



Working for Advanced Transmission Technologies (WATT) Coalition  
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[WATT-transmission.org](http://WATT-transmission.org)

February 2, 2026  
Via E-Filing

Mr. William Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place E, Suite 350  
St. Paul, MN 55101

**In the Matter of the 2025 Minnesota Biennial Transmission Projects Report  
RE: Grid Enhancing Technologies Report**

**PUC Docket Number: E999/M-25-99**

**I. Introduction**

The Working for Advanced Transmission Technologies (WATT) Coalition appreciates the opportunity to provide completeness comments to the Minnesota Public Utilities Commission (PUC) on the 2025 Grid Enhancing Technologies Report contained within the 2025 Biennial Transmission Projects Report. These comments address the following question identified in the Commission's Notice of Comment issued on November 12, 2025: *Is the 2025 Grid Enhancing Technologies Report (GETs Report) complete?*

**II. About the WATT Coalition**

The WATT Coalition advocates for policy that supports the wide deployment of Grid Enhancing Technologies (GETs) to accelerate lower energy costs and enable economic growth. GETs are hardware and/or software that increase the capacity, efficiency, and

maintain the reliability of the electric grid. Learn more at [watt-transmission.org](http://watt-transmission.org). WATT's membership includes Dynamic Line Rating (DLR), Advanced Power Flow Control (APFC), and Transmission Topology Optimization (TTO) vendors, as well as independent power producers, investors, and utilities.

### **III. Is the 2025 Grid Enhancing Technologies Report (GETs Report) Complete?**

In the first round of completeness comments before the PUC approved the rule variance for comment periods, the WATT Coalition noted that it was unable to determine whether all of the information required in the September 10, 2025 PUC Order was present because pages 19-183 discussing individual transmission constraints were marked "NONPUBLIC" and were omitted pursuant to Minn. R. 7829.0500, subp. 3. For this reason, WATT had no choice but to conclude that the 2025 GETs Report was incomplete. After select WATT members signed a Non-Disclosure Agreement (NDA) with the MTO, they were able to evaluate the full report for completeness. WATT finds that while the MTO did identify constraints that could be resolved by GETs, they did not consistently identify solutions to the constraints nor action plans to solve them.

When the MTO did identify a specific GET solution with a payback period, it was exclusively a DLR or Ambient Adjusted Rating (AAR) solution. While APFC was mentioned as a potential solution for several constraints, MTO stated that additional analysis would have to be done to confirm the solution and its cost-effectiveness. This analysis would have been part of a true modeling effort to evaluate a potential APFC deployment. Per the report, TTO was not considered to solve any of the constraints. However, there are constraints listed in the report for which TTO reconfigurations have either been implemented or approved by MISO for future use. Absent the reconfigurations that have been implemented, the congestion costs reported would have been significantly higher.

In identifying transmission constraints but not consistently identifying GETs solutions or implementation plans, the 2025 GETs Report does not satisfy the clear requirements of Minnesota Session Laws, 2024, Chapter 127, Article 42, Section 52, Subdivision 2:

"An entity that owns more than 750 miles of transmission lines in Minnesota, as reported in the state transmission report submitted to the Public Utilities Commission under Minnesota Statutes, section 216B.2425, by November 1, 2025, must include in that report information that:

- (1) identifies, during each of the last three years, locations that experienced 168 hours or more of congestion, or the ten locations at which the most costly congestion occurred, whichever measure produces the greater number of locations;
- (2) estimates the frequency of congestion at each location and the increased cost to ratepayers resulting from the substitution of higher-priced electricity;
- (3) identifies locations on each transmission system that are likely to experience high levels of congestion during the next five years;
- (4) evaluates the technical feasibility and estimates the cost of installing one or more grid enhancing technologies to address each instance of grid congestion identified in clause (1), and projects the grid enhancing technology's efficacy in reducing congestion;
- (5) analyzes the cost-effectiveness of installing grid enhancing technologies to address each instance of congestion identified in clause (1) by using the information developed in clause (2) to calculate the payback period of each installation, using a methodology developed by the commission;
- (6) 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; and
- (7) explains the transmission owner's current line rating methodology.”

For this reason, the WATT Coalition concludes once again that the 2025 GETs Report is incomplete.

#### **IV. Notes on the 2025 Biennial Transmission Projects Report**

On January 16, 2026, the MTO filed additional information (appended here) in response to a December 22, 2025 PUC request to “Provide all documents, including modeling, for every project for which grid enhancing technology was considered as an alternative within the 2025 Biennial Transmission Projects Report.”

The MTO did not provide data demonstrating consideration of GETs as an alternative to any of the 158 transmission inadequacies identified in the 2025 Biennial Transmission Projects Report. The reasons cited for choosing other solutions demonstrate a narrow view of potential applications for GETs. One answer implies that GETs are best used for mitigating congestion. Others imply that GETs are best used for increasing thermal rating and loading capability, which is really only the purview of DLR technology. GETs as a family of technologies have many more applications, including improving reliability and outage management and enhancing operational flexibility.

We recommend that the MTO leverage the free and accessible ATTs resources from the Energy Systems Integration Group (ESIG) and the Electric Policy Research Institute (EPRI), both longtime, trusted technical partners to the utility sector. ESIG hosts a user group<sup>1</sup> for utilities to share lessons learned. EPRI leads the ongoing GET SET<sup>2</sup> program, which is designed to support utility implementation efforts through comprehensive evaluation, testing, aggregation of industry experiences, and the development of practical application guidance. The initiative seeks to generate and disseminate reports, webinars, and insights related to the use and benefits of these technologies, their integration into operational and planning processes, and considerations around life expectancy and reliability.

## **V. Conclusion**

The WATT Coalition appreciates the opportunity to comment on the 2025 GETs Report and the 2025 Biennial Transmission Projects Report. We will file further comments on the content of the GETs Report by the March 2 deadline.

Respectfully submitted,



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<sup>1</sup> <https://www.esig.energy/ags-user-group/>

<sup>2</sup> <https://transmission.epri.com/getset/>

January 16, 2026

**VIA E-FILING**

Ms. Sasha Bergman  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
Saint Paul, MN 55101-2147

**Re: In the Matter of the 2025 Biennial Transmission Projects Report.  
MPUC Docket No. E999/M-25-99**

Dear Ms. Bergman:

The Minnesota Transmission Owners (“MTO”) respectfully submits this response to the Minnesota Public Utilities Commission’s (“MPUC”) Request for Information issued on December 22, 2025 in the above referenced docket.

As requested by the MPUC, this response has been e-filed through [www.edocket.state.mn.us](http://www.edocket.state.mn.us).

Please let me know if you have any questions regarding this filing.

Sincerely,

FREDRIKSON & BYRON, P.A.



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**MINNESOTA TRANSMISSION OWNERS  
INFORMATION REQUEST RESPONSE**

- Public Document**
- NONPUBLIC Document – Not For Public Disclosure**
- Public Document – Nonpublic Data Has Been Excised**

Project: 2025 Biennial Transmission Projects Report

MPUC Docket No.: E999/M-25-99

Response To: Minnesota Public Utilities Commission

Requestor: Minnesota Public Utilities Commission

Date of Request: December 22, 2025      Response Due Date: January 16, 2026

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IR#1 Provide all documents, including modeling, for every project for which grid enhancing technology was considered as an alternative within the 2025 Biennial Transmission Projects Report.

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**RESPONSE:** The Minnesota Transmission Owners (MTO) provide the following responses. Some MTO utilities did not have any information or direct response to this information request.

Below are specific responses from individual utilities or as noted supported by individual utilities.

**Dairyland Power Cooperative**

While DPC did not consider specific GETs as alternatives to our projects within the 2025 Biennial report, DPC has implemented GETs such as ambient adjusting our transmission ratings and also reconfiguring our system topology on a case-by-case basis.

**East River Electric Power Cooperative**

East River did not consider any GET project alternatives within the 2025 Biennial Transmission Projects Report and has not proposed any GET projects to MISO.

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Response Date: January 16, 2026

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## **Great River Energy**

GETs are hardware or software that reduces congestion or enhances the flexibility of the transmission system by increasing the capacity of a high-voltage transmission line or rerouting electricity from overloaded to uncongested lines, while maintaining industry safety standards. Grid enhancing technologies include but are not limited to dynamic line rating, advanced power flow controllers, and topology optimization.

While GRE continues to explore opportunities to utilize Grid-Enhancing Technologies (GETs) as congestion mitigation solutions and has implemented them at several locations within the transmission system, the majority of projects in the Biennial Plan focus on addressing various load-serving reliability concerns rather than congestion mitigation. As a result, GETs are generally not applicable to these projects.

GRE has deployed GETs, such as Dynamic Line Rating (DLR) sensors, at the following locations:

1. Inman – Rush Lake 115 kV line
2. Benton County – Mud Lake 230 kV line
3. Blaine – Linwood 230kV line
4. Bunker Lake – Blaine 230 kV line
5. Crooked Lake – Parkwood 115 kV line
6. Mud Lake – Riverton 230kV line
7. Johnson Junction – Morris 115kV line
8. Linwood – Rush City 230 kV line
9. Pleasant Valley – North Austin
10. Rush lake – Perham SE 115 kV line

## **ITC Midwest (supported by Missouri River Energy Services)**

In general, ITC Midwest considers the use of GETs for all its projects, including those in the 2025 Biennial Transmission Projects Report. However, ITC Midwest did not choose to utilize GETs for any of these projects due to the project need driver and because of that, ITC Midwest does not have any modeling or other information or documentation it can provide as GETs was ruled out early in the evaluation process for these projects. GETs were not chosen for any of the ITC Midwest projects due to the need driver of the projects predominantly being age and condition or similar type projects. In general, the use of GETs is driven by the need to increase the thermal rating/loading capability on the upgraded transmission facility, which was not the need driver for the ITC Midwest projects in the 2025 Biennial Transmission Projects Report.

## **L&O Power Cooperative**

L&O Power Cooperative did not consider GETs for its projects in the 2025 Biennial Transmission Projects Report.

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## **Minnesota Power**

Grid-enhancing technology is not specifically mentioned as an alternative for any of the MP projects in Section 6.4 of the Biennial Report.

## **Minnkota Power Cooperative**

Minnkota inherently considers all reasonable solutions as part of our transmission planning process, including GETs. In the case of the projects included in the 2025 Biennial report, GETs were not considered a reasonable solution.

## **Otter Tail Power**

For the projects included in the 2025 Biennial Transmission Projects Report, Otter Tail did not select GETs because the primary project need drivers did not align with the purposes for which GETs are typically effective. Specifically, Otter Tail's non-LRTP projects submitted in the 2025 Biennial Transmission Projects Report were strictly related to load serving and generator interconnection facilities, where GETs generally do not provide meaningful benefit. As a result, GETs were ruled out early in the evaluation process, and Otter Tail does not have modeling, analyses, or other documentation to provide for these projects.

## **Xcel Energy**

In general, Xcel Energy evaluates the potential use of GETs for all its projects, including those in the 2025 Biennial Transmission Projects Report. However, for the projects included in that report, Xcel Energy did not select GETs because the primary project need drivers did not align with the purposes for which GETs are typically effective. As a result, GETs were ruled out early in the evaluation process, and Xcel Energy does not have modeling, analyses, or other documentation to provide for these projects.

Most of the projects were driven by age, condition, or similar asset focused needs, where GETs generally do not provide meaningful benefit. In cases where increasing thermal ratings or loading capability could have been relevant, GETs were still not selected due to factors such as the magnitude of the required rating increase or physical configuration constraints that made traditional solutions more viable.

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IR#2 What project alternative documents were provided to MISO?

**RESPONSE:** The Minnesota Transmission Owners (MTO) provide the following responses. Some MTO utilities did not have any information or direct response to this information request, including that they are not in MISO. Also, some utilities combined their responses to Information Requests Nos. 1 and 2.

**Dairyland Power Cooperative**

DPC does not provide alternative documents to MISO, but other stakeholders may propose project alternatives as part of the MTEP process.

**Great River Energy**

Typically, transmission owners evaluate multiple alternatives to identify the best-value option to submit to MISO. In rare cases, different transmission owners may propose alternative solutions for the same issue, and MISO would then review and select the most cost-effective option to move forward. In general, and specifically for GRE's projects in the Biennial Plan, no transmission alternatives were provided to MISO by GRE or other transmission owners for these projects.

**Minnesota Power**

No project alternative documents were provided to MISO relating to grid-enhancing technology.

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IR#3 What is MISO's acceptance, review, and approval process for the expedited project review compared to MTEP?

**RESPONSE:** The Minnesota Transmission Owners (MTO) provide the following general response.

The MISO EPR process is used to seek MISO approval in an expedited manner for projects that, typically due to the requested/required in-service date, need MISO approval in a manner quicker than the normal MTEP process provides. The normal MTEP process is a ~15-month process from project submittal to MISO approval, and the EPR process provides a path to MISO approval in a process that can be as quick as 2 months from submittal to MISO approval.

MISO's Transmission Planning Business Process Manual (BPM-020) lays out the MTEP and EPR processes.

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