|--|--|--|
| AMI (Capital) | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 59 | Capex for Asset Health/Reliability, Capacity Projects (unrelated, reported elsewhere) | \$ 230,328,000 | \$ 246,809,000 | \$ 355,413,000 | \$ 256,418,000 |
| | <i>Metric 59 note: Prior reported values have been updated to reflect entire distribution categories of Asset Health & Reliability and Capacity Projects. Values previously reported were limited to subcategories of reconstruction and new business.</i> | | | | |
| 60 | Storm related capital restoration costs (unrelated, reported elsewhere) | \$ 32,800,000 | \$ 24,200,000 | \$ 56,100,000 | \$ 7,900,000 |
| 61 | AMI meter failure rate (avoided meter purchases) | 21 Failures 143,309 Meters 0.01 % | 805 Failures 734,779 Meters 0.11 % | 2,253 Failures 1,519,618 Meters 0.15 % | 3,611 Failures 1,645,483 Meters 0.22 % |
| | <i>Metric 61 note: NSPM figures are reported at project inception to date, thus 805 failures reported in 2023 include 21 failures from 2022.</i> | | | | |

| Category | | Reporting | | | |
|-----------|--|--------------|--------------|---------------|------------------------------|
| AMI (O&M) | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 62 | Annual trips for damaged customer equipment | 1,079 | 1,512 | 1,378 | 396 |
| 63 | Annual trips for residential manual disconnection <i>Metrics 63 note: Figures include remote meter disconnect operations accompanied by a field visit as listed in Metric #33</i> | 8,492 | 8,529 | 7,592 | 2,339 |
| 64 | Annual trips for residential manual reconnection | 6,731 | 5,833 | 4,856 | 344 |
| 65 | Annual "OK on Arrival" field visits | 5,178 | 7,013 | 8,104 | 4,250 |
| 66 | Annual voltage investigation field visits | 3,562 | 3,671 | 4,146 | 2,136 |
| 67 | O&M for Asset Health/Reliability, Capacity Projects | \$ 4,813,000 | \$ 4,814,000 | \$ 7,052,000 | \$ 4,057,000 |
| 68 | O&M for storm related activity | \$ 6,100,000 | \$ 8,200,000 | \$ 16,100,000 | \$ 4,900,000 |

| Category | | Reporting | | | |
|--|--|-----------------------------------|----------------|----------------|------------------------------|
| AMI (Other) | | Annual | | | |
| Metric | Description | 2022 | 2023 | 2024 | 2025 (through June 30, 2025) |
| 69 | Customer-minutes of outage (CMO) - major events | 125,400,000 | 109,700,000 | 270,800,000 | 35,200,000 |
| 70 | CMO-single customer events | Not available - see notes at left | | | |
| 71 | CMO-tap level events | Not available - see notes at left | | | |
| <p><i>Metrics 69, 70, 71 (CMO) notes:</i> CMO major events is reported annually in the Service Quality docket (most recently Docket No. E002/M-25-27); we provide the same information here for 2022-2024. 2025 data reflects partial year only and should be considered preliminary. Single customer events and tap level events are not reported elsewhere and would be overly burdensome to provide, and potentially misleading as reliability metrics are affected by many factors unrelated to AMI.</p> | | | | | |
| 72 | Cost of consumption on inactive meters | 78,200,000 kWh | 74,600,000 kWh | 63,600,000 kWh | 30,500,000 kWh |
| <p><i>Metric 72 note:</i> For this metric we reference Table 1, Metric 5 Usage on unassigned accounts. We report usage instead of costs, which would be estimated, as rates vary between classes and change over time.</p> | | | | | |
| 73 | Commodity bad-debt expense | 15.4 days | 9.8 days | 6.4 days | 6.8 days |
| <p><i>Metric 73 note:</i> For this metric we reference Table 1, Metric 6 - # of days to complete disconnection. See our September 25, 2023 compliance filing in Docket No. E002/M-21-814 for further discussion of this metric. We may be able to report bad debt expense in future Annual Reports.</p> | | | | | |
| 74 | Residential demand shift from TOU rates | n/a | n/a | n/a | n/a |
| 75 | Medium C&I demand shift from TOU rates | n/a | n/a | n/a | n/a |
| 76 | Residential peak demand reduction from Critical Peak Pricing | n/a | n/a | n/a | n/a |
| 77 | Medium C&I peak demand reduction from Critical Peak Pricing | n/a | n/a | n/a | n/a |

CERTIFICATE OF SERVICE

I, Victor Barreiro, hereby certify that I have on this day served copies of the foregoing document on the attached list of persons.

by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota

electronic filing

DOCKET NO. E002/M-21-815
E002/M-25-386

Dated this 31st day of October 2025

/s/

Victor Barreiro
Regulatory Administrator

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|-----------|-----------------------------------|---|-----------------------------|---|--------------------|---------------------------|-------------------|-------------------|
| 1 | Michael | Allen | michael.allen@allenergysolar.com | All Energy Solar | | 721 W 26th st Suite 211 Minneapolis MN, 55405 United States | Electronic Service | | No | 21-814M-21-814 |
| 2 | Ellen | Anderson | ellena@umn.edu | 325 Learning and Environmental Sciences | | 1954 Buford Ave Saint Paul MN, 55108 United States | Electronic Service | | No | 21-814M-21-814 |
| 3 | Jay | Anderson | jaya@cmpas.org | CMPAS | | 7550 Corporate Way Suite 100 Eden Prairie MN, 55344 United States | Electronic Service | | No | 21-814M-21-814 |
| 4 | Mara | Ascheman | mara.k.ascheman@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall FI 5 Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 5 | Donna | Attanasio | dattanasio@gwu.edu | George Washington University | | 2000 H Street NW Washington DC, 20052 United States | Electronic Service | | No | 21-814M-21-814 |
| 6 | John | Bailey | bailey@ilsr.org | Institute For Local Self-Reliance | | 1313 5th St SE Ste 303 Minneapolis MN, 55414 United States | Electronic Service | | No | 21-814M-21-814 |
| 7 | Mark | Bakk | mbakk@lcp.coop | Lake Country Power | | 26039 Bear Ridge Drive Cohasset MN, 55721 United States | Electronic Service | | No | 21-814M-21-814 |
| 8 | Gail | Baranko | gail.baranko@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall 7th Floor Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 9 | Jessica L | Bayles | jessica.bayles@stoel.com | Stoel Rives LLP | | 1150 18th St NW Ste 325 Washington DC, 20036 United States | Electronic Service | | No | 21-814M-21-814 |
| 10 | Sasha | Bergman | sasha.bergman@state.mn.us | | Public Utilities Commission | | Electronic Service | | No | 21-814M-21-814 |
| 11 | Derek | Bertsch | derek.bertsch@mrenergy.com | Missouri River Energy Services | | 3724 West Avera Drive PO Box 88920 Sioux Falls SD, 57109-8920 United States | Electronic Service | | No | 21-814M-21-814 |
| 12 | William | Black | bblack@mmua.org | MMUA | | Suite 200 3131 Fernbrook Lane North Plymouth MN, 55447 United States | Electronic Service | | No | 21-814M-21-814 |
| 13 | Kenneth | Bradley | kbradley@environmentminnesota.org | | | 2837 Emerson Ave S Apt CW112 | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|-----------|------------------------------|--|--|---|-----------------------|---------------------------|-------------------|------------------------|
| | | | | | | Minneapolis MN, 55408 United States | | | | |
| 14 | Elizabeth | Brama | ebrama@taftlaw.com | Taft Stettinius & Hollister LLP | | 2200 IDS Center 80 South 8th Street Minneapolis MN, 55402 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 15 | Jon | Brekke | jbrekke@greenergy.com | Great River Energy | | 12300 Elm Creek Boulevard Maple Grove MN, 55369- 4718 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 16 | Sydney R. | Briggs | sbriggs@swce.coop | Steele-Waseca Cooperative Electric | | 2411 W. Bridge St PO Box 485 Owatonna MN, 55060- 0485 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 17 | Mark B. | Bring | mbring@otpc.com | Otter Tail Power Company | | 215 South Cascade Street PO Box 496 Fergus Falls MN, 56538- 0496 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 18 | Matthew | Brodin | mbrodin@allete.com | Minnesota Power | | 30 West Superior Street Duluth MN, 55802 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 19 | Christina | Brusven | cbrusven@fredlaw.com | Fredrikson Byron | | 60 S 6th St Ste 1500 Minneapolis MN, 55402- 4400 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 20 | Mike | Bull | mike.bull@state.mn.us | | Public Utilities Commission | 121 7th Place East, Suite 350 St. Paul MN, 55101 United States | Electronic Service | | Yes | 21- 814M- 21-814 |
| 21 | James | Canaday | james.canaday@ag.state.mn.us | | Office of the Attorney General - Residential Utilities Division | Suite 1400 445 Minnesota St. St. Paul MN, 55101 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 22 | Douglas M. | Carnival | dcarnival@carnivalberns.com | McGrann Shea Carnival Straughn & Lamb | | 800 Nicollet Mall Ste 2600 Minneapolis MN, 55402- 7035 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 23 | Ray | Choquette | rchoquette@agp.com | Ag Processing Inc. | | 12700 West Dodge Road PO Box 2047 Omaha NE, 68103-2047 United States | Electronic Service | | No | 21- 814M- 21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
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| 24 | John | Coffman | john@johncoffman.net | AARP | | 871 Tuxedo Blvd. St, Louis MO, 63119-2044 United States | Electronic Service | | No | 21-814M-21-814 |
| 25 | Kenneth A. | Colburn | kcolburn@symbioticstrategies.com | Symbiotic Strategies, LLC | | 26 Winton Road Meredith NH, 32535413 United States | Electronic Service | | No | 21-814M-21-814 |
| 26 | Generic | Commerce Attorneys | commerce.attorneys@ag.state.mn.us | | Office of the Attorney General - Department of Commerce | 445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States | Electronic Service | | Yes | 21-814M-21-814 |
| 27 | Brandon | Crawford | brandonc@cubminnesota.org | Citizens Utility Board of Minnesota | | 332 Minnesota St Ste W1360 St. Paul MN, 55101 United States | Electronic Service | | No | 21-814M-21-814 |
| 28 | George | Crocker | gwillc@nawo.org | North American Water Office | | 5093 Keats Avenue Lake Elmo MN, 55042 United States | Electronic Service | | No | 21-814M-21-814 |
| 29 | James | Denniston | james.r.denniston@xcelenergy.com | Xcel Energy Services, Inc. | | 414 Nicollet Mall, 401-8 Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 30 | Curt | Dieren | curt.dieren@dgr.com | L&O Power Cooperative | | 1302 S Union St Rock Rapids IA, 51246 United States | Electronic Service | | No | 21-814M-21-814 |
| 31 | Carlton | Doyle Fontaine | carlon.doyle.fontaine@senate.mn | MN Senate | | 75 Rev Dr Martin Luther King Jr Blvd Room G-17 St Paul MN, 55155 United States | Electronic Service | | No | 21-814M-21-814 |
| 32 | Brian | Edstrom | briane@cubminnesota.org | Citizens Utility Board of Minnesota | | 332 Minnesota St Ste W1360 Saint Paul MN, 55101 United States | Electronic Service | | No | 21-814M-21-814 |
| 33 | Kristen | Eide Tollefson | healingsystems69@gmail.com | R-CURE | | 28477 N Lake Ave Frontenac MN, 55026-1044 United States | Electronic Service | | No | 21-814M-21-814 |
| 34 | Rebecca | Eilers | rebecca.d.eilers@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall - 401 7th Floor Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 35 | Bob | Eleff | bob.eleff@house.mn | Regulated Industries Cmte | | 100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul MN, | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
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| | | | | | | 55155 United States | | | | |
| 36 | John | Farrell | jfarrell@ilsr.org | Institute for Local Self- Reliance | | 2720 E. 22nd St Institute for Local Self- Reliance Minneapolis MN, 55406 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 37 | Sharon | Ferguson | sharon.ferguson@state.mn.us | | Department of Commerce | 85 7th Place E Ste 280 Saint Paul MN, 55101- 2198 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 38 | Lucas | Franco | lfranco@liunagro.com | LIUNA | | 81 Little Canada Rd E Little Canada MN, 55117 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 39 | Nathan | Franzen | nathan@nationalgridrenewables.com | Geronimo Energy, LLC | | 8400 Normandale Lake Blvd Ste 1200 Bloomington MN, 55437 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 40 | Edward | Garvey | garveyed@aol.com | Residence | | 32 Lawton St Saint Paul MN, 55102 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 41 | Allen | Gleckner | gleckner@fresh-energy.org | Fresh Energy | | 408 St. Peter Street Ste 350 Saint Paul MN, 55102 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 42 | Allen | Gleckner | agleckner@elpc.org | Environmental Law & Policy Center | | 35 E. Wacker Drive, Suite 1600 Suite 1600 Chicago IL, 60601 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 43 | Jenny | Glumack | jenny@mrea.org | Minnesota Rural Electric Association | | 11640 73rd Ave N Maple Grove MN, 55369 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 44 | Shubha | Harris | shubha.m.harris@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall, 401 - FL 8 Minneapolis MN, 55401 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 45 | Kim | Havey | kim.havey@minneapolismn.gov | City of Minneapolis | | 350 South 5th Street, Suite 315M Minneapolis MN, 55415 United States | Electronic Service | | No | 21- 814M- 21-814 |
| 46 | Todd | Headlee | theadlee@dvigridsolutions.com | Dominion Voltage, Inc. | | 701 E. Cary Street Richmond VA, 23219 United States | Electronic Service | | No | 21- 814M- 21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|-----------|--------------------------------|--|--------|--|--------------------|---------------------------|-------------------|-------------------|
| 47 | Amber | Hedlund | amber.r.hedlund@xcelenergy.com | Northern States Power Company dba Xcel Energy-Elec | | 414 Nicollet Mall, 401-7 Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 48 | Adam | Heinen | aheinen@dakotaelectric.com | Dakota Electric Association | | 4300 220th St W Farmington MN, 55024 United States | Electronic Service | | No | 21-814M-21-814 |
| 49 | Annete | Henkel | mui@mutilityinvestors.org | Minnesota Utility Investors | | 413 Wacouta Street #230 St.Paul MN, 55101 United States | Electronic Service | | No | 21-814M-21-814 |
| 50 | Jessy | Hennesy | jessy.hennesy@avantenergy.com | Avant Energy | | 220 S. Sixth St. Ste 1300 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 51 | Holly | Hinman | holly.r.hinman@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall, 7th Floor Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 52 | Joe | Hoffman | ja.hoffman@smmpa.org | SMMPA | | 500 First Ave SW Rochester MN, 55902-3303 United States | Electronic Service | | No | 21-814M-21-814 |
| 53 | Michael | Hoppe | lu23@ibew23.org | Local Union 23, I.B.E.W. | | 445 Etna Street Ste. 61 St. Paul MN, 55106 United States | Electronic Service | | No | 21-814M-21-814 |
| 54 | Jan | Hubbard | jan.hubbard@comcast.net | | | 7730 Mississippi Lane Brooklyn Park MN, 55444 United States | Electronic Service | | No | 21-814M-21-814 |
| 55 | Casey | Jacobson | cjacobson@bepc.com | Basin Electric Power Cooperative | | 1717 East Interstate Avenue Bismarck ND, 58501 United States | Electronic Service | | No | 21-814M-21-814 |
| 56 | John S. | Jaffray | jjaffray@jjrpower.com | JJR Power | | 350 Highway 7 Suite 236 Excelsior MN, 55331 United States | Electronic Service | | No | 21-814M-21-814 |
| 57 | Alan | Jenkins | aj@jenkinsatlaw.com | Jenkins at Law | | 2950 Yellowtail Ave. Marathon FL, 33050 United States | Electronic Service | | No | 21-814M-21-814 |
| 58 | Richard | Johnson | rick.johnson@lawmoss.com | Moss & Barnett | | 150 S. 5th Street Suite 1200 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |

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|----|------------|------------------|------------------------------|--------------------------------------|--------|---|--------------------|---------------------------|-------------------|-------------------|
| 59 | Sarah | Johnson Phillips | sjphillips@stoel.com | Stoel Rives LLP | | 33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 60 | Nate | Jones | njones@hcpd.com | Heartland Consumers Power | | PO Box 248 Madison SD, 57042 United States | Electronic Service | | No | 21-814M-21-814 |
| 61 | Michael | Kampmeyer | mkampmeyer@a-e-group.com | AEG Group, LLC | | 260 Salem Church Road Sunfish Lake MN, 55118 United States | Electronic Service | | No | 21-814M-21-814 |
| 62 | Nick | Kaneski | nick.kaneski@enbridge.com | Enbridge Energy Company, Inc. | | 11 East Superior St Ste 125 Duluth MN, 55802 United States | Electronic Service | | No | 21-814M-21-814 |
| 63 | Brian | Krambeer | bkrambeer@mienergy.coop | MiEnergy Cooperative | | PO Box 626 31110 Cooperative Way Rushford MN, 55971 United States | Electronic Service | | No | 21-814M-21-814 |
| 64 | Michael | Krause | michaelkrause61@yahoo.com | | | 1200 Plymouth Avenue Minneapolis MN, 55411 United States | Electronic Service | | No | 21-814M-21-814 |
| 65 | Michael | Krikava | mkrikava@taftlaw.com | Taft Stettinius & Hollister LLP | | 2200 IDS Center 80 S 8th St Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 66 | Matthew | Lacey | mlacey@greenergy.com | Great River Energy | | 12300 Elm Creek Boulevard Maple Grove MN, 55369-4718 United States | Electronic Service | | No | 21-814M-21-814 |
| 67 | Carmel | Laney | carmel.laney@stoel.com | Stoel Rives LLP | | 33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 68 | James D. | Larson | james.larson@avantenergy.com | Avant Energy Services | | 220 S 6th St Ste 1300 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 69 | Peder | Larson | plarson@larkinhoffman.com | Larkin Hoffman Daly & Lindgren, Ltd. | | 8300 Norman Center Drive Suite 1000 Bloomington MN, 55437 United States | Electronic Service | | No | 21-814M-21-814 |
| 70 | Dean | Leischow | dean@sunrisenrg.com | Sunrise Energy Ventures | | 315 Manitoba Ave Ste 200 Wayzata MN, 55391 United States | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|---------------|-----------------------------------|-------------------------------------|--------|---|--------------------|---------------------------|-------------------|-------------------|
| 71 | Annie | Levenson Falk | annielf@cubminnesota.org | Citizens Utility Board of Minnesota | | 332 Minnesota Street, Suite W1360 St. Paul MN, 55101 United States | Electronic Service | | No | 21-814M-21-814 |
| 72 | Ryan | Long | ryan.j.long@xcelenergy.com | | | 414 Nicollet Mall 401 8th Floor Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 73 | Susan | Ludwig | sludwig@mpower.com | Minnesota Power | | 30 West Superior Street Duluth MN, 55802 United States | Electronic Service | | No | 21-814M-21-814 |
| 74 | Kavita | Maini | kmaini@wi.rr.com | KM Energy Consulting, LLC | | 961 N Lost Woods Rd Oconomowoc WI, 53066 United States | Electronic Service | | No | 21-814M-21-814 |
| 75 | Christine | Marquis | regulatory.records@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall MN1180-07-MCA Minneapolis MN, 55401 United States | Electronic Service | | Yes | 21-814M-21-814 |
| 76 | Mary | Martinka | mary.a.martinka@xcelenergy.com | Xcel Energy Inc | | 414 Nicollet Mall 7th Floor Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 77 | Gregg | Mast | gmast@cleanenergyeconomymn.org | Clean Energy Economy Minnesota | | 4808 10th Avenue S Minneapolis MN, 55417 United States | Electronic Service | | No | 21-814M-21-814 |
| 78 | Thomas | Melone | thomas.melone@allcous.com | Minnesota Go Solar LLC | | 222 South 9th Street Suite 1600 Minneapolis MN, 55120 United States | Electronic Service | | No | 21-814M-21-814 |
| 79 | Stacy | Miller | stacy.miller@minneapolismn.gov | City of Minneapolis | | 350 S. 5th Street Room M 301 Minneapolis MN, 55415 United States | Electronic Service | | No | 21-814M-21-814 |
| 80 | David | Moeller | dmoeller@allete.com | Minnesota Power | | | Electronic Service | | No | 21-814M-21-814 |
| 81 | Dalene | Monsebroten | dalene.monsebroten@nmpagency.com | Northern Municipal Power Agency | | 123 2nd St W Thief River Falls MN, 56701 United States | Electronic Service | | No | 21-814M-21-814 |
| 82 | Andrew | Moratzka | andrew.moratzka@stoel.com | Stoel Rives LLP | | 33 South Sixth St Ste 4200 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|-----------|----------------------------------|-------------------------------------|--------|---|--------------------|---------------------------|-------------------|-------------------|
| 83 | Ben | Nelson | benn@cmpasgroup.org | CMMPA | | 459 South Grove Street Blue Earth MN, 56013 United States | Electronic Service | | No | 21-814M-21-814 |
| 84 | Carl | Nelson | cnelson@mncee.org | Center for Energy and Environment | | 212 3rd Ave N Ste 560 Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 85 | David | Niles | david.niles@avantenergy.com | Minnesota Municipal Power Agency | | 220 South Sixth Street Suite 1300 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 86 | Sephra | Ninow | sephra.ninow@energycenter.org | Center for Sustainable Energy | | 426 17th Street, Suite 700 Oakland CA, 94612 United States | Electronic Service | | No | 21-814M-21-814 |
| 87 | Rolf | Nordstrom | rnordstrom@gpisd.net | Great Plains Institute | | 2801 21ST AVE S STE 220 Minneapolis MN, 55407-1229 United States | Electronic Service | | No | 21-814M-21-814 |
| 88 | Samantha | Norris | samanthanorris@alliantenergy.com | Interstate Power and Light Company | | 200 1st Street SE PO Box 351 Cedar Rapids IA, 52406-0351 United States | Electronic Service | | No | 21-814M-21-814 |
| 89 | David | O'Brien | david.obrien@navigant.com | Navigant Consulting | | 77 South Bedford St Ste 400 Burlington MA, 01803 United States | Electronic Service | | No | 21-814M-21-814 |
| 90 | Jeff | O'Neill | jeff.oneill@ci.monticello.mn.us | City of Monticello | | 505 Walnut Street Suite 1 Monticello MN, 55362 United States | Electronic Service | | No | 21-814M-21-814 |
| 91 | Russell | Olson | rolson@hcpd.com | Heartland Consumers Power District | | PO Box 248 Madison SD, 57042-0248 United States | Electronic Service | | No | 21-814M-21-814 |
| 92 | Carol A. | Overland | overland@legalelectric.org | Legalelectric - Overland Law Office | | 1110 West Avenue Red Wing MN, 55066 United States | Electronic Service | | No | 21-814M-21-814 |
| 93 | Dan | Patry | dpatry@sunedison.com | SunEdison | | 600 Clipper Drive Belmont CA, 94002 United States | Electronic Service | | No | 21-814M-21-814 |
| 94 | Jeffrey C | Paulson | jeff.jcplaw@comcast.net | Paulson Law Office, Ltd. | | 4445 W 77th Street Suite 224 Edina MN, 55435 United States | Electronic Service | | No | 21-814M-21-814 |

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| 95 | Jennifer | Peterson | jjpeterson@mnpower.com | Minnesota Power | | 30 West Superior Street Duluth MN, 55802 United States | Electronic Service | | No | 21-814M-21-814 |
| 96 | Hannah | Polikov | hpolikov@aee.net | Advanced Energy Economy Institute | | 1000 Vermont Ave, Third Floor Washington DC, 20005 United States | Electronic Service | | No | 21-814M-21-814 |
| 97 | David G. | Prazak | dprazak@otpc.com | Otter Tail Power Company | | P.O. Box 496 215 South Cascade Street Fergus Falls MN, 56538-0496 United States | Electronic Service | | No | 21-814M-21-814 |
| 98 | John C. | Reinhardt | | Laura A. Reinhardt | | 3552 26th Ave S Minneapolis MN, 55406 United States | Paper Service | | No | 21-814M-21-814 |
| 99 | Generic Notice | Residential Utilities Division | residential.utilities@ag.state.mn.us | | Office of the Attorney General - Residential Utilities Division | 1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States | Electronic Service | | Yes | 21-814M-21-814 |
| 100 | Kevin | Reuther | kreuther@mncenter.org | MN Center for Environmental Advocacy | | 26 E Exchange St, Ste 206 St. Paul MN, 55101-1667 United States | Electronic Service | | No | 21-814M-21-814 |
| 101 | Noah | Roberts | nroberts@cleanpower.org | Energy Storage Association | | 1155 15th St NW, Ste 500 Washington DC, 20005 United States | Electronic Service | | No | 21-814M-21-814 |
| 102 | Amanda | Rome | amanda.rome@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall FL 5 Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 103 | Robert K. | Sahr | bsahr@eastriver.coop | East River Electric Power Cooperative | | P.O. Box 227 Madison SD, 57042 United States | Electronic Service | | No | 21-814M-21-814 |
| 104 | Joseph L. | Sathe | jsathe@kennedy-graven.com | Kennedy & Graven, Chartered | | 150 S 5th St Ste 700 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 105 | Peter | Scholtz | peter.scholtz@ag.state.mn.us | | Office of the Attorney General - Residential Utilities Division | Suite 1400 445 Minnesota Street St. Paul MN, 55101-2131 United States | Electronic Service | | No | 21-814M-21-814 |
| 106 | Kay | Schraeder | kschraeder@minnkota.com | Minnkota Power | | 5301 32nd Ave S Grand Forks ND, 58201 United States | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|-----|------------|-----------|--------------------------------------|-----------------------------------|--------|---|--------------------|---------------------------|-------------------|-------------------|
| 107 | Dean | Sedgwick | sedgwick@itascapower.com | Itasca Power Company | | PO Box 455 Spring Lake MN, 56680 United States | Electronic Service | | No | 21-814M-21-814 |
| 108 | Maria | Seidler | maria.seidler@dom.com | Dominion Energy Technology | | 120 Tredegar Street Richmond VA, 23219 United States | Electronic Service | | No | 21-814M-21-814 |
| 109 | Patricia | Sharkey | psharkey@environmentallawcounsel.com | Midwest Cogeneration Association. | | 180 N LaSalle St Ste 3700 Chicago IL, 60601 United States | Electronic Service | | No | 21-814M-21-814 |
| 110 | Bria | Shea | bria.e.shea@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall Minneapolis MN, 55401 United States | Electronic Service | | No | 21-814M-21-814 |
| 111 | Doug | Shoemaker | dougs@charter.net | Minnesota Renewable Energy | | 2928 5th Ave S Minneapolis MN, 55408 United States | Electronic Service | | No | 21-814M-21-814 |
| 112 | Anne | Smart | anne.smart@chargepoint.com | ChargePoint, Inc. | | 254 E Hacienda Ave Campbell CA, 95008 United States | Electronic Service | | No | 21-814M-21-814 |
| 113 | Joshua | Smith | joshua.smith@sierraclub.org | | | 85 Second St FL 2 San Francisco CA, 94105 United States | Electronic Service | | No | 21-814M-21-814 |
| 114 | Ken | Smith | ken.smith@ever-greenenergy.com | Ever Green Energy | | 305 Saint Peter St Saint Paul MN, 55102 United States | Electronic Service | | No | 21-814M-21-814 |
| 115 | Ken | Smith | ken.smith@districtenergy.com | District Energy St. Paul Inc. | | 76 W Kellogg Blvd St. Paul MN, 55102 United States | Electronic Service | | No | 21-814M-21-814 |
| 116 | Trevor | Smith | trevor.smith@avantenergy.com | Avant Energy, Inc. | | 220 South Sixth Street Suite 1300 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 117 | Beth | Soholt | bsoholt@cleangridalliance.org | Clean Grid Alliance | | 570 Asbury Street Suite 201 St. Paul MN, 55104 United States | Electronic Service | | No | 21-814M-21-814 |
| 118 | Sky | Stanfield | stanfield@smwlaw.com | Shute, Mihaly & Weinberger | | 396 Hayes Street San Francisco CA, 94102 United States | Electronic Service | | No | 21-814M-21-814 |
| 119 | Byron E. | Starns | byron.starns@stinson.com | STINSON LLP | | 50 S 6th St Ste 2600 Minneapolis | Electronic Service | | No | 21-814M-21-814 |

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| | | | | | | MN, 55402 United States | | | | |
| 120 | Stuart | Tommerdahl | stommerdahl@otpco.com | Otter Tail Power Company | | 215 S Cascade St PO Box 496 Fergus Falls MN, 56537 United States | Electronic Service | | No | 21-814M-21-814 |
| 121 | Pat | Treseler | pat.jcplaw@comcast.net | Paulson Law Office LTD | | 4445 W 77th Street Suite 224 Edina MN, 55435 United States | Electronic Service | | No | 21-814M-21-814 |
| 122 | Lise | Trudeau | lise.trudeau@state.mn.us | | Department of Commerce | 85 7th Place East Suite 500 Saint Paul MN, 55101 United States | Electronic Service | | No | 21-814M-21-814 |
| 123 | Curt | Volkman | curt@newenergy-advisors.com | Fresh Energy | | 408 St Peter St Saint Paul MN, 55102 United States | Electronic Service | | No | 21-814M-21-814 |
| 124 | Roger | Warehime | roger.warehime@owatonnautilities.com | Owatonna Municipal Public Utilities - Gas | | 208 S Walnut Ave PO BOX 800 Owatonna MN, 55060 United States | Electronic Service | | No | 21-814M-21-814 |
| 125 | Jenna | Warmuth | jwarmuth@mnpower.com | Minnesota Power | | 30 W Superior St Duluth MN, 55802-2093 United States | Electronic Service | | No | 21-814M-21-814 |
| 126 | Joseph | Windler | jwindler@winthrop.com | Winthrop & Weinstine | | 225 South Sixth Street, Suite 3500 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |
| 127 | Robyn | Woeste | robynwoeste@alliantenergy.com | Interstate Power and Light Company | | 200 First St SE Cedar Rapids IA, 52401 United States | Electronic Service | | No | 21-814M-21-814 |
| 128 | Yochi | Zakai | yzakai@smwlaw.com | SHUTE, MIHALY & WEINBERGER LLP | | 396 Hayes Street San Francisco CA, 94102 United States | Electronic Service | | No | 21-814M-21-814 |
| 129 | Christopher | Zibart | czibart@atllc.com | American Transmission Company LLC | | W234 N2000 Ridgeview Pkwy Court Waukesha WI, 53188-1022 United States | Electronic Service | | No | 21-814M-21-814 |
| 130 | Kurt | Zimmerman | kwz@ibew160.org | Local Union #160, IBEW | | 2909 Anthony Ln St Anthony Village MN, 55418-3238 United States | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|-----|------------|-----------|-----------------------|-------------------|--------|--|--------------------|---------------------------|-------------------|-------------------|
| 131 | Patrick | Zomer | pat.zomer@lawmoss.com | Moss & Barnett PA | | 150 S 5th St #1200 Minneapolis MN, 55402 United States | Electronic Service | | No | 21-814M-21-814 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|-------------|--------------------|--------------------------------------|--|---|--|--------------------|---------------------------|-------------------|-------------------|
| 1 | Sasha | Bergman | sasha.bergman@state.mn.us | | Public Utilities Commission | | Electronic Service | | Yes | M-25-386 |
| 2 | Matthew | Brodin | mbrodin@allete.com | Minnesota Power | | 30 West Superior Street Duluth MN, 55802 United States | Electronic Service | | No | M-25-386 |
| 3 | Mike | Bull | mike.bull@state.mn.us | | Public Utilities Commission | 121 7th Place East, Suite 350 St. Paul MN, 55101 United States | Electronic Service | | Yes | M-25-386 |
| 4 | John | Coffman | john@johncoffman.net | AARP | | 871 Tuxedo Blvd. St, Louis MO, 63119-2044 United States | Electronic Service | | No | M-25-386 |
| 5 | Generic | Commerce Attorneys | commerce.attorneys@ag.state.mn.us | | Office of the Attorney General - Department of Commerce | 445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States | Electronic Service | | Yes | M-25-386 |
| 6 | Riley | Conlin | riley.conlin@xcelenergy.com | Northern States Power Company dba Xcel Energy-Elec | | 414 Nicollet Mall, 401 8th Floor Minneapolis MN, 55401 United States | Electronic Service | | Yes | M-25-386 |
| 7 | George | Crocker | gwillc@nawo.org | North American Water Office | | 5093 Keats Avenue Lake Elmo MN, 55042 United States | Electronic Service | | No | M-25-386 |
| 8 | Christopher | Droske | christopher.droske@minneapolismn.gov | Northern States Power Company dba Xcel Energy-Elec | | 661 5th Ave N Minneapolis MN, 55405 United States | Electronic Service | | No | M-25-386 |
| 9 | John | Farrell | jfarrell@ilsr.org | Institute for Local Self-Reliance | | 2720 E. 22nd St Institute for Local Self-Reliance Minneapolis MN, 55406 United States | Electronic Service | | No | M-25-386 |
| 10 | Sharon | Ferguson | sharon.ferguson@state.mn.us | | Department of Commerce | 85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States | Electronic Service | | No | M-25-386 |
| 11 | Adam | Heinen | aheinen@dakotaelectric.com | Dakota Electric Association | | 4300 220th St W Farmington MN, 55024 United States | Electronic Service | | No | M-25-386 |
| 12 | Michael | Hoppe | lu23@ibew23.org | Local Union 23, I.B.E.W. | | 445 Etna Street Ste. 61 St. Paul MN, 55106 United States | Electronic Service | | No | M-25-386 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|----------------|--------------------------------|--------------------------------------|--------------------------------------|---|---|--------------------|---------------------------|-------------------|-------------------|
| 13 | Alan | Jenkins | aj@jenkinsatlaw.com | Jenkins at Law | | 2950 Yellowtail Ave. Marathon FL, 33050 United States | Electronic Service | | No | M-25-386 |
| 14 | Richard | Johnson | rick.johnson@lawmoss.com | Moss & Barnett | | 150 S. 5th Street Suite 1200 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 15 | Sarah | Johnson Phillips | sjphillips@stoel.com | Stoel Rives LLP | | 33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 16 | Peder | Larson | plarson@larkinhoffman.com | Larkin Hoffman Daly & Lindgren, Ltd. | | 8300 Norman Center Drive Suite 1000 Bloomington MN, 55437 United States | Electronic Service | | No | M-25-386 |
| 17 | Kavita | Maini | kmains@wi.rr.com | KM Energy Consulting, LLC | | 961 N Lost Woods Rd Oconomowoc WI, 53066 United States | Electronic Service | | No | M-25-386 |
| 18 | Christine | Marquis | regulatory.records@xcelenergy.com | Xcel Energy | | 414 Nicollet Mall MN1180-07-MCA Minneapolis MN, 55401 United States | Electronic Service | | Yes | M-25-386 |
| 19 | Stacy | Miller | stacy.miller@minneapolismn.gov | City of Minneapolis | | 350 S. 5th Street Room M 301 Minneapolis MN, 55415 United States | Electronic Service | | No | M-25-386 |
| 20 | David | Moeller | dmoeller@allete.com | Minnesota Power | | | Electronic Service | | No | M-25-386 |
| 21 | Andrew | Moratzka | andrew.moratzka@stoel.com | Stoel Rives LLP | | 33 South Sixth St Ste 4200 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 22 | David | Niles | david.niles@avantenergy.com | Minnesota Municipal Power Agency | | 220 South Sixth Street Suite 1300 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 23 | Carol A. | Overland | overland@legalectric.org | Legalelectric - Overland Law Office | | 1110 West Avenue Red Wing MN, 55066 United States | Electronic Service | | No | M-25-386 |
| 24 | Generic Notice | Residential Utilities Division | residential.utilities@ag.state.mn.us | | Office of the Attorney General - Residential Utilities Division | 1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States | Electronic Service | | Yes | M-25-386 |

| # | First Name | Last Name | Email | Organization | Agency | Address | Delivery Method | Alternate Delivery Method | View Trade Secret | Service List Name |
|----|------------|-----------|------------------------------|--------------------------------------|--------|--|--------------------|---------------------------|-------------------|-------------------|
| 25 | Kevin | Reuther | kreuther@mncenter.org | MN Center for Environmental Advocacy | | 26 E Exchange St, Ste 206 St. Paul MN, 55101-1667 United States | Electronic Service | | No | M-25-386 |
| 26 | Ken | Smith | ken.smith@districtenergy.com | District Energy St. Paul Inc. | | 76 W Kellogg Blvd St. Paul MN, 55102 United States | Electronic Service | | No | M-25-386 |
| 27 | Byron E. | Starns | byron.starns@stinson.com | STINSON LLP | | 50 S 6th St Ste 2600 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 28 | Carla | Vita | carla.vita@state.mn.us | MN DEED | | Great Northern Building 12th Floor 180 East Fifth Street St. Paul MN, 55101 United States | Electronic Service | | No | M-25-386 |
| 29 | Joseph | Windler | jwindler@winthrop.com | Winthrop & Weinstine | | 225 South Sixth Street, Suite 3500 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |
| 30 | Kurt | Zimmerman | kwz@ibew160.org | Local Union #160, IBEW | | 2909 Anthony Ln St Anthony Village MN, 55418-3238 United States | Electronic Service | | No | M-25-386 |
| 31 | Patrick | Zomer | pat.zomer@lawmoss.com | Moss & Barnett PA | | 150 S 5th St #1200 Minneapolis MN, 55402 United States | Electronic Service | | No | M-25-386 |