COMMERCE DEPARTMENT

April 2, 2026 **PUBLIC DOCUMENT**

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

RE: **PUBLIC** Supplemental Comments of the Minnesota Department of Commerce
Docket No. E999/M-25-99

Dear Ms. Bergman,

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

In the Matter of the 2025 Minnesota Biennial Transmission Projects Report.

These comments address the GETs Report, an appendix to the 2025 Minnesota Biennial Transmission Projects Report, the only.

The Department continues to recommend **approval** and is available to answer any questions the Commission may have.

Sincerely,

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

RP/DZ/AD/ad
Attachment

Contents

ACRONYMS AND ABBREVIATIONS

AAR	Ambient Adjusted Ratings
ALTW	Alliant Energy West
APFC	Advanced Power Flow Control
ARR	Auction Revenue Rights
ATT	Advanced Transmission Technology
BESS	Battery Energy Storage System
BTPR	Biennial Transmission Projects Report
CN	Certificate of Need
DA	Day-Ahead
DLR	Dynamic Line Rating
DPC	Dairyland Power Cooperative
FERC	Federal Energy Regulatory Commission
FTR	Financial Transmission Rights
GET	Grid Enhancing Technology
GRE	Great River Energy
IOU	Investor-Owned Utility
LHVTL	Large High Voltage Transmission Line
LRTP	Long Range Transmission Plan
LSE	Load Serving Entity
MEP	Market Efficiency Project
MISO	Midcontinent Independent System Operator, Inc.
MP	Minnesota Power
MRES	Missouri River Energy Services
MTEP	MISO Transmission Expansion Plan
MTO	Minnesota Transmission Owners
MVP	Multi-Value Project
NSP	Northern States Power Company
OTP	Otter Tail Power Company
PPA	Power Purchase Agreement
RMEB	Rural Minnesota Energy Board
SFT	Simultaneous Feasibility Test
SMMPA	Southern Minnesota Municipal Power Agency
TTO	Transmission Topology Optimization
WECS	Wind Energy Conversion Systems

Before the Minnesota Public Utilities Commission

PUBLIC Supplemental Comments of the Minnesota Department of Commerce

Docket No. E999/M-25-99

I. INTRODUCTION

The Minnesota Transmission Owners (MTO) submit the Biennial Transmission Plan Report (BTPR) to the Minnesota Public Utilities Commission (Commission) every two years. The BTPR identifies transmission system inadequacies and plans to address them. The Grid Enhancing Technologies Study Report (GETs Report) is an appendix to the BTRP.

At issue in this docket is how Minnesota utilities can best: (1) identify system constraints; (2) evaluate Grid Enhancing Technologies (GETs) as a means of addressing those constraints; and (3) implement GETs to increase capacity and flexibility across the transmission system. GETs will not eliminate the need for traditional infrastructure, but they can provide operational flexibility, defer costly system upgrades, and often improve transmission capacity for lower cost than traditional upgrades.

In these comments, the Department responds to the MTO's comments and provides additional analysis of Financial Transmission Rights (FTRs) that was not included in the Department's initial comments. Because this is the first GETs Report to come before the Commission, the Department identifies opportunities to strengthen the Report and to encourage broad adoption of GETs as a tool for increasing capacity and flexibility across the transmission system.

II. PROCEDURAL BACKGROUND

March 24, 2025	The Commission orders[1] the MTO to include a cost-benefit analysis in their 2025 Biennial Transmission Report comparing any feasible battery storage solution to status quo conditions, and to include an update on large wind energy systems (WECS) curtailment and economic impact for the Nobles County substation area and the areas of congestion identified as part of the GETs study.
September 10, 2025	The Commission orders[2] the MTO to file the GETs Report as part of the BTPR including calculations for the cost effectiveness for each potential GET.
October 31, 2025	The MTO file the BTPR[3] and the GETs Report.[4]
November 10, 2025	The MTO file a variance request for the comments deadlines for the GETs Report comment period.[5]
November 12, 2025	The Commission files a Notice of Comment Period for the GETs report.[6]
November 26, 2025	The Commission files an order approving the rule variance to the notice of comment schedule for the GETs report.[7]
February 2, 2026	The Department files initial comments on the GETs Report.[8]
March 2, 2026	The MTO file reply comments to the Department's initial comments.[9]

[1] *In the Matter of the Investigation into Transmission-Curtailment Matters, Drivers, and Potential Solutions to Limitations Resulting from Nobles County Substation*, *Order Establishing Filing Requirements*, March 24, 2025, Docket No. E-999/CI-24-316, (eDockets) 20253-216722-01, (hereinafter "March 24, 2025 Order").
[2] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report*, *Order Establishing Requirements*, Docket No. E999/M-25-99, (eDockets) 20259-222888-01, (hereinafter "September 10, 2025 Order").
[3] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report,* Minnesota Transmission Owners, 2025 Biennial Transmission Projects Report, October 31, 2025, Docket No. E999/M-25-99, (eDockets) 202510-224474-02. (hereinafter "BTPR").
[4] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report.* Minnesota Transmission Owners, Grid Enhancing Technologies Study Report, October 31, 2025, Docket No. E999/M-25-99, (eDockets) 202510-224474-04 at Appendix B (hereinafter "GETs Report").
[5] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report*, Minnesota Transmission Owners, Letter for Schedule Variance Request, November 11, 2025, Docket No. E999/M-25-99, (eDockets) 202511-224818-01.
[6] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report*, *Notice of Comment Period and Establishment of Service List*, November 12, 2025, Docket No. E-999/M-25-99, (eDockets) 202511-224871-01 (hereinafter "Notice").
[7] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report*, *Order,* Docket No. E999/M-25-99, November 26, 2025, (eDockets) 202511-225327-01.
[8] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report,* DOC DER, Initial Comments, February 2, 2026, Docket No. E999/M-25-99, (eDockets) 20262-227728-02 (hereinafter "DOC DER Initial Comments").
[9] *In the Matter of the 2025 Biennial Transmission Projects Report*, Minnesota Transmission Owners, Reply Comments on GETs Report, March 2, 2026, Docket No. E999/M-25-99, (eDockets) 20263-228827-01 (hereinafter "MTO Reply Comments").

Topic(s) open for comment:

1. Is the 2025 Grid Enhancing Technologies Report (GETs Report) complete? [Note: Per rule, challenges to completeness must be received within 20 days of the initial filing.] In other words, does the report contain all information required by the following:
    a. The 2024 GETs Law[10] and Minn. Stat. §216B.2425, Subd 2
    b. The Commission's March 24, 2025, Order in Docket No. E999/CI-24-316[11]
    c. The Commission's September 10, 2025, Order in Docket No. E999/M-25-99[12]

2. Should the Commission approve, reject, or modify Minnesota Transmission Owners' GETs implementation plans?

3. For future GETs Reports: should the Commission add or modify the filing requirements? Topics of interest to the Commission include:
    a. How to calculate the payback period
    b. Accounting for Financial Transmission Rights revenues
    c. The payback period threshold(s) used to develop implementation plans
    d. Comparing combinations of grid enhancing technologies with traditional upgrades
    e. New or emerging GETs technologies

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

III. DEPARTMENT ANALYSIS

The Department summarizes the MTO reply comments and provides its response below.

A. SCOPE OF GETs REPORT AND ADDITIONAL METRICS FOR INCLUSION

The MTO argue that the Department's recommendations regarding cost-effectiveness metrics and future GETs reports are "beyond the scope of both GETs legislation and the Commission's directive." [13] Specifically, MTO object to the Department's request to include power purchase agreement (PPA) information and curtailment payments to generators on lines where MTO holds financial transmission rights (FTRs), among other information requests.

In its September 10, 2025 Order, the Commission expressed a broad aim to "avoid attempting to set narrow parameters that could inadvertently constrain analysis that could lead to a better and more fuller understanding of the value of grid enhancing technologies."[14] The Commission further stated its "expectation that additional analysis and discussion will better inform the value and cost-effectiveness of technologies that are designed for the purposes of reducing congestion to increase the availability of the lowest-cost electricity." [15]

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[10] Laws of Minn. 2024, ch. 127, art.42, sec 52.
[11] March 24, 2025 Order.
[12] September 10, 2025 Order.
[13] MTO Reply Comments at 2.
[14] September 10, 2025 Order at 4.
[15] *Ibid*.

As discussed throughout its initial and these comments, the Department's recommendations are consistent with the GETs Law[16] and the September 10, 2025 Order.[17] The Department interprets the September 10, 2025 Order as establishing a baseline for the initial filing required by November 1, 2025 and for identifying and implementing cost-effectiveness reporting requirements for GETs. The Commission's Order and the GETs Law together support a broader inquiry into GETs deployments and the value they create, encompassing the Department's analysis and recommendations of the 2025 GETs Report.

B. COMPLETENESS

B.1. In the initial filing, the Department recommends that future GETs Reports include working papers that include derivations of all calculations as a separate appendix attached to the GETs Report.

The MTO respond to the Department's recommendation for working papers that they are committed to transparency and note that working papers were provided to the Department in separate requests.[18]

The Department appreciates the MTO's commitment to transparency and that the MTO provide additional details in response to the Department's requests.

The Department **reaffirms its initial recommendation** that future GETs Reports contain working papers that include derivations of all calculations. Including the working papers in the initial filing is both an efficiency (avoiding an unnecessary information request) and enables the Department to begin its analysis upon filing without any lag time.

B.2. In the initial filing, the Department requests that the MTO provide the workpapers or other information on the payback period of the seven projects that do not yet have a determined payback period.

The MTO agrees to the Department's request for additional information on projects without a determined payback period. The MTO states that evaluation is still ongoing and these constraints do not yet have a determined payback period. The MTO commits to filing bimonthly updates to the Commission until the evaluation is complete.[19]

The Department appreciates the MTO's response and will review the information as it is filed. Having all necessary information for all constraints identified in the 2025 GETs Report allows the Department to complete its analysis in a timely manner.

The Department **recommends** the Commission require a bimonthly update to the Commission with the remaining projects undergoing evaluation by the MTO.

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[16] Laws of Minn. 2024, ch. 127, art.42, sec 52.
[17] September 10, 2025 Order.
[18] *Id*., at 5.
[19] MTO Reply Comments at 5.

C. PAYBACK PERIOD CALCULATION

C.1. In its initial filing, the Department recommends that the Commission require the MTO to provide any cases where they have paid curtailment payments to generators on transmission lines where they also hold FTRs.

C.1.1. GETs Law and September 10, 2025 Commission Order

The MTO consider this recommendation to be outside the scope of the GETs Report and Minnesota legislation.[20]

The GETs Law states that the transmission-owning utilities are required to file a report that "proposes an implementation plan, including a schedule and cost estimate, to install grid enhancing technologies at each congestion point identified in clause (1) at which the payback period is less than or equal to a value determined by the commission, *in order to maximize transmission system capacity*." (Emphasis added.)[21] Clause (2) of the GETs Law asks the transmission-owning utilities to provide estimates of "the increased cost to ratepayers resulting from the substitution of higher-priced electricity."[22] The Department interprets these clauses in the GETs Law to prefer physically addressing congestion (to "maximize transmission capacity")[23] and estimating cost of GETs relative to the subsequent avoided costs to ratepayers from replacement energy ("substitution of higher-priced electricity").[24]

The Commission's September 10, 2025 Order similarly establishes that the 2025 GETs Report aimed to establish a baseline, "with the expectation that additional analysis and discussion will better inform the value and cost effectiveness of technologies that are designed for the purposes of reducing congestion to increase the availability of the lowest-cost electricity."[25]

The GETs Solutions Benefits are underdeveloped in the present GETs Report, which could lead to the payback period calculation failing to select GETs that "maximize transmission system capacity" at given constraints.[26] The Department highlights additional factors to better capture the costs of congestion, and the avoided costs if GETs were deployed. The Department believes that as renewable energy generation deployment increases, curtailment, and therefore curtailment payments, are likely to increase as well. The curtailment payment data requested by the Department would allow for a more accurate total cost to compare GETs against.

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[20] *Id*., at 2.
[21] Laws of Minn. 2024, ch. 127, art.42, sec 52. Full excerpt of clause (6).
[22] *Id.,* at subd. 2, clause (2).
[23] *Id.,* at subd. 2, clause (6).
[24] *Id.,* at subd. 2, clause (2).
[25] September 10, 2025 at 4.
[26] *Ibid*.

C.1.2. Example of Expanded Payback Period Calculation

[TRADE SECRET HAS BEEN EXCISED]

C.1.3. Data Transparency and Recommendation

The Department cannot model the complete cost of congestion at the identified constraints experiencing 168 hours or more per year, or identify all benefits of GETs, if the MTO do not provide the relevant information, such as generator curtailment payments, on lines where transmission-owning utilities might also have FTR ownership or replacement energy purchases. The Department notes that curtailment payments to generators are filed by some MTO utilities in other dockets under trade secret designation.[27] The information is already filed by rate-regulated utilities. Additionally, Xcel Energy states in the public version of the 2025 Annual True-Up Report that "the amount of wind generation interconnected to the transmission system has a significant impact on congestion and curtailment."[28] Ratepayers have already paid for the cost of congestion with curtailment payments to generators, and they also will pay for the share of the congestion charge attributable to their transmission-owning utility. Such statements reinforce the need for more accurate accounting of GETs benefits and costs, beyond the three-year average adjusted congestion charge.

The MTO already provided the Department additional information about their FTR positions in Minnesota and in MISO, including for any line where the MTO hold an FTR that has a start point or end point in Minnesota.[29] Many individual MTO member utilities already file information on curtailment payments. Presenting both pieces of information jointly would allow the Commission and stakeholders to better understand the all-in costs of congestion for constraints that appear in the GETs Report.

The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to provide any information they have about PPAs or curtailment payments to generators on transmission lines where the MTO also hold FTRs, as well as replacement energy purchases.

C.2. In its initial comments, the Department recommends that the Commission order the MTO to calculate the benefits of GET implementation that include the range of outcomes that would result from physical solutions to congestion rather than solely relying on financial hedging.

The MTO incorrectly assume the Department's recommendation is to report the congestion charge both with and without adjustments for financial transmission rights/auction revenue rights (FTR/ARR) revenue.[30] The Commission's September 10, 2025 Order was clear: the congestion charge should be calculated after netting the revenue from FTR/ARR.[31] The purpose of the FTR revenue adjustment was to not "overstate customer congestion exposure."[32] In other words, the MTO nets the congestion charge so as to not overvalue a GET. The Department's concern is that by solely describing GETs

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[27] *In the Matter of Xcel Energy's Petition for Approval of its 2025 Annual Fuel Forecast and Monthly Fuel Cost Charges for the months of January – December 2025,* Xcel Energy, 2025 Annual True-Up Report, Docket No. E002/AA-24-63, (eDockets) 20262-228790-01, at Part C, Attachment 2.
[28] *Id.*, at Part C, Attachment 1 at 13.
[29] DOC DER Initial Comments, Attachments C and D.
[30] MTO Reply Comments at 6.
[31] September 10, 2025 Order at Order Point 1.
[32] MTO Reply Comments at 3.

benefits as a function of avoided congestion charge and no other potential avoided costs, the MTO undervalues GETs solutions.

The Department does not dispute the statement from the MTO's reply comments:

> In the 2025 BTPR, the MTO calculated the benefits of GETs consistent with the Commission's September 10, 2025 Order. The MTO do not object to including additional calculations for *informational purposes* (emphasis added), to the extent they are practical and in line with the scope of the study.[33]

The Department agrees that the MTO calculate one benefit and one cost of GETs. This is consistent with the September 10, 2025 Order, which requires the transmission owners to provide an "explanation of each cost and benefit factor included in a grid enhancing technology's payback period calculation."[34] The Department also finds the September 10, 2025 Order to state that the "statute presents a relatively new approach to cost analysis with complexities that would benefit from continued record development."[35]

The factors identified by the Department in initial comments, and in these comments, are metrics the Department recommends for inclusion in future reports. The Department advocates for a payback period calculation that includes the congestion charges adjusted for FTR/ARR revenue and several other variables (such as those described in section B.1.). The Department argues the additional metrics more accurately reflect the true costs of congestion and the benefits of physically addressing congestion through GETs, over correcting market inefficiency.

The Department also recognizes other stakeholders' concerns about unrealized wind production tax revenue for counties that host renewable energy projects. The Rural Minnesota Energy Board (RMEB) submitted reply comments that underscore the importance of wind production tax revenue to their member counties.[36] Counties in the RMEB rely on tax revenue from wind projects, and absent considerable training in ARR/FTR market hedging strategy, these counties "cannot financially hedge against curtailment risk."[37] County budgets reflect the expectation that wind projects provide tax revenue, and any deviation from expected wind generation and wind production tax revenue may induce counties to modify their budgets. Addressing congestion with GETs means less wind energy is curtailed, allowing the counties to receive the amount of tax revenue they estimated from hosting energy infrastructure.

The Department appreciates that the MTO are committed to work with the Department "in future reports […] to identify the appropriate calculations."[38] The Department finds that the GETs benefit

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[33] September 10, 2025 Order at 4.
[34] *Ibid*.
[35] *Id*., at 4.
[36] *In the Matter of the 2025 Biennial Transmission Projects Report,* Rural Minnesota Energy Board, Response to DOC DER comments on GETS, February 27, 2026, Docket No. E999/M-25-99, (eDockets) 20262-228754-01 (hereinafter "RMEB Reply Comments").
[37] *Id*., at 2.
[38] MTO Reply Comments at 6.

methodology for future reports should include additional metrics in the payback period calculation, clarifying that these metrics should be included in the future methodology for decisive, not informational, purposes for whether a GET is deployed.
The Department also recognizes there could be considerable value in the MTO presenting additional calculations for the current identified constraints, for informational purposes. The Department believes these additional calculations would be both practical and in line with the scope of the study. Therefore, the Department appreciates the MTO's willingness to include additional calculations for the current 2025 GETs Report.

The **Department reaffirms its initial recommendation** that the Commission order the MTO to calculate, in future reports, broader benefits and costs for GETs within the payback period calculation that prioritize physically addressing congestion rather than financial transactions for congestion.

The **Department also recommends** that the Commission order the MTO to file, for informational purposes, additional calculations for the current constraints in the 2025 GETs Report, including broader consideration of the benefits that result from physically addressing congestion.

D. ACCOUNTING FOR FINANCIAL TRAMISSION RIGHTS (FTRs)

D.1. In its initial comments, the Department recommends that the Commission order the MTO to include separate reports of both FTRs held by the MTO and FTRs held by all MISO market participants.

The MTO state that this recommendation "exceeds the scope of the GETs Report and the Commission's September 10 Order."[39] The MTO acknowledge that the relevant data is publicly available through MISO but claim the inclusion of this data would "dilute the relevance of the analysis."[40]

The Department disagrees that such analysis dilutes the report. The Department's recommendation is to include two separate reports: the first one reports adjusted congestion payments by the MTO-owned FTR portfolio, while the second report adjusts congestion payments by all FTRs available in the market. If the MTO has optimally hedged their congestion risk, the difference in these two reported metrics should be minimal. The Department argues this analysis helps the Commission and stakeholders understand the efficiency with which utilities in Minnesota are using available market products to recover congestion dollars for ratepayers. Efficient trading of ARR/FTR rights could increase the congestion charge on a given constraint, directly affecting the payback period for GETs, and vice versa for inefficient trading strategies.

The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to provide adjusted congestion payments in the MTO FTR portfolio and a second report of adjusted congestion payments by all FTRs available in the market.

[39] MTO Reply Comments at 6.
[40] *Ibid*.

D.2. Analysis of Constraints

D.2.1. Binding Constraints and Day-Ahead Data Limitations

The Department requested additional data from the MTO. The following analysis and subsequent recommendation was not included in the Department's initial comments, since the relevant data was available in mid-January. However, the novel analysis provides useful insights, and the Department submits them for the Commission's consideration.

Binding constraints occur when transmission facilities reach their flow limit based on the market's economic dispatch order. Flow limits create the price differential at nodes on either side of the constraint, resulting in changes in economic dispatch and curtailment. It also results in load serving entities (LSEs) possibly selling energy at a sink node at a discount from the cost at the generator node. By holding FTR rights for the transmission facilities between sink and generation node, the LSE can offset the congestion premium it pays in the day-ahead market. The FTR auction aims to hedge against the congestion revenues that occur due to the price differential. Analyzing binding constraints from FTR auctions offers an economic signal for identifying GETs opportunities.

The GETs Report identifies 66 constraints that are based on Day-Ahead (DA) congestion data from MISO. This historic DA congestion data provides a foundational "rear-view mirror" look at realized grid bottlenecks. However, a key limitation of DA congestion data in the context of FTR auctions is that DA congestion data is a short-term snapshot, while FTR auctions have longer lead times. DA congestion data provides a backward look at the conditions of past day-ahead conditions. The FTR auctions rely on future projections of the anticipated day-ahead congestion and have monthly, seasonal or yearly delivery periods. This mismatch means that the historical DA congestion data occurs for congestion expected in the next day's trading market, but that congestion settlements will happen possibly much later in the monthly, seasonal or yearly FTR auctions.

D.2.2. FTR Auction Data Identifies Market-Based Constraints

FTR auctions function as a market-clearing mechanism where the grid's physical limitations are translated into financial values. When a constraint binds in an FTR auction, it indicates that the current transmission topology—under a variety of simulated contingencies and expected system conditions—cannot accommodate the market's demand for power transfers. These data could demonstrate that GETs solutions can be used not just at past inefficiencies (DA congestion charges) but could be used for structural limitations that market participants expect to persist into the future (FTR auction data).

The economic intensity of these constraints is best captured by the Shadow Price, the production cost savings from relieving the constraint by 1 MW. Each binding constraint will have an associated shadow price in the FTR auctions. Unlike Day-Ahead data, which may be influenced by transient, one-off operational events, FTR binding constraints represent the points on the system where the "cost of congestion" is most certain and recurring in the eyes of the market. High Shadow Prices on specific constraints suggest that a relatively small increase in capacity rating could yield large economic benefits by increasing the total amount of transmission rights the system can support. This alignment of GETs deployment with FTR data may ensure that capital investment is directed toward the constraints that most severely limit the overall commercial throughput of the grid.

Utilization of FTR data addresses the market signals in MISO's model of the transmission system. FTR auctions reflect the system's ability to handle long-term uncertainty, including seasonal generation shifts and planned maintenance outages. Through analysis of the constraints that bind during the annual FTR allocation processes, utilities can identify "capacity-limited" paths that might not always be congested in the DA energy model. However, these capacity-limited paths identified in the FTR auction may be the transmission facilities that prevent the full utilization of lower-cost generation resources. Proposing GETs as a remedy for FTR binding constraints may provide a compelling regulatory argument: these technologies can provide "bridge capacity" or permanent relief more rapidly and at a lower cost than traditional "poles and wires" builds, directly lowering the congestion premiums that would otherwise be passed through to ratepayers.

D.2.3. Department Analysis of Public FTR Auction Data

To illustrate this concept, the Department developed a programmatic workflow to analyze MISO FTR auction data for the Fall, Spring, Summer, and Winter seasons from 2023 through early 2026. Using Python-based automation, the Department parsed raw auction files to extract "Control Area" metadata and isolate constraints tied to the service territories of Minnesota utilities such as Northern States Power (NSP), Minnesota Power (MP), Otter Tail Power (OTP), Great River Energy (GRE), Dairyland Power Cooperative (DPC), Missouri River Energy Services (MRES), Southern Minnesota Municipal Power Agency (SMMPA) and the transmission assets owned and operated by ITC Midwest LLC (identified in MISO data as Alliant Energy West or ALTW)[41]. The analysis filtered for binding constraints where these utilities were listed as the primary owners and aggregating the data to rank bottlenecks by their total marginal cost and average capacity limits. This systematic approach converted fragmented market results into a structured, economically prioritized list of constraints impacting the state's transmission system.

After creating the primary dataset, the Department engaged directly with the MTO to validate and supplement the market signals with additional data. The utilities were provided with the filtered list of FTR binding constraints and asked to provide the following additional information: location of the constraint; a disclosure of the actual congestion charges paid on those specific constraints; number of hours the constraint was binding in the DA Energy model; and if the constraint was studies in this GETs Report.[42] Table 1 categorizes the identified constraints based on their annual binding hours and their study status in the current report.

The Department created the primary dataset from MISO data, so the data source held all binding constraints, not solely those that were binding 168 hours or more, as required by the GETs Law. The categories in Table 1 show the binding hour range, inclusive of all binding hours. Interestingly, the Department identified some binding constraints in the market that were studied by the MTO in the GETs Report, including some binding constraints that were congested for fewer than 168 hours.

[41] ITC Midwest LLC (ITC Midwest) is an independent transmission company subsidiary of ITC Holdings Corp. ITC Midwest purchased the transmission assets of Interstate Power and Light, a subsidiary of Alliant Energy, in December 2007.
[42] The MTO provided the raw data to the Department on January 9, 2026 and January 14, 2026.

Table 1: Number of constraints binding by duration based on their inclusion and exclusion in the GETs Report

Binding Hour Range	Not Studied (N)	Studied (Y)
0 – 167	684	80
168 – 250	35	39
251 – 500	74	38
501 – 750	18	29
751 – 1,000	13	9
1,001 – 2,000	18	1
2,000 +	16	3
Totals	**858**	**199**

Many of the constraints were not studied in the GETs Report as shown in Table 1, and many binding hour constraints were either partially or completely outside the state boundary. It is also worth noting that, of the constraints in the FTR binding constraint dataset that were studied in the GETs Report, many were binding for less than the 168-hour threshold for inclusion in the GETs Report, according to the data provided from the MTO. The Department requests the MTO to explain if these discrepancies between binding hours and inclusion in the GETs Report may be due to various unplanned outages or due to differences in how these constraints are defined in the two datasets. The Department also posits that including binding constraints at transmission facilities that are only partially in Minnesota (a source node or a sink node is outside the state's boundary) could provide additional insight into the drivers and solutions for congestion that Minnesota ratepayers ultimately pay for.

The Department analyzed constraints entirely within Minnesota, evaluating total capacity and total marginal cost of relevant constraints not studied in the GETs Report. Table 2 shows that the constraints identified in the FTR congestion data that were not studied in the GETs Report represent significant amounts of transmission capacity and are responsible for significant costs. The Department believes that a more robust constraints analysis, as presented here, is more reflective of system constraints and illustrates the need to evaluate binding constraints in the FTR auction to identify additional opportunities for GETs implementation.

Table 2: Summary of Constraints from FTR Binding Dataset, within Minnesota, that were excluded from the GETs Report

Binding Hour Range	Sum of Limits (MW)	Sum of Marginal Cost ($)
0 – 167	204,726	1,195,268
168 – 250	1,502	3,522
251 – 500	2,141	70,485
501 – 750	0	0
751 – 1,000	0	0
1,001 – 2,000	3,075	10,590
2,000 +	0	0
Total	211,445	1,279,866

The Department also grouped these constraints by utility to get a disaggregated picture. Accordingly, Table 3 summarizes the number of constraints from the FTR Binding list that are within Minnesota and

under the jurisdiction of the MTO members that were not studied in the current GETs Report. Table 3 reports all constraints not studied, irrespective of their binding hours, in the second column, and those constraints that the MTO flagged as binding for over 168 hours in the third column. It is possible that some of the constraints in the FTR binding list that were not studied in the GETs Report, yet are identified in Tables 2 and 3, may be eligible for inclusion in the GETs Report per the GETs Law threshold of 168 hours or more. The Department expects the number of congested constraints studied by the MTO will increase if the FTR binding data is also considered in the selection process for potential GETs applications.

Table 3: Constraints from FTR Binding Dataset, within Minnesota by Utility, that were excluded from the GETs Report

Utility	# of Constraints	# of Constraints Binding Hours >168
NSP	607	19
ALTW	278	5
MP	175	2
GRE	89	0
OTP	61	5
SMP	53	0
ALTW/NSP	48	0
DPC/ALTW	18	3
NSP/ALTW	15	0
GRE/NSP	14	0
NSP/OTP	5	0
SMP/ALTW	4	4
MP/NSP	1	0
NSP/SMP	1	0
Total	1,369	38

The Department includes details of all 1,369 constraints as Attachment A to this filing.

Based on this analysis, the **Department recommends** that the Commission order the MTO, in future reports, to consider constraints identified in the FTR binding constraint list published by MISO, in addition to data sources the MTO considered this time while identifying potential opportunities for GETs implementation.

E. PAYBACK PERIOD THRESHOLDS

E.1. In its initial comments, the Department recommends the Commission require the MTO to put forth cost estimates and schedules for any constraint that do not currently meet the five-year payback period and instead apply a payback period threshold appropriate to that specific technology.

The MTO claim that replacing the uniform five-year payback period with technology or constraint-specific thresholds would "reduce transparency, complicate comparisons across projects, and invite disputes over how individual thresholds should be set."[43] The Department disagrees. There currently is a lack of transparency about why a constraint can/cannot be addressed with a GET. The 2025 GETs Report has limited information about the engineering decisions the MTO make, such as which GETs implementations were considered. **[TRADE SECRET HAS BEEN EXCISED]** The decisions for whether a GET was studied before qualifying for cost estimate and schedule are not discussed.

The Department disagrees that technology or constraint-specific thresholds would complicate comparisons across projects. The point of comparison between projects is that each constraint "experienced congestion of 168 hours or more."[44] The only point of comparison presented in the 2025 GETs Report are whether projects are in the same category of classification.[45] **[TRADE HAS BEEN EXCISED]** Comparison between different constraints, and categories for those constraints, would still be possible if either of the Department's recommendations on threshold-setting were implemented.

The Department also disagrees that a technology or constraint-specific threshold would invite disputes over how individual thresholds should be set.[46] The Department notes that parties did not reach consensus for either the payback period calculation methodology or the payback period threshold before the September 10, 2025 Order. The Commission stated that "while there was not consensus on prescriptive methods for making these calculations, the parties agreed that it would be reasonable to examine these issues more closely after the plans are filed in November under guidance from the Commission."[47] The Department believes that any further deliberation under the Commission's guidance, and identifying the appropriate payback period thresholds for either constraint or technology-specific applications, would create a better and fuller understanding of the value of different GETs over a unilateral, flattening five-year screen.

The MTO argue that the five-year payback threshold is also beneficial because it maintains "a consistent, technology-neutral screen."[48] The Department disagrees. The claim that a five-year threshold is "technology-neutral" overlooks the unique benefits and costs of different GETs and biases the selection of GETs to the least expensive and most near-term fixes. For example, as highlighted in the Department's initial comments, advanced reconductoring technologies can result in a doubling of transmission capacity, but would likely not clear the five-year screen.[49] It is plausible that advanced reconductoring on a given constraint in the GETs Report would reduce congestion and improve transmission capacity.

The Department also disagrees with the MTO's recommendation that the "Commission direct the MTO to develop a generic cost estimating guide for GETs."[50] The MTO does not state any use for the generic cost estimating guide, just that the MTO will create it. It is unclear to the Department what aim such a

[43] MTO Reply Comments at 7.
[44] *Ibid*.
[45] GETs Report at 5.
[46] MTO Reply Comments at 7.
[47] September 10, 2025 Order at 4.
[48] MTO Reply Comments at 7.
[49] DOC DER Initial Comments at 12.
[50] *Id*., at 8.

cost estimating guide would be intended to deliver, particularly as they also disagreed with setting either technology or constraint-specific payback thresholds.

The Department proposes the constraint-specific payback threshold recommendation not to accept any GET at any cost. Rather, the Department is interested in identifying what appropriate values could be for a broader array of GETs technology type. The appropriate benchmark for some GETs may be different or higher than the "five-years or less" payback threshold but could still deliver considerable benefits for ratepayers. The purpose of the recommendation was to gather more real-world context around appropriate values for GETs with different attributes at congested areas on the grid and to explore whether GETs could be deployed in different congestion scenarios for ratepayer and energy savings. The MTO's calculations, engineering decisions, and assessments of different GETs would provide deeper insight into appropriateness of costs and production cost savings for any given GET.

The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to propose a cost estimate and schedule for GETs at each constraint, **or** that the Commission set technology-specific thresholds for different types of GETs.

The **Department also recommends** that the Commission order the MTO, in future reports, to include an additional column in working papers for each constraint that includes the type of GET that was studied, what the cost and benefits would be to document the payback period, regardless of whether the payback period of five years or less was achieved.

F. COMBINATION OF GETs AND TRADITIONAL UPGRADES

F.1. In its initial comments, the Department recommends that GETs are considered during the construction of transmission lines and any planned outages from MISO's Tranche 1 and Tranche 2.1 LRTP.

The MTO respond to the Department's recommendation by noting that MISO LRTP Tranche 1 and Tranche 2.1 transmission owners already consider congestion impacts and potential GETs mitigation as part of transmission planning and outage coordination. The MTO further argue that because Certificate of Need (CN) applications for Tranche 2.1 projects[51] were only recently submitted, identifying specific construction or outage-related mitigations is premature until routes are approved.[52]

The Department disagrees. Analyzing GETs to mitigate construction and outage related congestion is feasible and appropriate at this stage. Including GETs in CN Dockets, as recommended by the MTO, will inform better type, size and timing decisions as it relates to proposed transmission projects. The Brattle Group and WATT Coalition have confirmed that deploying GETs before, during, and after construction is both feasible and beneficial. [53] Early analysis of GETs only strengthens CN applications.

[51] The MTO are referring to Docket No. E015, ET2, E017/CN-25-109, Docket No. E002, ET2, ET6675/CN-25-117, and Docket No. ET3, E002/CN-25-121.
[52] MTO Reply Comments at 8.
[53] Bruce Tsuchida, T Linquan Bai, and Jadon M. Grove. *Building a Better Grid: How Grid-Enhancing Technologies Complement Transmission Buildouts*. The Brattle Group, (2023). Available at: https://www.brattle.com/wp-

The Department **reaffirms its recommendation** that the MTO consider GETs during construction and planned outages for current and future MISO LRTP projects and other large high-voltage transmission line (LHVTL) outages in future GETs Reports.

> *F.2. In the initial filing, the Department recommends that, where feasible and where costs would not significantly increase, the MTO consider adding GETs to any proposed traditional upgrade.*

The MTO agree with the Department's recommendation that GETs be considered alongside proposed traditional upgrades, but argue this analysis belongs in project-specific CN dockets rather than the GETs proceeding. [54]

The Department disagrees with limiting GETs only to CN dockets. Confining GETs analysis to individual CN dockets produces a fragmented record that denies the public and decision makers a meaningful opportunity to assess how these technologies can shape the bulk power system as a whole.

The Department agrees that GETs must also be analyzed in CN proceedings. The MTO's reply comments state that "considering GETs alongside traditional upgrades is appropriate and should be incorporated when evaluating system alternatives and costs as part of individual high voltage transmission line CN dockets under Minn. Stat. § 216B.243." [55] The Department reads the MTO's reply comments as acknowledgment that GETs qualify as alternatives, or reasonable combinations of alternatives, under Minn. R. 7849.0260, subp. B. The basis for this alternative analysis is clear, Minn. Stat. § 216B.243, subd. 3 directs the Commission to evaluate "possible alternatives for satisfying the energy demand or transmission needs including but not limited to upgrading of existing energy generation and transmission facilities," and Minn. R. 7849.0260, subp. B. requires CN applicants to discuss available alternatives, including reasonable combinations, along with their total costs.[56] [57]

Despite this legal foundation, and the MTO's own concession that GETs should be evaluated alongside traditional upgrades, recently filed LHVTL CN applications (CN-25-109, CN-25-117, and CN-25-121) contain no discussion of GETs. GETs paired with battery storage may achieve the same system benefits as a lower-voltage line (under 230kV) or serve as an alternative to many of the lower voltage traditional upgrades identified in the BTPR. The Clean Energy Organizations (CEOs) similarly highlight the value of energy storage, noting the potential for storage as a grid asset.[58]

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content/uploads/2023/04/Building-a-Better-Grid-How-Grid-Enhancing-Technologies-Complement-Transmission-Buildouts.pdf

[54] MTO Reply Comments at 8-9.

[55] MTO Reply Comments at 8-9.

[56] Minn. Stat. § 216B.243, subd. 3 (2024).

[57] Minn. R. 7849.0260, subp. B.

[58] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report; Grid Enhancing Technologies Report*, Clean Energy Organizations, Reply Comments, March 2, 2026, Docket No. E999/M-25-99, (eDockets) 20263-228828-02 at 5-6.

The statutory basis for broader GETs consideration extends beyond CN thresholds. The BTPR identifies 158 transmission inadequacies, 22 of which trigger CN requirements. [59] Minn. Stat. § 216B.2425, subd. 2 requires consideration of transmission alternatives and non-wires alternatives (NWAs), including GETs, as "alternative means of addressing each inadequacy listed," [60] not only inadequacies that clear the CN threshold. The Department speculates whether GETs could mitigate transmission inadequacies at transmission facilities identified in the BTPR. The MTO acknowledge in reply comments that GETs could be evaluated for any proposed traditional upgrade, yet the 2025 BTPR considers GETs only in the GETs Report Appendix, leaving the remaining inadequacies unaddressed.

The Department **reaffirms its recommendation** that, in future reports, MTO consider adding GETs to any proposed traditional upgrade where feasible and where costs would not significantly increase.

F.3. In the initial filing, the Department recommends the Commission order that AAR are ineligible to be included in implementation plans for future GET reports.

The MTO disagree with the Department's recommendation to exclude Ambient Adjusted Ratings (AAR) from future GETs Reports, arguing that FERC Order No. 881 does not preclude AAR from being considered a GET and that including AAR is consistent with the Commission's September 10, 2025 Order. [61]
The Department does not dispute that AAR qualify as GETs under the GETs Law. The problem is not classification, it is redundancy. FERC Order No. 881 already requires the MTO to upgrade their lines with AAR, meaning those upgrades will occur regardless of anything in the GETs Report. Reporting a mandated federal compliance obligation as a voluntary GET overstates the technology's contribution to the GETs Report. MISO is currently operating under one of the longest extensions granted to any RTO for Order No. 881, with a revised compliance deadline of December 31, 2028, extended from the original July 11, 2025 deadline. [62] Full AAR implementation by the MTO will follow by that same date.

Whether AAR is classified as an eligible GET reflects the Department's broader concern about how the MTO has employed the GETs definition in the 2025 Report. The GETs Law defines grid-enhancing technologies as hardware or software that reduce congestion or increase transmission flexibility. [63] Under that definition, nearly any project in the BTPR could qualify as a GET. Indeed, several GETs Solutions identified in the 2025 Report, **[TRADE SECRET HAS BEEN EXCISED]**, are more accurately described as conventional transmission upgrades. [64] While the broad statutory definition of GETs permits any technology that reduces congestion or increases transmission flexibility to count toward GETs cost estimates and schedules, including AAR or traditional upgrades dilutes the GETs Report's

[59] *In the Matter of the 2025 Minnesota Biennial Transmission Projects Report*, Doc DER, Comments of the Minnesota Department of Commerce, January 15, 2026, Docket No. E999/M-25-99, (eDockets) 20261-226962-01.
[60] Minn. Stat. § 216B.2425 subd. 2 (2) (2024).
[61] MTO Reply Comments at 9.
[62] David Rosner, *Commissioner Rosner's Concurrence on Order Granting Extension of Time re MISO, Inc. under ER22-2363*. Federal Energy Regulatory Commission. (June 06, 2025). Available at: https://www.ferc.gov/news-events/news/commissioner-rosners-concurrence-order-granting-extension-time-re-miso-inc-under
[63] Minn. Stat. § 216B.2425, subd. 1a (2024).
[64] DOC DER Initial Comments, Attachment B.

analytical value and obscures where GETs deployment of technologies explicitly named in statute (DLR, TO, APFC) is occurring.

The **Department recommends** that the Commission order the MTO, in future GETs Reports, to add or modify filing requirements to conduct an alternative analysis for any constraint where AAR or a traditional upgrade is identified as a GETs Solution. That alternative analysis should evaluate at least one additional solution featuring dynamic line ratings (DLR), topology optimization (TTO), advanced power flow control (APFC), advanced reconductoring, or battery storage.

G. NEW OR EMERGING GETs

G.1. In the initial filing, the Department recommends that future GETs Reports include a section that discusses new or emerging GETs and the possibility of developing GET pilot projects.

The MTO respond to the Department's recommendation that future GETs Reports include a discussion of new or emerging technologies by expressing willingness to include a high-level discussion of trends and developments. The MTO stop short of supporting a detailed analysis, arguing it would fall outside the scope of the GETs Report, impose unnecessary resource burdens on member utilities, and that focusing on pilot projects is premature and risks diverting attention from commercially viable solutions. [65]

The Department appreciates the MTO's willingness to include a high-level discussion but disagrees on the remaining points. The notice of comment period for the GETs Report explicitly asked whether the Commission should modify filing requirements across five topics, one of which is new or emerging GETs technologies. [66] The Department's initial comments recommended that the Commission modify those filing requirements to require some discussion of new or emerging GETs and possible pilot projects with GET vendors. How that section should be structured is ultimately the Commission's determination, but the question of whether it belongs in the Report has already been answered by the notice itself.

The Department also disagrees that the MTO's attention would be diverted from commercially viable solutions by evaluating new or emerging technologies. The 2025 GETs Report already underutilizes technologies that are commercially available today. **[TRADE SECRET HAS BEEN EXCISED]** The lack of commercially viable technologies is notable given that, in a February 2026 stakeholder presentation, MISO reported that transmission topology optimization (TTO) implementations generated $113 million in congestion benefits for load-serving entities (LSEs) in 2025 alone, with an estimated $55 million in additional savings projected for projects implemented in early 2026. [67] The 2025 GETs Report giving

[65] MTO Reply Comments at 9-10.
[66] MTO Reply Comments at 9-10.
[67] MISO Reliability Subcommittee (RSC). Topology Optimization: Reconfiguration for Congestion Cost Update. (February 17, 2026). At 2. Available at: https://cdn.misoenergy.org/20260217%20RSC%20Item%2007%20Quarterly%20Reconfiguration%20for%20Congestion%20Cost%20Update741723.pdf.

TTO little attention despite its proven commercial viability is an example of the need for stronger filing requirements around the consideration of different technologies.

Vendor engagement is also relevant here. The GETs Report already requires MTO member utilities to meet with GET vendors. Those vendors are actively developing new solutions, and pilot projects are a standard pathway through which technologies move from development to commercial viability. Declining to engage with pilot projects because they are not yet fully commercial is inconsistent with the purpose of those vendor meetings and excludes the cost reductions that pilot-stage engagement is designed to produce.

The **Department reaffirms its recommendation** that the Commission modify future GETs Report filing requirements to include a discussion of new, emerging, and underutilized (but currently commercially viable) GETs, as well as the possibility of developing GETs pilot projects with vendors.

IV. DEPARTMENT RECOMMENDATIONS

The Department identified the three objectives in this report to be to identify system constraints, to evaluate GETs as a means of addressing those constraints, and to implement GETs to reduce congestion or increase the flexibility of the transmission system.

Based on analysis of the information in the record, the Department has prepared recommendations, which are provided throughout the Department's analysis and reproduced below for clarity:

B. COMPLETENESS

- B.1.
  - The Department **reaffirms its initial recommendation** that future GETs Reports include working papers that include derivations of all calculations. Including the work papers in the initial filing is both an efficiency (avoiding an unnecessary information request) and enables the Department to begin its analysis upon filing without any lag time.
- B.2.
  - The Department **recommends** the Commission require a bimonthly update to the Commission with the remaining projects undergoing evaluation by the MTO.

C. PAYBACK PERIOD CALCULATION

- C.1.
  - The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to provide any information they have about PPAs or curtailment payments to generators on transmission lines where the MTO also hold FTRs, as well as replacement energy purchases.
- C.2.
  - The **Department reaffirms its initial recommendation** that the Commission order the MTO to calculate, in future reports, broader benefits and costs for GETs within the

payback period calculation that prioritize physically addressing congestion rather than financial transactions for congestion.

- The **Department also recommends** that the Commission order the MTO to file, for informational purposes, additional calculations for the current constraints in the 2025 GETs Report, including broader consideration of the benefits that result from physically addressing congestion.

D. ACCOUNTING FOR FINANCIAL TRANSMISSION RIGHTS (FTRs)

- D.1.
  - The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to provide adjusted congestion payments in the MTO FTR portfolio and a second report of adjusted congestion payments by all FTRs available in the market.
- D.2.
  - The **Department recommends** that the Commission order the MTO, in future reports, to consider constraints identified in the FTR binding constraint list published by MISO, in addition to data sources the MTO considered this time while identifying potential opportunities for GETs implementation.

E. PAYBACK PERIOD THRESHOLDS

- E.1.
  - The **Department reaffirms its initial recommendation** that the Commission order the MTO, in future reports, to propose a cost estimate and schedule for GETs at each constraint, **or** that the Commission set technology-specific thresholds for different types of GETs.
  - The **Department also recommends** that the Commission order the MTO, in future reports, to include an additional column in working papers for each constraint that includes the type of GET that was studied, what the cost and benefits would be to document the payback period, regardless of whether the payback period of five years or less was achieved.

F. COMBINATION OF GETs AND TRADITIONAL UPGRADES

- F.1.
  - The Department **reaffirms its recommendation** that the MTO consider GETs during construction and planned outages for current and future MISO LRTP projects and other large high-voltage transmission line (LHVTL) outages in future GETs Reports.
- F.2.

- The Department **reaffirms its recommendation** that, in future reports, MTO consider adding GETs to any proposed traditional upgrade where feasible and where costs would not significantly increase.

- F.3.
  - The **Department recommends** that the Commission order the MTO, in future GETs Reports, to add or modify filing requirements to conduct an alternative analysis for any constraint where AAR or a traditional upgrade is identified as a GETs Solution. That alternative analysis should evaluate at least one additional solution featuring dynamic line ratings (DLR), topology optimization (TTO), advanced power flow control (APFC), advanced reconductoring, or battery storage.

G. NEW OR EMERGING GETs

- G.1.
  - The **Department reaffirms its recommendation** that the Commission modify future GETs Report filing requirements to include a discussion of new, emerging, and underutilized (but currently commercially viable) GETs, as well as the possibility of developing GETs pilot projects with vendors.

Attachments

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
Public Supplemental Comments

Docket No. E999/M-25-99

Dated this **2nd** day of **April 2026**

/s/Sharon Ferguson

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Sasha	Bergman	sasha.bergman@state.mn.us		Public Utilities Commission	121 7th Pl E Ste 350 St. Paul MN, 55101 United States	Electronic Service		Yes	Official 25-99
2	Christina	Brusven	cbrusven@fredlaw.com	Fredrikson Byron		60 S 6th St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	Official 25-99
3	Mike	Bull	mike.bull@state.mn.us		Public Utilities Commission	121 7th Place East, Suite 350 St. Paul MN, 55101 United States	Electronic Service		Yes	Official 25-99
4	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	Official 25-99
5	Ian M.	Dobson	ian.m.dobson@xcelenergy.com	Xcel Energy		414 Nicollet Mall, 401-8 Minneapolis MN, 55401 United States	Electronic Service		No	Official 25-99
6	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	Official 25-99
7	Christine	Marquis	regulatory.records@xcelenergy.com	Xcel Energy		414 Nicollet Mall MN1180-07-MCA Minneapolis MN, 55401 United States	Electronic Service		No	Official 25-99
8	David R.	Moeller	drmoeller@fredlaw.com	Fredrikson & Byron, P.A.		60 S 6th St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	Official 25-99
9	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	Official 25-99
10	Julia	Selker	jselker@gridstrategiesllc.com	WATT Coalition		110 Allen St Suite A&B Cumming GA, 30040 United States	Electronic Service		No	Official 25-99
11	Adam	Sokolski	adam.sokolski@edf-re.com	EDF Renewable Energy		10 Second Street NE Ste 400 Minneapolis MN, 55410 United States	Electronic Service		No	Official 25-99
12	Dennis	Welgraven	dwelgraven@co.murray.mn.us	Murray County Board of Commissioners		2848 Broadway Ave PO Box 57 Slayton MN, 56172 United States	Electronic Service		No	Official 25-99