

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

California Independent System Operator Corporation) Docket No. ER23-2686-000

COMMENTS OF PUBLIC INTEREST ORGANIZATIONS

I. Introduction

Pursuant to Rule 211 and 214 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) Rules of Practice and Procedure,¹ Center for Energy Efficiency and Renewable Technologies, Earthjustice, Interwest Energy Alliance, Natural Resources Defense Council, Northwest Energy Coalition, Renewable Northwest, Sustainable FERC Project, Western Grid Group, and Western Resource Advocates (together “Public Interest Organizations” or “PIOs”) respectfully submit these comments in the above-captioned proceeding on the California Independent System Operator’s (“CAISO”) proposed tariff revisions (“Tariff”) to the Day Ahead Market Enhancement (“DAME”) and Extended Day-Ahead Market (“EDAM”). We appreciate CAISO’s work that has culminated in this Tariff.

In the West, a rapidly evolving resource mix poses challenges to the status quo but creates opportunities to effectively harness the geographic and resource diversity of the region with day-ahead market services. EDAM will lead to increased and more efficient trading and reduce the need for new capacity resources which will provide the region with significant annual cost savings. Further, with increasing integration of wind and solar power – the two fastest growing generation sources in the West – the ability to balance generation and load in a day-

¹ 18 C.F.R. §§ 385.211 and 385.214.

ahead market is more valuable than ever. While the region has benefitted from the CAISO's real-time market for nearly a decade, the West stands to reap multiple benefits including renewable integration, improved reliability, and reduction in the costs of resource adequacy (capacity) from the increased resource and load diversity that the EDAM offers. Given the prospect of these benefits, PIOs appreciate the work the CAISO has done to bring the EDAM to fruition. PIOs also commend the CAISO on its commitment to inclusive and highly participatory stakeholder engagement that led to the development of the iterations of draft proposals and on the willingness of the CAISO to make changes based on stakeholder feedback throughout the EDAM Initiative.

PIOs have provided feedback and written comments to CAISO at several junctures throughout the EDAM Initiative; those comments continue to represent our views, and we build upon them in the following comments. PIOs generally support CAISO's proposals in the Tariff. We do not address every issue raised in the Tariff and do not intend to signal full support for the sections of the Tariff we do not address. We focus our comments on the set of tariff revisions pertaining to the EDAM for four issues: (1) Transmission Access, (2) Managing Seams, (3) Greenhouse Gas ("GHG") Emissions Accounting and Transparent Reporting, and (4) Market Monitoring and EDAM Performance Evaluation. Ultimately, PIOs request the Commission consider our comments in its review of the Tariff and recommend the Commission accept all sections of the Tariff to be effective December 21, 2023 and May 1, 2025, as requested by the CAISO.

II. Background

In this Tariff, CAISO outlines the proposal to extend participation in the CAISO day-ahead market framework to balancing authority areas ("BAA") in the Western Energy Imbalance

Market (“WEIM”) with the DAME tariff revisions incorporated. The EDAM will use day-ahead unit commitment of resources and assessment of transmission capability to serve load optimally, reliably, and economically across its footprint without requiring full participation in the CAISO. Due to the increased and more efficient trading that would occur between EDAM participants, as well as the reduced need of new capacity resources, the region would benefit from annual cost savings, enhanced grid reliability, better use of existing resources through reduced renewable generation curtailments, and reduced costs of integrating renewable resources. Conservative estimates of these benefits from the Brattle EDAM Simulations study² and the Energy Strategies³ study amount to:

- Between \$800 million and \$1.2 billion in annual cost savings
- Benefits to all assumed participants (even after considering potential reduced bilateral trading gains and wheeling revenue losses), and
- 2.4 TWh in reduced renewable generation curtailments and reduced overall emissions.

These benefits are both a reflection of the positive impact the EDAM would have on the West, but also of the significant waste that consumers currently bear due to the inefficiencies of the region in which nearly 40 BAAs operate without coordination beyond real-time markets.

² Brattle, *Brattle EDAM Simulations: PacifiCorp Results* (April 2023) <https://www.brattle.com/wp-content/uploads/2023/04/Brattle-EDAM-Simulations-PacifiCorp-Results.pdf> (“Brattle Study”).

³ CAISO, *CAISO EDAM Benefits Study* (November 4, 2022) <http://www.caiso.com/Documents/Presentation-CAISO-Extended-Day-Ahead-Market-Benefits-Study.pdf>.

Since its inception in 2014, the WEIM has generated over \$4 billion in benefits for participating entities.⁴ Today, all or part of 11 western states (or nearly 80% of the electrical load in the Western Interconnection⁵) continue to gain such benefits by participating in WEIM's real-time market services. The EDAM will build on the proven success and the experience of the WEIM to provide additional economic benefits through increased regional coordination by scheduling supply in the day-ahead timeline rather than the more limited real-time timeline, thereby accounting for a far greater volume of energy transactions. According to the Brattle Study, the EDAM design would create cost savings from a 27% increase in trade between EDAM participants.⁶

Looking ahead to EDAM implementation, CAISO states that it will implement the EDAM governance changes concurrently with the EDAM market design.⁷ PIOs strongly support these governance changes. Among other provisions, the EDAM governance structure expands the joint authority model that is successfully being employed in the WEIM. The joint authority model requires an affirmative vote of a majority of each of the WEIM Governing Body and the

⁴ CAISO, Western Energy Imbalance Market News Release, *Western Energy Imbalance Market exceeds \$4 billion in total benefits* (July 31, 2023) <http://www.caiso.com/Documents/western-energy-imbalance-market-exceeds-4-billion-in-total-benefits.pdf>.

⁵ CAISO, Western Energy Imbalance Market News Release, *New entities expand WEIM's reach to a total of 11 Western states* (April 5, 2023) <http://www.caiso.com/Documents/new-entities-expand-weims-reach-to-a-total-of-11-western-states.pdf>.

⁶ Brattle Study, *supra* note 2.

⁷ CAISO, *Western EIM Governance Review – Phase Three (EDAM), Governance Review Committee Revised Proposal* (January 22, 2022) <http://www.caiso.com/InitiativeDocuments/EDAM-Governance-Revised-Draft-Final-Proposal-WEIM-Governance-Review-Committee-Phase-3.pdf> (approved by the CAISO Board of Governors and WEIM Governing Body on February 1, 2023, *see* <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Western-EIM-governance-review#:~:text=OUTCOME%3A%20In%20November%202021%2C%20the,of%20WEIM%20and%20the%20prop%20osed>). The proposal will become effective once FERC has conclusively accepted the CAISO's section 205 filing for the market design. *Id.* at 46-47.

CAISO Board of Governor’s (“Board”) before CAISO can file new tariff rules for approval at FERC. Thus, CAISO cannot move forward with a broad range of tariff changes to the EDAM without the Governing Body’s approval.⁸ The Board can authorize a FERC filing alone only under exigent circumstances⁹ in which there is an impasse reached by the Governing Body and Board. Under these circumstances the Governing Body has the option of retaining outside counsel to prepare a written statement including whatever written opinion the Governing Body may want to offer that the Board will include in the filing.¹⁰ The EDAM governance structure evolves governance to be more multi-lateral and provides assurance to market participants outside of California that their perspectives will be appropriately weighed in the decision-making process and thus supports the sustainability of EDAM.

III. Comments

a. Transmission Access

Transmission availability is foundational to maintaining grid reliability, efficiently transferring supply across the footprint to cost-effectively serve load, and integrating renewable energy in the day-ahead market. PIOs appreciate CAISO’s efforts to develop a Tariff that seeks to maximize the amount of transmission made available and continues to support the general transmission availability framework. PIOs believe, that eventually, a flow-based transmission

⁸ Joint Authority for EDAM will apply to all tariff rules *applicable to* WEIM/EDAM market participants in their capacity as market participants and any tariff rule for the day-ahead or real time market that directly establishes or changes the formation of any locational marginal price(s) for a product that is common to the overall WEIM or EDAM markets. Thus, a large part of CAISO’s day ahead and real time tariff rules will fall under joint authority. GRC Revised Proposal at 36-37 and Appendix B.

⁹ *Supra* note 7, at 28.

¹⁰ CAISO, *Charter for Energy Imbalance Market Governance*, §2.2.2 (September 23, 2021), <https://www.westerneim.com/Documents/CharterforEnergyImbalanceMarketGovernance.pdf>.

framework that enables transparent use and allocation, maximizes efficiency, and ensures fairness in compensation will result in significant reliability and economic benefits for participants across the EDAM footprint. This would also enable maximum integration of clean energy resources. The Tariff will hopefully lead market participants on a glide-path toward a flow-based framework for transmission compensation, as the volumes of costs recovered through the transmission revenue recovery (Tariff, §33.26) will likely decrease over time.

Another crucial component to ensure the efficient transfers of supply across the EDAM footprint to cost-effectively serve load and maintain grid reliability is its transparent interoperability with overlapping resource adequacy frameworks. The Western Resource Adequacy Program (“WRAP”) is one framework that will interact with EDAM BAAs. PIOs support the modifications CAISO has made to the Tariff regarding Self-Schedules Associated with a Contract Reference Number to address interoperability between EDAM and WRAP by giving EDAM Transmission Service Providers an option to tell CAISO when a late submitted transmission schedule should have a higher priority than EDAM day-ahead schedules (Tariff, §33.18.3.1). As EDAM participants implement this rule, PIOs request the Commission encourage consistency in the details across entities’ tariffs. A proposed yardstick in consideration of the EDAM is a regular reporting by CAISO of the performance of the EDAM in terms of transmission access and use (especially non-firm) as we eventually reduce dependency on bilateral legacy contracts.

b. Managing Seams

Seams occur between adjacent areas – whether that is between any two Regional Transmission Organizations (“RTOs”),¹¹ or between BAAs, utilities, or Transmission Owners – where the use of transmission may incur charges or usage rules that impact energy going from one area to the other. Seams generally create inefficiencies: costing more money for ratepayers and utilities; causing operational problems; reducing reliability; and creating other issues, depending on many factors, including differing methodologies for charging transmission usage, for clean energy benefits reporting, and for how pseudo-tied resources are treated.

When utilities join day-ahead markets or RTOs, seams issues may be reduced, but may also be made more complicated depending on the size and scope of the day-ahead market, the number and size of seams created by more than one market in the west, and the pricing of operational rules, energy, and transmission in adjacent areas. To receive the full scope of benefits – reliability, economic, and decarbonization benefits – that EDAM stands to offer the West, it must capture the largest operating footprint possible to fully harness the capacity for resource sharing within the market.¹² Just as the WEIM has successfully leveraged the resource diversity and transmission connectivity of an expansive western footprint, so too will the EDAM succeed with strong coordination and collaboration across a broad footprint. The State-Led Market Study emphasizes that the geographic scope of a day-ahead market directly impacts the financial

¹¹ The term RTO here is used to refer to both Regional Transmission Organizations and Independent System Operators.

¹² *The State-Led Market Study* (July 30, 2021)

<https://static1.squarespace.com/static/59b97b188fd4d2645224448b/t/6148a012aa210300cbc4b863/1632149526416/Final+Roadmap+-+Technical+Report+210730.pdf>

benefits to the footprint and that a West-wide day-ahead market could result in over \$240 million more in annual benefits than a day-ahead market with a limited western footprint.¹³

Ultimately, there will be transmission barriers and operational constraints at the boundaries of the EDAM footprint. These boundaries will necessarily occur between adjoining BAAs participating in the EDAM and BAAs participating in a different real-time market, day-ahead market, or no market. With the prospect of EDAM transacting across a BAA that abuts these areas, seams will inevitably emerge regarding transmission usage and clean energy dispatch and will create inefficiencies if not proactively identified and managed. The proactive management of seams between market operators is a necessary lesson learned from the continued work occurring between the Southwest Power Pool (“SPP”) and the Midcontinent Independent System Operator (“MISO”) at the RTOs’ seam. The established RTOs continue to work on several seams initiatives between them to address issues such as rate pancaking that has led to duplicate transmission fees.¹⁴ While the EDAM is a day-ahead market and not an RTO, the formation of new boundaries in the West can have a substantial, long-term impact so initiating coordination agreements from the start would set a precedence for good coordination and communication.

It is known that another day-ahead market proposal, Markets+, is under development by SPP.¹⁵ There are still several steps that SPP must take to realize Markets+. Currently, the Markets+ proposal and tariff language are still being developed in the stakeholder process. The

¹³ *Id.*

¹⁴ Tom Kleckner, RTO Insider, *MISO, SPP Staff Tak Crack at Rate Pancaking*, (May 29, 2023) <https://www.rtoinsider.com/32291-miso-spp-staffs-take-crack-rate-pancaking/>.

¹⁵ SPP, *Markets+ Phase One Update* (March 16, 2023) <https://www.spp.org/documents/68966/phase%20one%20update%20governance%2020230316.pdf>.

finalized proposal and tariff must then be approved by the Commission. If the Commission approves Markets+ and utilities join it, the Western Interconnection would experience a bifurcated market that would require interoperability coordination on business practices for seams involving reliability functions, transmission access and use, and GHG accounting and emissions reporting.

PIOs therefore respectfully request the Commission issue a set of guiding principles for a joint operating agreement or other coordination mechanism for adjoining day-ahead markets that can be utilized by the CAISO and other day-ahead market operators to implement appropriate procedures of coordination and communication. Guiding principles for a coordination mechanism for day-ahead markets would provide CAISO and other day-ahead market operators with a common and consistent baseline for coordination procedures to proactively address anticipated seams issues – including transmission access scheduling, operating rules, and GHG accounting – without impeding the successful implementation of EDAM and its coordination with the WRAP and potential Markets+ initiative.

c. Greenhouse Gas Emissions Accounting and Transparent Reporting

The Tariff extends the GHG framework of the WEIM to the EDAM with several enhancements to account for state GHG accounting and reduction policies that price carbon.¹⁶ Since the enhancements allow cost recovery for resource scheduling coordinators for the cost of compliance with a state’s carbon pricing policy, this will help incentivize clean energy

¹⁶ CAISO, Transmittal Letter, at 163-164, Accession No. 20230822-5161 (August 22, 2023)

generation and use, in addition to transparent GHG emissions reporting. PIOs support the EDAM in part because of its potential to reduce GHG emissions.

The EDAM Tariff includes a resource-based attribution framework for GHG accounting that identifies GHG regulation areas and assigns marginal energy costs that would embed the externality costs into the locational marginal prices (Tariff, §11.5.10). The additions of reference pass and the counterfactual test are much appreciated improvements in the GHG pricing and dispatch protocols as tools to limit secondary dispatch, which occurs “if lower-emitting resources receive an attribution to serve demand in a GHG regulation area, resulting in higher-emitting resources backfilling.”¹⁷ The inclusion of a GHG net export constraint will help further reduce the potential for secondary dispatch by not attributing a GHG transfer to a resource which then another resource would need to backfill to serve demand in the BAA that is the net importer. Since the net export constraint will prevent GHG-emitting resources from backfilling for renewable resources while avoiding associated GHG costs, it helps ensure that states with GHG policies are receiving the appropriate emissions savings they’ve chosen to pay for and that states without GHG policies are avoiding the additional costs. PIOs recognize and commend the CAISO staff’s efforts to work with stakeholders in developing this approach.

Since GHG accounting within the EDAM must be measured in a manner consistent with compliance with state clean energy goals for states with participating entities, this consistency is crucial to achieving long-term decarbonization goals in the West. Therefore, we offer some specific comments for the CAISO regarding elements of the GHG framework that should be

¹⁷ *Supra* note 16, at 166.

monitored as the EDAM is implemented to ensure alignment of market design with applicable state regulations and address any issues that may emerge:

1. PIOs recommend careful monitoring of the calculation of the marginal energy cost (Tariff, §27.1.1.1), because the marginal energy cost should be realistic in order to set the baseline for determining the true cost of clean energy versus emitting resources. Underestimating the marginal energy cost runs the risk of deeming a significant amount of clean energy resources to be from a GHG regulation area, but the actual dispatch could include higher emitting resources getting delivered.
2. To appreciate market performance as it enables decarbonization, PIOs recommend the CAISO publicly report data regarding resources that are already committed versus data about residual supply in the market.
3. With the prospect of two day-ahead markets operating in the West with differing GHG accounting approaches, a consistent set of reporting metrics would allow any market participant, energy customer, and public and ratepayer interest group to appreciate the impact of clean energy resources that are dispatched in these markets. Therefore, we recommend the CAISO periodically report the following metrics to the Commission over the first three years of EDAM implementation: marginal emissions by location; total emissions by geographic region, period, and intraday emissions; average emissions intensity; resource mix by each BA or Load Serving Entity; total megawatts imported or exported from a specific geographic region by resource type and unspecified sources; and GHG emissions imported or exported from a specific geographic region by resource type and unspecified sources.

4. PIOs strongly recommend that CAISO explore the potential benefits of developing hourly marginal and average emissions rate data as also provided by other RTOs, such as PJM.¹⁸
5. PIOs recommend that CAISO seize the opportunity to demonstrate that the EDAM is in the public interest by creating a transparent stakeholder access portal that would include emissions data that is not limited to overall system emissions in different temporal and geographic granularities, but also different emission metrics such as dispatched versus purchased generation, residual versus average, and resource-specific attributions versus not.

The newly formed CAISO GHG Coordination Working Group initiative will provide proactive and continued stakeholder engagement where the elements we've identified above can be discussed, monitored, and addressed. PIOs support the working group as it aims to develop “durable electricity market solutions for climate policies across the West,” including the creation of a methodology for monitoring and analysis post-EDAM implementation.¹⁹

Finally, PIOs ask the Commission to require CAISO staff to report on the performance of the EDAM in terms of its GHG optimization protocol for the first three years of its operation. PIOs believe that either the CAISO Department of Market Monitoring (“DMM”) or the WEIM Governing Body’s independent market monitoring expert (“Market Expert”) should conduct an assessment of the “deemed resources versus actually delivered resources” to ensure the GHG

¹⁸ PJM, *Emissions*, <https://www.pjm.com/markets-and-operations/m/emissions>

¹⁹ CAISO, *GHG Coordination Working Group* (August 16, 2023) <http://www.caiso.com/InitiativeDocuments/Presentation-GHGCoordinationWorkingGroup-Aug16-2023.pdf>.

pricing rules are not unduly discriminatory and incentivize clean energy resources fairly for dispatch. We seek guidance from the Commission on whether the DMM or Market Expert should conduct this assessment.

IV. Market Monitoring and EDAM Performance Evaluation

The Tariff states the CAISO DMM has the role of the market monitor for the EDAM. PIOs request clarification from CAISO regarding what role the WEIM Market Expert will have for the EDAM as the current responsibilities for the Market Expert include providing market-related analysis, explanations and opinions to aid in decision-making, and reports on proposed market rule changes, business practices, market operations, and price formation.²⁰

V. Conclusion

PIOs appreciate the opportunity to provide these comments on this important Tariff. PIOs ask that the Commission consider these comments in its review of the Tariff and accept all the Tariff sections effective December 21, 2023, and May 1, 2025, as requested by CAISO.

Dated September 21, 2023

Respectfully submitted,

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²⁰ CAISO, *Western EIM Governing Body Market Expert – Role and Responsibilities*, <https://www.westerneim.com/Documents/WesternEIMGoverningBodyMarketExpert-Role-Responsibilities.pdf>.

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