



Submit comment on draft summary report

Initiative: Assembly Concurrent Resolution 188

The ISO values stakeholder input on this preliminary draft, and plans to incorporate feedback received during the January 20 stakeholder call, and in written comments submitted by the deadline on February 3, into future iterations to ensure the accuracy and value of the final report. Please submit written comments to infoACR188@caiso.com.

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1. Provide a summary of your organization's comments on the draft summary report and January 20, 2023 stakeholder call discussion:

The Environmental Defense Fund, Northwest Energy Coalition, Sustainable FERC Project, Western Grid Group, and Western Resource Advocates (Public Interest Organizations "PIOs") appreciate the opportunity to respond to the *Impacts of Expanded Regional Cooperation on California and the Western Grid Draft Report for Stakeholder Review* (Draft Report) posted by the California Independent System Operator (CAISO) on January 20, 2023. The Environmental Defense Fund, Northwest Energy Coalition, Sustainable FERC Project, Western Grid Group, and Western Resource Advocates are public interest organizations that advance policies to further a low-carbon grid and reduce harmful emissions from fossil-fuel generation through market-based solutions. We support a successful, broadly utilized, inclusive, and transparent Extended Day-Ahead Market (EDAM) that leads market participants on a glide-path to a West-wide regional transmission organization (RTO). We appreciate the exploration of the various modes of regional cooperation in the Draft Report, especially the expansion of CAISO to become a multi-state RTO. We have provided comments on several elements of the Draft Report. Any element we did not directly comment on in this document does not indicate full support.

PIOs appreciate the quick turnaround on the Draft Report and recognize that the scope of the Draft Report was to summarize impacts of expanded regional cooperation on California and California ratepayers, as well as collaboration and engagement between neighboring states on the future of RTOs in the West. We appreciate the qualitative and

quantitative information provided in the Draft Report that is specific to California or that applies to the whole of the region while recognizing that additional analyses may be required on a state-by-state or utility-by-utility level to determine net benefits on an individual basis.

Section 1.1 of the report notes three important needs for California that can be addressed with regional market expansion: (1) more power procurements from outside the state; (2) more exports, especially mid-day solar that might otherwise be curtailed for local needs but has substantial value in the rest of the West; and (3) optimized reserve sharing, especially with the Southwest.

PIOs agree with these identified benefits but also propose that the key points should be expanded to include improved reliability during stressed grid conditions and the opportunity to reduce over-procurement of future resources.

On the first point, we note the critical role that cross-regional coordination played in addressing the unprecedented heat wave in early September 2022 that broke temperature and demand records in California and across the West. Expansion of market function will reduce the need for bilateral coordination, manual adjustments, and use of other emergency actions in the future. While reliability benefits are difficult to quantify in monetary terms, we anticipate the full event analysis for September 2022 will demonstrate the very high value of operational coordination in reducing reliability risk.

Likewise, as discussed in the summary of the State Led Market Study, over time the cumulative economic savings from optimizing capacity expansion across a wider market footprint could even exceed the production cost savings

2. Provide your organization's comments on the regional cooperation efforts in the West, as described in section 2 of the draft report:

PIOs appreciate the descriptions of state efforts and modes of cooperation in the Draft Report. PIOs support the regional cooperation framework of an RTO for the West operated by CAISO to perform the functions of an energy market, resource adequacy, and centralized reliability services, congestion costs management, transmission pricing, transmission planning, and open access to the transmission system. We believe the region will be best served to function in one West-wide RTO but recognized the current pathway to a full RTO is through incremental steps like EDAM. Thus, EDAM, is a critical immediate step toward RTO development and commend the CAISO Board of Governors and WEIM Governing Body approval of the EDAM on February 1, 2023.

Even though we support EDAM and the expansion of CAISO into a West-wide RTO, it is important to recognize the state authority that would remain in place under such frameworks for regional cooperation. As stated in the Executive Summary of the Draft Report, "Expanding CAISO to become a multi-state regional transmission organization [...] would not remove the jurisdiction of California (or any other state) over retail rates, resource planning, resource siting, transmission siting, renewable energy policies, and emissions reductions policies." This acknowledgement is of import to all states. PIOs recommend CAISO Staff to continue with deeper exploration of RTO constructs out of California state boundaries in terms of operating the typical market functions by an existing RTO (page 26). PIOs also recommend CAISO Staff to identify potential

pathways for centralized and coordinated transmission planning that fosters interregional planning and in partnership with WECC and other regional planning entities that goes beyond the status quo compliance with FERC Order 1000 requirements.

3. Provide your organization's comments on the literature included in the review, as described in section 3 of the draft report:

PIOs greatly appreciate the comprehensive and factual literature review in the Draft Report. The long-term benefits of increased cooperation and coordination among BAAs in the West are well documented. We recommend the following additional studies are reviewed for inclusion in either the final report or in a future analysis.

In response to Section 3.1 (Technical Studies), we recommend reviewing the [NREL Western Wind and Solar Integration Study \(WWSIS\)](#),¹ conducted in three phases with a lengthy list of technical reports published from 2010 to 2015. While the WWSIS did not directly address market function, it demonstrated conclusively that diversity of renewable resources by type (e.g. wind, solar, and others), and location (geographic dispersion across a wide footprint) greatly increases the overall value of renewable generation. Clearly, then, accessing that diversity through an expanded market footprint, along with sufficient transmission expansion where appropriate, will be needed to achieve customer benefits, environmental protection, and reliability improvement in California and throughout the West.

Regarding market seams issues, which need to be addressed and regional coordination increases we, recommend reviewing an NREL study and a recent series of reports by Potomac Economics commissioned by the Organization of MISO States and the SPP Regional States Committee. MISO and SPP seams coordination was formalized in 2004 before either were full RTOs.

- [NREL Interconnections Seam Study](#)²
- [OMS-RSC Seams Study: Joint Dispatch Evaluation](#)³
- [OMS-RSC Seams Study: Interface Pricing](#)⁴
- [OMS-RSC Seams Study: Market to Market Coordination](#)⁵

In response to Section 3.2 (Policy Studies), we recommend reviewing the [report](#)⁶ of the Markets Work Group formed under the Clean Energy Transformation Act (CETA) in Washington and managed by the Department of Commerce and the Utilities and Transportation Commission.

We also suggest reviewing [Organized Market Retrospective: A Review of Organized Market Efforts in the West, Public Generating Pool \(2021\)](#).⁷ This report contains a useful recap of the multi-decade history of efforts to form one or more RTOs in the West. Likewise, Steve Isser's history of the origin and development of organized markets provides helpful background: [Electricity Restructuring in the United States Markets and Policy from the 1978 Energy Act to the Present, Cambridge University Press \(2015\)](#).⁸

In response to Section 3.3 (Legal Assessments), we recommend reviewing the following studies:

- [State Participation in Resource Adequacy Decisions in Multistate Regional Transmission Organizations](#), Jennifer Chen and Gabrielle Murnan, Nicholas Institute for Environmental Policy Solutions, Duke University (2019)⁹
- [Rethinking Grid Governance for the Climate Change Era](#). Shelley Welton, University of Pennsylvania Carey Law School, 109 Calif. L. Rev. 209 (2021)¹⁰

4. Provide your organization’s comments on the annotated summary of the literature, as described in section 4 of the draft report:

PIOs appreciate the benefits of reduced production costs, reduced resource adequacy costs, and efficient transmission planning detailed in section 4 of the Draft Report. However, information about reliability benefits of regional cooperation is noticeably sparse in the Draft Report. While quantifying reliability benefits may be difficult, recent weather events can be instructive to understanding the magnitude of a single event that could be mitigated or avoided as the result of greater regional cooperation from a West-wide RTO existing. For example, the Federal Reserve Bank of Dallas [reported](#)¹¹ the 2021 Texas freeze and outage event cost the state’s economy \$80 billion–\$130 billion in direct and indirect economic loss.

Without the full scope of reliability benefits, the estimated total gross and net benefits for California and the whole of the Western region will be less than the actual potential, especially given the significant costs and impacts of a single, significant outage. This lack of data provides an incomplete picture of total possible benefits.

Additionally, the prospective benefits of the various options for regional coordination are difficult to contextualize without a defined counterfactual. The Draft Report often describes “greater savings,” “greater stakeholder participation,” “greater reliability,” and other, similar statements of comparison of benefits without a defined scenario for comparison. With no set timeline, circumstances, or mode of regional coordination to use as a baseline, it is difficult for stakeholders to fully understand the extent of the potential benefits of the options for regional coordination. However, we do know that past weather and climatic conditions were more stable and more predictable than what is likely to be experience in the future. Thus, the savings documented in this report are likely far less than future savings as the baseline from which savings are measured was based on historic rather than unknown, future conditions.

5. Provide your organization’s comments on SB 100 and relevant updates, as described in section 5 of the draft report:

6. Provide any additional comments on the draft summary report and January 20, 2023 stakeholder call discussion:

PIOs support ACR188 and the work that was done to complete the Draft Report. We strongly support evaluation of options to expand CAISO to become a multi-state RTO and would support the change to CAISO’s governance to have the Board of Governors be fully independent.

¹ <https://www.nrel.gov/grid/wwsis.html>

² <https://www.nrel.gov/analysis/seams.html>

³ https://spp.org/documents/61081/seams%20study_miso%20imm_joint%20dispatch_final.pdf

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https://www.spp.org/documents/62738/seams%20study_miso%20imm_interface%20pricing%20study_final.pdf

⁵

https://www.spp.org/documents/62144/seams%20study_miso%20imm_m2m%20study_final.pdf

⁶ <https://www.utc.wa.gov/regulated-industries/utilities/energy/conservation-and-renewable-energy-overview/clean-energy-transformation-act/carbon-and-electricity-markets>

⁷ <https://www.publicgeneratingpool.com/studies-reports-index/2021-organized-market-retrospective>

⁸ <https://doi.org/10.1017/CBO9781316181386>

⁹ <https://nicholasinstitute.duke.edu/publications/state-participation-resource-adequacy-decisions-multistate-regional-transmission>

¹⁰

https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3851&context=faculty_scholarship

¹¹ <https://www.dallasfed.org/research/economics/2021/0415#:~:text=The%20power%20outages%20led%20to%20widespread%20damage%20to,billion%20E2%80%93%24130%20billion%20in%20direct%20and%20indirect%20economic%20loss>