



Assembly Concurrent Resolution
No. 188
Relative to the Independent
System Operator

Stakeholder Comment and
CAISO Responses regarding the
January 13, 2023
Draft Report

February 27, 2023

Assembly Concurrent Resolution No. 188

Relative to the Independent System Operator

Summary of Stakeholder Comments

1 Introduction

Assembly Concurrent Resolution 188 (Holden)¹ was passed to develop a report on Western regional market developments, and to assemble the latest information to inform the Legislature on this matter. The California Independent System Operator Corporation (“CAISO”), in consultation with the other California balancing authorities (“BAs”)², is required to produce a report that summarizes recent relevant proposals, studies and papers addressing impacts of expanded regional cooperation on California that identifies 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;
- relevant updates to specified transmission development and resource diversity estimates;
- regional transmission organizations in Colorado, Nevada, and other regional states;
- collaboration between states on energy policies to maximize consumer savings while respecting state policy autonomy; and
- engagement between neighboring states on the future of regional transmission organizations in the west.

The CAISO and the California BAs engaged the National Renewable Energy Laboratory (“NREL”) to author the report. The “Draft Report for Stakeholder Review” (“Draft Report”) was posted to the CAISO website on January 13, 2023, and NREL and the CAISO held a stakeholder meeting on January 20, 2023 to discuss the Draft Report and requested feedback.

This document is an important companion to the “Final Report” - The Impacts on California of Expanded Regional Cooperation to Operate the Western Grid (Final Report) and provides a summary of stakeholder comments, and where applicable, how the comment were addressed in the Final Report. This is not an exhaustive summary, however, the complete set of stakeholder comments have been posted to the Regional Solutions webpage of the www.aiso.com website. This document is structured to mirror the comments template provided to stakeholders. The authors appreciate the time, interest and effort of stakeholders to provide comments, all of which are valuable to the final product.

¹ *Assembly Concurrent Resolution 188*, Chapter 138 (Filed August 19, 2022).

² The California Balancing Authorities are the Balancing Authority of Northern California, Imperial Irrigation District, the Los Angeles Department of Water and Power, NV Energy, PacifiCorp, and Turlock Irrigation District.

2 Stakeholders Comments to the January 13, 2023 Draft Report for Stakeholder Review

The CAISO received comments from sixteen stakeholders: AES Clean Energy (“AES”), Arizona Public Service Company (“APS”), Bonneville Power Administration (“BPA”), California Wind Energy Association (“CalWEA”), Clean Energy Buyers Association (“CEBA”)³, California Public Utilities Commission (“CPUC”) – Energy Division, Public Advocates Office at the CPUC (“Cal Advocates”), the Committee on Regional Electric Power Cooperation (“CREPC”)⁴, Independent Energy Producers Association (“IEPA”), Imperial Irrigation District (“IID”), the Los Angeles Department of Water and Power (“LADWP”), the Public Generating Pool (“PGP”), Public Interest Organizations (“PIO”)⁵, Public Power Council (“PPC”), Southern California Edison Company (“SCE”) and Western Freedom (“WF”)⁶ regarding the draft Impacts of Expanded Regional Cooperation on California and the Western Grid report dated January 13, 2023 (“Draft Report”).

Comments from the CPUC, CalWEA and Cal Advocates suggest that the CAISO should conduct additional studies that objectively evaluate the impacts of regionalization on transmission costs, cost containment and cost allocation; market design and its impact to reliability and California utility ratepayers; update the SB350 study; or recommend additional studies to fill these gaps. Cal Advocates went further and suggested expanded analysis that was not supported by the literature. As stated in the Executive Summary, ACR 188 requested an analysis of existing reports regarding regionalization and did not direct the CAISO to perform any study(s). Therefore, the requests are beyond the scope of the Resolution. The Final Report responds to ACR 188 based solely on existing studies, papers, and analysis.

CEBA suggested that the new Jan 25th report Western RTO Economic Impact Study for California⁷ be added, PIO suggested a number of additional studies that should be reviewed, and SCE suggested additional policy studies should be added from states such as Washington, Idaho, and Montana (i.e. states that have Balancing Authority Areas (“BAAs”) participating in the Western Energy Imbalance Market (“WEIM”)). CEBA, PIO, and SCE’s identification of the potential for additional studies is noted,

³ CEBA is a national association for large-scale energy buyers with 368 members spanning the commercial and industrial sectors, non-profit organizations, as well as energy providers and service providers. CEBA’s members are actively working toward the creation of a resilient, zero-carbon energy system and have contracted for more than 57.5 GW of carbon-free energy since 2014, of which 5 GW were in the Western region.

⁴ CREPC is a joint committee of the Western Interstate Energy Board (“WIEB”) and the Western Conference of Public Service Commissioners (“WCPSC”). CREPC’s formal membership includes an energy office official and a regulatory utility commissioner from each of the Western states and Canadian provinces. CREPC works to improve the efficiency of the Western electric power system through education, convening’s, and by providing comments on electricity market development efforts in the Western Interconnection.

⁵ The PIOs consist of the Environmental Defense Fund, Northwest Energy Coalition, Sustainable FERC Project, Western Grid Group, and Western Resource Advocates.

⁶ A non-profit entity with the mission of enabling the delivery of low-cost electricity and energy freedom to the West through an efficient and integrated grid system. WF is developing and executing a campaign to support the development of a western regional transmission organization (“RTO”) on behalf of a coalition of large energy customers across the region. WF is focused on eleven western states including Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. WF is not taking a position about which entity should run region-wide markets over what footprint.

⁷ https://info.aee.net/hubfs/Western%20RTO%20Economic%20Impact%20Study_California.pdf

there is not sufficient time to add additional studies to the Final Report beyond the ones already agreed too.

2.1 Summary of organizations comments on the Draft Report.

AES and IEPA commented that there is no doubt that the expanding footprint of CAISO into a Regional Transmission Organization (“RTO”), if properly developed, can bring significant economic benefits and economic development activity to the Western region and each state that voluntarily chooses to join in. The creation of a West-wide RTO is expected to result in millions per year in electricity cost savings compared to the operation of the electrical grid without a west-wide RTO at the utility level only. Given that some states are considering this option being explored by CAISO, the lack of shared governance among states continues to be a concern in creating and expanding an RTO. CREPC commented that considering the positive impact of the WEIM, there are unmistakable benefits for Western electricity customers from further regional cooperation, whether that be a single West-wide RTO, two or more Western RTOs, a regional energy market, or a regional resource adequacy program. CREPC reiterates the benefits cited in the Draft Report of enhanced regional cooperation found in the Draft Report, with an emphasis on three specific topics: reduced production costs⁸, reduced resource adequacy costs⁹, and efficient transmission planning¹⁰.

CEBA and WF applaud the stakeholder outreach associated with the development of the Draft Report, including stakeholder call discussions and review of early drafts. The current Draft Report is comprehensive and has effectively distilled the narrative consistently found across the literature. The report authors have clearly defined and listed the well-known benefits of regional cooperation including production cost savings, resource capacity savings, emission reductions, and enhanced reliability. The literature reviewed frequently demonstrates that larger market footprints and more comprehensive structures for cooperation could maximize benefits for Western States. While there are several design issues to be addressed, additional benefits such as greater transparency, greater stakeholder participation and more efficient transmission utilization can be achieved as well.

AES, APS, BPA, and PPC commented that CAISO must change its governance structure and adopt a model similar to the WEIM governance if it were to become a multi-state RTO. The WEIM Market Governance Review Committee, Body of State Regulators (“BOSR”), and Nominating Committee is comprised of Participating Transmission Owners, Energy Suppliers and Marketers of Generation, Energy Service Providers, Publicly Owned Utilities, Public Utility Commissions, Independent Consultants, Office of Consumer Services, WEIM Entities, and states appointed representatives. The CAISO should adopt a governance model that adheres to the same principle of shared governance among market participants with a broader stakeholder engagement and representation while respecting state autonomy, federal and state public policy, an independent and responsive grid governance, management, and operational transparency. PPC commented that its members would also be reviewing and evaluating CAISO’s market design to ensure that out of market interests are treated on par with interests and utilities within California.

APS commented that anticipating how increased regional market cooperation will impact at the BAA level is knowledge entities outside of California will require and use to influence their own levels of

⁸ Draft Report page 82.

⁹ Ibid. 82.

¹⁰ ID. 83.

market participation. The Draft Report acknowledges that cooperation may produce differing levels of benefits across participating states and summarizes existing efforts to fill the information gap. It will be prudent to return to assessing regionalization impacts outside of California once more information is available following the conclusion of the efforts described. Monitoring entities' movement with other market options will also be a significant variable in anticipating achievable benefits for most participating entities. Similarly, PPC is appreciative of the ACR 188 Study as a potential catalyst for renewed discussions on the "regionalization" of the CAISO and offers these considerations in the interest of advancing those conversations. PPC agrees that it is unreasonable to expect that all participants and states in an organized market will receive "equal" benefits; however, all participants need to receive equal consideration in market design and governance, which may not result in "equal" benefits, but equitable ones.

IID commented that the Draft Report as written by NREL is a commendable effort at collecting and synthesizing studies and analyses that focus on regional cooperation in electricity markets. However, whether due to the emphasis established in ACR 188 to focus on California's energy and environmental policy goals or the fact that the real-world challenges that are faced in California are varying and evolving such that past studies do not capture present challenges, the Draft Report has limitations on what it can say about the usefulness of regional cooperation today. IID went on further to comment that the Draft Report does not describe how studies of greater regional cooperation will ensure reliability and resiliency in the event of an attack or natural disaster; and the role and viewpoints of federal and agencies and organizations because no studies exist on this subject and therefore are not responsive to the legislation. The Final Report has been revised to incorporate a more in-depth discussion on reliability and resilience.

PGP commented that a key finding that is embedded in the Draft Report but could be highlighted more effectively is that: 1) there is clear evidence in support of additional intra-regional transmission and shared planning functions; and 2) there are paths to achieving some of these incremental benefits that do not require a full regional RTO. The authors agree that there is little in existing studies on intra-regional transmission and shared planning functions. Regarding the mention of incremental benefits; the authors do capture these concepts in nearly every section of the Draft Report¹¹ and has expanded the regional coordination discussions in the Final Report.

PIO and SCE support a successful, broadly utilized, inclusive, and transparent Extended Day-Ahead Market (EDAM). PIO further supports that EDAM leads market participants on a glide path to a West-wide regional transmission organization (RTO). They also 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.

SCE generally agrees with how the draft report is constructed and believes the draft report provides good insight of the importance of regionalization and the efforts that are currently taking place in the West. SCE observed that effectively every report reviewed shows benefits from greater regional cooperation. The benefits include lower costs to customers, better reliability, and better integration of renewable resources. The report should be helpful for the California legislature to get a better picture of how important enhancing regional markets and regional grid operations are to California customers.

¹¹ See Executive Summary – Modes of Regional Cooperation, Section 1.2, Section 2.2, and Section 4.2.

2.2 Comments on the regional cooperation efforts in the West (section 2 of the Draft Report).

AES commented that some or a portion of regional services are already provided by different agencies, like WEIM by CAISO and the Western Resource Adequacy Program (“WRAP”), which indicates that most states are aware of the benefits of these incremental programs. Implementing these programs may require significant initial investments, and organizations may need to go through a learning process to mature. CAISO has extensive experience providing its members with ISO/RTO services. It is in a favorable position to take a leading role in bringing all interested parties together to develop and propose an acceptable solution to everyone. However, CAISO must initiate the change by altering its governance structure, allowing all interested parties an equal voice in the RTO/ISO market design. All states engaged in this discussion must have the opportunity to represent the interests of their ratepayers and stakeholders (Independent Power Producers, Participating Transmission Owners, etc.), and the governance structure should enable transparent communication. Without a change in CAISO's governance structure AES does not see a path forward. The authors note that this is articulated in several studies.

AES went further and commented that for regionalization to become reality, it is paramount that CAISO work side-by-side with the other states, collectively recommend and adopt a committee or joint structure for consideration of issues and changes to market rules. The authors note that this is articulated in several studies.

BPA commented that while the examples of the WEIM and EDAM are positive, regional collaboration has required designing around California state policies. The success of future regional markets will require alignment of multiple state policies from a position of equal standing. BPA is an active participant in the WRAP. A key to the success of WRAP was development through a fully independent process that was not driven by any single state and promoted equal access and equal participation. That independent perspective and independent governance is critical to BPA’s continued participation. The authors agree that studies found that for additional regional coordination to be successful there needs to be an equitable decision-making structure, and refers the reader to the evolution of the governance structure for EDAM.¹²

CEBA commented that the list of regional efforts currently includes Western Market Exploratory Group (“WMEG”) though there is little public information on that effort. Adding more detail to that description would be valuable to stakeholders. This effort also does not fit into the category of a Regional Framework for Cooperation or a State Effort. It would best fit into its own category of Utility-led Explorations. The authors note that there is no known additional public information on the WMEG effort.

PIO agrees with the benefits identified in Section 1.1 of the Draft Report and 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. However, PIO also proposes that the key points should be

¹² See Section 2.2.2

expanded to include improved reliability during stressed grid conditions and the opportunity to reduce over-procurement of future resources. The Final Report has been expanded to incorporate these issues.

The CPUC suggested a text change to incorporate the recent approval of the Governance proposal by the CAISO Board of Governors and the WEIM Governing Body. The Final Report has been updated. LADWP suggested a minor wording change in Section 2.2.2 which was incorporated.

PGP recommend that examples of existing regional or joint transmission planning efforts and/or some of the economic transmission expansion that is occurring in the region be included in the regional coordination examples to highlight that there are ways to theoretically capture further benefits of an RTO without formation of an actual RTO. PIO recommended that 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. Both of these recommendations would require additional studies and analysis, which is out of scope for this Final Report.

PGP has concerns that the Draft Report frames Markets+ and CAISO's Day Ahead Market proposals very differently – EDAM is described based on incremental changes from the WEIM, while Markets+ is described based on the differences from an RTO. While the descriptions in the Draft Report appear to be accurate, it may not be clear to the reader that the two day-ahead markets are very similar in scope, market design, and objectives. This section of the Draft Report would be enhanced by adding a higher level of detail to the EDAM section, and presenting the summary of each in a way that highlights the many similarities and acknowledges that the key differences outstanding include the RA program requirement, governance, and the congestion rent allocation (which is still under discussion for Markets+). The Final Report expands on the potential risks and challenges but only where such risks and challenges are mentioned in an existing study.

SCE believes it would be helpful to include additional states such as Washington, Idaho, Montana, etc., and those adjacent to California in this section of the Final Report. It would be helpful to understand if those other states (not mentioned in the report) are exploring regionalization. The Final Report was expanded to include Washington and Montana where additional information was available.

2.3 Comments on the literature included in the review (section 3 of the Draft Report).

AES commented that the literature shows additional savings at a west-wide level, the larger the area of expansion, the greater the savings to California customers and states that voluntarily chooses to join in with ratepayer's benefits, local employment, economic development, and environmental impacts. For instance, the Draft report indicates that an RTO that added only PacifiCorp to the existing ISO footprint, it could save California customers about \$70 million per year, or about 0.1% of retail costs; a West-wide RTO, on the other hand, could save \$1.3 billion to \$1.9 billion per year. AES strongly agrees with the findings that a regional ISO/RTO will benefit ratepayers across all states in Western Electricity Coordinating Council ("WECC"). CREPC, while citing a number of the studies in the Draft Report, commented: "CREPC recognizes the potential cost savings throughout the West that are possible through an expanded multi-state RTO. Western States are willing and able now to work collaboratively with California on governance and market expansion." Similarly, BPA noted that for California to realize

benefits from regionalization that would facilitate meeting clean energy goals reliably and affordably, California will have to consider regulatory and governance provisions to obtain those benefits. As it looks to supporting regionalization and obtaining the benefits therein, the California Legislature should ensure that proposed legislation begins with the objective of recognizing and improving coordination with other states' policies. These elements are supported by the studies.

Additionally, BPA commented that the literature reviewed largely does not discuss the impacts of state policies outside of California on regionalization. One study looks at whether regionalization would harm California's ability to meet its state policy goals (Study 25). However, this literature does not examine the challenges of multiple state clean energy policies in a single market and whether those interacting policies improve or reduce the ability of those states to meet environmental goals. BPA also noted that the legal analysis noted that CAISO is subject to FERC and interstate commerce laws but makes no mention of Commerce Clause challenges. California has included provisions in energy-related laws and regulations, such as for resource adequacy that are based on the location of resources being in state or out-of-state. Such provisions base requirements of a resource on where it is located rather than on performance attributes. The literature and benefits assumptions make the assertion that California can maintain its environmental goals while being in a multi-state market. BPA commented that may be true, but the benefits of regional markets are dependent on entities outside of California choosing to participate in the market. Rather than setting a goal of withstanding a Commerce Clause challenge, a viable regional market proposal should have a goal of having rules that are fair to all participants and that would not raise issues that could result in a Commerce Clause challenge. The appropriate test for California's policies should be that they reassure potential participants from outside of California that they have equivalent access to all parts of the market, including California, when they bring comparable qualifying resources. BPA's comments are understood by the authors and the Final Report addresses the Commerce Clause in Section 4.3.

In addition, CEBA commented that for Renewable Energy Policy Pathways Report (2020), [34] the Draft Report's finding that participation in centrally organized wholesale markets makes any of the Draft Report's examined policy pathways cheaper and is key to increasing customer options, reducing costs, and facilitating greater renewable energy integration.¹³ This finding is not covered by the summary but may be one of the most relevant to the objectives of CAISO's Draft Report. The authors expanded the Final Report to incorporate this study analysis.

IEPA noted that the list of studies in Table 3 and the summaries of each study did not line up. The authors have fixed that issue. IEPA suggested that the discussion of the State-Led Study and EDAM Benefits Study results should be modified for the Final Report to focus on the benefits to California and to more clearly elucidate the additional benefits of a full RTO compared to more limited forms of regional cooperation such as a broader day-ahead market. The report is meant to be unbiased and present the existing literature available that is responsive to ACR 188, and that is why the CAISO and California BAs secured an independent third party to synthesize the findings.

PGP recommends that the section on limitations within the "State-Led Study" more explicitly note that the Day-Ahead market analyzed is inconsistent with current design proposals. Additional detail on what exactly is represented in production cost savings presented as well as further labeling of Table 3 of

¹³ <https://cebi.org/wp-content/uploads/2020/05/Renewable-Energy-Policy-Pathways-Report.pdf> (page 12)

results would also improve the clarity of the synopsis on this study, given how foundational it is to the key takeaways of the overarching report. The CAISO asked Energy Strategies to update the analysis from the State-Led Market Study to reflect more current EDAM design¹⁴ and this report was included in the analysis.

2.4 Comments on the annotated summary of the literature (section 4 of the Draft Report).

AES agreed with the literature and commented that cooperation across the region could help with reduction in production costs, resource adequacy, cost savings of operating reserves for reliability, and efficient transmission planning. This can only be achieved with the participation and representation of all segments and stakeholders in the industry. Because markets operate more efficiently on a larger scale, a single geographic market footprint is preferable over small, limited ones. CREPC commented that it recognizes that enhanced coordination between the WRAP and the California Public Utilities Commission (CPUC) Resource Adequacy Program has the potential to provide greater cost-savings for the entire region and encourages the CAISO and other California agencies to engage with the Western Power Pool on the interoperability of the two resource adequacy programs. The authors appreciate these comments.

BPA noted that the summary identifies that the distribution of benefits varies throughout different market structures. The distribution of those benefits matters, both to California and to potential out-of-state participants. The Legislature should be aware of this distribution and that each entity and state may have its own preferences based on the benefits. BPA also noted that the benefits to California also assume a baseline of today's business as usual, but do not take into consideration the clean energy goals that California must achieve and the major needs it will require to meet those goals. Regionalization should not be viewed as an opportunity to achieve incremental benefits from a neutral status quo, but as a potential means to address California's "major needs" while recognizing the regional energy landscape is changing. The report analyzed existing studies recognizing that benefits will vary based on assumptions, and that the electric utility industry is constantly evolving.

IEPA commented that because the report is intended to inform the California Legislature, the recommend that Section 4 be revised to focus on benefits to California and to highlight the differentials in the benefits between expansion on the day-ahead market, which requires no action by the Legislature, and the expansion of CAISO to a broader RTO, which does. The authors have made additional changes to Section 4 along the lines of the request. IEPA also suggested adding the following table to both Section 4 and the Executive Summary:

¹⁴ See the CAISO EDAM Benefits Study from Nov 4, 2022 - <http://www.caiso.com/Documents/Presentation-CAISO-Extended-Day-Ahead-Market-Benefits-Study.pdf>

Table X. Benefits to California from Regional Cooperation in 2030 (\$Million/Year)

	Production Cost	Capacity	Total
West-wide Full RTO	\$346	\$228	\$574
West-wide Day Ahead Market*	\$257	\$114	\$371

* For this row, IEP used the results from the more recent EDAM benefits study (source [4] in the draft report) instead of the State-Led Study and scaled the results to 2022 dollars for consistency with the full RTO results.

Because the table was not in the literature, the authors believed it was not consistent with the request in the legislation and therefore did not add it. In addition, IEPA encouraged the report to elaborate on the repercussions if California if it refuses to allow CAISO to expand and another regional RTO forms around it and provide quantitative examples of the consequences of defection from WEIM and CAISO’s extended day-ahead market. There is mention of the potential risks of not pursuing expanded regional collaboration in some studies, but no known study has been done in this regard.

CREPC commended the CAISO for its leadership on preparing the 20-year Transmission Outlook and encourages the CAISO to continue its work with the other regional transmission planning entities to improve the interregional coordination procedures. The authors appreciate the comment.

2.5 Comments on SB 100 and relevant updates (section 5 of the Draft Report).

AES applauds the state’s commitment to the 100% Clean Energy Act of 2018 (“SB 100”). They commented that enabling an inclusive, independent, transparent, grid governance, and with ongoing collaboration to address transmission needs across the region could help California meet SB 100’s goals. The need for renewables to meet state and federal policy goals is driving demand for regional transmission to access the West’s resource diversity while protecting reliability. Transmission infrastructure is a critical RTO function. Transmission planning and investments decisions remain with each balancing authority area, state and local regulatory authority and once made available across the region, it will support energy transfers through contributions by interchange rights or available transmission capacity provided by participants or members of the RTO. The authors agree.

BPA commented that it is important to note that the SB 100 report describes the likely continued reliance by California on imports, including from Pacific Northwest hydroelectricity, in its future resource mix. Expanding electrification of transportation and building sectors only increase the significance of California’s access to clean electricity resources.

CalWEA noted that the SB 100 resource portfolios included only 10 GW of offshore wind because the SB 100 model capped offshore wind at that amount, and that the California Energy Commission (“CEC”) has since adopted a 25 GW planning goal for offshore wind. The report should note further that none of the regionalization-benefits studies reviewed were based on the SB 100 core scenario portfolio or portfolios with higher levels of offshore wind. IEPA made similar comments noting that the report should draw the connection between higher future loads and the increased value that a full RTO would likely provide by facilitating approval and procurement of additional interstate transmission to access high-value renewable resource areas in other parts of the Western Interconnection. The higher capacity factors of out-of-state wind resources would improve the reliability of California’s energy portfolio and reduce the cost of achieving the SB 100 target. Additional analysis is outside the scope of this report.

2.6 Any additional comments on the Draft Report.

AES commented that governance was critical to the formation of the WEIM and will need to evolve again to provide proper representation for participants as its services and memberships expand. The CAISO's governance has evolved with WEIM footprint expansion from an advisory governing body to the joint authority model, and stakeholders agree it can be evolved further to enable greater collaboration across the region. Regionalization shows the potential economic and reliability value of closing the gap between individual power providers' service territories where different rules and tariffs limit energy transfer, to a broader and inclusive market participation. Each step and/or consideration toward the ISO regionalization has revealed new benefits and cost savings at the state and regional level. This is supported by several existing studies and reflected in the Final Report.

Bonneville would remind readers of the report of the three key objectives to enable regionalization: 1) market governance must be independent of California, and 2) the California Legislature should include in any Legislation its guidance for state regulations and Legislative provisions to incent alignment with other states, and 3) any California Legislation should include guidance to other California state agencies to ensure that their rules and regulations that impact the market do not treat in-state and out-of-state market participants differently.

CREPC commented that Draft Report and the studies within it find that California is uniquely positioned for expansion to a multi-state RTO because the CAISO already operates under FERC jurisdiction. Additionally, sharing the cost of the CAISO's investment in sophisticated and highly capable market operations among more customers creates efficiencies and avoids the costs of developing efficient seams with neighboring states. As the regional entity that focuses on electric power system cooperation efforts, CREPC will continue to host and guide further discussions with regional stakeholders in support of expanded regional cooperation. The Draft Report outlines that these benefits will not only be realized in California, but the rest of the West as well.

LADWP commented that as a Balancing Authority (BA), LADWP has a direct interest in how such regional cooperation is established in California and the Western Grid to ensure that it does not result in negative or unintended impacts on its operations or ratepayers. LADWP also appreciates the point made in the summary report that regional cooperation can include voluntary markets that provide significant benefits to the CAISO, yet do not trigger additional challenges that result from a full RTO structure where operational control is reassigned to the RTO and results in direct negative impacts to individual BAs, like LADWP. LADWP also outlined five principles that will guide their evaluation of the various regional cooperation proposals. LADWP's comments and participation in the report development are appreciated and the Final Report notes that each utility will need to make their own decision regarding the regional cooperation proposals.

PGP commented that the result is that the chart showing the NERC planning reserve margin forecast (Figure 2) gives a representation of overall planning reserve margins and how various region's supply/demand balance and overall resource adequacy relate to each other that appears inconsistent with more robust local analysis. PGP recommends either 1.) A forward view of regional Resource Adequacy from the Western Power Pool's Western Resource Adequacy Program and the CEC be included instead of the NERC data, given their alignment with more robust resource adequacy analysis methodologies and direct linkage to resource adequacy planning in the West, or 2.) At minimum,

additional documentation of the methodology used in the NERC PRM forecast be included in the report. The Final Report includes commentary about gaps in the literature in the Executive Summary.

PGP also commented that the analysis of CA peak demand and prospective resources (Figure 3) could also use additional qualifiers to enable interpretation of the data, for example, clarifying if this is the expected peak and additional documentation of the energy efficiency and electrification that is considered in the forecast. Similarly clarifying if the resource value shown is this the installed capacity of resources or some other metric that relates better to adequacy would add value. The Final Report includes commentary about gaps in the literature in the Executive Summary.

PIO supports ACR188 and the work that was done to complete the Draft Report. PIO strongly supports 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.

PPC commented that some examples of these structural elements in the market design context are the California resource adequacy program and greenhouse gas accounting programs. Market design formed around these California policies has presented some challenges with adopting alternative approaches, which may result in additional benefits for participants external to California, such as changes proposed through the Day Ahead Market Enhancements and alternate GHG accounting methodologies proposed by stakeholders during the EDAM process. A more flexible structure – which could facilitate additional market improvements and create the ability to help other states to also meet their individual objectives – would be beneficial. PPC also noted that there have already been some successes in various CAISO initiatives to reflect these more regional considerations and to provide a flexible market design that will allow all states across the market footprint to meet their own objectives. Additional attention to regional equity, including potential legislative change that would formalize those more regional considerations, is a key consideration for PPC members in determining whether they would participate in an expanded market operated by the CAISO. The report notes that each utility will need to make their own determination about the level of their participation in regional coordination proposals.