

March 24, 2026

Sasha Bergman
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce
Docket No. E111/M-25-139

Dear Ms. Bergman,

Attached are the comments of the Minnesota Department of Commerce (Department) in the following matter:

In the Matter of Dakota Electric Association's 2025 Integrated Distribution Plan.

Dakota Electric Association's (DEA or the Association) was filed on November 3, 2025.

The Department recommends the Commission accept DEA's IDP with modifications below and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Dr. SYDNIE LIEB
Assistant Commissioner of Regulatory Analysis

AZ/RW/BP/DD/KB/ad
Attachment

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Acronyms and Abbreviations

AMI	Advanced Metering Infrastructure
BESS	Battery Energy Storage System
CAIDI	Customer Average Interruption Duration Index
DEA	Dakota Electric Association
DER	Distributed Energy Resource
DR	Demand Response
FERC	Federal Energy Regulatory Commission
FLISR	Fault Location Isolation and Service Restoration
FPI	Fire Potential Index
Grid Mod	Grid Modernization
IDP	Integrated Distribution Plan
IR	Information Request
IRP	Integrated Resource Plan
kV	Kilo Volt
kW	Kilowatt
kWh	Kilowatt-Hour
MISO	Midcontinent Independent System Operator
MP	Minnesota Power
MW	Megawatt
NWA	Non-Wire Alternative
O&M	Operations and Maintenance
PUC	Public Utilities Commission
PV	Photovoltaic
SAIDI	System Average Interruption Duration Index
Xcel	Xcel Energy



Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce

Docket No. E111/M-25-139

I. INTRODUCTION

Every two years, Dakota Electric Association (DEA or the Association) submits an Integrated Distribution Plan (IDP), which began with the Minnesota Public Utilities Commission's (Commission) February 20, 2019 Order Approving Integrated Distribution Planning Filing Requirements for DEA.¹ The primary mechanism by which IDPs operate is compliance with the Commission's established filing requirements. The Commission accepts the IDP if it finds that DEA complies with its established filing requirements.

The Commission set forth five planning objectives for IDPs, with additional filing requirements to promote transparency in distribution system planning. The Commission's planning objectives for IDPs are to:

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

On February 26, 2026, the Department filed initial comments in Docket No. E002/M-25-142, Xcel Energy's (Xcel) 2025 Integrated Distribution Plan.³ In those comments, the Department "advocates for an expansion of the review of Xcel's planning standards with a key objective to reduce Xcel's planned distribution spending."⁴ Because Xcel faces a greater budgetary need for process change, the Department intends to pilot the change in Xcel's distribution system planning rather than across the other utilities. The Department will assess the need for application to other utilities in the 2027 IDP.

¹ *In the Matter of Distribution System Planning for Dakota Electric Association, Order Adopting Integrated Distribution Plan Filing Requirements*, February 20, 2019, Docket No. E-015/CI-18-255, (eDockets) [20192-150449-01](#) (hereinafter "February 20, 2019 Order").

² *Notice of Comment Period*, November 13, 2025, Docket No. E111/M-25-139, (eDockets) [202511-224921-01](#), at 2 (hereinafter "Notice").

³ *In the Matter of Xcel Energy's 2025 Integrated Distribution Plan*, Department, Comments, February 26, 2026, Docket No. E002/M-25-142, (eDockets) [20262-228738-02](#) (hereinafter "Department Initial Comments on Xcel's IDP").

⁴ *Id.*, at 2.

DEA's IDP is unique in comparison to the other utilities, and therefore justifies a different approach to the Department's analysis of DEA's IDP. First, DEA is the only cooperative utility that files an IDP. DEA's incentive structure is the inverse of an investor-owned utility, where the Cooperative aims to keep costs as low as possible. Therefore, DEA's distribution planning process may err towards under-investment, rather than over-investment. Second, DEA's budget is also unique among all the other utilities. DEA's IDP budget is the only budget that has remained relatively stable in spite of the inflationary forces that face the entire utility industry. In addition to analyzing DEA's IDP for cost saving opportunities, the Department analyzes how DEA's distribution planning differs from the investor-owned utilities and if there are cost saving practices employed by DEA that other utilities can emulate.

DEA's IDP and general planning process are in many ways the ideal representation of a distribution plan. The information provided is direct and concise, and justifies the need for projects. Nowhere is this process better exemplified than in DEA's narrative explanation for its line-item budget projects over \$500,000, which is unique to DEA.⁵ DEA strikes the desired balance between reliability and cost that is prescribed by the Commission's Planning Objectives. With a stable budget and good reliability, the Department does not seek large changes to DEA's planning process. The Department's many information requests (IRs) and requests for information in reply comments are aimed at understanding how DEA controls for costs, and how these methods may differ from the investor-owned utilities. In these comments, the Department identifies areas where DEA could modify its distribution planning process to potentially save on costs, but does not seek to broadly request changes to DEA's distribution planning process in these comments.

II. PROCEDURAL BACKGROUND

September 16, 2024	The Commission filed its Order Accepting 2023 Integrated Distribution Plan and Modifying Filing Requirements. ⁶
November 3, 2025	Dakota files its 2025 IDP.
November 13, 2025	The Commission issues its Notice of Comment Period in the present docket. ⁷

Topic(s) open for comment:

1. Should the Commission accept or reject Dakota Electric Association's IDP?
2. Did Dakota Electric adequately address the Commission's IDP filing requirements and prior Orders, as outlined in Attachment A to this notice?
3. Feedback, comments, and recommendations on the following areas of Dakota Electric's IDP:

⁵ See Section 5.cc. *In the Matter of Dakota Electric Association's 2025 Integrated Distribution Plan*, Dakota Electric Association, November 3, 2025, Docket No. E-111/M-25-139, (eDockets) [202511-224614-03](#) at 92-94, (hereinafter "2025 IDP").

⁶ *In the Matter of Distribution System Planning for Dakota Electric Association, Order Accepting 2023 Integrated Distribution Plan and Modifying Filing Requirements*, September 16, 2024, Docket No. E111/M-23-420, (eDockets) [20249-210229-01](#).

⁷ Notice.

- a. Non-wires alternatives analysis and potential pilot project
 - b. Planned grid modernization initiatives
 - c. Forecasted distribution budget
 - d. Distributed Energy Resource (DER) scenarios and forecasts
4. Other areas of Dakota Electric's IDP not listed above, along with any other issues or concerns related to this matter.

III. DEPARTMENT ANALYSIS

The initial comments provided by the Department address DEA's IDP and the Commission's Notice Topics 1 through 4. Recommendations are offered in the corresponding sections and are summarized at the conclusion of this filing. For organization and clarity, these comments do not perfectly follow the sequence of topics in the Notice.

A. IDP COMPLIANCE WITH FILING REQUIREMENTS AND RECOMMENDATIONS CONCERNING ACCEPTANCE

The Department responds to the following notice topics:

Notice Topic 1: Should the Commission Accept or Reject Dakota Electric Association's IDP?

Notice Topic 2: Did Dakota Electric Adequately Address the Commission's IDP Filing Requirements and Prior Orders, as Outlined in Attachment A to This Notice? Is Additional Information Necessary for Improved Clarity?

The Department recommends the Commission accept DEA's 2025 IDP with additional recommendations. As part of the Department's review of DEA's November 3, 2025 filing, the Department verifies that DEA's filing includes the documentation required by the applicable Commission orders, rules, and statutes as shown in Attachment A.

B. FORECASTED DISTRIBUTION BUDGET

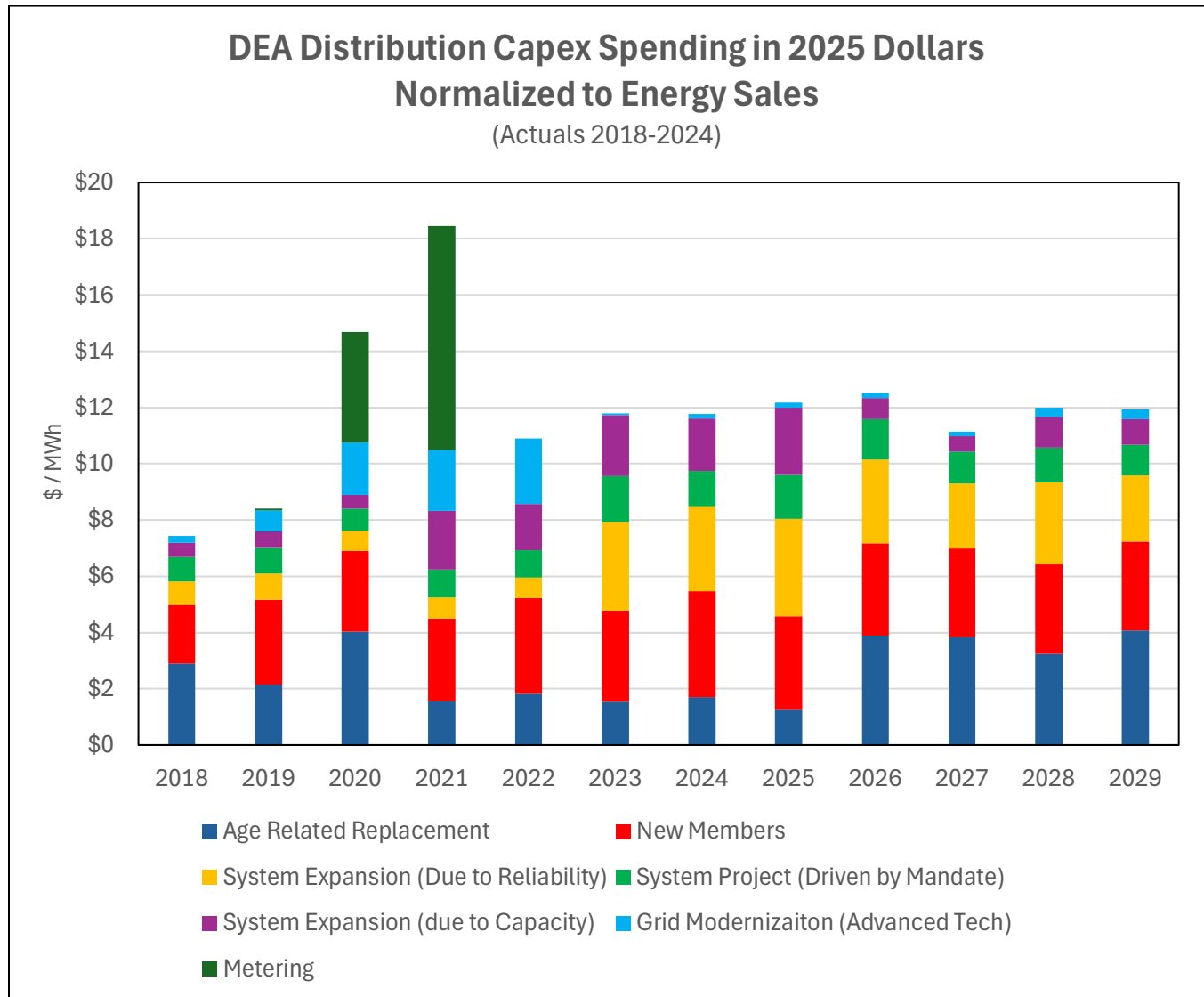
The Department responds to the following notice topic:

Notice Topic 3.C: Feedback, Comments, and Recommendations on the Forecasted Distribution Budget.

To support its distribution planning process, DEA has prepared a five-year financial forecast for the years 2026 through 2030 using the Capital Expenditure (Capex) budget categories used by other utilities in their IDPs. The Department factored inflation and energy sales estimates into its calculations, so as to facilitate comparisons between the DEA budgets for the years 2018 through 2029 and potential comparisons with that of other Minnesota electric utilities. Figure 1 shows DEA's distribution spending in the Commission's IDP budget categories, in 2025 dollars, normalized to energy sales and covering the years 2018 to 2029. DEA's distribution spending for the years 2018 through 2024 are based on actual numbers; the data for the years 2025 through 2029 are based on forecasted numbers. The Department initially attempted to create Figure 1 with DEA's internal budget categories,

but did not request data for 2018 and 2019 in time to create Figure 1. The Department plans to analyze DEA's spending in the Association's internal budget categories in the 2027 IDP.

Figure 1: Summary of DEA's Distribution Capex Budget Controlled for Inflation and Energy Sales



Source: 2023 IDP,⁸ 2025 IDP,⁹ Information Requests (IR) 7 and 8.¹⁰

Figure 1 shows that DEA's budget has been relatively stable since 2022. DEA's 2022 - 2029 normalized spending in 2025 dollars stays within a band of \$10.89 - \$11.99 / MWh, which is a difference of 10.1 percent relative to the lower bound in 2022.

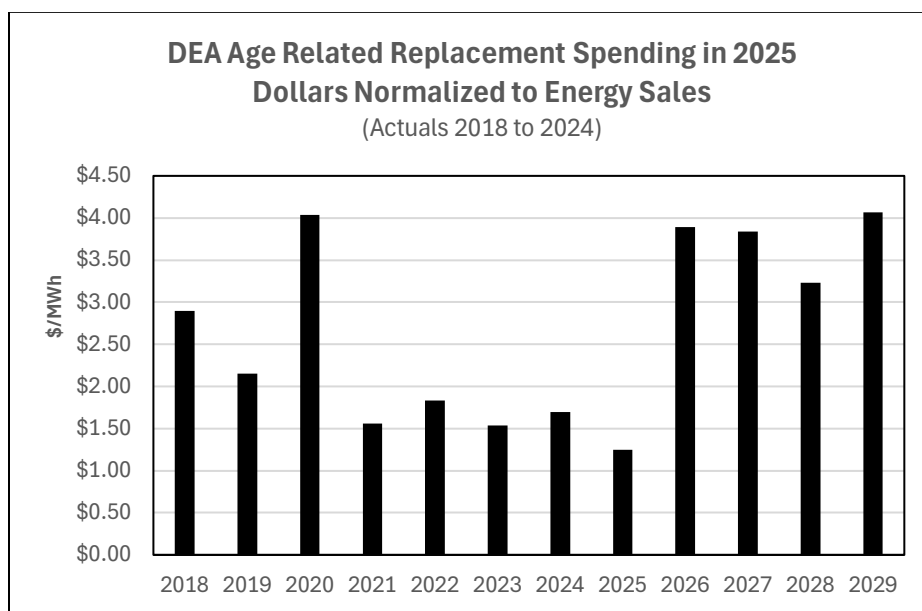
⁸ In the Matter of Distribution System Planning for Dakota Electric Association, Dakota Electric Association, Integrated Distribution Plan, November 11, 2023, Docket No. E-111/CI-23-420, (eDockets) [202311-200124-01](#), at 126, (hereinafter "2023 IDP").

⁹ 2025 IDP – at 86.

¹⁰ The Department assumes 2% annual inflation after 2025, per Federal Reserve targets. Historical inflation based on June with data from https://www.bls.gov/data/inflation_calculator.htm

Figure 2 shows DEA's Age-Related Replacement projects spending, in 2025 dollars, normalized to energy sales and covering the years 2018 to 2029. Spending on Age-Related Replacement projects, for the years 2018 through 2024 are based on actual numbers; the data for the years 2025 through 2029 are based on forecasted numbers. This figure shows a drop in spending on Age Related Replacement projects spending for 2021 through 2025 (compared to the spending levels for 2018 through 2020), then a forecasted increase in the level of spending for the years 2026 and 2029.

Figure 2: Summary of DEA's Age-Related Replacements and Asset Renewal Budget Adjusted for Inflation and Energy Sales



Source: 2023 IDP,¹¹ 2025 IDP,¹² IRs 7 and 8.¹³

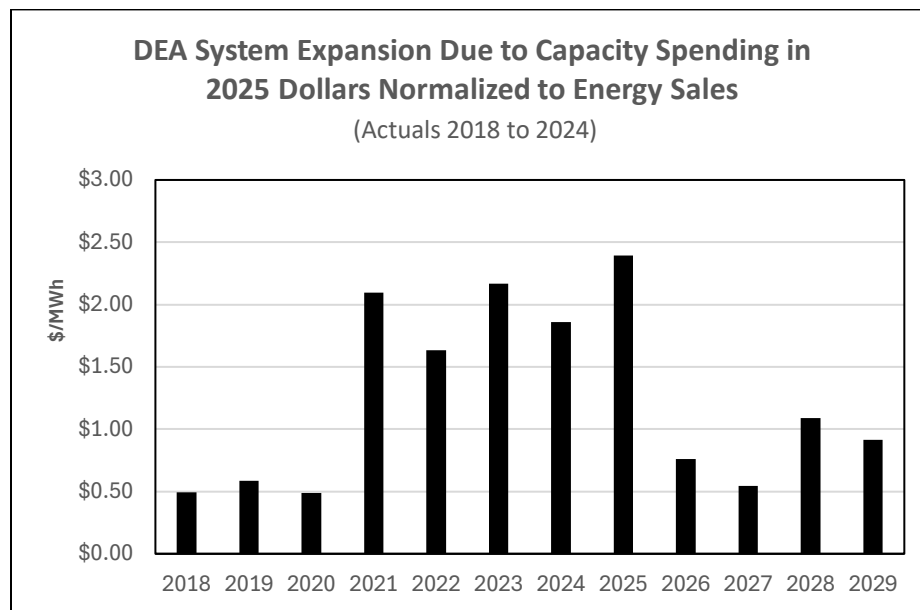
Figure 3 shows DEA's System Expansion Due to Capacity projects spending, in 2025 dollars, normalized to energy sales and covering the years 2018 to 2029. Spending on Age-Related Replacement projects, for the years 2018 through 2024 are based on actual numbers and the data for the years 2025 through 2029 are based on forecasted numbers. Figure 3 shows an increase in spending on System Expansion Due to Capacity projects spending for 2021 through 2025 (compared to the spending levels for 2018 through 2020), then a forecasted decrease in the level of spending for the years 2026 and 2029. Figures 2 and 3 show that the gap in Age-Related Replacements and Asset Renewal in 2021 through 2025 was filled by increases in System Expansion Due to Capacity over the same time period, and then Age-Related Replacements spending increases after DEA's System Expansion Due to Capacity budget decreases in 2026.

¹¹ 2023 IDP – at 126.

¹² 2025 IDP – at 86.

¹³ The Department assumes 2% annual inflation after 2025, per Federal Reserve targets. Historical inflation based on June with data from https://www.bls.gov/data/inflation_calculator.htm

Figure 3: Summary of DEA’s System Expansion Due to Capacity Budget Adjusted for Inflation and Energy Sales



Source: 2023 IDP,¹⁴ 2025 IDP,¹⁵ IRs 7 and 8.¹⁶

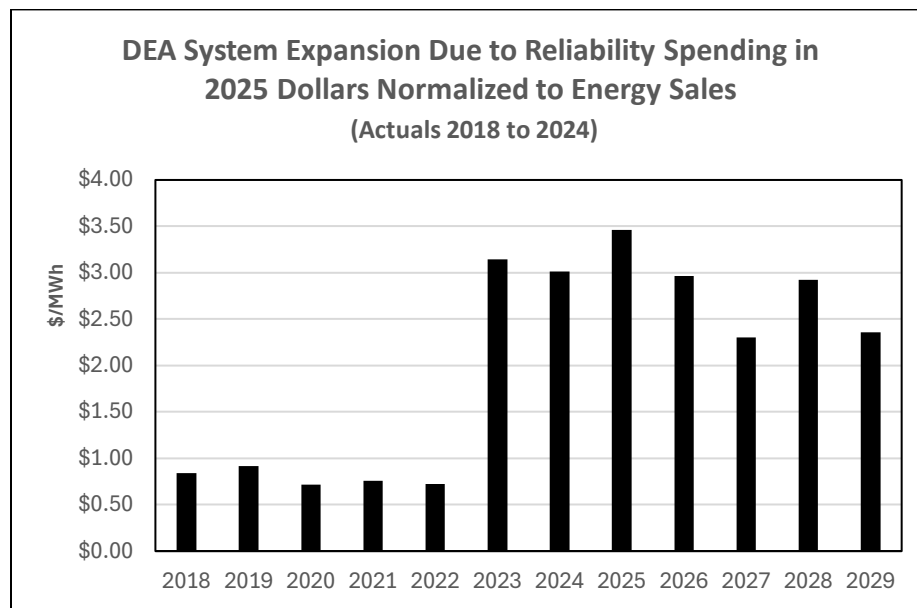
Figure 4 shows DEA’s System Expansion Due to Reliability Spending projects spending, in 2025 dollars, normalized to energy sales and covering the years 2018 to 2029. Spending on System Expansion Due to Reliability projects, for the years 2018 through 2024 are based on actual numbers and the data for the years 2025 through 2029 are based on forecasted numbers. Figure 4 shows a sharp increase in spending on System Expansion Due to Reliability projects spending starting in 2023, which is largely maintained through the 2029 budget forecast period.

¹⁴ 2023 IDP – at 126.

¹⁵ 2025 IDP – at 86.

¹⁶ The Department assumes 2% annual inflation after 2025, per Federal Reserve targets. Historical inflation based on June with data from https://www.bls.gov/data/inflation_calculator.htm

Figure 4: Summary of DEA’s System Expansion Due to Reliability Budget Adjusted for Inflation and Energy Sales



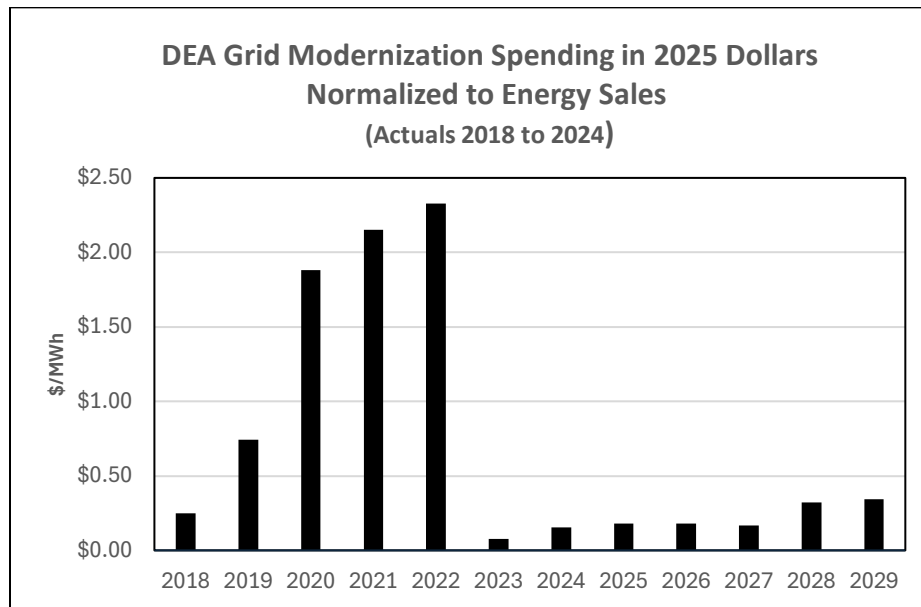
Source: 2023 IDP,¹⁷ 2025 IDP,¹⁸ IRs 7 and 8.¹⁹

Figure 5 shows DEA’s Grid Modernization projects spending, in 2025 dollars, normalized to energy sales and covering the years 2018 to 2029. Spending on Grid Modernization projects for the years 2018 through 2024 is based on actual numbers; the data for the years 2025 through 2029 are based on forecasted numbers. Figure 5 shows elevated spending in 2019 through 2023 (compared to the spending levels for 2018), then a sharp decline in historical and forecasted spending starting in 2023. Figures 4 and 5 show that the reduced System Expansion Due to Reliability spending in 2018 through 2022 was mostly filled by increases in Grid Modernization. System Expansion Due to Reliability spending increases after DEA’s Grid Modernization budget decreases in 2023.

¹⁷ 2023 IDP – at 126.

¹⁸ 2025 IDP – at 86.

¹⁹ The Department assumes 2% annual inflation after 2025, per Federal Reserve targets. Historical inflation based on June with data from https://www.bls.gov/data/inflation_calculator.htm

Figure 5: Summary of DEA’s Grid Modernization Budget Adjusted for Inflation and Energy Sales

Source: 2023 IDP,²⁰ 2025 IDP,²¹ IRs 7 and 8.²²

These four budget categories highlight deliberate decision making on behalf of DEA distribution planners to control DEA’s spending. In two examples, the Department highlights how DEA lowers spending in one budget category in order to increase spending in another. The result of these decisions is a stable distribution budget, which does not put pressure on DEA’s members beyond the broader economic forces driving inflation. DEA’s budget stands in stark contrast to the distribution budgets of all of the investor-owned utilities, which are doubling or tripling compared to historic levels.²³ The Department is aware that DEA’s budget may differ from that of the other utilities due to factors that the Association cannot control, such as system age, but this section highlights that DEA strategically prioritizes spending to control for costs. The investor-owned utilities do not exhibit this level of budgetary restraint, and can potentially adapt practices from DEA to lessen the impact of abrupt spending shocks and increase system utilization. To facilitate this process:

The Department requests that DEA explain in its reply comments:

- A. How DEA forms its budget and makes allocation decisions between different investment opportunities;**
- B. Whether DEA sets a budget limit for each year, and if so, how this number is determined; and**

²⁰ 2023 IDP – at 126.

²¹ 2025 IDP – at 86.

²² The Department assumes 2% annual inflation after 2025, per Federal Reserve targets. Historical inflation based on June with data from https://www.bls.gov/data/inflation_calculator.htm

²³ Department Initial Comments on Xcel’s IDP; *In the Matter of Minnesota Power’s 2025 Integrated Distribution Plan*, Department, Comments, March 13, 2026, Docket No. E015/M-25-140, (eDockets) [20263-229266-01](#); and Otter Tail Power Company forthcoming.

C. How DEA ensures that system condition and reliability are maintained under a restricted budget.

As the Department states in Section I, DEA's budgetary control does not mean that there are no additional opportunities for DEA to save its members money, but the need for changes to DEA's system planning is much lower compared to the needs highlighted by the ballooning budgets of the investor-owned utilities.

C. CAPACITY

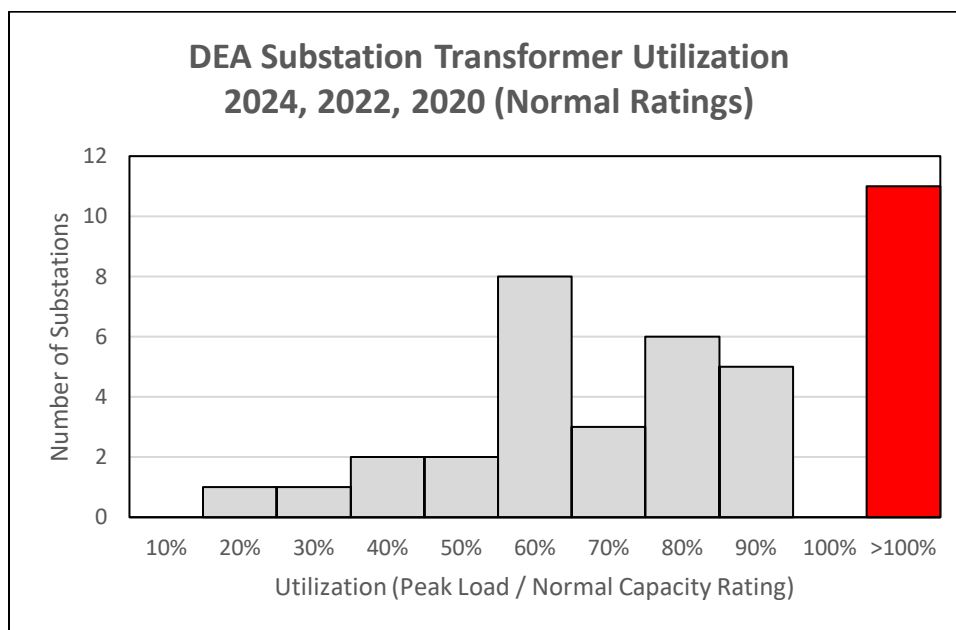
The Department responds to the following notice topic:

Notice Topic 4: Other Areas of Dakota Electric's IDP Not Listed Above, Along with Any Other Issues or Concerns Related to This Matter.

C.1. Substation Utilization

The Department shows DEA's maximum substation utilization for years 2024, 2022, and 2020 in Figure 6, which shows the percentage of peak load compared to rated capacity. The median substation transformer utilization in Figure 6 is 74.6 percent. In general, most of DEA's substation transformers have relatively high utilization. Out of the 39 substations in this dataset, 11 substation transformers have peak loads above the transformer's normal capacity rating, which is 28.2 percent of all substations.

Figure 6: Histogram of DEA's Maximum Substation Transformer Capacity Utilization With Normal Capacity Ratings for Years 2024, 2022, and 2020²⁴

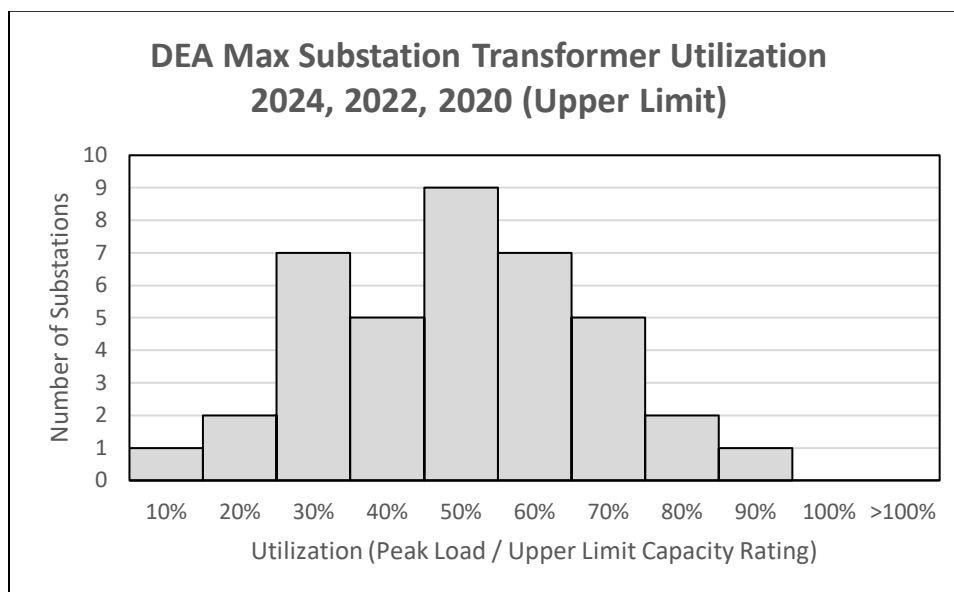


Source: Dakota Electric Association, IR 10

²⁴ 1 substation with no reported demand is excluded from this dataset.

DEA also provides data on its emergency ratings, which DEA refers to as its “Upper Limit.” The data for maximum emergency limits on DEA’s substation transformers for years 2024, 2022, and 2020 is shown in Figure 7. The median substation transformer emergency utilization in Figure 7 is 43.2 percent. The highest emergency transformer utilization is 83.5 percent, and none exceed the emergency utilization limits.

Figure 7: Histogram of DEA’s Maximum Substation Transformer Capacity Utilization With Upper Limit Capacity Ratings for Years 2024, 2022, and 2020²⁵



Source: Dakota Electric Association, IR 10

Of the 11 substation transformers with normal capacity overloads in 2024, 2022, or 2020, 4 overloaded substation transformers are scheduled to be replaced within DEA’s planned budget, which includes the Burnsville, Fischer, and Lakeville substations.²⁶ The remaining 7 overloaded transformers and their respective overloads are at Orchard Lake (113.1%), Deerwood (115.9%), LeMay Lake (117.7%), Lebanon Hills (101.8%), Dakota Heights (104.1%), Apple Valley (106.8%), and Dodd Park South (143.5%). These figures represent the maximum utilization in the data reported for 2024, 2022, or 2020. More recently, transformer utilization in 2024 for each of these substations is: Orchard Lake (93.5%) Deerwood (99.1%), Lemay Lake (117.7%), Lebanon Hills (100.0%), Dakota Heights (79.0%), Apple Valley (99.7%), and Dodd Park South (86.5%). Three out of the seven overloaded transformers mitigated their overloads below 99 percent in 2024, but four substations remain overloaded.

Given these overload events and persistence of overloads at four substations with no planned mitigations, the Department seeks to understand how DEA plans for substation overloads and the risks to DEA’s distribution system. While overloads may delay infrastructure upgrades, they may also degrade the condition of DEA’s substations, which could result in premature replacement.

²⁵ 1 substation with no reported demand is excluded from this dataset.

²⁶ Note that the Fischer substation replaces 2 transformers. 2025 IDP – at 93-94.

The Department requests DEA explain in reply comments how the Association views capacity overload risks at its substations and the need for capacity mitigations with historic or existing substation transformer overloads. DEA should discuss why the Association has no plans to mitigate substation transformer capacity risks at the Deerwood, Lemay Lake, Lebanon Hills, and Apple Valley substations.

C.2. Capacity Planning Standards

The Department presents DEA's capacity planning standards both to review these standards for their reasonableness, and also to compare capacity planning standards between utilities.

Throughout most of DEA's history, the Association has had relatively flat load growth. Because of this flat load growth, DEA has not examined its forecasts for their accuracy:

Since approximately 2007, Dakota Electric's system has experienced essentially flat growth. We have added new load during this time, but efficiency gains from homes and businesses have largely canceled out this load growth. In light of this reality, we have not reviewed the accuracy of capacity planning forecasts and we do not have a specific metric to measure forecasting accuracy.²⁷

DEA explains how the Association uses forecasts during asset replacement decisions:

Some equipment is not impacted by load forecasts because they are not a planning critical part of the system's overall carrying capability. Equipment such as cable, conductors, and substations have more effect on overall current carrying capability and forecasts are considered as part of the planning and design. When planning for this type of equipment and upgrades, Dakota Electric considers the surrounding area and its potential growth and land uses for how our system may look in the future. This future analysis does not generally look at design from a year specific perspective, except for long-lead time equipment, but rather total load for the area. This load may all show up in one year or many years in the future. Dakota Electric plans for the overall MW the area might experience and replaces or constructs the asset based on current design standards and cost effectiveness.

[...]

Dakota Electric considers a number of items as part of our asset replacement analysis. In particular, Dakota Electric considers items such as age of asset, current physical condition of asset, criticality of the asset, ease of maintenance (e.g., parts available), fault/amp ratings, current

²⁷ IR 21.

design needs, future design needs, current operation standards. In addition, when replacing an asset we are guided by our current design standards, unless there is a known upgrade we want to make. For example, if we use a 336 ACSR overhead conductor, we may replace it with 477 ACSR because this is our current standard and max conductor size. Dakota Electric does periodically review these standards to determine their effectiveness based on long range forecasts, typically 20 years.²⁸

DEA explains that the Association uses a decision criterion to mitigate N-0 (no contingency) capacity risks for substation transformers and feeders when loading exceeds 90 percent of the equipment rating. DEA will attempt reconfigurations or operational changes before mitigating capacity risks. Tap lines are mitigated at 100 percent loading. DEA primarily focuses its mitigations on alleviating N-1 (single contingency) risks.²⁹ DEA states that it plans for the worst-case scenario when making asset replacement decisions.³⁰ This practice extends to DEA's N-1 capacity risks:

N-1 scenarios are built into Dakota Electric's design and engineering standards. Our goal is to plan all parts of our system to operate under N-1 conditions. Greater emphasis on N-1 planning is made at the substation and feeder level, but we do plan for N-1 situations down to the end use member level where it is reasonable. Dakota Electric does not explicitly consider event probability during system design. We consider it best practice to assume that every piece of equipment will experience an outage, either from periodic planned maintenance or fault outage, and the rest of the system will have to be able to support that.³¹

To summarize, DEA's capacity planning process appears to be generalized and future-oriented. During the asset replacement process, DEA considers broad reaching load growth and sizes its transformers and conductors based on area-wide needs because DEA does not appear to rely heavily on location-specific forecasts that are subject to volatility. DEA's capacity design standards may have more impact on asset replacement decisions than a forecast, and guide the Association to use standard equipment sizes with consideration for future load growth. DEA's focus to plan for worst-case scenarios means that DEA appears to use liberal assumptions about potential load growth and plans to mitigate all N-1 risks, such that DEA may oversize its equipment to meet future needs. However, as Table 6 shows, DEA appears to utilize its system assets to their maximum potential before long-term decisions are made.

DEA states that it A) makes asset replacement decisions based on the Association's design standards and cost effectiveness, and B) periodically reviews its design standards to determine their long-term cost effectiveness.³² The Department requests additional information to understand how DEA incorporates cost-effectiveness into its evaluation of its projects and design standards.

²⁸ IR 22.

²⁹ Forthcoming IR response to be presented in reply comments.

³⁰ IR 22.

³¹ IR 20.

³² IR 22.

The Department requests DEA explain in reply comments how the Association incorporates cost-effectiveness metrics into its project-level and design-standard review processes, and explain how these metrics affect DEA’s asset replacement decision process.

D. RELIABILITY

The Department responds to the following notice topic:

Notice Topic 4: Other Areas of Dakota Electric’s IDP Not Listed Above, Along with Any Other Issues or Concerns Related to This Matter.

DEA’s 2025 IDP presents reliability as a central planning objective: the filing states that reliability is “a key component of member equity” and explains that the utility is focused on identifying “those portions of the system with the poorest reliability” to improve the overall member experience.³³

DEA’s planned reliability investments in the IDP are substantial. On the financial side, the 2025 IDP forecasts System Expansion (Due to Reliability) spending of \$6.461 million in 2025, \$5.616 million in 2026, \$4.549 million in 2027, \$5.993 million in 2028, and \$4.992 million in 2029—see Table 1. Overall, DEA is planning roughly \$27.6 million in reliability-focused system expansion over the five-year forecast period.

Table 1. DEA’s Project Capital Spending for Category ‘System Expansion (Due to Reliability).’³⁴

	2025	2026	2027	2028	2029	Total
Projected Capital Spending for System Expansion (Due to Reliability)	\$6.461	\$5.616	\$4.549	\$5.993	\$4.992	\$27.6

DEA is making several reliability-focused investments. First, DEA plans to complete replacement of all unjacketed underground cable by the end of 2025, describing that effort as a “significant 30 plus year effort” where benefits are reflected in the utility’s reliability numbers.³⁵ Second, the IDP states that in the coming years DEA plans to continue robust investments in reliability by shifting focus to strategic undergrounding, especially relocating residential developments currently served from back-lot overhead lines to front-lot underground. Third, DEA states it has increased the budget to proactively replace overhead lines and poles which are over 60 years old. Taken together, these programs are aligned to address DEA’s reliability concerns.

D.1. Primary Cause of Outage: Vegetation

DEA’s 2024 Safety, Reliability, and Service Quality (SRSQ)³⁶ states that vegetation—the leading cause of outages in its system—is a top priority in its goal to reduce outages:

³³ 2025 IDP – at 13.
³⁴ *Id.*, at 86.
³⁵ *Id.*, at 88.
³⁶ *In the Matter of Dakota Electric Association’s SRSQ Informational Filing*, Dakota Electric Association, Report, April 1, 2025, Docket No. E-111/M-25-28, (eDockets) [20254-217082-02](#) (hereinafter, “2024 SRSQ”).

Vegetation is the leading cause of outages on the Dakota Electric system. Prior to 2018, Dakota Electric had no formal documented tree trimming cycle or strategic vegetation management plan. Crews and contractors trimmed/pruned trees to promote tree health, maintain safe clearances from overhead lines, and resolve member tree concerns as resources allowed. Priority was driven by member concerns, safety, and localized reliability concerns.

[...]

Outages caused by trees and vegetation is a top outage cause on the Dakota Electric system and is a point of emphasis at the organization. Dakota Electric has embarked on an aggressive vegetation management strategy and is beginning to see improvements in metrics associated with these types of outages. The goal is to continue to reduce the overall impact of outages caused by trees.³⁷

With trees and vegetation being the biggest causes of outages in DEA's system, it initiated a new and improved strategy for vegetation management in 2020, as reported in its 2019 SRSQ:

Trees and vegetation are the largest contributor to outages on overhead lines. Additional funding for trimming trees was allocated in the 2020 budget. In 2019 a consultant, experienced with utility vegetation management practices, was hired to assess and evaluate Dakota Electric vegetation management practices. This assessment included actual vegetation sampling along Dakota Electric's overhead distribution system, collection of historical reliability metrics, and circuit construction information. Through data analytics and statistical analysis, the consultant developed a new systematic process for vegetation management. In 2020 Dakota Electric implemented this improved vegetation management process which is expected to take approximately 4-5 years to get through the entire overhead system. The goal of this process is to clear vegetation and maintain clearance from the overhead lines. Improvements to reliability numbers are expected as we move to this new strategy, however it may take 4-5 years to realize the effects of this new plan.³⁸

The 2020 budget increase for vegetation management focused on addressing two main areas: 1) reducing backlog of member tree ticket requests, and 2) strategic circuit trimming to improve reliability.³⁹ As stated in its 2019 SRSQ, DEA expected the revamped vegetation management strategy

³⁷ *Id.*, at 14.

³⁸ *In the Matter of Dakota Electric Association's SRSQ Informational Filing*, Dakota Electric Association, Report, March 27, 2020, Docket No. E-111/M-20-385, (eDockets) [20203-161501-01https://efiling.web.commerce.state.mn.us/documents/{E075F295-0000-C793-894D-9083DEAB4EDA}/download?contentSequence=0&rowIndex=4](https://efiling.web.commerce.state.mn.us/documents/{E075F295-0000-C793-894D-9083DEAB4EDA}/download?contentSequence=0&rowIndex=4) (hereinafter, "2019 SRSQ").

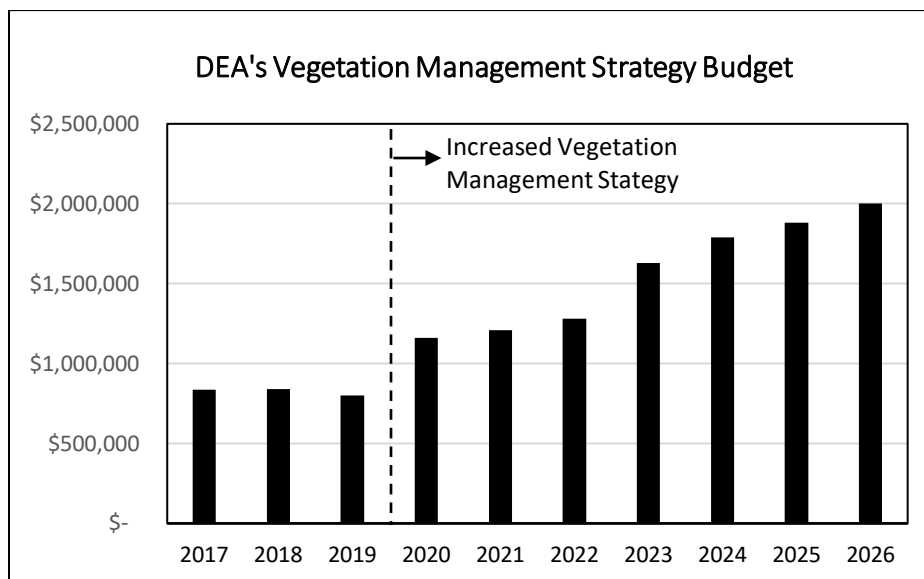
³⁹ 2024 SRSQ – at 11.

to take 4-5 years to realize the effects. In the 2024 SRSQ, DEA reported a substantial decrease in member requests to resolve maintenance tickets associated with trees:

At the beginning of 2020, the backlog of member tree tickets was over 800 tickets, and we were opening more tickets per month than we were closing. Fortunately, by the end of 2024, the new strategy substantially reduced our member tree ticket count. We continue to take many requests each month from our members and are now resolving most requests for tree trimming within 6-9 months, on average, rather than 3-4+ years before this initiative began.⁴⁰

Subsequently, DEA's vegetation management budget has more than doubled in 2026 from its average values from 2017-2019—see Figure 9.

Figure 8: DEA's Vegetation Management Strategy Budget.⁴¹



IR 6 provides limited data on the effectiveness of its increased vegetation management budget. The IR response shows 399 and 241 outages in 2023 and 2024, respectively.⁴² While these data show a decrease in outages from 2023 to 2024, the variability could be due to weather rather than a general trend. The Department requests that DEA present additional data in its reply comments to further demonstrate the efficacy of its increased vegetation management budget:

The Department requests DEA present in its reply comments data on the number of “Trees” outages in the years 2020, 2021, 2022, and 2025, as available.

⁴⁰ *Ibid.*

⁴¹ IR 28.

⁴² IR 6.

D.2. Reliability Metrics

DEA’s 2024 SRSQ reports, in 2024, actual reliability performance of 17.4 minutes SAIDI, 0.27 SAIFI, and 63.54 minutes CAIDI values—see Table 2. DEA’s actual 2024 SAIDI and SAIFI values are lower than their expected goal. The 2024 SRSQ states that SAIDI and SAIFI results are “reflective of excellent reliability” and notes that members had electric power available “more than 99.99% of the time.”⁴³ Based on the five-year average, members “might expect to experience an outage approximately once every three years.”⁴⁴

Table 2. DEA Table 2 – 2024 Reliability Performance.⁴⁵

Index	2024 Performance Goal (Performance Band)	2024 Actual Performance
CAIDI	60.1 minutes (54.1 – 66.1)	63.54 minutes
SAIDI	20.2 minutes (18.1 – 22.2)	17.4 minutes
SAIFI	0.34 (0.31 – 0.37)	0.27

The reliability metrics are important in that they indicate that the utility’s reliability strategy starts from a strong baseline. Where the system is already performing at a high level overall, more expensive hardening measures should be especially well justified and directed to those parts of the system where performance persistently lags the system average. The Department appreciates the targeted focus of DEA’s reliability work and supports its concentration on localized trouble spots and the most outage-prone assets, such as areas that are prone to tree-based outages.

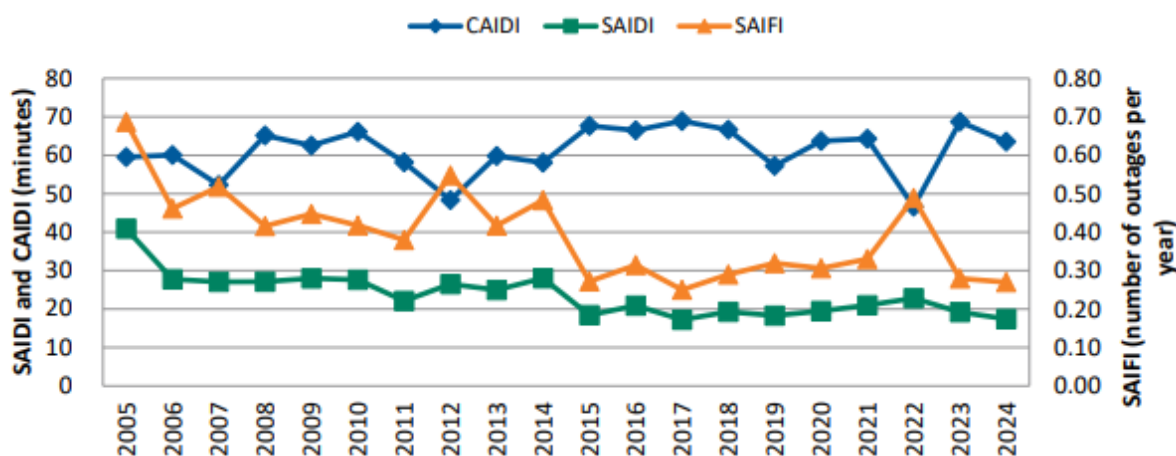
Figure 8 shows DEA’s 20-year reliability trend, excluding major event days—shows generally stable long-term performance over the last 9 years. In IR 23, DEA notes that SAIDI and SAIFI show a positive downward trend throughout the years.⁴⁶ The trend is useful because it demonstrates that the 2024 results are not an outlier, instead, the results show that the system is consistently operating with a high degree of reliability.

⁴³ 2024 SRSQ— at 4.

⁴⁴ *Id.*, at 5.

⁴⁵ 2024 SRSQ – Table 2, at 4.

⁴⁶ IR 23.

Figure 9: DEA Figure 1 – Reliability Index 20-year Summary (excluding Major Event Days)⁴⁷

D.3. Value of Reliability

DEA does not quantify the reduction in customer minutes of outages (CMO) and hence attributes the reduction in CMO to increased vegetation management, even if it does so qualitatively. While DEA's strong reliability baseline is promising, DEA states that it "has reached a plateau with the reliability indices" and that "significant improvements are not expected."⁴⁸ While good reliability metrics do not mean additional spending is unwarranted, DEA should still show why each major reliability investment is necessary, where it will be deployed, and what member benefit is expected; this is especially true for capital-intensive reliability options.

In its response to Department IR 23, DEA notes that it does not use a monetized value of CMO to compare costs.⁴⁹ The Department contends that DEA cannot know whether its reliability projects are cost effective if the Association does not estimate CMO reductions and apply a monetized value of reliability. Without an analysis of cost effectiveness, DEA can be expected to pursue reliability mitigations only on the basis of cost and expected outcomes. This analysis cannot conclude that the cost is worth the outcome without a monetized value of reliability. The Department expects DEA and all other utilities to begin quantifying the value of reliability to screen its reliability projects for cost effectiveness. With such a high standard for reliability, DEA has a greater need to screen its projects for reliability benefits compared to utilities with worse reliability.

The Department recommends the Commission require DEA to quantify the value of major reliability and resiliency investments, such as strategic undergrounding, using a recognized customer interruption cost approach (e.g, an Interruption Cost Estimate [ICE] calculator methodology) and to apply that value consistently in cost-benefit comparisons across alternatives.

⁴⁷ *Ibid.*

⁴⁸ *Id.*, at ii.

⁴⁹ IR 28.

D.4. Strategic Undergrounding

DEA has gradually increased underground miles from 2,041 to 3,218 miles from 2020 to 2024. DEA notes that older overhead portions of the system, especially back-lot and more rural areas, experience comparatively worse reliability than newer underground-served areas. DEA states that newer underground residential developments “on average, have better reliability,” while older and rural areas with greater overhead exposure “tend to have comparatively lower reliability ratings.”⁵⁰ DEA further states that it “continues to identify pockets of homes experiencing lower reliability ratings.”⁵¹ The 2025 IDP ties reliability needs to identifiable system characteristics rather than treating all portions of the distribution system as having the same need for investment:

Dakota Electric continues to identify pockets of homes experiencing more than normal number of outages, and where economically feasible, identifies projects to move the back lot line overhead wires to underground electrical supply that is more accessible.⁵²

Despite increases in undergrounding overhead lines in recent years, DEA does not have a formal strategic undergrounding program:

Dakota Electric has not developed a formal strategic undergrounding program yet. Starting in 2026, the Cooperative will convert a backlot overhead served development to underground front lot service. Learnings from this project will help shape a future strategic undergrounding program. For over 20 years, Dakota Electric has spent about \$2 million annually replacing unjacketed underground cable, an initiative set to finish in 2026. From 2026 to 2030, if financial conditions allow, we expect to maintain this budgeted amount at \$2 million per year but shift focus to strategic undergrounding in lieu of unjacketed cable replacement.⁵³

The 2025 IDP states that, after completing replacement of all unjacketed underground cable by the end of 2025, DEA plans to continue robust investments in reliability by shifting focus to strategic undergrounding by “targeting residential developments that are currently served from backlot overhead lines and relocated to front lot underground.”⁵⁴ The Department acknowledges this rationale to be plausible. However, more information is needed to determine whether undergrounding is the best-value option:

Dakota Electric has not conducted a comprehensive analysis of the cost effectiveness of underground lines compared to overhead lines. Dakota Electric engineering staff regularly generate estimates for specific projects to analyze the relative cost of overhead vs underground distribution lines.

⁵⁰ 2025 IDP – at 14.

⁵¹ *Ibid.*

⁵² *Ibid.*

⁵³ IR 14.

⁵⁴ *Ibid.*

It is important to note that that this cost comparison typically only considers installation costs. The Cooperative notes that certain municipalities within its service territory mandate the conversion of existing overhead into underground lines during development, which means that the decision to underground lines is not always at Dakota Electric's discretion.

The Department notes that Strategic Undergrounding is a new program for DEA, and could increase the Association's overall distribution spending. Reducing spending on reliability could mitigate cost increases in other areas, such as transformers, particularly given DEA's existing reliability metrics. It is also important to consider the reliability improvement potential of other upgrades, such as fault location, isolation, and service restoration (FLSIR) or OTP's increased vegetation management budget before making large capital investments.

The Department recommends that strategic undergrounding should be evaluated alongside other reliability tools that can materially reduce outage minutes on targeted feeders.

E. AGE RELATED REPLACEMENTS AND ASSET RENEWAL

The Department responds to the following notice topic:

Notice Topic 4: Other Areas of Dakota Electric's IDP Not Listed Above, Along with Any Other Issues or Concerns Related to This Matter.

Table 3 summarizes DEA's large age-related projects and programs. The total listed spending is \$26.1 million, compared to DEA's planned Age-Related Replacement budget of \$32.5 million. The majority of DEA's planned spending is on substation rebuilds. When controlled for switchgear costs,⁵⁵ substation transformer costs are estimated at \$13.1 million. Switchgear makes up the second largest spending category at an estimated \$9 million. DEA's Single Phase Fuse Cabinet Replacements are estimated to cost \$3.2 million, and DEA's power pole replacement program is estimated to cost \$800,000. The remainder of age-related spending is expected to be composed of projects that cost less than \$500,000.

⁵⁵ The average switchgear-only project costs \$1.5 million.

Table 3. Summary of Age-Related Projects and Programs Over \$500,000

Location	Equipment Replaced	Estimated Age (Years)	Estimated Cost (\$Millions)
Burnsville Substation	2 Transformers + Switchgear	40+	\$6.0
Colonial Hills Substation	2 Transformers + Switchgear	40+	\$6.0
Fischer Substation	2 Transformers + Switchgear	40+	\$5.6
System-Wide	Single Phase Fuse Cabinet Replacements	Not Stated	\$3.2
Empire Substation	Switchgear	35+	\$1.5
Pilot Knob Substation	Switchgear	35+	\$1.5
Dakota Heights Substation	Switchgear	35+	\$1.475
System-Wide	Power Poles	60+	\$0.8
Total	-	-	\$26.1

Source: 2025 IDP at 93-94.

Given the age data presented by DEA, the Department can analyze DEA’s replacement decisions for their reasonableness. The typical substation transformer is replaced after approximately 40 years of service. The Electric Power Research Institute (EPRI) conducted a transformer age and failure rate analysis.⁵⁶ The study states:

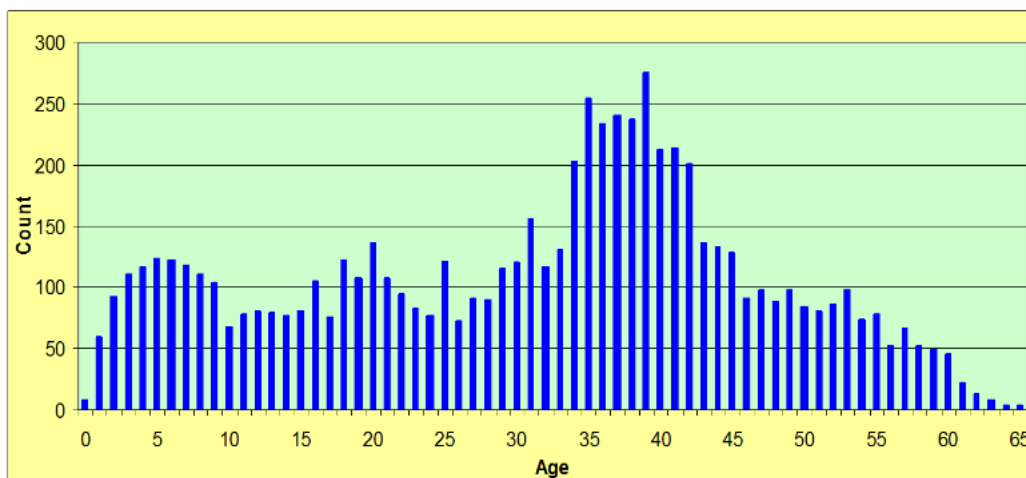
Many substation transformers were installed in the 1960s and 1970s and are approaching the end of their nominal design lives. Figure 1-1 below shows a typical age profile for over 7,000 units in a particular subset of in-service transformers contained in the transformer IDB. Clearly depicted is the “asset wall” in the 35 to 45 year age bracket. This IDB data is aggregated from eight utilities with a variety of fleet sizes and service territories and is thought to be representative of the general industry in North America.⁵⁷

The above quote refers to the following figure:

⁵⁶ Desai, B. *Industry-Wide Database for Power Transformers: Decision Support for Substation Asset Management*. Electric Power Research Institute and Coplanar Consulting, LLC, 2012. At 1-3. Available at:

<https://restservice.epri.com/publicdownload/00000000001025447/0/Product&ved=2ahUKEwjY-4bb9KSTAxVW8MkDHanZH-QQ1fkOegQICBAO&opi=89978449&cd&psig=AOvVaw1kpRKFTe6prhymzCCI-46R&ust=1773767424024000> (hereinafter “EPRI Transformer Report”).

⁵⁷ *Ibid.*

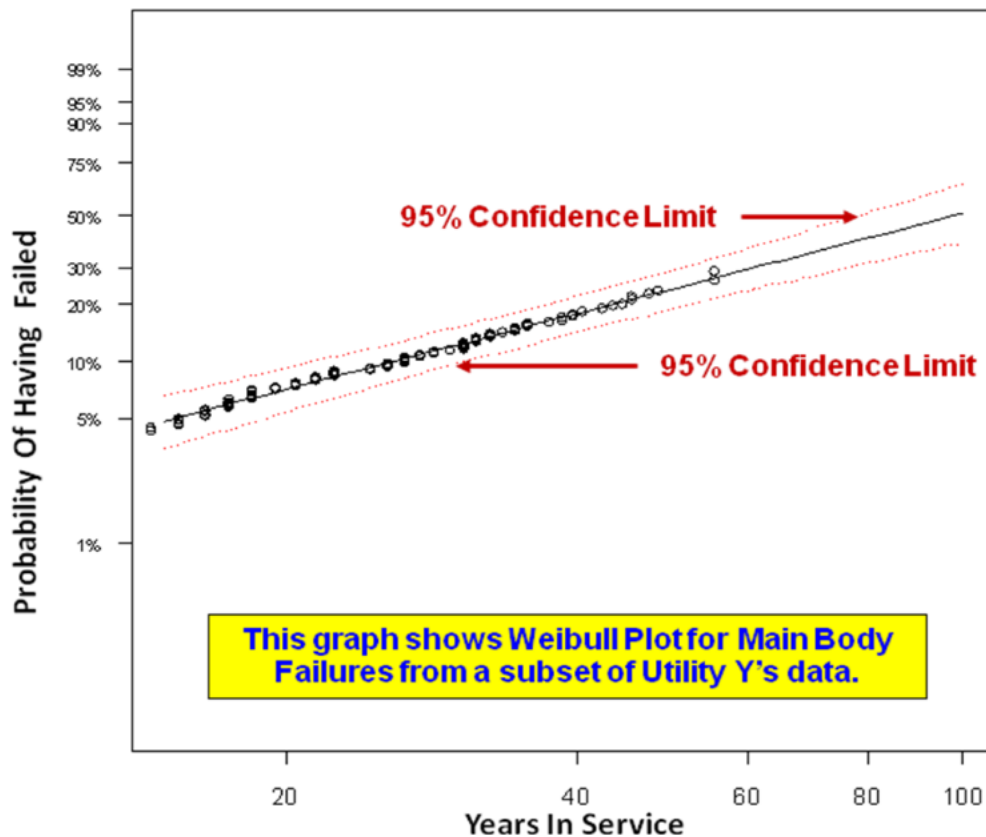
Figure 10: Age Distribution of Substation Transformers

Source: EPRI Transformer Study at 1-4.

As referenced by EPRI, DEA’s substation replacements fall within the “asset wall,” when most substation transformers are replaced. As discussed in Section III.C – Capacity, the Burnsville and Fischer substations have experienced recent overloads, but have normal asset replacement timelines. The proper timing for age-related replacements is very site-specific, however general conclusions can be made regarding the probability of a failure event and the age of system equipment. For example, the EPRI Transformer Study plots the age of substation transformers against their lifetime probability of experiencing a main body failure, which represents most failures in EPRI’s dataset, and is shown in Figure 11. While the x- and y-axes are not on a continuous scale, there is a clear relationship between transformer age and probability of failure. The probability, in this example, increases from an initial new installation failure rate around 5 percent to around 12-14 percent by year 40. As the transformer continues to age, its lifetime probability of failure also increases, which is called the “bathtub curve.”⁵⁸ If the x-axis in Figure 11 were on a continuous scale, the fitted line would bend upwards for older transformers.

⁵⁸ EPRI Transformer Study – at 1-4.

Figure 11: Representative Example Dataset of the Relation Between Transformer Age and its Lifetime Probability of Failure for the Most Common Failure Reason – Main Body Failure



Source: EPRI Transformer Report at 3-9.

The Department is primarily concerned with transformer replacement timing decisions and their impact on DEA's budget. The Department understands that substation transformer failures affect the largest number of customers, and can be difficult to restore if backup substation transformers are not available. The Department seeks to understand how DEA determines the need for substation transformer replacement projects and how increased asset lifespan is weighed against the probability of asset failure.

The Department requests that DEA explain in reply comments how the Association determines the need to replace its substation transformers and how both failure rates and transformer overloads are factored into substation transformer asset replacement decisions.

The Department reviews the need for switchgear replacements and Single Phase Fuse Cabinet Replacements. DEA states in both of these planned expenditures that a lack of replacement parts is a primary driver for asset replacements. Because equipment cannot be repaired, DEA reasons that it is better to replace the equipment proactively than to wait for the equipment to fail. Regarding switchgear, DEA states:

The substation switchgear at Dakota Heights has experienced multiple failures of the feeder breakers over the years. These breakers were installed worldwide in the 1980s with a concentrated amount installed in Europe. Utilities in the United States did not purchase and install a large number of these units. The breakers are well known for poor reliability, but with few installed in the United States, there are no spare replacement parts or units available. Dakota Electric has reviewed the options and, given the switchgear is already over 35 years old, replacement of the switchgear is considered the most cost-effective solution. This will also provide improved long-term reliability and employee safety.⁵⁹

Publicly available, non-industry sources are difficult to find, but Siemens notes that typical switchgear lifespans are 15-30 years, but often last for 50 years or more.^{60,61} It is reasonable to replace equipment near the end of its life, given the supply chain and reliability problems of DEA's existing switchgear. However, given that these assets may have a decade or more of potential life, and given that switchgear composes an estimated 7.6 percent of DEA's 2025-2029 capex budget, the Department seeks to understand how DEA determines that replacement is the most cost-effective strategy.

The Department requests DEA to explain in reply comments how the Association determined that switchgear replacement is the most cost-effective option. The explanation should detail what other alternatives were evaluated and what costs were included in this analysis.

Regarding the replacement of Single Phase Fuse Cabinets, DEA states:

Dakota Electric has identified a specific project to replace about 100 fuse cabinets over the next 5 years. This project was identified because previous suppliers are no longer producing the specific fuse cabinets that Dakota Electric historically installed. Dakota Electric found a new supplier to manufacture and plans to replace all the fuse cabinets from 2026-2029. The annual budget for this project is approximately \$600,000.⁶²

While DEA's budget for this project is smaller than the previous two examples, the expected budget is \$3.2 million. Again, the lack of new supply is reasonable to pursue a different vendor. However, DEA does not describe what problems the Association is currently experiencing and why this project is necessary at this time, compared to waiting until the current fuse cabinets are at end of life.

⁵⁹ 2025 IDP – at 93.

⁶⁰ *What is the life expectancy of switchgear?* Schneider Electric, December 15, 2025. Available at: <https://www.se.com/us/en/faqs/FA128334/>

⁶¹ Electrical Cabinet, an industry source, estimates an average switchgear lifespan of 40 years. *Electrical Switchgear Safety and Life Expectancy: Essential Practices and Maintenance*, Electrical Cabinet, August 21, 2024. Available at: <https://electricalcabinet.net/electrical-switchgear-safety/>

⁶² 2025 IDP – at 94.

The Department requests DEA explain in reply comments why its Single Phase Fuse Cabinets Program is preferable to a phased approach where the existing fuse cabinets are replaced at their expected end of life.

F. WILDFIRE MITIGATION

The Department responds to the following notice topic:

Notice Topic 4: Other Areas of Dakota Electric's IDP Not Listed Above, Along with Any Other Issues or Concerns Related to This Matter.

The characteristics of DEA's territory (largely suburban, high concentration of underground service, minimal forested areas), make the overall risk of wildfires lower than other utilities.⁶³ DEA states it is mindful of wildfire risk and has implemented and continues to evaluate additional strategies to further reduce the risks. DEA cites its vegetation management program as the most tangible way it is addressing wildfire in its territory.⁶⁴ DEA's vegetation management program aims to reduce the risk of wildfires by identifying and removing trees and other debris that could start a fire if it were to come in contact with any of its energized equipment.⁶⁵ Additionally, DEA cites its extensive use of SCADA and remote monitoring devices as providing visibility into when and where outages and potential incidents occur on its system. DEA states it is currently in the process of investigating other operational wildfire mitigations and developing a wildfire mitigation plan.⁶⁶

The Department asserts that the IDP is the proper venue to establish the reasonableness of a wildfire mitigation plan. Assumptions around wildfire risk, the cost of damage and liability, and the outcomes of different mitigation options are best evaluated before a rate case, which strengthens the case for cost recovery. Based on this position:

The Department requests Dakota Electric Association, in reply comments, discuss when it estimates its wildfire mitigation plan will be complete.

The Department recommends the Commission require Dakota Electric to file its wildfire mitigation plan, when complete, as a supplement or attachment to its IDP. DEA's filing should include a map of the Association's wildfire risk and its methodology for creating the map, any identified areas of particularly high fire risk, the probability and financial damage of these events, the proposed wildfire mitigation budget, and a full cost benefit analysis of the proposed mitigation measures.

⁶³ 2025 IDP – at 16.

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*

G. PLANNED GRID MODERNIZATION INITIATIVES

The Department responds to the following notice topic:

Notice Topic 3.B: Feedback, Comments, and Recommendations on the Planned grid modernization initiatives.

Grid modernization projects are estimated to total \$2.4 million in DEA's 2025-2029 capex budget. Figure 12 shows the estimated project implementation timeline for DEA. The projects include a new systems or upgrades to DEA's customer information system (CIS), outage management system (OMS), SCADA, advanced distribution management system (ADMS), geographic information system (GIS), distribution energy resource management system (DERMS), and member-owned energy storage system (ESS) integration.⁶⁷ DEA also lists a grant application for distributed solar and a revisit of utility-scale distributed energy storage as grid modernization projects.⁶⁸

Figure 12: Summary of DEA's Grid Modernization Project Timelines

GRID Modernization Projects					
	2026	2027	2028	2029	2030
Customer Information System Update					
Operational Technology Updates					
OMS Update					
SCADA Update					
ADMS					
GIS Update					
EDGE DERMS					
Member Owned ESS Integration					
Physical Plant Updates					
New Utility Scale Solar (PPA)					
Utility Scale BESS Exploration					
Aging Substation Replacement					

Source: 2025 IDP at 62.

Given the modest budgets for DEA's grid modernization projects, the Department does not see a need for further analysis of DEA's grid modernization projects, with one exception. DEA lists an "Edge DERMS" and "Member Owned ESS Integration" in Figure 12. Regarding the energy storage program, DEA states:

On March 14, 2024, the Commission approved Dakota Electric's Residential & Small Commercial Battery Energy Storage Pilot Program.¹³ The program is designed for a member's BTM energy storage system to supply the full load of their service for either a 2.5 or 4 hour period. Dakota Electric has had conversions with both third party vendors and energy storage manufacturers but unfortunately, we have been met with

⁶⁷ 2025 IDP – at 62-64.

⁶⁸ *Ibid.*

difficulties regarding large upfront cost in implementing a DERMS software platform, which is necessary to adequately control these devices, and manufacturers requiring a significant minimum amount of energy storage systems to interconnect to our distribution system before they will allow a program. With current member-owned BTM energy storage systems, this may take several years before we have enough systems to qualify. Dakota Electric is still optimistic about the future of BTM energy storage and is hopeful that once the ADMS project is completed, a DERMS solution will be able to integrate into an ADMS and allow the pilot program to enable different BTM energy storage programs.⁶⁹

While DEA only lists 31 energy storage systems that total 204 kW,⁷⁰ DEA lists 60,762 enrollees in its load management programs.⁷¹ Despite the unique operational considerations of energy storage compared to traditional load management programs, there is an opportunity to integrate DEA's load management program into a broader DERMS platform that includes energy storage. DEA plans to upgrade its ADMS in 2028, which would be an opportune time to integrate all of DEA's load control programs into a single DERMS platform. The Department anticipates DEA will discuss broader system integration in its next IDP.

H. NON-WIRES ALTERNATIVES ANALYSIS

The Department responds to the following notice topic:

Notice Topic 3.A: Feedback, Comments, and Recommendations on Non-Wires Alternative Analysis.

As a part of the NWA analysis, DEA must:

provide a detailed discussion of all distribution system projects in the filing year and the subsequent 5 years that are anticipated to have a total cost of greater than \$2 million. For any forthcoming project or project in the filing year, which cost \$2 million or more, provide an analysis on how non-wires alternatives compare in terms of viability, price, and long-term value.⁷²

Additionally, DEA is required to include:

- Project types that would lend themselves to non-traditional solutions (i.e. load relief or reliability)
- A timeline that is needed to consider alternatives to any project types that would lend themselves to non-traditional solutions (allowing time for potential request for proposal, response, review, contracting and implementation)

⁶⁹ 2025 IDP – at 64.

⁷⁰ See Table 21. 2025 IDP – at 80.

⁷¹ See Table 29. 2025 IDP – at 97.

⁷² February 20, 2019 Order – at 7.

- Cost threshold of any project type that would need to be met to have a non-traditional solution reviewed.
- A discussion of a proposed screening process to be used internally to determine that non-traditional alternatives are considered prior to distribution system investments are made.⁷³

In its 2025 IDP, DEA identifies several distribution system projects that exceed \$2 million planned for construction over the next five years. These projects consider replacement of aging equipment and an aging substation due for replacement or upgrades.

For projects tied to aging equipment, DEA notes extended supply chain lead times and the risk of substation failure, including the possibility of failure at an adjacent substation. The Association also notes potential service interruptions should such conditions be met.⁷⁴ The second identified project considers one aging substation, which remains under review for replacement or rejuvenation as DEA will continue to review load growth forecasts to determine location and capacity. The project remains speculative and is subject to further analysis. DEA expects additional detail in its 2027 IDP.⁷⁵

In line with the IDP filing requirements and in accordance with Commission Orders, the Department provides the following analysis on DEA's NWA results.

H.1. Project Types

DEA highlights multiple project types with potential to qualify as an NWA, including demand-side management and load management programs. However, the Association states that these projects require large geographic areas with a significant number of services "to achieve satisfactory load control and diversity such that system reliability is maintained."⁷⁶

Additionally, DEA offers a short discussion on whether widespread distributed solar can reduce the need for additional distribution capacity. "Using its AGi program and AMI meters, Dakota Electric has used around 1,500 DER production meters to monitor DER systems in its service territory and test this expectation." Upon examination of its production data, DEA reports that DER generation output from a larger group of solar systems lacks sufficient diversity in the loss of production. Therefore, the expected diversity from the solar systems is not enough to enable NWAs.⁷⁷

H.2. NWA Timeline

As detailed above, long lead times and supply chain issues make it difficult to determine a distinct timeline for NWA projects. More specifically, DEA notes that non-traditional equipment, such as solar and BESS systems, have experienced increases in lead time and availability.⁷⁸ As DEA continues to

⁷³ *Ibid.*

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*

⁷⁶ *Id.*, at 60.

⁷⁷ *Ibid.*

⁷⁸ *Id.*, at 61.

explore NWA projects, the Department anticipates that the Association will provide further insight into a detailed timeline.

H.3. Cost Threshold and Screening Process

DEA states that NWAs do not necessarily compete at a specific cost threshold. Moreover,

[i]n the past couple of years, through the substation battery storage project and additional outreach to battery and non-wires solution vendors in preparation for this IDP Report, Dakota Electric learned that the size and scope of DER projects may be critical to getting vendors interested in bidding on the project. Smaller projects have a high percentage of overhead costs and are less attractive to vendors.⁷⁹

Due to the variability in project size, DEA does not provide a cost threshold for NWA projects.

DEA does not provide an overly detailed discussion of its proposed screening process. However, DEA includes an overview of basic requirements and the basis for cost use for NWA projects. DEA states that there are specific scenarios in which NWAs can be considered instead of traditional building of distribution circuits, but such scenarios do not necessarily depend on cost levels. Furthermore, DEA notes that NWAs have the potential to delay capital-intensive traditional distribution projects.⁸⁰

The Department supports further evaluation of strategies that increase NWA value, including DEA's suggestion to design solutions "so they can be moved and reused in a different location."⁸¹

H.4. NWA Results

In its analysis, DEA includes a summary of the assumptions and costs for delaying transmission voltage upgrades due to load growth. The project considers "two substations [that] currently serve 69kV transmission lines which limit the potential for future growth without upgrading the substations to 115kV. The existing infrastructure can support approximately 11 MW of future growth without needing upgrades. There could be an opportunity to delay or defer the transmission and substation voltage upgrades by using a 4-hour BESS to provide energy during the peak periods and serve the remaining load with existing infrastructure."⁸² The Association provides an analysis in which one option offers a cost estimate of the traditional solution to upgrade both substations while the alternative option defers transmission voltage upgrades using an energy storage system.

The Department concludes that DEA met the non-wire alternative analysis requirements.

⁷⁹ 2025 IDP – at 61.

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

⁸² *Id.*, at 56.

I. DISTRIBUTED ENERGY RESOURCE (DER) SCENARIOS AND FORECASTS

The Department responds to the following notice topic:

Notice Topic 3.D: Feedback, Comments, and Recommendations on Distributed Energy Resources (DER) Scenarios and Forecasts.

The Department does not have any comments on this notice topic.

IV. DEPARTMENT RECOMMENDATIONS

Based on analysis of Dakota Electric's 2025 IDP and the information in the record, the Department has prepared recommendations, which are provided below. The recommendations correspond to the subheadings of Section III above.

REQUESTS FOR ADDITIONAL INFORMATION DURING REPLY COMMENTS:

B. FORECASTED DISTRIBUTION BUDGET

- B.1. The Department requests that DEA explain in its reply comments:
 - How DEA forms its budget and makes allocation decisions between different investment opportunities;
 - Whether DEA sets a budget limit for each year, and if so, how this number is determined; and
 - How DEA ensures that system condition and reliability are maintained under a restricted budget.

C. CAPACITY

- C.1. The Department requests DEA explain in reply comments how the Association views capacity overload risks at its substations and the need for capacity mitigations with historic or existing substation transformer overloads. DEA should discuss why the Association has no plans to mitigate substation transformer capacity risks at the Deerwood, Lemay Lake, Lebanon Hills, and Apple Valley substations.
- C.2. The Department requests DEA explain in reply comments how the Association incorporates effectiveness and/or cost-effectiveness metrics into its project-level and design-standard review processes, and explain how these metrics affect DEA's asset replacement decision process.

D. RELIABILITY

- D.1. The Department requests DEA present in its reply comments data on the number of "Trees" outages in the years 2020, 2021, 2022, and 2025, as available.

E. AGE RELATED REPLACEMENTS AND ASSET RENEWAL

- E.1. The Department requests that DEA explain in reply comments how the Association determines the need to replace its substation transformers and how both failure rates and transformer overloads are factored into substation transformer asset replacement decisions.
- E.2. The Department requests DEA to explain in reply comments how the Association determined that switchgear replacement is the most cost-effective option. The explanation should detail what other alternatives were evaluated and what costs were included in this analysis.
- E.3. The Department requests DEA explain in reply comments why its Single Phase Fuse Cabinets Program is preferable to a phased approach where the existing fuse cabinets are replaced at their expected end of life.

F. WILDFIRE

- F.1. The Department requests Dakota Electric Association, in reply comments, discuss when it estimates its wildfire mitigation plan will be complete.

PRELIMINARY RECOMMENDATIONS:

D. RELIABILITY

- D.1. The Department recommends the Commission require DEA to quantify the value of major reliability and resiliency investments, such as strategic undergrounding, using a recognized customer interruption cost approach (e.g, an Interruption Cost Estimate [ICE] calculator methodology) and to apply that value consistently in cost-benefit comparisons across alternatives.
- D.2. The Department recommends that strategic undergrounding should be evaluated alongside other reliability tools that can materially reduce outage minutes on targeted feeders.

F. WILDFIRE

- F.1. The Department recommends the Commission require Dakota Electric to file its wildfire mitigation plan, when complete, as a supplement or attachment to its IDP. DEA's filing should include a map of the Association's wildfire risk and its methodology for creating the map, any identified areas of particularly high fire risk, the probability and financial damage of these events, the proposed wildfire mitigation budget, and a full cost benefit analysis of the proposed mitigation measures.

Attachments

Attachment A – Compliance Table

Dakota Electric Association’s 2025 Integrated Distribution Plan

IDP Filing Requirements		Page Number(s)
Section A	Baseline Distribution System and Financial Data	
A.1	Modeling software currently used and planned software deployments	66
A.2	Percentage of substations and feeders with monitoring and control capabilities, planned additions	65-66
A.3	A summary of existing system visibility and measurement (feeder-level and time interval) and planned visibility improvements; include information on percentage of system with each level of visibility (ex. max/min, daytime/nighttime, monthly/daily reads, automated/manual)	66
A.4	Number of customer meters with AMI/smart meters and those without, planned AMI investments, and overview of functionality available	66-69
A.5	Discussion of how Dakota Electric Association approaches distribution system planning in consideration of and coordination with Great River Energy’s integrated resource plan, and any planned modifications or planned changes to the existing process to improve coordination and integration between the two plans from Dakota Electric Association’s perspective.	69-71
A.6	Discussion of how DERs and electrification are considered in load forecasting and any expected changes in load forecasting methodology	71-72
A.7	Discussion if and how IEEE Std. 1547-20185 impacts distribution system planning considerations (e.g. opportunities and constraints related to interoperability and advanced inverter functionality)	73
A.8	Distribution system annual loss percentage for the prior year (average of 12 monthly loss percentages)	73-75
A.9	The maximum hourly coincident load (kW) for the distribution system as measured at the interface between the transmission and distribution system. This may be calculated using SCADA data or interval metered data or other non-billing metering / monitoring systems	75-76
A.10	Total distribution substation capacity in kVA	76
A.11	Total distribution transformer capacity in kVA, if different from total distribution substation capacity and the reason for the difference	76-77
A.12	Total miles of overhead distribution wire	77
A.13	Total miles of underground distribution wire	77-78
A.14	Total number of distribution customers	78
A.15	Total costs spent on DER generation installation in the prior year. These costs should be broken down by category (including application review, responding to inquiries, metering, testing, make ready, etc).	78

Analyst(s) assigned: Ari Zwick, Rachel Wiedewitsch, Bhavin Pradhan, Diane Dietz, Krystal Binversie

A.16	Total charges to customers/member installers for DER generation installations, in the prior year. These costs should be broken down by category in which they were incurred (including application, fees, metering, make ready, etc.)	79
A.17	Total nameplate kW of DER generation system which completed interconnection to the system in the prior year, broken down by DER technology type (e.g. solar, combined solar/storage, storage, etc.)	79
A.18	Total number of DER generation systems which completed interconnection to the system in the prior year, broken down by DER technology type (e.g. solar, combined solar/storage, storage, etc.)	80
A.19	Total number and nameplate kW of existing DER systems interconnected to the distribution grid as of time of filing, broken down by DER technology type (e.g. solar, combined solar/storage, storage, etc.)	80
A.20	Total number and nameplate kW of queued DER systems as of time of filing, broken down by DER technology type (e.g. solar, combined solar/storage, storage, etc.)	80
A.21	Total number of electric vehicles in service territory	81
A.22	Total number and capacity of public electric vehicle charging stations	81
A.23	Number of units and MW/MWh ratings of battery storage	81-82
A.24	MWh saving and peak demand reductions from EE program spending in previous year	82
A.25	Amount of controllable demand (in both MW and as a percentage of system peak)	82-85
A.26	A high-level look at historical distribution system spending for the past 5-years and projected distribution system spending for 5-years into the future in each category listed below. a. Age-Related Replacements and Asset Renewal b. System Expansion or Upgrades for Capacity c. System Expansion or Upgrades for Reliability and Power Quality d. New Customer Projects and New Revenue e. Grid Modernization and Pilot Projects f. Projects related to local (or other) government-requirements (road-relocations, etc.) g. Metering h. Other	85-87
A.27	Historical distribution system spending for the past 5-years and projected distribution system spending for 5-years into the future broken down by Dakota's internal distribution budget categories, itemizing any non-traditional distribution projects	87-90
A.28	All non-Dakota Electric investments in distribution system upgrades (e.g. those required as a condition of interconnection) by subset (e.g. CSG, customer-sited, PPA and other) and location (i.e. feeder or substation).	90-91
A.29	Planned distribution capital projects, including drivers for the project, timeline for improvement, and summary of anticipated changes in historic spending. Driver categories should align with Dakota's internal distribution budget categories.	91-93

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A.30	Provide any available cost benefit analysis in which the company evaluated a nontraditional distribution system solution to either a capital or operating upgrade or replacement	94
A.31	Current DER deployment by type, size, and geographic dispersion (as useful for planning purposes; such as, by planning areas, service/work center areas, cities, etc.)	94
A.32	Information on areas of existing or forecasted high DER and/or electrification penetration. Include definition and rationale for what the Association considers “high” DER and electrification penetration.	94-95
A.33	Information on areas with existing or forecasted abnormal voltage or frequency issues that may benefit from the utilization of advanced inverter technology; provide information describing experiences where DER installations have caused operational challenges: such as, power quality, voltage or system overload issues.	95
A.34	Information on distribution upgrades made to accommodate electrification, when known, including whether it was reactive to new load or based on a short-term forecast.	95
A.35	Number of fuel-switching rebated granted through Dakota Electric’s Energy Conservation Optimization (ECO) plan in the prior year, broken out by technology type (air/ground source heat pump, water heater, cooking, other industrial process heat, electric vehicles, etc.)	95-96
A.36	Number of electric space or water heating devices enrolled in a time-of-use rate or demand response program, broken out by program type.	97
Section B	Preliminary Hosting Capacity Data	
B.1	Provide an excel spreadsheet (or other equivalent format) by feeder of either daytime minimum load (daily, if available) or, if daytime minimum load is not available, peak load (time granularity should be specified)	98-102
Section C	Distributed Energy Resource and Electrification Scenario Analysis	

C.1	In order to understand the potential impacts of faster-than-anticipated DER and electrification adoption, define and develop conceptual base-case, medium, and high scenarios regarding increased DER and electrification deployment on the distribution system. Scenarios should reflect a reasonable mix of individual DER and electrification adoption and aggregated or bundled DER service types, dispersed geographically across the Dakota Electric distribution system in the locations Dakota Electric would reasonably anticipate seeing DER and electrification growth take place first and how the Association would anticipate the combined impacts of simultaneous DER and electrification growth.	24-51
C.2	Include information on methodologies used to develop the low, medium, and high scenarios, including the DER and electrification adoption rates (if different from the minimum 10% and 25% levels), geographic deployment assumptions, expected DER and electrification load profiles (for both individual and bundled installations), and any other relevant assumptions factored into the scenario discussion. Indicate whether or not these methodologies and inputs are consistent with Integrated Resource Plan inputs.	24-51, 69-71
C.3	Provide a discussion of the processes and tools that would be necessary to accommodate the specified levels of DER and electrification integration, including whether existing processes and tools would be sufficient. Provide a discussion of the system impacts and benefits that may arise from increased DER and electrification adoption, potential barriers to DER and electrification integration, and the types of system upgrades that may be necessary to accommodate the DER and electrification at the listed penetration levels.	34-39, 44-50
C.4	Include information on anticipated impacts from FERC Order 8416 (Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators) and a discussion of potential impacts from the related FERC Docket RM18-9-000 (Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators)	N/A

Section D	Long-Term Distribution System Modernization and Infrastructure Investment Plan	
D.2	Dakota Electric shall provide a 5-year Action Plan as part of a 10-year long-term plan for distribution system developments and investments in grid modernization based on internal business plans and considering the insights gained from the DER and electrification futures analysis, hosting capacity analysis, and non-wires alternatives analysis. The 5-year Action Plan should include a detailed discussion of the underlying assumptions (including load growth assumptions) and the costs of distribution system investments planned for the next 5-years (expanding on topics and categories listed above). Dakota Electric should include specifics of the 5-year Action Plan investments. Topics that should be discussed, as appropriate, include at a minimum: a. Overview of investment plan: scope, timing, and cost recovery mechanism b. Grid Architecture: Description of steps planned to modernize the utility's grid and tools to help understand the complex interactions that exist in the present and possible future grid scenarios and what utility and customer benefits that could or will arise. c. Alternatives analysis of investment proposal: objectives intended with a project, general grid modernization investments considered, alternative cost and functionality analysis (both for the utility and the customer), implementation order options, and considerations made in pursuit of short-term investments. The analysis should be sufficient enough to justify and explain the investment. d. System interoperability and communications strategy e. Costs and plans associated with obtaining system data (EE load shapes, photovoltaic output profiles with and without battery storage, capacity impacts of demand response combined with EE, EV charging profiles, load profiles of electrification, etc.) f. Interplay of investment with other utility programs (effects on existing utility programs such as demand response, efficiency projects, etc.) g. Customer anticipated benefit and cost h. Customer data and grid data management plan (how it is planned to be used and/or shared with customers and/or third parties) i. Plans to manage rate or bill impacts, if any j. Impacts to net present value of system costs (in net present value revenue requirements/megawatt/hour or megawatt) k. For each grid modernization project in its 5-year Action Plan, Dakota Electric should provide a cost-benefit analysis based on the best information it has at the time and include a discussion of non-quantifiable benefits. Dakota Electric shall provide all information to support its analysis. l. Status of any existing pilots or potential for new opportunities for grid modernization pilots	61-65

Analyst(s) assigned: Ari Zwick, Rachel Wiedewitsch, Bhavin Pradhan, Diane Dietz, Krystal Binversie

D.3	In addition to the 5-year Action Plan, Dakota Electric shall provide a discussion of its vision for the planning, development, and use of the distribution system over the next 10 years. The 10- year Long-Term Plan discussion should address long-term assumptions (including load growth assumptions), the long-term impact of the 5-year Action Plan investments, what changes are necessary to incorporate DER and electrification into future planning processes based on the DER and electrification futures analysis, and any other types of changes that may need to take place in the tools and processes Dakota Electric is currently using.	61-65
Section E	Non-Wires (Non-Traditional) Alternatives Analysis	
E.1	Dakota Electric shall provide a detailed discussion of all distribution system projects in the filing year and the subsequent five years that are anticipated to have a total cost of greater than two million dollars. For any forthcoming project or project in the filing year, which cost two million dollars or more, provide an analysis on how non-wires alternatives compare in terms of viability, price, and long-term value.	51-61
E.2	Dakota Electric shall provide information on the following: a. Project types that would lend themselves to non-traditional solutions (i.e. load relief or reliability) b. A timeline that is needed to consider alternatives to any project types that would lend themselves to non-traditional solutions (allowing time for potential request for proposal, response, review, contracting and implementation) c. Cost threshold of any project type that would need to be met to have a nontraditional solution reviewed d. A discussion of a proposed screening process to be used internally to determine that non-traditional alternatives are considered prior to distribution system investments are made.	54, 60-61
	Order Points (That are not amendments to the filing requirements.)	
September 16, 2024 Order (E111/M-23-420)	The Commission directs Dakota Electric Association to include an Action Plan showing the anticipated timing of grid modernization projects over the next five years in future IDPs.	61-65

Analyst(s) assigned: Ari Zwick, Rachel Wiedewitsch, Bhavin Pradhan, Diane Dietz, Krystal Binversie

Filing Requirement Versions			
Version	Date	Order	Docket
1	February 20, 2019	Order Approving Integrated Distribution Planning Filing Requirements for Dakota Electric Association	E-111/CI-18-255
2	November 2, 2020	Order Accepting Integrated Distribution Plan and Modifying Filing Requirements	E-111/M-19-674 E-002/M-19-666 E-015/M-19-684 E-017/M-19-693
3	September 16, 2024	Order Accepting 2023 Integrated Distribution Plan and Modifying Reporting Requirements	E-111/M-23-420
4	June 3, 2025	Notice of Approval of Amended Filing Requirements	E-111/CI-18-255 E-111/M-23-420 E-111/M-25-139



Minnesota Department of Commerce
85 7th Place East | Suite 280 | St. Paul, MN 55101
Information Request

Docket Number: E-111/M-25-139
Requested From: Dakota Electric Association
Type of Inquiry: General

☐ Nonpublic ☒ Public
Date of Request: 12/1/2025
Response Due: 12/22/2025

SEND RESPONSE VIA EMAIL TO: Utility.Discovery@state.mn.us as well as the assigned analyst(s).

Assigned Analyst(s): Ari Zwick, Bhavin Pradhan, Adway De, Diane Dietz

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diane.dietz@state.mn.us

Phone Number(s): 651-539-1675, 651-539-1724, 651-539-1724, 651-539-1876

ADDITIONAL INSTRUCTIONS:

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

Request Number:	6
Topic:	Cause of Outages
Reference(s):	2025 Integrated Distribution Plan

Request:

Please provide a list the following data for 2023 and 2024:

- A. Each outage event on the distribution system
- B. Location of the outage
- C. Cause of the outage
- D. Estimated customer minutes of outages experienced

Please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

Response:

- A. Although Dakota Electric's outage management system has data logging capabilities, this is a significant, time consuming request to produce and retrieve these data. Dakota Electric estimates it would take several weeks to produce this information and that does not factor in data validation. The Cooperative notes that we do not provide this level of data granularity in our annual service quality report.
- B. Outage location is tied to the location of member service or general mapping data. This information is not readily available and, depending on outage specifics, this information could be considered personally identifiable information.

To be completed by responder

Response Date: December 22, 2025
Response by: Adam Heinen, Vice President Regulatory Services
Email Address: aheinen@dakotaelectric.com
Phone Number: 651-463-6258



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Request Number: 6
Topic: Cause of Outages
Reference(s): 2025 Integrated Distribution Plan

(Continued)

- C. The chart below, also see *DOC IR 6.xlsx*, shows our overall system wide outages by the internal categories that Dakota Electric track.

Cause	2023	2024
Animals	139	128
DEA Personal	19	20
Equipment Failure	159	97
Public (Cars / Dig-in)	81	99
Cable Failure	33	44
Unknown	52	49
Trees	399	241
Weather	153	86
Power Supplier	3	1
Planned Outage	651	620

D.

Year	CAIDI*	SAIDI*	SAIFI
2023	68.74	19.21	0.28
2024	63.54	17.40	0.27

*CAIDI and SAIDI are in minutes

To be completed by responder

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Request Number:	7
Topic:	Actual Distribution Customer Energy Sales
Reference(s):	2025 Integrated Distribution Plan

Request:

Please provide the actual 2018-2024 energy sales to DEA's Minnesota retail customers that are served at the distribution level or at a cost of service that is tied to distribution charges. To elaborate on the cost of service component, please include sales to any transmission-level customers whose rates include distribution cost allocation.

Response:

Please see the attached file *IDP IR 7-9, 13.x/sx*. Please also note that Dakota Electric does not serve transmission-level or transmission served members. All retail sales are considered distribution.

To be completed by responder

Response Date: December 22, 2025
Response by: Adam Heinen, Vice President Regulatory Services
Email Address: aheinen@dakotaelectric.com
Phone Number: 651-463-6258



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Date of Request: 12/1/2025
Response Due: 12/22/2025

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Request Number:	8
Topic:	Forecasted Distribution Customer Energy Sales
Reference(s):	2025 Integrated Distribution Plan

Request:

Please provide the forecasted 2025-2030 energy sales to DEA's Minnesota retail customers that are served at the distribution level or at a cost of service that is tied to distribution charges. To elaborate on the cost of service component, please include sales to any transmission-level customers whose rates include distribution cost allocation.

If the full dataset is unavailable, please provide the data that is available.

Response:

Please see the attached file *IDP IR 7-9, 13.x/sx*. Please also note that Dakota Electric does not serve transmission-level or transmission served members and does not anticipate making sales to these types of members during the forecast period. All retail sales are considered distribution.

To be completed by responder

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Response Due: 12/11/2025

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Request Number:	10
Topic:	Substation and Feeder Rated Capacity and Observed Peak
Reference(s):	2025 Integrated Distribution Plan

Request:

Please provide the following information for each substation and feeder line operated by DEA:

- A. Rated Capacity
- B. Technical Planning Standard Capacity that triggers a need for a capacity upgrade
- C. 3-year highest peak load observed

For any system assets that do not have the available data, please summarize the number of assets by type [substation / feeder] that are affected and explain why the data is not available.

Please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

Response:

- A. Please see the attached file *DOC IR 10A—Substation Transformer and Feeder Rating.xlsx* which shows the substation and the feeder size along with the substation transformer limits. Cable ratings are also included in the attached file. Please note that this information is illustrative of ampacity and does not represent available capacity at every point on the feeder.

To be completed by responder

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Request Number:	10
Topic:	Substation and Feeder Rated Capacity and Observed Peak
Reference(s):	2025 Integrated Distribution Plan

Request:

(Continued)

- B. Dakota Electric does not have a specific technical standard that calls out a trigger point for a capacity upgrade. Distribution planning is more dynamic. Dakota Electric staff examines its system limits, alarms, and limitations yearly, along with its Construction Work Plan, to determine what upgrades or new additions will be needed. Solutions for any point on an overloaded cable may not always come in the form of an upgrade. Solutions could be as simple as modifications to switching procedures or relocating normal open positions to move load to another substation or feeder. Other solutions may require constructing a new tie line to transfer load and not necessarily new capacity. In some scenarios, additional substation capacity may be required. Many system upgrades are identified throughout the distribution planning process. These upgrades are then prioritized with other Capital Work Plan projects depending on needs and budget but not always implemented. Dakota Electric staff attempts to utilize existing system solutions prior to constructing new distribution plant to minimize cost to our members.
- C. Dakota Electric provides Peak Load, by substation, for even numbered years in our IDP filing. Dakota Electric only provides these data on a bi-annual basis as it takes significant internal resources to retrieve, cleanse, and produce accurate data. If Dakota Electric did not cleanse these data, there would be significant errors and miscalculations as Dakota Electric needs to consider outages, system switching, and other non-normal conditions when reviewing the data. Dakota Electric estimates it would take two months of dedicated engineering time to provide the 3-year highest peak load observed per substation.

To be completed by responder

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Request Number:	10
Topic:	Substation and Feeder Rated Capacity and Observed Peak
Reference(s):	2025 Integrated Distribution Plan

(Continued)

Dakota Electric would strongly recommend reviewing already provided data in the IDP in Appendix A for the bi-annual substation peak load data.

Dakota Electric notes that it would be impractical to determine the 3-year highest peak load observed per feeder as Dakota Electric currently does not track this data and notes that the highest peak load per feeder may occur at any point throughout the year. Identifying the 3-year highest peak load per feeder would take an exorbitant amount of time and resources, vastly exceeding existing staff resources and Dakota Electric cannot even estimate the time requirement of this request. Please see additional commentary in our response to DOC Information Request No. 11.

To be completed by responder

Response Date: December 22, 2025
Response by: Adam Heinen, Vice President Regulatory Services
Email Address: aheinen@dakotaelectric.com
Phone Number: 651-463-6258



Minnesota Department of Commerce
85 7th Place East | Suite 280 | St. Paul, MN 55101
Information Request

Docket Number: E-111/M-25-139
Requested From: Dakota Electric Association
Type of Inquiry: General

☐ Nonpublic ☒ Public
Date of Request: 1/15/2026
Response Due: 1/26/2026

SEND RESPONSE VIA EMAIL TO: Utility.Discovery@state.mn.us as well as the assigned analyst(s).

Assigned Analyst(s): Ari Zwick, Bhavin Pradhan, Adway De

Email Address(es): Ari.Zwick@state.mn.us, Bhavin.Pradhan@state.mn.us, Adway.De@state.mn.us

Phone Number(s): 651-539-1675, 651-539-1724, 651-539-1724

ADDITIONAL INSTRUCTIONS:

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Request Number: 14
Topic: Strategic Undergrounding Budget
Reference(s): 2025 IDP

Request:

Please outline the expected program spending on strategic undergrounding for each year between 2026-2030.

Response:

Dakota Electric has not developed a formal strategic undergrounding program yet. Starting in 2026, the Cooperative will convert a backlot overhead served development to underground front lot service. Learnings from this project will help shape a future strategic undergrounding program. For over 20 years, Dakota Electric has spent about \$2 million annually replacing unjacketed underground cable, an initiative set to finish in 2026. From 2026 to 2030, if financial conditions allow, we expect to maintain this budgeted amount at \$2 million per year but shift focus to strategic undergrounding in lieu of unjacketed cable replacement.

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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Request Number:	20
Topic:	N-1 Capacity Risk
Reference(s):	2025 Integrated Distribution Plan

Request:

Please explain if DEA includes the risk of contingency events (N-1) in its capacity planning standards.

1. If DEA does include N-1 capacity planning, please explain how the probability of these events is accounted for within DEA's planning standards.

Response:

N-1 scenarios are built into Dakota Electric's design and engineering standards. Our goal is to plan all parts of our system to operate under N-1 conditions. Greater emphasis on N-1 planning is made at the substation and feeder level, but we do plan for N-1 situations down to the end use member level where it is reasonable. Dakota Electric does not explicitly consider event probability during system design. We consider it best practice to assume that every piece of equipment will experience an outage, either from periodic planned maintenance or fault outage, and the rest of the system will have to be able to support that.

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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Request Number: 21
Topic: Capacity Forecast Accuracy
Reference(s): 2025 Integrated Distribution Plan

Request:

Please describe any analysis DEA has performed regarding the accuracy of DEA's forecasts that are used for capacity planning purposes. Please include a metric of forecast accuracy, if known.

Response:

Since approximately 2007, Dakota Electric's system has experienced essentially flat growth. We have added new load during this time, but efficiency gains from homes and businesses have largely canceled out this load growth. In light of this reality, we have not reviewed the accuracy of capacity planning forecasts and we do not have a specific metric to measure forecasting accuracy.

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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Request Number:	22
Topic:	Planning for Future Load Growth
Reference(s):	2025 Integrated Distribution Plan

Request:

When DEA needs to replace a system asset, please describe:

1. How many forecasted years DEA will consider in its analysis.
 - a. If the forecast varies by project or asset type, please provide a summary of how the forecast varies in different scenarios.
2. What data DEA includes in its analysis of the need for asset replacement.
3. How forecast uncertainty is accounted for in DEA's asset replacement methodology.

Response:

1. Some equipment is not impacted by load forecasts because they are not a planning critical part of the system's overall carrying capability. Equipment such as cable, conductors, and substations have more effect on overall current carrying capability and forecasts are considered as part of the planning and design. When planning for this type of equipment and upgrades, Dakota Electric considers the surrounding area and its potential growth and land uses for how our system may look in the future. This future analysis does not generally look at design from a year specific perspective, except for long-lead time equipment, but rather total load for the area. This load may all show up in one year or many years in the future. Dakota Electric plans for the overall MW the area might experience and replaces or constructs the asset based on current design standards and cost effectiveness.

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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(Continued)

2. Dakota Electric considers a number of items as part of our asset replacement analysis. In particular, Dakota Electric considers items such as age of asset, current physical condition of asset, criticality of the asset, ease of maintenance (e.g., parts available), fault/amp ratings, current design needs, future design needs, current operation standards. In addition, when replacing an asset we are guided by our current design standards, unless there is a known upgrade we want to make. For example, if we use a 336 ACSR overhead conductor, we may replace it with 477 ACSR because this is our current standard and max conductor size. Dakota Electric does periodically review these standards to determine their effectiveness based on long range forecasts, typically 20 years.
3. Dakota Electric's approach to asset replacement assumes worst case scenario planning. By assuming a worst case scenario, this accounts for forecast uncertainty.

To be completed by responder

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Request Number:	23
Topic:	Value of Reliability
Reference(s):	2025 Integrated Distribution Plan

Request:

Please explain how DEA quantifies the value of reliability. The response should:

1. Describe if DEA uses a monetized value of customer minutes of outages (CMO) to compare to costs, or some other metric.
 - a. If DEA uses a monetized CMO value, please outline how the value of different customer classes (i.e. residential vs commercial & industrial) factors into the quantification of value of individual projects. The response should include a breakdown of how the CMO value varies between classes.
2. Include a representative example how of the value of reliability is quantified.
3. Describe how the value of reliability is integrated into DEA's existing decision making processes.

Response:

1. Dakota Electric does not use CMO to compare costs.
2. Dakota Electric provides reliability metrics in the annual SRSQ filing. In the 2025 SRSQ filing, Docket No. E111/M-25-28, it shows a positive downward trend in SAIDI (System Average Interruption Duration Index) throughout the years. Additionally, the SAIFI (System Average Interruption Frequency Index) is also trending downward. These reliability metrics show that the average Dakota Electric member experiences one outage every three years that lasts about 17 minutes. When comparing Dakota Electric's reliability numbers to data provided by the U.S. Energy Information Administration,

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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Dakota Electric performs extremely well and Dakota Electric members receive a high value of service.¹

3. Dakota Electric constantly considers safety and reliability during decision making. The Cooperative uses an N-1 planning objective, which means we consider the worst-case scenario when planning our system. Dakota Electric is statutorily required to provide just and reasonable service. Additionally, as a part of Dakota Electric's strategic plan, resiliency and reliability is one of our strategic priorities. Dakota Electric strives to maximize system reliability and safety while also recognizing and adapting to the changing needs of our members.

¹ <https://www.eia.gov/electricity/data/eia861/>

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Request Number:	28
Topic:	Vegetation Management Outcomes
Reference(s):	2025 IDP – Page 14

Request:

DEA states:

Outages caused by trees and vegetation is a top outage cause on the Dakota Electric system and is a point of emphasis at the organization. Dakota Electric has embarked on an aggressive vegetation management strategy and is beginning to see improvements in metrics associated with these types of outages. The goal is to continue to reduce the overall impact of outages caused by trees.

Please provide:

1. The vegetation management budget for the three years preceding the increased vegetation management strategy.
2. The vegetation management budget for each year since the increased vegetation management strategy began.
3. An estimate of the reduction in customer minutes of outages attributable to the increased vegetation management strategy.
4. A description of how the increased vegetation management strategy compares to strategic undergrounding on the basis of cost and reliability.

Response:

To be completed by responder

Response Date: January 26, 2026

Response by: Adam Heinen (Vice President, Regulatory Services), Alex Nelson (System Design Manager), Trevor Hauck (Engineering Services Manager), Kwadwo Safo (Senior Electrical Engineer), John Berge (Grid Modernization Manager)

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-
1.
 - 2017 - \$835k
 - 2018 - \$840k
 - 2019 - \$800k
 2.
 - 2020 - \$1,160k
 - 2021 - \$1,210k
 - 2022 - \$1,280k
 - 2023 - \$1,630k
 - 2024 - \$1,790k
 - 2025 - \$1,880k
 - 2026 - \$2,000k
 - 3.

Dakota Electric is unable to accurately estimate the reduction in customer minutes of outages attributable to increased vegetation management spending. Prior to 2020, Dakota Electric categorized outages involving trees in multiple areas, such as equipment failures, trees, and weather. In 2020, Dakota Electric made a change to categorize all outages involving trees and vegetation as tree outages. This caused the outage data to show a significant drop in member outage hours related to weather and a significant increase in member outage hours related to trees. Dakota Electric believes that given more time, we will see a reduction in customer minute outages attributable to this strategy.

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CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of people by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

Minnesota Department of Commerce
Comments

Docket No. E111/M-25-139

Dated this **24th** day of **March 2026**

/s/Sharon Ferguson

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Daniel	Abelson	daniel.abelson@metc.state.mn.us	Metropolitan Council		390 Robert Street N. St. Paul MN, 55101 United States	Electronic Service		No	M-25-139
2	Brian	Allen	brian.allen@allenergysolar.com	All Energy Solar, Inc		1642 Carroll Ave Saint Paul MN, 55104 United States	Electronic Service		No	M-25-139
3	Michael	Allen	michael.allen@allenergysolar.com	All Energy Solar		721 W 26th st Suite 211 Minneapolis MN, 55405 United States	Electronic Service		No	M-25-139
4	Ellen	Anderson	ellena@umn.edu	325 Learning and Environmental Sciences		1954 Buford Ave Saint Paul MN, 55108 United States	Electronic Service		No	M-25-139
5	Janet	Anderson	jcainstp@icloud.com	-		1799 Sargent St. Paul MN, 55105 United States	Electronic Service		No	M-25-139
6	Jay	Anderson	jaya@cmpas.org	CMPAS		7550 Corporate Way Suite 100 Eden Prairie MN, 55344 United States	Electronic Service		No	M-25-139
7	MK	Anderson	anderson@fresh-energy.org	Fresh Energy		408 St Peter Street Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139
8	David	Assaf	daassaf@flaherty-hood.com	Flaherty & Hood, P.A.		525 Park Street Suite 470 St. Paul MN, 55102 United States	Electronic Service		No	M-25-139
9	Donna	Attanasio	dattanasio@gwu.edu	George Washington University		2000 H Street NW Washington DC, 20052 United States	Electronic Service		No	M-25-139
10	John	Bailey	bailey@ilsr.org	Institute For Local Self-Reliance		1313 5th St SE Ste 303 Minneapolis MN, 55414 United States	Electronic Service		No	M-25-139
11	Anjali	Bains	bains@fresh-energy.org	Fresh Energy		408 Saint Peter Ste 220 Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139
12	Mark	Bakk	mbakk@lcp.coop	Lake Country Power		26039 Bear Ridge Drive Cohasset MN, 55721 United States	Electronic Service		No	M-25-139
13	Jared	Ballew	jared.ballew@ev.energy	EV.ENERGY CORP		726 18th St. Des Moines IA, 50314 United States	Electronic Service		No	M-25-139
14	Shay	Banton	shayb@irecusa.org	Interstate Renewable Energy Council		600 H Street NE Apt. 341 Washington DC, 20002 United States	Electronic Service		No	M-25-139
15	Gail	Baranko	gail.baranko@xcelenergy.com	Xcel Energy		414 Nicollet Mall 7th Floor Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
16	Laura	Beaton	beaton@smwlaw.com	Shute, Mihaly & Weinberger LLP		396 Hayes Street San Francisco CA, 94102 United States	Electronic Service		No	M-25-139
17	Mathias	Bell	mathias@weavegrid.com	WeaveGrid		375 Alabama Street, Suite 325 San Francisco CA, 94110 United States	Electronic Service		No	M-25-139
18	Jeff	Benson	jbenson@southcentralelectric.com	South Central Electric Association		PO Box 150 71176 Tiell Drive St. James MN, 56081 United States	Electronic Service		No	M-25-139
19	Sasha	Bergman	sasha.bergman@state.mn.us		Public Utilities Commission	121 7th PI E Ste 350 St. Paul MN, 55101 United States	Electronic Service		Yes	M-25-139
20	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	M-25-139
21	Barb	Bischoff	barb.bischoff@nngco.com	Northern Natural Gas Co.		CORP HQ, 714 1111 So. 103rd Street Omaha NE, 68124-1000 United States	Electronic Service		No	M-25-139
22	Ingrid	Bjorklund	ibjorklund@avisenlegal.com	Avisen Legal		901 S. Marquette Ave. #1675 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
23	Ingrid	Bjorklund	ingrid@bjorklundlaw.com	Bjorklund Law, PLLC		855 Village Center Drive #256 North Oaks MN, 55127 United States	Electronic Service		No	M-25-139
24	William	Black	bblack@mmua.org	MMUA		Suite 200 3131 Fernbrook Lane North Plymouth MN, 55447 United States	Electronic Service		No	M-25-139
25	Kenneth	Bradley	kbradley@environmentminnesota.org			2837 Emerson Ave S Apt CW112 Minneapolis MN, 55408 United States	Electronic Service		No	M-25-139
26	Jon	Brekke	jbrekke@grenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369-4718 United States	Electronic Service		No	M-25-139
27	Kathleen	Brennan	kbrennan@spencerfane.com	Spencer Fane LLP		100 South Fifth Street, Suite 2500 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
28	Sydney R.	Briggs	sbriggs@swce.coop	Steele-Waseca Cooperative Electric		2411 W. Bridge St PO Box 485 Owatonna MN, 55060-	Electronic Service		No	M-25-139

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						0485 United States				
29	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	M-25-139
30	Matthew	Brodin	mbrodin@allete.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
31	Ed	Brolin	ed.brolin@rwe.com	RWE Clean Energy		100 Summit Lake Drive Suite 210 Valhalla NY, 10595 United States	Electronic Service		No	M-25-139
32	Christopher	Browning	christopher.browning@nexteraenergy.com			null null, null United States	Electronic Service		No	M-25-139
33	Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron		60 S 6th St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	M-25-139
34	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-25-139
35	Jerry	Byer	jbyer@itasca-mantrap.com	Itasca-Mantrap Electric Cooperative		PO Box 192 Park Rapids MN, 56470 United States	Electronic Service		No	M-25-139
36	Jennifer	Cady	jjcady@mnpower.com	Minnesota Power		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	M-25-139
37	Daniel T	Carlisle	todd-wad@toddwadana.coop	Todd-Wadana Electric Cooperative		550 Ash Ave NE PO Box 431 Wadena MN, 56482 United States	Electronic Service		No	M-25-139
38	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	M-25-139
39	Pat	Carruth	pat@mnvalleyrec.com	Minnesota Valley Coop. Light & Power Assn.		501 S 1st St. PO Box 248 Montevideo MN, 56265 United States	Electronic Service		No	M-25-139
40	Gabriel	Chan	gabechan@umn.edu			130 Hubert H. Humphrey Center 301 19th Ave S Minneapolis MN, 55455 United States	Electronic Service		No	M-25-139
41	Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.		12700 West Dodge Road PO Box 2047 Omaha NE, 68103-2047 United States	Electronic Service		No	M-25-139

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42	Eric	Clement	eclement@mnpower.com	Minnesota Power		null null, null United States	Electronic Service		No	M-25-139
43	City	Clerk	gregg.engdahl@ci.stcloud.mn.us	City of St. Cloud		400 Second St. S St. Cloud MN, 56301 United States	Electronic Service		No	M-25-139
44	Joshua	Cohen	josh.cohen@swtchenery.com	SWTCH Energy, Inc.		Greentown Labs 444 Somerville Avenue Somerville MA, 02143 United States	Electronic Service		No	M-25-139
45	Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC		26 Winton Road Meredith NH, 32535413 United States	Electronic Service		No	M-25-139
46	Steve	Coleman	stevecolemanpuma@gmail.com			231 Winifred St W Saint Paul MN, 55107 United States	Electronic Service		No	M-25-139
47	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-25-139
48	Kevin	Cray	kevin@communitysolaraccess.org	CCSA		1644 Platte St Denver CO, 80202 United States	Electronic Service		No	M-25-139
49	George	Crocker	gwillc@nawo.org	North American Water Office		5093 Keats Avenue Lake Elmo MN, 55042 United States	Electronic Service		No	M-25-139
50	Stacy	Dahl	sdahl@minnkota.com	Minnkota Power Cooperative, Inc.		5301 32nd Ave S Grand Forks ND, 58201 United States	Electronic Service		No	M-25-139
51	George	Damian	gdamian@cleanenergyeconomymn.org	Clean Energy Economy MN		13713 Washburn Ave S Burnsville MN, 55337 United States	Electronic Service		No	M-25-139
52	Lisa	Daniels	lisadaniels@windustry.org	Windustry		201 Ridgewood Ave Minneapolis MN, 55403 United States	Electronic Service		No	M-25-139
53	James	Darabi	james.darabi@solarfarm.com			2355 Fairview Ave #101 St. Paul MN, 55113 United States	Electronic Service		No	M-25-139
54	Cody	Davis	cdavis@epeconsulting.com	Electric Power Engineers (ELPC/VS)		null null, null United States	Electronic Service		No	M-25-139
55	Danielle	DeMarre	danielle.demarre@allenergysolar.com	All Energy Solar		1264 Energy Lane St Paul MN, 55108 United States	Electronic Service		No	M-25-139
56	Timothy	DenHerder Thomas	timothy@cooperativeenergyfutures.com	Cooperative Energy Futures		3500 Bloomington Ave. S Minneapolis MN, 55407 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
57	James	Denniston	james.r.denniston@xcelenergy.com	Xcel Energy Services, Inc.		414 Nicollet Mall, 401-8 Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
58	Curt	Dieren	curt.dieren@dgr.com	L&O Power Cooperative		1302 S Union St Rock Rapids IA, 51246 United States	Electronic Service		No	M-25-139
59	Cheryl	Dietrich	cheryl.dietrich@nexteraenergy.com	NextEra Energy Resources, LLC		700 Universe Blvd E1W/JB Juno Beach FL, 33408 United States	Electronic Service		No	M-25-139
60	Diane	Dietz	diane.dietz@state.mn.us		Department of Commerce	Suite 280 85 Seventh Place East St. Paul MN, 55101-2198 United States	Electronic Service		No	M-25-139
61	Ian M.	Dobson	ian.m.dobson@xcelenergy.com	Xcel Energy		414 Nicollet Mall, 401-8 Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
62	Kristin	Dolan	kdolan@meeker.coop	Meeker Cooperative Light & Power Assn		1725 US Hwy 12 E. Ste 100 Litchfield MN, 55355 United States	Electronic Service		No	M-25-139
63	Renee	Doyle	guydoyleelectric@gmail.com	Doyle Electric Inc.		PO Box 295 Amboy MN, 56010 United States	Electronic Service		No	M-25-139
64	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	M-25-139
65	Adam	Duininck	aduininck@ncsrcc.org	North Central States Regional Council of Carpenters		700 Olive Street St. Paul MN, 55130 United States	Electronic Service		No	M-25-139
66	Scott	Dunbar	sdunbar@kfwlaw.com	Keyes & Fox LLP		1580 Lincoln St Ste 880 Denver CO, 80203 United States	Electronic Service		No	M-25-139
67	John R.	Dunlop, P.E.	jdunlop@resminn.com	Renewable Energy Services		Suite 300 448 Morgan Ave. S. Minneapolis MN, 55405-2030 United States	Electronic Service		No	M-25-139
68	Hannah	Dunn	hannah.dunn@oakdalemn.gov	City of Oakdale		1584 Hadley Ave N Oakdale MN, 55104 United States	Electronic Service		No	M-25-139
69	Kelly	Dybdahl	kdybdahl@llec.coop	Lyon-Lincoln Electric Cooperative, Inc.		205 W. Hwy. 14 Tyler MN, 56178 United States	Electronic Service		No	M-25-139
70	Brian	Edstrom	briane@cubminnesota.org	Citizens Utility Board of Minnesota		332 Minnesota St Ste W1360 Saint Paul MN, 55101 United States	Electronic Service		No	M-25-139
71	Dick	Edwards	dedwards@ci.maple-grove.mn.us	City of Maple Grove		12800 Arbor Lakes Parkway	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						P O Box 1180 Maple Grove MN, 55311-6180 United States				
72	William	Ehrlich	wehrlich@tesla.com	Tesla, Inc.		3500 Deer Creek Rd Palo Alto CA, 94304 United States	Electronic Service		No	M-25-139
73	Kristen	Eide Tollefson	healingsystems69@gmail.com	R-CURE		28477 N Lake Ave Frontenac MN, 55026-1044 United States	Electronic Service		No	M-25-139
74	Bob	Eleff	bob.eleff@house.mn	Regulated Industries Cmte		100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul MN, 55155 United States	Electronic Service		No	M-25-139
75	R. Neal	Elliot	rnelliott@aceee.org	American Council for an Energy-Efficient Economy		ACEEE 529 14th St NW Ste 600 Washington DC, 20045 United States	Electronic Service		No	M-25-139
76	Nadav	Enbar	nenbar@epri.com	EPRI		1117 Quince Ave Boulder CO, 80304 United States	Electronic Service		No	M-25-139
77	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-25-139
78	Christian	Fenstermacher	christian.fenstermacher@owatonnautilities.com	Owatonna Municipal Public Utilities		PO Box 800 208 S Walnut Ave Owatonna MN, 55060 United States	Electronic Service		No	M-25-139
79	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-25-139
80	Christine	Fox	cfox@itasca-mantrap.com	Itasca-Mantrap Coop. Electric Assn.		PO Box 192 Park Rapids MN, 56470 United States	Electronic Service		No	M-25-139
81	Kornbaum	Frank	fkornbaum@mnpower.com			null null, null United States	Electronic Service		No	M-25-139
82	Nathan	Franzen	nathan@nationalgridrenewables.com	Geronimo Energy, LLC		8400 Normandale Lake Blvd Ste 1200 Bloomington MN, 55437 United States	Electronic Service		No	M-25-139
83	David	Freestate	dfreestate@epri.com	EPRI		942 Corridor Park Blvd Knoxville TN, 37932 United States	Electronic Service		No	M-25-139
84	Katelyn	Frye	kfrye@mnpower.com	Minnesota Power		30 W Superiot St Duluth MN, 55802-2093 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
85	Jessica	Fyhrie	jfyhrie@otpc.com	Otter Tail Power Company		PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	M-25-139
86	Edward	Garvey	garveyed@aol.com	Residence		32 Lawton St Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139
87	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	M-25-139
88	Jenny	Glumack	jenny@mrea.org	Minnesota Rural Electric Association		11640 73rd Ave N Maple Grove MN, 55369 United States	Electronic Service		No	M-25-139
89	Sean	Gosiewski	sean@afors.org	Alliance for Sustainability		2801 21st Ave S Ste 100 Minneapolis MN, 55407 United States	Electronic Service		No	M-25-139
90	Scott	Greenbert	scott@nautilussolar.com	Nautilus Solar Energy, LLC		396 Springfield Ave, Ste 2 Summit NJ, 07901 United States	Electronic Service		No	M-25-139
91	Sarah	Groeber	sgroeber@redwoodelectric.com	Redwood Electric Cooperative		60 Pine St Clements MN, 56224 United States	Electronic Service		No	M-25-139
92	Tim	Gross	tgross@fuelingmn.com	Fueling Minnesota		3244 Rice Street St. Paul MN, 55126 United States	Electronic Service		No	M-25-139
93	Cody	Gustafson	cgustafson@mnpower.com			null null, null United States	Electronic Service		No	M-25-139
94	Tom	Guttormson	tom.guttormson@connexusenergy.com	Connexus Energy		14601 Ramsey Blvd Ramsey MN, 55303 United States	Electronic Service		No	M-25-139
95	Natalie	Haberman	townsend@fresh-energy.org	Fresh Energy		408 St Peter St # 350 St. Paul MN, 55102 United States	Electronic Service		No	M-25-139
96	Nicholas	Haeg	haeg@fresh-energy.org			12298 Bass Trail Sauk Centre MN, 56378 United States	Electronic Service		No	M-25-139
97	James	Haler	jhaler@southcentralelectric.com	South Central Electric Association		71176 Tiell Dr P. O. Box 150 St. James MN, 56081 United States	Electronic Service		No	M-25-139
98	Joe	Halso	joe.halso@sierraclub.org	Sierra Club		1536 Wynkoop St Ste 200 Denver CO, 80202 United States	Electronic Service		No	M-25-139
99	Donald	Hanson	dfhanson@ieee.org			P. O. Box 44579 Eden Prairie MN, 55344 United States	Electronic Service		No	M-25-139
100	John	Harlander	john.c.harlander@xcelenergy.com	Xcel Energy		null null, null	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						United States				
101	Kim	Havey	kim.havey@minneapolismn.gov	City of Minneapolis		350 South 5th Street, Suite 315M Minneapolis MN, 55415 United States	Electronic Service		No	M-25-139
102	Todd	Headlee	theadlee@dvigridsolutions.com	Dominion Voltage, Inc.		701 E. Cary Street Richmond VA, 23219 United States	Electronic Service		No	M-25-139
103	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	M-25-139
104	Tiana	Heger	theger@mnpower.com	Minnesota Power		30 W. Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
105	Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association		4300 220th St W Farmington MN, 55024 United States	Electronic Service		No	M-25-139
106	Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors		413 Wacouta Street #230 St.Paul MN, 55101 United States	Electronic Service		No	M-25-139
107	Jessy	Hennesy	jessy.hennesy@avantenergy.com	Avant Energy		220 S. Sixth St. Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
108	Mari	Hernandez	mari@irecusa.org	IREC		null null, null United States	Electronic Service		No	M-25-139
109	Katherine	Hinderlie	katherine.hinderlie@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	445 Minnesota St Suite 1400 St. Paul MN, 55101-2134 United States	Electronic Service		No	M-25-139
110	Joe	Hoffman	ja.hoffman@smmpa.org	SMMPA		500 First Ave SW Rochester MN, 55902-3303 United States	Electronic Service		No	M-25-139
111	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-25-139
112	Casey	Horan	choran@edf.org	Environmental Defense Fund		123 Mission St San Francisco CA, 94105 United States	Electronic Service		No	M-25-139
113	Ronald	Horman	rhorman@redwoodelectric.com	Redwood Electric Cooperative		60 Pine Street Clements MN, 56224 United States	Electronic Service		No	M-25-139
114	Frank	Hornstein	frank.hornstein@minneapolismn.gov	City of Minneapolis		350 South 5th Street Minneapolis MN, 55415 United States	Electronic Service		No	M-25-139
115	Samantha	Houston	shouston@ucsusa.org	Union of Concerned Scientists		1825 K St. NW Ste 800 Washington	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						DC, 20006 United States				
116	Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
117	Jan	Hubbard	jan.hubbard@comcast.net			7730 Mississippi Lane Brooklyn Park MN, 55444 United States	Electronic Service		No	M-25-139
118	Dean	Hunter	dean.hunter@state.mn.us		Minnesota Department of Labor & Industry	443 Lafayette Rd N St. Paul MN, 55155-4341 United States	Electronic Service		No	M-25-139
119	Reuben	Hunter	bhunter@madisonei.com	Madison Energy Investments		8100 Boone Blvd Suite 430 Vienna VA, 22182 United States	Electronic Service		No	M-25-139
120	Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative		1717 East Interstate Avenue Bismarck ND, 58501 United States	Electronic Service		No	M-25-139
121	John S.	Jaffray	jjaffray@jjrpower.com	JJR Power		350 Highway 7 Suite 236 Excelsior MN, 55331 United States	Electronic Service		No	M-25-139
122	Robert	Jagusch	rjagusch@mmua.org	MMUA		3025 Harbor Lane N Minneapolis MN, 55447 United States	Electronic Service		No	M-25-139
123	Chris	Jarosch	chris@carrcreekelectricservice.com	Carr Creek Electric Service, LLC		209 Sommers Street North Hudson WI, 54016 United States	Electronic Service		No	M-25-139
124	Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law		2950 Yellowtail Ave. Marathon FL, 33050 United States	Electronic Service		No	M-25-139
125	Richard	Johnson	rickjohnson@cozen.com	Cozen O'Connor		150 S. 5th Street Suite 1200 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
126	Sarah	Johnson Phillips	sjphillips@stoel.com	Stoel Rives LLP		33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
127	Nate	Jones	njones@hcpd.com	Heartland Consumers Power		PO Box 248 Madison SD, 57042 United States	Electronic Service		No	M-25-139
128	Philip	Jones	phil@evtransportationalliance.org			1402 Third Ave Ste 1315 Seattle WA, 98101 United States	Electronic Service		No	M-25-139
129	Julie	Jorgensen	julie@greenmark.us.com	Greenmark Solar		4630 Quebec Ave N New Hope MN, 55428-4973 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
130	Kevin	Joyce	kjoyce@tesla.com			null null, null United States	Electronic Service		No	M-25-139
131	Mahmoud	Kabalan	mahmoud.kabalan@stthomas.edu	University of St Thomas		2115 Summit Ave. Mail OSS100 School of Engineering Saint Paul MN, 55105 United States	Electronic Service		No	M-25-139
132	Camille	Kadoch	ckadoch@raponline.org	Regulatory Assistance Project		50 State Street Suite 3 Montpelier VT, 05602 United States	Electronic Service		No	M-25-139
133	Cliff	Kaehler	cliff.kaehler@novelenergy.biz	Novel Energy Solutions LLC		4710 Blaylock Way Inver Grove Heights MN, 55076 United States	Electronic Service		No	M-25-139
134	Ralph	Kaehler	ralph.kaehler@gmail.com			13700 Co. Rd. 9 Eyota MN, 55934 United States	Electronic Service		No	M-25-139
135	Michael	Kampmeyer	mkampmeyer@a-e-group.com	AEG Group, LLC		260 Salem Church Road Sunfish Lake MN, 55118 United States	Electronic Service		No	M-25-139
136	Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.		11 East Superior St Ste 125 Duluth MN, 55802 United States	Electronic Service		No	M-25-139
137	Jack	Kegel	jkegel@mmua.org	MMUA		3025 Harbor Lane N Suite 400 Plymouth MN, 55447-5142 United States	Electronic Service		No	M-25-139
138	William	Kenworthy	will@votesolar.org			1 South Dearborn St Ste 2000 Chicago IL, 60603 United States	Electronic Service		No	M-25-139
139	Samuel B.	Ketchum	sketchum@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
140	Tom	Key	tkey@epri.com	EPRI		942 Corridor Park Blvd Knoxville TN, 37932 United States	Electronic Service		No	M-25-139
141	Bobby	King	bking@solarunitedneighbors.org	Solar United Neighbors		3140 43rd Ave S Minneapolis MN, 55406 United States	Electronic Service		No	M-25-139
142	Jack	Kluempke	jack.kluempke@state.mn.us		Department of Commerce	85 7th Place East Suite 600 St. Paul MN, 55101 United States	Electronic Service		No	M-25-139
143	Aaron	Knoll	aknoll@greeneespel.com	Greene Espel PLLP		222 South Ninth Street Suite 2200 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
144	Steve	Kosbab	skosbab@meeker.coop	Meeker Cooperative Light and Power		1725 US Hwy 12 E Litchfield MN, 55355 United States	Electronic Service		No	M-25-139
145	Nathan	Kostiuk	nathan.c.kostiuk@xcelenergy.com	Xcel Energy		414 Nicollet Mall, 401-07 Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
146	Brian	Krambeer	bkrambeer@mienergy.coop	MiEnergy Cooperative		PO Box 626 3110 Cooperative Way Rushford MN, 55971 United States	Electronic Service		No	M-25-139
147	Michael	Krause	michaelkrause61@yahoo.com			1200 Plymouth Avenue Minneapolis MN, 55411 United States	Electronic Service		No	M-25-139
148	Michael	Krikava	mkrikava@taftlaw.com	Taft Stettinius & Hollister LLP		2200 IDS Center 80 S 8th St Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
149	Corrina	Kumpe	ckumpe@mysunshare.com			null null, null United States	Electronic Service		No	M-25-139
150	Matthew	Lacey	mlacey@greenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369-4718 United States	Electronic Service		No	M-25-139
151	James D.	Larson	james.larson@avantenergy.com	Avant Energy Services		220 S 6th St Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
152	Mark	Larson	mlarson@meeker.coop	Meeker Coop Light & Power Assn		1725 Highway 12 E Ste 100 Litchfield MN, 55355 United States	Electronic Service		No	M-25-139
153	Burnell	Lauer	blauer.sundial@gmail.com	Sundial Solar		3209 W. 76th St #305 Edina MN, 55435 United States	Electronic Service		No	M-25-139
154	Dean	Leischow	dean@sunrisenrg.com	Sunrise Energy Ventures		315 Manitoba Ave Ste 200 Wayzata MN, 55391 United States	Electronic Service		No	M-25-139
155	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	M-25-139
156	Benjamin	Levine	blevine@mnpower.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
157	Becky	Li	bli@rmi.org			17 State St 25th floor unit 2500 New York NY, 10004 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
158	Amy	Liberkowski	amy.a.liberkowski@xcelenergy.com	Xcel Energy		414 Nicollet Mall 7th Floor Minneapolis MN, 55401-1993 United States	Electronic Service		No	M-25-139
159	Carl	Linvill	clinvill@raponline.org			50 State Street Suite #3 Montpelier VT, 05602 United States	Electronic Service		No	M-25-139
160	Phillip	Lipetsky	greenenergyproductsllc@gmail.com	Green Energy Products		PO Box 108 Springfield MN, 56087 United States	Electronic Service		No	M-25-139
161	Jody	Londo	jody.l.londo@xcelenergy.com	Xcel Energy		414 Nicillet Mall 7th Floor Minneapolis MN, 55401-1993 United States	Electronic Service		No	M-25-139
162	Susan	Ludwig	sludwig@mnpower.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
163	Brian	Lydic	brian@irecusa.org	Interstate Renewable Energy Council, Inc.		PO Box 1156 Latham NY, 12110-1156 United States	Electronic Service		No	M-25-139
164	Madeline	Lydon	madeline.k.lydon@xcelenergy.com	Xcel Energy		401 NICOLLET MALL Floor 7 Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
165	Richard	Macke	macker@powersystem.org	Power System Engineering, Inc.		10710 Town Square Dr NE Ste 201 Minneapolis MN, 55449 United States	Electronic Service		No	M-25-139
166	Alice	Madden	alice@communitypowermn.org	Community Power		2720 E 22nd St Minneapolis MN, 55406 United States	Electronic Service		No	M-25-139
167	Alex	Magerko	amagerko@epri.com	EPRI		942 Corridor Park Blvd Knoxville TN, 37932 United States	Electronic Service		No	M-25-139
168	Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC		961 N Lost Woods Rd Oconomowoc WI, 53066 United States	Electronic Service		No	M-25-139
169	Tom	Mammen	thomas.j.mammen@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
170	Discovery	Manager	discoverymanager@mnpower.com	Minnesota Power		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	M-25-139
171	Christine	Marquis	regulatory.records@xcelenergy.com	Xcel Energy		414 Nicollet Mall MN1180-07-MCA Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
172	Gregg	Mast	gmast@cleanenergyeconomymn.org	Clean Energy Economy Minnesota		4808 10th Avenue S Minneapolis MN, 55417 United States	Electronic Service		No	M-25-139
173	Jason	Maur	jason.maur@renesolapower.com	Renesola Power Holdings, LLC		850 Canal Street 3rd Floor Stamford CT, 06902 United States	Electronic Service		No	M-25-139
174	Erica	McConnell	emcconnell@elpc.org	Environmental Law & Policy Center		35 E. Wacker Drive, Suite 1600 Chicago IL, 60601 United States	Electronic Service		No	M-25-139
175	Jess	McCullough	jmccullough@mnpower.com	Minnesota Power		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	M-25-139
176	Sara G	McGrane	smcgrane@felhaber.com	Felhaber Larson		220 S 6th St Ste 2200 Minneapolis MN, 55420 United States	Electronic Service		No	M-25-139
177	Natalie	McIntire	natalie.mcintire@gmail.com	Wind on the Wires		570 Asbury St Ste 201 Saint Paul MN, 55104-1850 United States	Electronic Service		No	M-25-139
178	Matthew	Melewski	matthew@theboutiquefirm.com	Nokomis Energy LLC & Ole Solar LLC		2639 Nicollet Ave Ste 200 Minneapolis MN, 55408 United States	Electronic Service		No	M-25-139
179	Thomas	Melone	thomas.melone@allcous.com	Minnesota Go Solar LLC		222 South 9th Street Suite 1600 Minneapolis MN, 55120 United States	Electronic Service		No	M-25-139
180	Michael	Menzel	mike.m@sagiliti.com	Sagiliti		23505 Smithtown Rd. Suite 280 Excelsior MN, 55331 United States	Electronic Service		No	M-25-139
181	Tim	Mergen	tmergen@meeker.coop	Meeker Cooperative Light And Power		1725 US Hwy 12 E. Suite 100 PO Box 68 Litchfield MN, 55355 United States	Electronic Service		No	M-25-139
182	Pontius	Mike	mpontius@mnpower.com			null null, null United States	Electronic Service		No	M-25-139
183	Brian	Millberg	fwengineering@comcast.net			695 Grand Ave #222 Saint Paul MN, 55105 United States	Electronic Service		No	M-25-139
184	Luther	Miller	luther.c.miller@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
185	Marc	Miller	mmiller@soltage.com	Soltage, LLC		66 York Street, 5th Floor Jersey City NJ, 07302 United States	Electronic Service		No	M-25-139
186	Marcus	Mills	marcus@communitypowermn.org	Community Power		2720 E 22nd St	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						Minneapolis MN, 55406 United States				
187	Darrick	Moe	darrick@mrea.org	Minnesota Rural Electric Association		11640 73rd Ave N Maple Grove MN, 55369 United States	Electronic Service		No	M-25-139
188	Dalene	Monsebroten	dalene.monsebroten@nmpagency.com	Northern Municipal Power Agency		123 2nd St W Thief River Falls MN, 56701 United States	Electronic Service		No	M-25-139
189	Brian	Monson	brian.t.monson@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
190	Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP		33 South Sixth St Ste 4200 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
191	Susan	Mudd	smudd@elpc.org	Environmental Law and Policy Center		35 E. Wacker Drive, Suite 1600 Chicago IL, 60601 United States	Electronic Service		No	M-25-139
192	Pouya	Najmaie	najm0001@gmail.com	Cooperative Energy Futures		3416 16th Ave S Minneapolis MN, 55407 United States	Electronic Service		No	M-25-139
193	Alex	Nelson	anelson@dakotaelectric.com	Dakota Electric Association		4300 220nd St Farmington MN, 55024 United States	Electronic Service		No	M-25-139
194	Anthony	Nelson	amnelson@otpc.com	Ottertail Power		53233 Sunrise Ln Park Rapids MN, 56470 United States	Electronic Service		No	M-25-139
195	Ben	Nelson	benn@cmpasgroup.org	CMPMA		459 South Grove Street Blue Earth MN, 56013 United States	Electronic Service		No	M-25-139
196	Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment		212 3rd Ave N Ste 560 Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
197	Darin	Nelson	dnelson@minnetonkamn.gov	City of Minnetonka		14600 Minnetonka Blvd Minnetonka MN, 55345 United States	Electronic Service		No	M-25-139
198	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-25-139
199	Sephra	Ninow	sephra.ninow@energycenter.org	Center for Sustainable Energy		426 17th Street, Suite 700 Oakland CA, 94612 United States	Electronic Service		No	M-25-139
200	Michael	Noble	noble@fresh-energy.org	Fresh Energy		408 Saint Peter St Ste 350 Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
214	Dan	Patry	dpatry@sunedison.com	SunEdison		600 Clipper Drive Belmont CA, 94002 United States	Electronic Service		No	M-25-139
215	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	M-25-139
216	Dean	Pawlowski	dpawlowski@otpc.com	Otter Tail Power Company		PO Box 496 215 S. Cascade St. Fergus Falls MN, 56537-0496 United States	Electronic Service		No	M-25-139
217	Susan	Peirce	susan.peirce@state.mn.us		Department of Commerce	85 Seventh Place East St. Paul MN, 55101 United States	Electronic Service		No	M-25-139
218	Mary Beth	Peranteau	mperanteau@fredlaw.com	Fredrikson & Byron, P.A.		44 East Mifflin Street Suite 1000 Madison WI, 53703 United States	Electronic Service		No	M-25-139
219	Jennifer	Peterson	jjpeterson@mnpower.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	M-25-139
220	Wess	Pfaff	wes.pfaff@mrenergy.com			null null, null United States	Electronic Service		No	M-25-139
221	Ryan	Pierce	ryan.m.pierce@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
222	Morgan	Pitz	morgan.pitz@us-solar.com	US Solar		100 N 6th St #410B Minneapolis MN, 55403 United States	Electronic Service		No	M-25-139
223	Hannah	Polikov	hpolikov@aee.net	Advanced Energy Economy Institute		1000 Vermont Ave, Third Floor Washington DC, 20005 United States	Electronic Service		No	M-25-139
224	Crystal	Pomerleau	crystal.r.pomerleau@xcelenergy.com	Xcel		null null, null United States	Electronic Service		No	M-25-139
225	Kristel	Porter	kristel@mnrenewablenow.org	MN Renewable Now		null null, null United States	Electronic Service		No	M-25-139
226	Paula	Prahl	paula.prahl@dominiuminc.com	Dominium		2905 Northwest Blvd Ste 150 Plymouth MN, 55441 United States	Electronic Service		No	M-25-139
227	Kevin	Pranis	kpranis@liunagroc.com	Laborers' District Council of MN and ND		81 E Little Canada Road St. Paul MN, 55117 United States	Electronic Service		No	M-25-139
228	Matt	Privratsky	matt@nokomisenergy.com	Nokomis Energy		2639 Nicollet Ave Suite 200 Minneapolis MN, 55408 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
229	Elizabeth	Psihos	elizabeth.psihos@idealenergies.com			null null, null United States	Electronic Service		No	M-25-139
230	Bridget	Rathsack	bridget.rathsack@burnsvillemn.gov	City of Burnsville, MN		100 Civic Center Parkway Burnsville MN, 55337 United States	Electronic Service		No	M-25-139
231	Peter	Reese	preese@sundialsolarenergy.com	Sundial Energy, LLC		3363 Republic Ave Saint Louis Park MN, 55426 United States	Electronic Service		No	M-25-139
232	Generic Notice	Regulatory	regulatory_filing_coordinators@otpc.com	Otter Tail Power Company		215 S. Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-139
233	John C.	Reinhardt		Laura A. Reinhardt		3552 26th Ave S Minneapolis MN, 55406 United States	Paper Service		No	M-25-139
234	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-25-139
235	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-25-139
236	Micah	Revell	micah.revell@stinson.com	Stinson LLP		50 South Sixth St Ste 2600 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
237	Michael	Riewer	mriewer@otpc.com	Otter Tail Power Company		PO Box 4496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	M-25-139
238	Jonathan	Roberts	jroberts@soltage.com	Soltage		66 York St 5th Floor Jersey City NJ, 07302 United States	Electronic Service		No	M-25-139
239	Noah	Roberts	nroberts@cleanpower.org	Energy Storage Association		1155 15th St NW, Ste 500 Washington DC, 20005 United States	Electronic Service		No	M-25-139
240	Kristi	Robinson	krobinson@star-energy.com	STAR Energy Services, LLC		1401 South Broadway Pelican Rapids MN, 56572 United States	Electronic Service		No	M-25-139
241	Daniel	Rogers	dan@nokomisparkers.com			2639 Nicollet Ave Ste 200 Minneapolis MN, 55408 United States	Electronic Service		No	M-25-139
242	Michael	Ruiz	michael.ruiz@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
243	Nathaniel	Runke	nrunke@local49.org			611 28th St. NW Rochester	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 55901 United States				
244	Darla	Ruschen	d.ruschen@bcrea.coop	Brown County Rural Electrical Association		PO Box 529 24386 State Highway 4 Sleepy Eye MN, 56085 United States	Electronic Service		No	M-25-139
245	Delaney	Russell	delaney@mnipl.org	Just Solar Coalition		4407 E Lake Street Minneapolis MN, 55407 United States	Electronic Service		No	M-25-139
246	Kwadwo	Safo	ksafo@dakotaelectric.com	Dakota Electric Association		null null, null United States	Electronic Service		No	M-25-139
247	Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative		P.O. Box 227 Madison SD, 57042 United States	Electronic Service		No	M-25-139
248	Ian	SantosMeeker	ians@ips-solar.com	IPS Solar		null null, null United States	Electronic Service		No	M-25-139
249	Joseph L	Sathe	jsathe@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
250	Kenric	Scheevel	kjs@dairynet.com	Dairyland Power Cooperative		3200 East Ave S PO Box 817 La Crosse WI, 54602 United States	Electronic Service		No	M-25-139
251	Dean	Schiro	dean.e.schiro@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
252	Jacob J.	Schlesinger	jschlesinger@keyesfox.com	Keyes & Fox LLP		1580 Lincoln St Ste 880 Denver CO, 80203 United States	Electronic Service		No	M-25-139
253	Jeff	Schoenecker	jschoenecker@dakotaelectric.com	Dakota Electric Association		4300 220th Street W Farmington MN, 55024 United States	Electronic Service		No	M-25-139
254	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	M-25-139
255	Kay	Schraeder	kschraeder@minnkota.com	Minnkota Power		5301 32nd Ave S Grand Forks ND, 58201 United States	Electronic Service		No	M-25-139
256	Matthew	Schuerger	matthew.schuerger@state.mn.us		Public Utilities Commission	121 7th Place East Suite 350 St. Paul MN, 55101 United States	Electronic Service		No	M-25-139
257	Ronald J.	Schwartau	rschwartau@noblesce.com	Nobles Electric Cooperative		22636 U.S. Hwy. 59 Worthington MN, 56187 United States	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
258	Rob	Scott Hovland	rob.scott-hovland@mrenergy.com	Missouri River Energy Services		3724 W Avera Dr PO Box 88920 Sioux Falls SD, 57109-8920 United States	Electronic Service		No	M-25-139
259	Emma	Searson	esearson@solarunitedneighbors.org	Solar United Neighbors		646 S Barrington Ave Apt 101 Los Angeles CA, 90049 United States	Electronic Service		No	M-25-139
260	Dean	Sedgwick	sedgwick@itascapower.com	Itasca Power Company		PO Box 455 Spring Lake MN, 56680 United States	Electronic Service		No	M-25-139
261	Maria	Seidler	maria.seidler@dom.com	Dominion Energy Technology		120 Tredegar Street Richmond VA, 23219 United States	Electronic Service		No	M-25-139
262	David	Shaffer	david.shaffer@novelenergy.biz	Novel Energy Solutions		2303 Wycliff St Ste 300 St. Paul MN, 55114 United States	Electronic Service		No	M-25-139
263	Patricia	Sharkey	psharkey@environmentallawcounsel.com	Midwest Cogeneration Association.		180 N LaSalle St Ste 3700 Chicago IL, 60601 United States	Electronic Service		No	M-25-139
264	Bria	Shea	bria.e.shea@xcelenergy.com	Xcel Energy		414 Nicollet Mall Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
265	Christopher L.	Sherman	csherman@sherman-associates.com	Solar Holdings LLC		233 Park Ave S Ste 201 Minneapolis MN, 55415 United States	Electronic Service		No	M-25-139
266	Doug	Shoemaker	dougs@charter.net	Minnesota Renewable Energy		2928 5th Ave S Minneapolis MN, 55408 United States	Electronic Service		No	M-25-139
267	Felicia	Skaggs	fskaggs@meeker.coop	Meeker Cooperative Light & Power		1725 US Highway 12 E Suite 100 Litchfield MN, 55355 United States	Electronic Service		No	M-25-139
268	Glen	Skarbakka	glen@s-pllc.com	Skarbakka PLLC		5411 Bartlett Blvd Mound MN, 55364 United States	Electronic Service		No	M-25-139
269	Anne	Smart	anne.smart@chargepoint.com	ChargePoint, Inc.		254 E Hacienda Ave Campbell CA, 95008 United States	Electronic Service		No	M-25-139
270	Joshua	Smith	joshua.smith@sierraclub.org			85 Second St FL 2 San Francisco CA, 94105 United States	Electronic Service		No	M-25-139
271	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-25-139
272	Trevor	Smith	trevor.smith@avantenergy.com	Avant Energy, Inc.		220 South Sixth Street	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						Suite 1300 Minneapolis MN, 55402 United States				
273	Rafi	Sohail	rafi.sohail@centerpointenergy.com	CenterPoint Energy		800 LaSalle Avenue P.O. Box 59038 Minneapolis MN, 55459-0038 United States	Electronic Service		No	M-25-139
274	Beth	Soholt	bsoholt@cleangridalliance.org	Clean Grid Alliance		570 Asbury Street Suite 201 St. Paul MN, 55104 United States	Electronic Service		No	M-25-139
275	Marcia	Solie	m.solie@bcrea.coop	Brown County Rural Electrical Association		24386 State Hwy. 4, PO Box 529 Sleepy Eye MN, 56085 United States	Electronic Service		No	M-25-139
276	Braden	Solum	braden.solum@idealenergies.com	iDEAL Energies		5810 Nicollet Ave Minneapolis MN, 55419 United States	Electronic Service		No	M-25-139
277	Karl	Sonneman	karl17@hbc.com	Law Office of Karl W. Sonneman		111 Riverfront Suite 202 Winona MN, 55987 United States	Electronic Service		No	M-25-139
278	Brandon	Stamp	brandon.j.stamp@xcelenergy.com	Xcel Energy		401 Nicollet Mall Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
279	Sky	Stanfield	stanfield@smwlaw.com	Shute, Mihaly & Weinberger		396 Hayes Street San Francisco CA, 94102 United States	Electronic Service		No	M-25-139
280	Russ	Stark	russ.stark@ci.stpaul.mn.us	City of St. Paul		Mayor's Office 15 W. Kellogg Blvd., Suite 390 Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139
281	Byron E.	Starns	byron.starns@stinson.com	STINSON LLP		50 S 6th St Ste 2600 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
282	Kristin	Stastny	kstastny@taftlaw.com	Taft Stettinius & Hollister LLP		2200 IDS Center 80 South 8th Street Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
283	Lindsey	Stegall	lindsey.stegall@evgo.com	EVgo Services, LLC		11835 W Olympic Blvd Ste 900E Los Angeles CA, 90064 United States	Electronic Service		No	M-25-139
284	Cary	Stephenson	cstephenson@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-139
285	Chad	Stevenson	chad.stevenson@ag.state.mn.us		Office of the Attorney General - Residential	445 Minnesota St. Suite 1400 St. Paul MN,	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
					Utilities Division	55101 United States				
286	Tammy	Sundbom	tsundbom@mnpower.com	Minnesota Power		null null, null United States	Electronic Service		No	M-25-139
287	Sherry	Swanson	sswanson@noblesce.com	Nobles Cooperative Electric		22636 US Highway 59 PO Box 788 Worthington MN, 56187 United States	Electronic Service		No	M-25-139
288	Boratha	Tan	btan@votesolar.org	Vote Solar		null null, null United States	Electronic Service		No	M-25-139
289	Bryant	Tauer	btauer@whe.org	Wright-Hennepin		6800 Electric Dr Rockford MN, 55373 United States	Electronic Service		No	M-25-139
290	Dean	Taylor	dtaylor@pluginamerica.org	Plug In America		6380 Wilshire Blvd, Suite 1000 Los Angeles CA, 90048 United States	Electronic Service		No	M-25-139
291	Whitney	Terrill	whitney@mnipl.org	Minnesota Interfaith Power & Light		null null, null United States	Electronic Service		No	M-25-139
292	Daniel	Tikk	daniel.tikk@state.mn.us		Department of Commerce	85 7th Place East Suite 280 Saint Paul MN, 55101 United States	Electronic Service		No	M-25-139
293	Kate	Tohme	ktohme@newleafenergy.com	New Leaf Energy		null null, null United States	Electronic Service		No	M-25-139
294	Stuart	Tommerdahl	stommerdahl@otpc.com	Otter Tail Power Company		215 S Cascade St PO Box 496 Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-139
295	Taige	Tople	taige.d.tople@xcelenergy.com	Northern States Power Company dba Xcel Energy-Elec		414 Nicollet Mall 401 7th Floor Minneapolis MN, 55401 United States	Electronic Service		No	M-25-139
296	Jason	Topp	jason.topp@lumen.com	Qwest Communications Company, LLC.		200 S 5th St Ste 2200 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
297	Emma Marshall	Torres	emarshall-torres@convergentep.com			null null, null United States	Electronic Service		No	M-25-139
298	Zack	Townsend	zachary.townsend@brookfieldrenewable.com	Brookfield Renewable		200 Liberty St FL 14 New York NY, 10281 United States	Electronic Service		No	M-25-139
299	Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD		4445 W 77th Street Suite 224 Edina MN, 55435 United States	Electronic Service		No	M-25-139
300	Jeff	Triplett	triplettj@powersystem.org	MREA		10710 Town Square Dr NW St 201 Minneapolis MN, 55449 United States	Electronic Service		No	M-25-139
301	Adam	Tromblay	atromblay@noblesce.com	Nobles Cooperative Electric		P.O. Box 58 Slayton MN,	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						56127-0058 United States				
302	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	M-25-139
303	Alan	Urban	alan.m.urban@xcelenergy.com	Xcel Energy		null null, null United States	Electronic Service		No	M-25-139
304	Matt	Van Arkel	mvanarkel@newleafenergy.com			55 Technology Drive Suite 102 Lowell MA, 01851 United States	Electronic Service		No	M-25-139
305	Gary	Van Winkle	gvanwinkle@mylegalaid.org	Mid-Minnesota Legal Aid		111 N Fifth St Ste 100 Minneapolis MN, 55403 United States	Electronic Service		No	M-25-139
306	John	Vaughn	nik@rreal.org	Rural Renewable Energy Alliance		3963 8th Street SW Backus MN, 55435 United States	Electronic Service		No	M-25-139
307	Ellen	Veazey	lveazey@solarunitedneighbors.org	Solar United Neighbors		1350 Connecticut Ave NW Ste 412 Washington DC, 20036 United States	Electronic Service		No	M-25-139
308	Sam	Villella	sdvillella@gmail.com			10534 Alamo Street NE Blaine MN, 55449 United States	Electronic Service		No	M-25-139
309	Curt	Volkman	curt@newenergy-advisors.com	Fresh Energy		408 St Peter St Saint Paul MN, 55102 United States	Electronic Service		No	M-25-139
310	Wendy	Vorasane	wendy.vorasane@idealenergies.com			null null, null United States	Electronic Service		No	M-25-139
311	Robert J.V.	Vose	rvose@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	M-25-139
312	Stacy	Wahlund	swahlund@otpc.com	Otter Tail Power Company		215 S. Cascade St Fergus Falls MN, 56537 United States	Electronic Service		No	M-25-139
313	Sarah	Walinga	swalinga@solarcity.com	Energy Freedom Coalition		3055 Clearview Way San Mateo MN, 94402 United States	Electronic Service		No	M-25-139
314	Kevin	Walker	kwalker@beaconinterfaith.org	Beacon Interfaith Housing Collaborative		null null, null United States	Electronic Service		No	M-25-139
315	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	M-25-139
316	Jenna	Warmuth	jwarmuth@mnpower.com	Minnesota Power		30 W Superior St Duluth MN,	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						55802-2093 United States				
317	Samantha	Weaver	samantha@communitysolaraccess.org	Coalition for Community Solar Access		1380 Monroe St. Washington DC DC, 20010 United States	Electronic Service		No	M-25-139
318	Elizabeth	Wefel	eawefel@flaherty-hood.com	Missouri River Energy Services		525 Park St Ste 470 Saint Paul MN, 55103 United States	Electronic Service		No	M-25-139
319	Sarah	Whebbe	swhebbe@mnseia.org	MnSEIA		445 Minnesota Street Suite 730 St. Paul MN, 55101 United States	Electronic Service		No	M-25-139
320	Joshua	Williams	joshua@highlandfleets.com	Highland Electric Fleets		200 Cummings Center Suite 273-D Beverly MA, 01915 United States	Electronic Service		No	M-25-139
321	Laurie	Williams	laurie.williams@sierraclub.org	Sierra Club		Environmental Law Program 1536 Wynkoop St Ste 200 Denver CO, 80202 United States	Electronic Service		No	M-25-139
322	John	Williamson	john.williamson@state.mn.us	Minnesota Department of Labor and Industry		443 Lafayette Rd N St. Paul MN, 55155-4341 United States	Electronic Service		No	M-25-139
323	Anthony	Willingham	anthony.willingham@electrifyamerica.com	Electrify America		1950 Opportunity Way Suite 1500 Reston VA, 20190 United States	Electronic Service		No	M-25-139
324	Danielle	Winner	danielle.winner@state.mn.us		Department of Commerce	85 7th Place East Suite 500 Saint Paul MN, 55101 United States	Electronic Service		No	M-25-139
325	Heidi	Winter	hwinter@co.murray.mn.us	Murray County		2500 28th Street PO Box 57 Slayton MN, 56172 United States	Electronic Service		No	M-25-139
326	Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company		200 First St SE Cedar Rapids IA, 52401 United States	Electronic Service		No	M-25-139
327	Terry	Wolf	terry.wolf@mrenergy.com	Missouri River Energy Services		3724 W Avera Dr PO Box Sioux Falls SD, 57109-8920 United States	Electronic Service		No	M-25-139
328	Curtis	Zaun	curtis@cpzlaw.com			3254 Rice Street Little Canada MN, 55126 United States	Electronic Service		No	M-25-139
329	Brian	Zavesky	brianz@mrenergy.com	Missouri River Energy Services		3724 West Avera Drive P.O. Box	Electronic Service		No	M-25-139

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						88920 Sioux Falls SD, 57108-8920 United States				
330	Christopher	Zibart	czibart@atcllc.com	American Transmission Company LLC		W234 N2000 Ridgeview Pkwy Court Waukesha WI, 53188-1022 United States	Electronic Service		No	M-25-139
331	Kurt	Zimmerman	kwz@ibew160.org	Local Union #160, IBEW		2909 Anthony Ln St Anthony Village MN, 55418-3238 United States	Electronic Service		No	M-25-139
332	Emily	Ziring	eziring@stlouispark.org	City of St. Louis Park		5005 Minnetonka Blvd St. Louis Park MN, 55416 United States	Electronic Service		No	M-25-139
333	Ari	Zwick	ari.zwick@state.mn.us		Department of Commerce	85 7th Place East Suite 280 Saint Paul MN, 55101 United States	Electronic Service		No	M-25-139