

**THE UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Managing Transmission Line Ratings)

RM20-16-000

**COMMENTS OF
THE AMERICAN COUNCIL ON RENEWABLE ENERGY**

The American Council on Renewable Energy (“ACORE”) submits these comments in response to the Federal Energy Regulatory Commission’s Notice of Proposed Rulemaking (“NOPR”) issued November 19, 2020, which would improve the accuracy and transparency of transmission line ratings.¹ ACORE is a national nonprofit organization dedicated to advancing the renewable energy sector through market development, policy changes and financial innovation.

I. Executive Summary

We commend the Commission for issuing the NOPR, an important step that would expand greatly needed transmission capacity on a cost-effective basis. Beyond enhancing requirements for ambient-adjusted and seasonal line ratings and ensuring that dynamic line ratings (DLR) are accommodated by RTOs/ISOs, the Commission should consider further steps to encourage the deployment of DLR by incenting its deployment through transmission incentives and incorporating its assessment into transmission planning processes.

¹ *Managing Transmission Line Ratings*, 173 FERC ¶ 61,165 (2020).

II. Background

Transmission capacity is a growing constraint to the continued integration of low-cost, emissions-free renewable energy resources increasingly preferred by utilities, consumers and public policy alike.² In fact, transmission capacity needs to increase more than twice over to accommodate this trend.³ Nevertheless, capacity constraints have caused nearly a terawatt of generation to be stuck in interconnection queues.⁴ As the Commission noted in its 2019 staff paper, *Managing Transmission Line Ratings*, advanced line rating technologies can enhance this transmission capacity, provide reliability benefits and “potentially defer capital costs by improving utilization of existing assets.”⁵ For these reasons, increased deployment of advanced line rating technologies may augment the efficient integration of renewable energy resources.⁶

² E. Larson, C. Greig, et al. “Net-Zero America: Potential Pathways, Infrastructure, and Impacts.” December 15, 2020. Accessed March 12, 2021 from https://environmenthalfcentury.princeton.edu/sites/g/files/toruqf331/files/2020-12/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf.

³ Ibid.

⁴ Americans for a Clean Energy Grid. “Disconnected: The Need for a New Generator Interconnection Policy.” January 12, 2021. Accessed March 12, 2021 from <https://acore.org/wp-content/uploads/2021/01/Disconnected-The-Need-for-a-New-Generator-Interconnection-Policy-1.14.21.pdf>.

⁵ Federal Energy Regulatory Commission, Staff Paper, “Managing Transmission Line Ratings,” Docket No. AD19-15-000. August 2019.

⁶ Increases in transmission capacity significantly alleviate grid congestion and reduce renewable energy curtailment. See J. Jorgenson, et al. “Reducing Wind Curtailment through Transmission Expansion in a Wind Vision Future.” January 1, 2017. Accessed March 22, 2021 from <https://www.nrel.gov/docs/fy17osti/67240.pdf>. Additionally, PJM Interconnection found that DLR would save over \$4 million annual in transmission congestions costs if applied to the most congested line in its footprint. See PJM Interconnection LLC. “New Line Technology Boosts Reliability, Reduces Costs.” November 14, 2018. Accessed March 12, 2021 from <https://insidelines.pjm.com/pjm-finds-opportunities-in-new-dynamic-line-rating-technologies/>. Finally, the Organization of MISO States echoed reliability benefits in stating, “Enhanced line rating methodologies will increase visibility and situational awareness. Increased transparency and consistency of methods and ratings could also increase reliability.” See Organization of MISO States. “OMS Position Statement Enhanced Transmission Line Ratings.” Accessed March 22, 2021 from https://www.misostates.org/images/PositionStatements/OMS_Position_Statement_Enhanced_Line_Ratings.pdf.

III. Comments on Notice of Proposed Rulemaking

A. Finalize Proposed Line Rating Requirements

We broadly support the Commission’s proposal to enhance requirements around the deployment of advanced line rating technologies. Efficient usage of the bulk power system helps ensure that rates remain just and reasonable. Specifically, we support the NOPR’s proposal to enhance usage of ambient-adjusted and seasonal ratings. We also support the NOPR’s proposal “to require RTOs/ISOs to establish and implement the systems and procedures necessary to allow transmission owners to electronically update transmission line ratings on at least an hourly basis.”⁷ This change would allow RTOs/ISOs to better accommodate the deployment of DLR on utility-owned transmission lines and thus make both utilities and system operators more comfortable with further deployment of this technology in the future. We encourage the retention of these elements in a final rule.

B. Ensure Further Deployment of Dynamic Line Ratings

We understand concerns that DLR may not be an appropriate technology for every instance. In those situations where the technology is applicable, the Commission should seek to ensure its utilization.

Specifically, FERC should, at a minimum, consider an incentive for DLR and other advanced line rating technologies as part of its transmission incentive framework. The Energy Policy Act of 2005 directs FERC to “encourage deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities,”⁸ and such encouragement is concomitant with this

⁷ *Managing Transmission Line Ratings*, 173 FERC ¶ 61,165 (2020) P 5.

⁸ Energy Policy Act of 2005, Pub. L. No. 109-58, Stat. 961.

proceeding. Transmission owners do not otherwise realize greater returns from deploying these technologies to enhance capacity over constructing new lines. Understanding that the dialogue around transmission incentives continues in another docket, RM20-10, the overlap suggests that a holistic approach to line rating reform may be warranted.

Relatedly, transmission planners should be required, at a minimum, to consider the applicability of DLR and other advanced line rating technologies as part of the FERC-regulated transmission planning process. Advanced line rating technologies are not a replacement for new transmission lines in all scenarios, but their many benefits can serve as an effective complement to transmission lines in a variety of scenarios. The data these technologies generate could potentially be used to refine key rating parameters and better inform decisions around equipment rebuilding and replacement. The relative newness of these technologies may have served as an obstacle to their inclusion in past planning processes, but their maturity to date underscores the appropriateness of their consideration in future planning efforts.

Respectfully Submitted,

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