

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

**Implementation of Dynamic Line Ratings     )     Docket No. AD22-5-000**

**COMMENTS OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (CAISO) submits these limited comments in response to the Commission’s Notice of Inquiry (NOI) in the above-captioned docket.<sup>1</sup> Dynamic line ratings offer the promise of greater efficiency and reliability for transmission operations. As load growth occurs in the coming years because of increased electrification, the ability to deploy dynamic line ratings may, in some instances, be an effective tool to enhance efficiency and reliability of transmission operations. The CAISO supports these efforts, but it recommends using dynamic line ratings only when the increase to efficiency and reliability of transmission operations justifies the cost.

The Commission issued a final rule – Order No. 881 – in December 2021 requiring several reforms to transmission line ratings, including the use of ambient adjusted ratings and directing Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) to establish and implement systems and procedures necessary to allow transmission owners to update transmission line ratings electronically at least hourly.<sup>2</sup> These systems and procedures will serve as a foundation

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<sup>1</sup> *Implementation of Dynamic Line Ratings*, 178 FERC ¶ 61,110 (2022).

<sup>2</sup> *Managing Transmission Line Ratings* 177 FERC ¶ 61,179 (Order No. 881) (2021).

for any automated use of dynamic line ratings in RTO/ISO regions. Order No. 881 compliance filings are due July 12, 2022, and the effort to design, test, and implement systems to allow transmission owners to electronically update transmission line ratings at least hourly is significant. The Commission should not adopt rules to require implementation of dynamic line ratings prior to allowing RTOs/ISOs to gain experience with the systems and procedures necessary to allow transmission owners to update transmission line ratings electronically. From a procedural perspective, the CAISO recommends the Commission defer any further action in connection with this notice of inquiry until, at a minimum, it has reviewed and issued orders accepting Order No. 881 compliance filings.

The CAISO supports the current approach set forth in North American Electric Reliability Corporation *Reliability Standard FAC-008-5 – Facility Ratings* under which transmission owners are responsible for the methodology to develop facility ratings and communicating those ratings to their reliability coordinator and transmission provider. Any directives requiring dynamic line ratings, whether through direct measure of the conductor's temperature and/or sag calculated through wind velocity, will require enhancements to these methodologies. Transmission owners will also need to develop additional systems and communication tools. These systems and tools may create new implementation costs as well as operations and maintenance costs. They will also require functional testing by both transmission owners and transmission providers.

As part of this notice of inquiry, the Commission should consider the availability of hardware and software to support dynamic line rating practices, as well as assess best practices by utilities that have already implemented dynamic line ratings (e.g. what

criteria, systems, and tools are they using). The Commission should also consider a criteria-based eligibility approach as well as an exception-based approach for any deployment of dynamic line ratings. Finally, the Commission should consider cost-effectiveness of dynamic line ratings and a reasonable deployment schedule in connection with any final rule it may adopt. Like other RTOs/ISOs, the CAISO can provide information to transmission owners to help them identify where implementing dynamic line ratings may help address congestion, thus informing whether wholesale rates are just and reasonable without the use of dynamic line ratings.

As RC West, the CAISO provides reliability coordinator services to 42 balancing authorities and transmission operators in the Western Interconnection. Reliability Coordinators will also need to process dynamic line ratings to conduct necessary operational planning analyses, real-time monitoring, and real-time assessments. In addition to considering whether dynamic line ratings are needed to ensure wholesale rates remain just and reasonable, the Commission should consider this reliability function in connection with any proposed rulemaking it initiates.

Respectfully submitted,

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## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced proceedings, 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 Folsom, California, this 25th day of April 2022.

*/s/ Anna Pascuzzo*  
Anna Pascuzzo