UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Managing Transmission Line Ratings) Docket No. AD22-5-000

COMMENTS OF THE ORGANIZATION OF MISO STATES, INC.

On February 17th, 2022, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued a Notice of Inquiry[1] ("NOI") asking whether Dynamic Line Ratings ("DLR") are needed to ensure just and reasonable rates and, if so, what criteria should be used to select this technology. The Commission also asked about the associated benefits, costs, challenges, and timeframes associated with DLRs.[2] The Organization of MISO States, Inc. ("OMS") appreciates the opportunity to share its views on the issues raised in the NOI.

OMS is a non-profit, self-governing organization comprised of representatives from the seventeen regulatory bodies with jurisdiction over entities participating in MISO and serves as the regional state committee for the region. The purpose of OMS is to coordinate regulatory oversight among its members, to make recommendations to MISO, the MISO Board of Directors, FERC, and other relevant government entities and state commissions as appropriate, and to intervene in proceedings before the Commission to express the positions of OMS member agencies.

Service of pleadings, documents, and communications in this proceeding should be made on the following:

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[1] *Managing Transmission Line Ratings*, Notice of Inquiry, 178 FERC ¶ 61,110 (2022) ("NOI").
[2] *Id.* at 1.

I. COMMENTS

OMS commends the Commission for opening this proceeding to continue to gather information related to implementation of DLRs. In previous comments, OMS expressed support for the Commission's NOPR in RM20-16-000 and encouraged the Commission to gather information and identify opportunities for DLR deployment.[3] OMS based this position on its Position Statement on Enhanced Transmission Line Ratings issued in August 2020.[4]

In this position statement and previous comments, OMS has encouraged the Commission to focus on reliably integrating the use of more accurate transmission line ratings for the benefit of consumers. OMS continues to do so here and looks forward to reviewing initial comments of other stakeholders in this docket.

A. QUESTIONS ON THE NEED FOR DLR REQUIREMENTS

Q1) As a threshold matter, even for transmission lines that incorporate AARs, is there a need to further increase the accuracy of transmission lines ratings through the implementation of DLRs to ensure just and reasonable wholesale rates? Why or why not? If yes, please explain whether a requirement by the Commission to adopt DLRs is needed.

Yes – there is a need to further increase the accuracy of line ratings through the use of DLRs. Integrating them reliably and cost-effectively is the bigger question. OMS has supported the use of more accurate transmission line ratings in previous comments and continues to encourage the Commission to identify ways to make more efficient use of the existing Bulk Power System ("BPS").[5] The additional situational awareness that DLRs provide could enable lower-cost

[3] *Managing Congestion Line Ratings,* Comments of the Organization of MISO States, Inc., Docket No. RM20-16 (March 22, 2021) ("OMS NOPR Comments")

[4] Organization of MISO States, OMS Position Statement – Enhanced Line Ratings, available at: https://www.misostates.org/images/PositionStatements/OMS_Position_Statement__Enhanced_Line_Ratings.pdf (last accessed April 15, 2022).

[5] OMS NOPR Comments at 3-4.

reliability and greater market efficiency than competing transmission projects. While addressed in more detail below, OMS argues that criteria for DLR deployment which result in DLR being installed on lines where congestion is either a persistent problem or where congestion threatens reliability during extreme events should be developed.

However, OMS does not support a blanket requirement to use DLRs on all transmission elements at this time. The Ambient Adjusted Ratings ("AARs") Framework developed by MISO and the MISO Transmission Owners ("TOs") could serve as a model for the Commission to use in determining where it would be beneficial to use DLRs. These comments will refer to this framework as the "MISO Framework."[6] It will be critical that any DLR evaluation framework be open and transparent so that retail regulators and other stakeholders have confidence in decisions to use or not use DLRs at various points on the BPS.

Q2) What, if any, barriers to DLR implementation exist today? Are potential requirements to implement DLRs necessary to address these existing barriers? Why or why not?

There are at least two major barriers to the more widespread implementation of DLRs on the BPS. First, the costs of implementing this technology could fall on the customers of a local TO while larger regions may benefit from reduced production costs and heightened reliability that results from the use of DLRs. As the parties paying for the implementation of DLRs often only

[6] *See Managing Transmission Line Ratings*, Comments of the Midcontinent Independent System Operator, Inc., RM20-16-000 at 6 (March 3, 2021) and *Managing Transmission Line Ratings,* Comments of the MISO Transmission Owners, RM20-16-000 at 10-12 (March 22, 2021) ("MISO TOs' NOPR Comments") (This framework focuses on historical real-time binding constraint costs and compiles a list of elements that have bound in the past two years. It then looks at whether: "(1) the limiting element on the facility is capable of adjustment based on ambient temperatures; (2) the historical congestion on the facility is likely to recur; and (3) an increased thermal rating would address at least some of the anticipated future congestion." These parties then calculate potential savings and set a floor to exclude low-value constraints. After this analysis is complete, individual TOs have the responsibility to implement AARs on their system.).

receive a part of the total benefits of more widespread use of DLRs, there are financial disincentives to adopt this technology.

OMS also believes that stakeholders in the MISO region may not be considering the potential reliability contribution from DLRs. OMS looks forward to continuing to review the record in this docket for detailed articulations of the reliability contribution DLRs can provide.

There may also be opportunities for transmission providers to transparently identify how DLRs might address a reliability issue or manage observed congestion early in the transmission planning process similar to how other non-transmission alternatives are considered. Failure to consider DLRs in transmission planning processes could serve as a barrier to implementation. Nonetheless, transmission planning criteria should primarily ensure system reliability without consideration of favorable weather or other environmental considerations.

B. Questions on Potential Criteria for DLR Requirements

Q3) If the Commission were to require DLR implementation, should it require the implementation only on certain transmission lines, and, if so, what set of criteria should be considered to identify transmission lines for DLR implementation? Examples of such criteria could include congestion, curtailment levels, voltage levels, infrastructure, and/or geography/terrain. Explain why such criteria would identify the set of transmission lines on which DLRs need to be implemented in order to produce just and reasonable wholesale rates.

At this point, OMS is more supportive of the Commission developing a framework to understand where DLR could be beneficial than requiring use of DLRs on the entire BPS. Any criteria that the Commission uses to identify where DLR should be used should have a clear tie to a specific and clear reliability or economic benefit. Clarity in economic benefits, for example, could consider whether congestion is completely eliminated, partially eliminated, or simply moved to another transmission element after DLR hardware is installed.

Importantly, the development and application of criteria used to identify where to install DLR should not be wholly dependent on TO cooperation. Transmission providers, who are already charged with ensuring an efficient and reliable wholesale electric system, should utilize their independence to use DLRs as another tool to ensure just and reasonable rates. Ideally, transmission providers would facilitate open and transparent coordination with retail regulators and other stakeholders during the development and application of any criteria.

The MISO Framework reviews persistently congested lines over the preceding two years to identify areas of persistent congestion.[7] After compiling this data, MISO identifies "a prioritized list of candidate transmission facilities…."[8] MISO and the TOs then update the list of elements quarterly, adding or removing elements that experienced congestion over the preceding 8 quarters. Something similar could be useful when considering the use of DLRs.

In addition, it could be beneficial to conduct "one-off" reviews over a longer period to identify critical elements that may not demonstrate persistent congestion but are critical to the BPS (from an economic or reliability perspective) during extreme weather or other less common events, such as transmission system outages and maintenance.

While the MISO Framework, discussed in comments in Docket No. RM20-16-000,[9] was not suited for the effective use of AARs, a similar framework could be appropriate in the context of DLRs because of the heightened complexity and larger investment needed to implement DLRs.

[7] MISO TOs' NOPR Comments at 13.
[8] *Id.* at 11.
[9] *Id.*

Q5) If the Commission were to require DLR implementation based on certain criteria, should the criteria be regularly reevaluated to ensure such criteria continue to ensure accurate transmission line ratings, and, if so, at what interval(s)? How should such regular reevaluations work practically?

OMS certainly does not want to see a DLR Framework that becomes too rigid to respond to the reliability and economic needs of customers. Any framework should produce useful data that allows transmission providers and stakeholders to understand when particular transmission elements are suitable for DLR implementation and when they are not. If DLR technology proves to be especially effective at reducing congestion and containing costs, updated DLR criteria should also consider expanding their implementation.

As DLRs require the installation of hardware on transmission elements that AARs do not require, OMS encourages the Commission to evaluate sunk costs when considering the *removal* of DLR hardware from a particular transmission element. Previously, OMS was concerned that the MISO Framework may have removed candidate facilities from consideration two years after an extreme event, just in time for the next extreme event to hit. Using a window that is too short to identify congestion and allowing that short window to control when elements should be removed from consideration could be counterproductive.

There are other transmission planning processes that may provide insight into how long the evaluation window used to identify DLR candidates should be and how often the list of candidate facilities should be updated. There are transmission planning processes that produce data at regular intervals that could inform a potential DLR Framework such as Generator Interconnection Queue data and annual transmission planning data.

Q6) If such criteria included the magnitude of congestion on a transmission line, what metrics exist that assess the magnitude of congestion in both or either RTO/ISO and/or non-RTO/ISO regions? For any congestion metrics suggested, what data sources are available?

The congestion metric from the MISO Framework could provide a possible template for a congestion metric.[10] Further, a DLR framework should not allow projections of reduced congestion from future transmission upgrades to remove DLR candidate facilities from consideration when the use of DLR could eliminate or defer the need for a transmission project.

Q7) Implementation of the requirements adopted in Order No. 881 are expected to change congestion patterns. How should these congestion pattern changes be accounted for when considering whether a transmission line satisfies the criteria established as part of any potential DLR requirements?

TOs should not install DLRs on lines based on outdated information or on lines where congestion or the risk of congestion has been sufficiently mitigated. Instead, transmission providers should evaluate new information made available to them through AAR implementation to identify where DLR implementation could also make sense. The evidence of receiving benefits from temperature adjusting transmission elements through AAR could indicate that the limit of that element is critical and could therefore be ripe for DLR implementation.

Q10) If the Commission were to require DLR implementation, how should that requirement be considered in regional transmission planning and interconnection processes?

While much of the benefit of DLRs might appear in day ahead and real-time markets, OMS encourages the Commission to continue to consider how DLRs could modify or defer

[10] MISO TOs' NOPR Comments at 10-12 ("This effort has focused on historical, real-time binding constraint costs ("This is defined as the summation of costs for 1 MW of relief on the binding constraint during each five-minute weighted market solution where binding was active on the constraint") and associated real-time congestion hours for each facility that has bound in the past two years. The analysis examines three factors and then calculates the potential savings by quarter for congestion costs assuming a 1 MW increase in rating. The potential savings, which sets a floor on potential congestion savings to the market, are used to stack rank candidate facilities.").

projects selected in regional transmission planning processes. However, to be clear, OMS suggests it is entirely appropriate to continue to analyze and further develop the record on this question before coming to any conclusions.

> **Q11) If the Commission were to require DLR implementation based on certain criteria, what transparency measures should the Commission require? For example, should the Commission consider requiring transmission providers to submit informational reports that show which transmission lines meet any determined criteria for DLR implementation? And/or should the Commission require transmission providers to post the same on their Open Access Same-Time Information System websites?**

Transmission Providers should review transmission elements as part of a transparent and inclusive process. The Commission should be very clear in delineating what information is and is not confidential so that the development and maintenance of processes used to identify opportunities for DLR implementation remain as transparent as possible and allow for extensive retail regulator and stakeholder involvement. All information produced by a DLR framework should be available and shared with Independent Market Monitors.

II. CONCLUSION

OMS submits these Comments because a majority of OMS members support this filing. Individual OMS members reserve the right to file separate comments regarding the issues discussed in these comments. The following members generally support this filing:

Arkansas Public Service Commission
Illinois Commerce Commission
Indiana Utility Regulatory Commission
Iowa Utilities Board
Kentucky Public Service Commission
Louisiana Public Service Commission
Michigan Public Service Commission
Minnesota Public Utilities Commission
Mississippi Public Service Commission

Missouri Public Service Commission
Montana Public Service Commission
Council of the City of New Orleans
North Dakota Public Service Commission
South Dakota Public Utilities Commission
Public Utility Commission of Texas
Public Service Commission of Wisconsin

The Manitoba Public Utilities Board did not participate in the vote on this filing.

Respectfully submitted,
/s/ Marcus Hawkins

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Dated April 15th, 2022

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list prepared by the Secretary for the above-captioned docket in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.2010.

DATED at Madison, Wisconsin this the 15th of April 2022.

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