

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

Electric Transmission Incentives Policy            )  
Under Section 219 of the Federal Power Act    )

Docket Nos. RM20-10-00  
AD19-19-000

**Post-Technical Workshop Comments of the  
California Independent System Operator Corporation**

The California Independent System Operator Corporation (CAISO) submits these comments in response to the Commission’s October 18, 2021 notice inviting post workshop comments on shared savings incentive approaches that may foster deployment of transmission technologies. The CAISO supports adopting and integrating cost-effective technologies that meet identified reliability and economic needs and address challenges posed by the changing electricity landscape in the West, which includes more diverse resource portfolios, evolving state policies, growing interest in organized market participation, and more consumer choices. Integrating new technologies can occur through enhancements to market optimization software and operational planning tools, as well as through infrastructure planning processes.

As explained in prior comments submitted in Docket AD19-19, the CAISO does not support a shared savings mechanism and does not support utilizing production cost studies performed by regional transmission operators (RTOs) or independent system operators (ISOs) to estimate benefits to inform rate incentives.<sup>1</sup> A shared savings mechanism is unnecessary to incentivize deployment of transmission technologies within the CAISO planning region. The Commission should not require the use of ex

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<sup>1</sup> Post-workshop comments of the CAISO in AD19-19 dated February 14, 2020: <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=020690A4-66E2-5005-8110-C31FAFC91712>.

*ante* estimated benefits from planning studies performed by RTOs/ISOs to support specific shared cost savings between transmission owners and ratepayers.

The CAISO has worked with resource developers, existing and prospective participating transmission owners, market participants, and other stakeholders to explore opportunities to enhance the efficiency of grid operations. Many of these efforts occur in the context of developing the CAISO's operational tools and the interconnection and market rules, but they also occur in the transmission planning context. Each RTO/ISO should be able to utilize its own Order No. 1000 compliant transmission planning process to identify and approve projects, including advanced transmission technologies that meet identified needs in the most cost-effective manner. The CAISO believes greater focus on how transmission providers consider new technologies in the transmission planning process may help identify opportunities to pilot and deploy these technologies.

Estimated benefits can support the decision to proceed with a capital addition to the transmission system or a technology alternative, but grid changes that will occur due to load growth, resource development, congestion, and numerous other factors make these modeling estimates an inappropriate source for rate recovery purposes in future years. Using *ex ante* modeling results from a planning process will unlikely not provide an accurate assessment of actual savings that would result on a year-to-year basis from implementing a specific technology. If there are limitations on the system (e.g., stability or voltage concerns) that prevent utilization of an approved technology solution, the annualized modeled benefits of the technology may not in all cases materialize. Grid conditions are constantly changing, especially in this era of rapid transformation of the

electricity industry and more extreme weather conditions. Any number of factors can affect the yearly (and long-term) benefits of any technology solution, including, among others, generation and transmission additions (and retirements), natural gas prices, generation and transmission outages, rapid growth of variable energy resources and distributed energy resources, changes in load, new weather patterns, drought, and fires. All of these factors can affect flows on the transmission system and change the effectiveness of a specific technologies. For these reasons, distributing incentive payments under a shared savings approach using *ex ante* modeling approach would create an inaccurate payment stream over a period of time.

The Commission's September 10, 2021 technical workshop focused on three specific technologies: power flow control, topology optimization, and dynamic line ratings.<sup>2</sup> Regarding power flow control and topology optimization, RTOs/ISOs play a more critical role to adopt and deploy these technologies than transmission owners. When they reflect the least cost solution to meet an identified transmission need than other alternatives, the CAISO will select them as the preferred alternative. Accordingly, ratemaking incentives for transmission owners are not necessary to identify and adopt such proposals in the CAISO's region.

On the other hand, the CAISO recognizes that the Commission is seeking ways to achieve greater efficiency from existing transmission capacity and reduce congestion, thereby eliminating the needs for other costly transmission upgrades or additions. The CAISO recognizes that action by the Commission in this docket may help facilitate pilots or commercial deployment of advanced transmission technologies. The CAISO,

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<sup>2</sup> Transcript of September 10, 2021 Workshop to Discuss Certain Performance-based Ratemaking Approaches in Dockets RM20-10 and AD19-19 at 5:18-20.

therefore, is not opposed to using ratemaking mechanisms to do so, as long as they do not involve a shared savings approach. The Commission could authorize some other type of enhanced rate incentive for transmission owners when they implement power flow control or topology optimization on their transmission facilities. The Commission could authorize a rate incentive based on the extent of deployment of these technologies across a transmission owner's system. Such incentives could facilitate a more rapid deployment of these advanced transmission technologies once approved in an RTO/ISO transmission planning process.

In the case of dynamic line ratings, the Commission's recent final rule in Docket RM20-16 recognizes the benefits of dynamic line ratings but declines to mandate transmission owners to implement them.<sup>3</sup> Given that the use of dynamic line ratings remains voluntary, the Commission could consider whether authorizing a rate incentive

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<sup>3</sup> *Managing Transmission Line Ratings*, 177 FERC ¶ 61,179 (2021) (Order No. 881) at PP 239-254.

(e.g. a return on equity adder) could serve as an effective tool to promote the use of dynamic line ratings by transmission owners.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, 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, CA this 14<sup>th</sup> day of January, 2022.

*/s/ Jacqueline Meredith*

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