



Submit comment on draft summary report

Initiative: Assembly Concurrent Resolution 188

Submitter information

Name: Katherine Stockton

Organization: CPUC Energy Division

Email: katherine.stockton@cpuc.ca.gov

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

On January 13, 2023, the California Independent System Operator (CAISO) published the report *Impacts of Expanded Regional Cooperation on California and the Western Grid, A Review of Recent Initiatives, Studies, and Papers, Draft Report* (Report) drafted by the National Renewable Energy Laboratory (NREL) in response to Assembly Concurrent Resolution (ACR) 188 (Holden, 2022).

The Energy Division of the California Public Utilities Commission (CPUC) develops and administers energy policy and programs to serve the public interest, advise Commission, and ensure compliance with Commission decisions and statutory mandates. The Energy Division provides objective and expert analyses that promote reliable, safe, and environmentally sound energy services at just and reasonable rates for the people of California.¹ Further, the Energy Division advocates on behalf of California ratepayers at the Federal Energy Regulatory Commission (FERC), under whose jurisdiction the contemplated expanded regional² cooperation would fall.

The CPUC Energy Division Staff (Staff) are grateful for this opportunity to provide comments on this important report.³

Staff recommend the report provide additional information on the pros and cons of regionalization. Energy Division Staff recommendations are summarized below:

- Section 2: Staff have minor comments on how the report characterizes the Body of State Regulators and the Regional Issues Forum and provide recommended edits to address recent actions of the Board.
- Section 3.4 (Other Literature): Staff recommend the CAISO study how regionalization will benefit and impact utility ratepayers on their retail utility bills. The WEIM Quarterly

¹ More information about the CPUC Energy Division is available at: <https://www.cpuc.ca.gov/about-cpuc/divisions/energy-division>

² Use of the terms “expanded regional” and “regional” in these comments are considered “interregional” under the jurisdiction of the FERC, as what is being contemplated here expands beyond the existing footprint of the CAISO to include other areas of the western United States.

³ Lack of comment on specific studies should not be interpreted as an endorsement of the studies or an endorsement of CAISO or NREL’s summary or characterization of the studies.

Reports do not provide a complete picture of the benefits and risks of regional cooperation to utility ratepayers.

- Section 4: Given the lack of California-specific information on transmission costs, Staff recommend the report include a dedicated section to describe this gap along with recommendations as to any additional studies that may be needed to fill this gap.
- Additional Comments:
 - The report should describe the information gap and provide recommendations as to future studies that would provide more complete and comprehensive information to the California Legislature. Staff recommend studies in the following areas:
 - Increased or decreased transmission costs, cost containment, and cost allocation
 - Including updating: A Survey of Transmission Cost Allocation Methodologies for Regional Transmission Organizations⁴ by NREL (2011)
 - Market design and its impact on reliability and utility ratepayer costs
 - Regionalization and California utility ratepayers
 - Including updating: Senate Bill 350 Study, The Impacts of a Regional ISO-Operator Power Market on California⁵ by the Brattle Group and Energy+Environmental Economics (2016).

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

Staff have minor comments on how the report characterizes the Body of State Regulators and the Regional Issues Forum. The sentence describing these two groups in the report is:

A Body of State Regulators provides a forum for state input into WEIM operations, and a Regional Issues Forum provides a venue for stakeholders to discuss a wide variety of market-related issues.

The Body of State Regulators does provide comments on the Western Energy Imbalance Market operations. It also provides comments on the Extended Day Ahead Market that is being developed. Further, the Governance proposal that was approved at the February 1, 2023 Joint meeting of the CAISO Board of Governors and the WEIM Governing Body expands the scope of the Regional Issues Forum (RIF). Previously, the RIF was only a forum for discussion and education. The new Governance proposal allows the RIF to develop comments on CAISO stakeholder initiatives. Therefore, Staff recommend the following revisions (~~strike through~~ for deletions and underlined for additions):

⁴ *A Survey of Transmission Costs Allocation Methodologies for Regional Transmission Organizations*, NREL, February 2011, available at: <https://www.nrel.gov/docs/fy11osti/49880.pdf>.

⁵ *Senate Bill 350 Study, The Impacts of a Regional ISO-Operator Power Market on California*, The Brattle Group, Energy+Environmental Economics et al, July 8, 2016, available at: https://www.caiso.com/Documents/SB350Study_AggregatedReport.pdf

A-The Body of State Regulators provides a forum for state commissioners to give input into CAISO and WEIM operations of regional interest, and-a the Regional Issues Forum provides a venue for stakeholders to discuss a wide variety of market-related issues, as well as give comments on CAISO stakeholder processes.

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

Section 3 includes summaries of (3.1) Technical Studies, (3.2) Policy Studies, (3.3) Legal Assessments, and (3.4) Other Literature. Staff note that there were no studies that evaluated the following topics in a way that is specific to California:

- Increased or decreased transmission costs, cost containment, and cost allocation, and
- Market design and its impact on reliability and utility ratepayer costs.

Under the Extended Day Ahead Market (EDAM) initiative, CAISO is proposing expanding the Day-Ahead Market to include participants outside of the CAISO Balancing Area. This would increase regional cooperation beyond the current bilateral contracts for imports. Currently, the Western Energy Imbalance Market (WEIM) provides participants outside of the CAISO Balancing Area to participate in the real-time market. The WEIM currently accounts for greenhouse gas (GHG) emissions by including bid adders when resources with GHG emissions come into California including a MW quantity adder and a GHG price adder. This price adder allows out-of-state resource to comply with California carbon pricing policies and keeps track of the GHGs coming into California. Under the EDAM proposal that was approved on February 1, 2023, this GHG accounting framework used in the WEIM would apply to the EDAM with several enhancements.⁶ This framework is an initial step towards regulating GHGs in electricity markets.

The next step in California GHG policy for the electricity sector will be 100% net-zero carbon by 2045 as required by SB 100 (DeLeon, 2018). As an interim step, by 2035, the electricity sector will be required to demonstrate that 90% of retail sales of electricity to California end-use customers will be zero-carbon or come from certain renewable energy resources as required by SB 1020 (Laird, 2022). One option for achieving this is to regulate electricity imports entering California.

CAISO should undertake analysis in coordination with the California Air Resources Board to understand the potential legal implications to California policies, including the recently approved framework for GHG tracking and accounting under EDAM, and a 90% net-zero carbon goal under SB 1020 (Laird, 2022).

Section 3.4 addresses the WEIM Quarterly Reports between 2014 and 2022. In Energy Division Staff’s view, the quarterly reports describe benefits to California and other balancing authorities, but do not provide much detail regarding how the benefits are calculated. The

⁶ *Management Memo on the Decision on the Extended Day Ahead Market (EDAM)*, A. McKenna, California Independent System Operator, January 26, 2023, page 11-14, available at: <http://www.caiso.com/Documents/DecisiononExtendedDay-AheadMarket-Memo-Feb2023.pdf>.

reports list benefits including access to lower-cost supply, avoided curtailments of renewable energy, improved operational efficiencies, emissions avoided, reduced need for real-time flexible reserves, and cumulative benefits for different Balancing Authority Areas. The reports can be enhanced to include detail about who is receiving these benefits or whether these benefits result in lower rates for retail utility ratepayers. Specifically, Energy Division Staff recommend the CAISO study how regionalization will benefit and impact utility ratepayers on their retail utility bills.

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

In Section 4.3 the report states that “[n]one of the technical studies directly addressed the impact of regionalization on transmission costs specific to California.”² As discussed further below in response to Question 6, Energy Division Staff recommend the report include a dedicated section to describe this gap, along with what additional studies are needed.

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

CPUC Energy Division staff have no comments on this section at this time.

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

The report should include a section that describes existing gaps in the analysis and recommendations for further studies that address the issues raised above in these comments.

² *Impacts of Expanded Regional Cooperation on California and the Western Grid, A Review of Recent Initiatives, Studies, and Papers Pursuant to Assembly Concurrent Resolution 188, Draft Report*, D. Hurlbut, M. Greenfogel, and B. Speetles, the National Renewable Energy Laboratory, for the California Independent System Operator, January 13, 2023, page 87, available at: <http://www.caiso.com/Documents/ACR188DraftSummaryReport-Jan13-2023.pdf>.

Recommendation for a Dedicated Section on Additional Studies that are Needed

The report should provide more detail about areas where there was a lack of studies. The report should describe the information gap and recommend future studies in the following areas:

1. Increased and/or decreased transmission costs, cost containment, and cost allocation
2. Market design and its impact on reliability and utility ratepayer costs

1. Increased and/or decreased transmission costs, cost containment, and cost allocation

The report does not describe any studies about transmission costs, cost containment, or cost allocation. The report states that “[n]one of the technical studies directly addressed the impact of regionalization on transmission costs specific to California.”⁸

One of the gaps briefly described in the report is the lack of studies that consider how regionalization will impact transmission costs for California. As discussed at a recent technical conference at FERC, FERC is considering whether there are gaps in transparency, stakeholder engagement, and monitoring of costs in transmission planning and development across the nation.⁹ Studies are needed to assess cost impacts of expanded regional transmission development and to evaluate what measures are needed to ensure that transparency and appropriate cost monitoring occur at all levels of transmission planning and development in the West.

Studies are needed to evaluate measures that could result in more effective project cost management. A study is needed to evaluate approaches to monitor projects at all stages and assessing the appropriate size and scope to optimally meet future transmission needs. One of the most discussed measures proposed by FERC in the last two years is the establishment of an Independent Transmission Monitor (ITM) to promote cost effectiveness at all stages transmission planning and development. As current studies related to regionalization do not adequately assess cost impacts on ratepayers or measures that can be taken to yield the most cost-effective and efficient transmission solutions, such studies, including an assessment of the benefits of an ITM, are needed to ensure the greatest benefits to ratepayers in California and the West.

Finally, Energy Division Staff recommend the CAISO evaluate the appropriate allocation of costs between regions using agreed upon categories of costs and benefits applied to different regions. Staff recommend the CAISO study how different transmission cost allocation

⁸ *Impacts of Expanded Regional Cooperation on California and the Western Grid, A Review of Recent Initiatives, Studies, and Papers Pursuant to Assembly Concurrent Resolution 188, Draft Report*, D. Hurlbut, M. Greenfogel, and B. Speetles, the National Renewable Energy Laboratory, for the California Independent System Operator, January 13, 2023, page 87, available at: <http://www.caiso.com/Documents/ACR188DraftSummaryReport-Jan13-2023.pdf>.

⁹ *Transcript for the October 6, 2022 Technical Conference on Transmission Planning and Cost Management Docket AD22-8-000*, Federal Energy Regulatory Commission at 10-11 and Panel 2 starting at 74, available at: <https://www.ferc.gov/media/transcript-docket-no-ad22-8-000>.

See also, *YouTube Video of the Technical Conference on Transmission Planning at Cost Management*, Docket AD22-8-000, October 6, 2022, Panel 2: Local Transmission Facility Cost Management Practices, 1:35:02 / 7:53:28, available at: https://www.youtube.com/watch?v=8a6HXgBNeZE&feature=emb_imp_woyt.

methodologies could impact California utility ratepayers, and what methodologies are most equitable. Energy Division Staff continue to concur with the Public Advocates Office¹⁰ that the CAISO and NREL should update the report, *A Survey of Transmission Cost Allocation Methodologies for Regional Transmission Organizations (2011)*.¹¹ Staff recommend the CAISO also evaluate the potential cost impacts on California utility ratepayers from the different cost allocation methodologies.

2. Market design and its impact on reliability and utility ratepayer costs

ACR 188 requests that the report “identif[y] key issues that will most effectively advance the state’s energy and environmental goals, including any available studies that reflect the impact of regionalization on transmission costs and reliability for California ratepayers.” The report does not adequately address this requirement of ACR 188, and Energy Division recommends the CAISO study and report on potential reliability risks and how those reliability risks could impact California utility ratepayers.

Finally, Energy Division continues to concur with the CPUC Public Advocates Office comments on the ACR 188 report¹² that the CAISO should update the following study: *Senate Bill 350 Study, The Impacts of a Regional ISO-Operator Power Market on California*¹³ by the Brattle Group and Energy+Environmental Economics (2016).

7. Conclusion

Staff thanks CAISO and NREL for the opportunity to comment and for considering the perspective of the Energy Division of the CPUC in revising the draft report. Staff thanks CAISO and NREL for ensuring that this report contains current and comprehensive information that will assist the California Legislature in considering whether to take legislative action on expanding regional coordination of energy markets and transmission planning in the Western electricity grid.

¹⁰ *ACR 188 Stakeholder Comments on Draft List of Studies*, Public Advocates Office of the California Public Utilities Commission, Kanya Dorland, October 27, 2022, available at: <http://www.caiso.com/Documents/CPUC-PAOComments-AssemblyConcurrentResolution188-Oct17-2022.pdf>.

¹¹ Available at: <https://www.nrel.gov/docs/fy11osti/49880.pdf>.

¹² *ACR 188 Stakeholder Comments on Draft List of Studies*, Public Advocates Office of the California Public Utilities Commission, Kanya Dorland, October 27, 2022, available at: <http://www.caiso.com/Documents/CPUC-PAOComments-AssemblyConcurrentResolution188-Oct17-2022.pdf>.

¹³ *Senate Bill 350 Study, The Impacts of a Regional ISO-Operator Power Market on California*, The Brattle Group, Energy+Environmental Economics et al, July 8, 2016, available at: https://www.caiso.com/Documents/SB350Study_AggregatedReport.pdf