



# California ISO

## **Regional Resource Adequacy**

**Draft Regional Framework Proposal Stakeholder  
Comments and CAISO Responses**

**March 1, 2017**

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## ***Resource Adequacy Load Forecasting***

### **Organization**

[California Public Utilities Commission \(CPUC\)](#)

We appreciate the CAISO clarifying that it would not be making any adjustments to LSEs forecast without further understanding the reasoning behind an identified load forecast discrepancy. We support the CAISO giving more deference to the LRA and local forecasting agency with regards to load forecasting as well as allowing various load forecasting adjustments (coincidence, plausibility, etc.).

While we appreciate this deference, staff requests that in developing a load forecast guidance document<sup>1</sup> to be used to inform acceptable forecasting for RA, that the WSC have a central role. The WSC should be involved in the development of such a document that would set acceptable standards for load forecasting.

In its proposal, the CAISO details its load forecast submittal review process. The CAISO states “it will only require an LSE or forecasting agency to make adjustments to the load forecast submittal after a subsequent discussion between the ISO and all relevant entities, including the LRA or forecasting agency overseeing the LSE load forecasts in question, and only if the ISOs issue with the forecast remains unaddressed.” CPUC staff requests that the CAISO modify this language to include that the WSC have an oversight role, for any disputes that may arise out of the load forecast review process. Staff specifically would like the above language to include that CAISO will only be allowed to make an individual load forecast adjustment, if the WSC agrees with the CAISOs proposed adjustment (i.e.; the magnitude of adjustment and reasoning behind adjustment).

Staff also notes that the timeline presented on page 20 of the paper, will not accommodate the current annual load forecast process. We request that the CAISO work with stakeholders to ensure that current processes are addressed when developing a final load forecast process timeline.

<sup>1</sup> Referenced on Page 17 of the Regional RA Draft Framework Proposal

### **ISO Response**

The CAISO understands the CPUC’s comments requesting the delegation of additional involvement and oversight of the proposed load forecasting process for the proposed WSC. CAISO will further consider and vet WSC’s role as we move through the regional governance process. CAISO also understands that further work is needed to coordinate the current load forecast process timeline with any proposed regional ISO load forecasting activities. CAISO will work to ensure stakeholder’s needs are heard and addressed.

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**Organization**

[Industrial Customers of the Northwest Utilities \(ICNU\)](#)

ICNU has repeatedly expressed concerns over elements of the ISO’s load forecasting proposals, including negative cost allocation implications associated with reliability assessment for ratepayers of potential new PTOs.<sup>2/</sup> In an effort to allay such concerns, ICNU has proposed stronger protections in regional ISO governance principles and governing documents to ensure that ratepayers of a Load Serving Entity (“LSE”) will not ultimately be forced to pay higher costs, through the exercise of ISO backstop procurement, as an eventual consequence of any potential variance between RA determinations of a regional ISO and a Local Regulatory Authority (“LRA”), including variance on load forecasting.<sup>3/</sup>

Rather than addressing such concerns, however, the Framework Proposal has effectively doubled down on an inflexible position holding that new PTO ratepayers would be responsible for all variances between LRAs and a regional ISO: “The ISO proposes to exercise backstop procurement based on any shortfalls between the demonstrated procured capacity and the reliability assessment the ISO conducts ...”<sup>4/</sup> In the context of load forecasting, this means that, based on a regional ISO load forecast in variance with an LSE forecast acknowledged or approved by an LRA, an LSE might later be considered deficient in a regional ISO reliability assessment—prompting the regional ISO to potentially trigger backstop procurement and assess charges to the LSE.

<sup>2/</sup> See, e.g., ICNU Comments on Third Revised Straw Proposal at 2; California Energy Commission Docket No. 16-RGO-01, ICNU Comments on 2nd Revised Governance Proposal at 3 (Oct. 31, 2016).

<sup>3/</sup> See, e.g., ICNU Comments on RA Reliability Assessment Working Group at 3 (Aug. 24, 2016); ICNU Comments on Second Revised RA Straw Proposal at 3 & n.6 (Jun. 15, 2016); ICNU Comments on RA Load Forecasting Working Group at 4 (July 12, 2016).

<sup>4/</sup> Framework Proposal at 3-4 (emphasis added).

**ISO Response**

The CAISO appreciates ICNU’s comments on the load forecasting proposal. CAISO understands the concerns raised by ICNU regarding the potential for negative cost allocation implications. The proposed load forecasting process would give great flexibility to LSEs, LRAs and load forecasting agencies to continue to utilize their current practices without significant impacts. CAISO believes the cost allocation concerns ICNU has raised repeatedly are unlikely to manifest under the proposed load forecasting process since CAISO is proposing a comprehensive load forecast review process, under which enables the LRAs, LSEs, and load forecasting agencies would engage in a review and discussion process when there are possible discrepancies. Parties would also have an opportunity to justify their load forecast submittals before CAISO would consider making any adjustments to individual load forecasts. CAISO has also proposed that it would only seek adjustments to load forecast submittals that were unreasonable or utilize inappropriate forecasting methodologies.

<b>Organization</b>
<a href="#"><u>Office of Ratepayer Advocates (ORA)</u></a>
<p>The Proposal’s monitoring and mitigation measures appear to address ORA’s previous concern that allowing LSEs to use different forecasting methodologies could lead to inconsistent evaluations of capacity need and potential capacity leaning between LSEs in an Expanded ISO. Furthermore, publishing LSE load forecasting errors annually, as proposed<sup>1</sup> also should support consistent and accurate load forecasting and transparency.</p> <p>ORA continues to recommend a greater role for the Western States Committee (WSC). The Proposal notes that the WSC “can serve as a potential forum for LRAs to discuss different approaches used to produce forecasts in different jurisdictions.”<sup>2</sup> However, the Proposal falls short of assigning any specific role to the WSC. ORA recommends that authority over load forecasting fall within the primary authority of the WSC.<sup>3</sup> The WSC should have primary authority over areas such as the adoption of acceptable statistical methodologies, review processes, system load forecast benchmarking, and treatment of load modifiers. Oversight provided only by the Expanded ISO Board may focus exclusively on reliability, without regard to associated ratepayer costs and individual state procurement policies. Assigning primary authority to the WSC would be similar to the current process in California where the Legislature granted the CPUC jurisdiction over RA and called upon the CAISO to work cooperatively with the CPUC.<sup>4</sup></p> <p><small>1 Proposal, p. 18. 2 Proposal, p. 14. 3 Potential Topics within the Primary Authority of the Western States Committee, October 7, 2016.</small></p>
<b>ISO Response</b>
<p>The CAISO appreciates ORA’s comments on the proposed load forecasting process. CAISO plans to further develop the details of the authority that would be delegated to the proposed WSC under the regional governance efforts. CAISO appreciates the suggestions related to these important issues and will consider them as the development of the governance proposal moves forward.</p>

<b>Organization</b>
<a href="#"><u>Southern California Edison (SCE)</u></a>
<p>SCE Supports Load Modifiers Being under the LSE/LRA Control. SCE agrees that the load serving entities (LSEs) and their local regulatory agency (LRAs) are best positioned to determine the ability and efficacy of Load Modifiers, such as Demand Response (DR) programs to provide for resource adequacy. There have been and will continue to be a multitude of programs and customer choices that will, with varying degrees, meet the peak load and flexibility needs of the LSEs. Pre-supposing that all such programs must be integrated into the energy market in order to provide reliability value for resource adequacy is</p>

not logical. Not all DR programs are well-suited for integration into the energy market and without the appropriate load modifying value there would be a loss of these resources which California state policy has deemed preferred. Provided the LSEs and LRAs have evaluated appropriately the ability of load

modifying programs to address system peak needs, such programs should count toward meeting the obligation to avoid over-procurement and incremental cost to customers.

SCE also supports the ability of the LSE or LRA to update the monthly forecast due to load migration from direct access, community choice aggregation, or similar customer choice programs.

**ISO Response**

The CAISO appreciates SCE's comments in support of the CAISO proposal to allow for monthly load forecasting updates.

**Organization**

[Silicon Valley Power \(SVP\)](#)

SVP urges the CAISO to ensure that the reporting requirements of LSEs in the load forecasting process be as efficient as possible. Requiring multiple reports over differing time periods to different agencies serves no practical purpose and inhibits LSEs from performing their utility functions in the most effective manner. If the regional ISO does require hourly load forecasts on a one year forward basis, SVP requests that such reporting follow similar formats and request the same data as the forecasts required for the California Energy Commission (CEC) and other regulatory agencies.

While we are pleased that the CAISO has reviewed its previous proposal and has worked to make the forecasting process more appropriate and workable for LSE's, the proposed documentation requirements are overly inclusive, especially because the CAISO has not identified any problems with the current load forecasting mechanisms. SVP asserts that a more reasonable approach is to maintain the current level of documentation, and require additional forecast information only if there are transparent concerns with a particular forecast on a case by case basis.

SVP prefers a simplified process, such as the one that exists today between the CEC and the publicly owned utilities. Depending on the amount of change or additional details that are eventually agreed upon by the ISO and CEC, LSEs should be given the option of accepting the CEC forecast or submitting its own forecast directly to the ISO.

**ISO Response**

The CAISO appreciates SVP's comments and its requests for a streamlined reporting process. CAISO understands the need for simplification and avoidance of duplication of efforts and agrees that it is important to propose a process that takes these issues under consideration. The proposed reporting requirements are necessary in order for CAISO to

have the ability to conduct a review of the submittals. CAISO believes that the current CEC IPER documentation would sufficiently detail the supporting documentation necessary for LSEs under the CEC's jurisdiction so that those entities, such as SVP, would not have to duplicate efforts.

## ***Reliability Assessment***

### **Organization**

[California Public Utilities Commission \(CPUC\)](#)

We appreciate the CAISO stating in response to comments and verbally during the December 8, 2016 stakeholder meeting, that it would give deference/flexibility to the LRA in providing key inputs (e.g.- Cost Allocation Mechanism (CAM) resource credits/debits, demand side resource adjustments, local RA true- ups) into the calculation of its jurisdictional LSE RA requirements. However, staff requests that the CAISO spell this out in the next draft of its regional RA framework. It is important that this clarification be included in the regional framework so that there is no confusion about CPUC approved resources counting towards meeting RA requirements in a regional footprint.

The LRA role is important in helping to set the annual and monthly RA requirement, because of the CAM mechanism used for many new resources. Coordination with the LRA will ensure that the correct resource values are used when the CAISO is performing a RA validation to ensure that LSE deficiency and Capacity Procurement Mechanism (CPM) designations are valid.

Coordination between the ISO and the LRA is essential to running an effective and efficient reliability program and there have been challenges to the coordination in the last few years. Under a regionalized footprint effective coordination with LRAs will be crucial. A good start to ensuring effective coordination would be to include language regarding coordination with the LRAs in the regionalization straw proposal.

### **ISO Response**

The CAISO appreciates the CPUC comments and understands the suggestions related to the need for coordination between the CAISO and LRAs. CAISO agrees that the need for coordination is important and commits to working closely with LRAs to ensure that these needs are met and sufficient coordination will occur. CAISO would like to work further with the CPUC in order to better understand what sort of details related to the CPUC CAM mechanism, and other similar items needing close coordination, which the CPUC believes

may need to be included in future Regional RA proposals. The ISO commits to working through these issues with stakeholders in future efforts.

## Organization

### [Office of Ratepayer Advocates \(ORA\)](#)

ORA has significant unresolved concerns with the proposed reliability assessments and associated backstop procurement protocols. The proposed reliability assessments and associated backstop procurement protocols would not: (1) adequately mitigate the potential for capacity leaning, (2) create an equitable process, nor (3) prevent potential gaming within an Expanded ISO.

The Proposal states that the Expanded ISO will determine system deficiencies based on a cumulative system assessment rather than individual LSE filings. Only if a cumulative system deficiency is found would the Expanded ISO proportionately assign any additional procurement to deficient LSEs. This approach would allow under-procured LSEs to “lean” on the excess capacity of other LSEs. Under a cumulative assessment, the RA capacity of LSEs that over-procure<sup>5</sup> will be counted along with that of deficient LSEs. If the Expanded ISO finds a need for additional procurement, the deficient LSEs would potentially benefit from a discount on their initial requirement due to the cumulative excess provided by any over-procured LSEs. Deficient LSEs also could receive a reduced requirement if the Expanded ISO’s cumulative assessment determines that a smaller amount of capacity was necessary after the initial assignment of capacity requirements. This approach would create an incentive for LSEs to intentionally under-procure to reduce costs. In order to avoid capacity leaning, ORA continues to recommend that the Expanded ISO require each LSE to meet its individual procurement requirements consistent with the standard of California Public Utilities Code Section 380 5(c).<sup>6</sup>

The CAISO does not propose that the Expanded ISO would carry out formal enforcement actions related to LSE procurement deficiencies. Instead, the Expanded ISO would rely on LRAs to independently determine and undertake enforcement actions with jurisdictional LSEs. Allowing LRAs to independently craft enforcement penalty structures, including the option to impose no penalties at all, would not ensure equal contributions to grid reliability. Allowing LRAs discretion over penalties and enforcement would result in a patchwork of policies with inequitable treatment of LSEs. Those LRAs that do not ensure compliance or strictly enforce RA policies would bear no direct consequences. ORA recommends holding all LRAs to the same procurement standard, including a standardized enforcement structure to prevent capacity leaning and gaming of RA procurement. ORA generally supports the plan to incorporate the current monthly requirement for LSEs to demonstrate that their bilateral procurement satisfies RA requirements.<sup>12</sup> The Expanded ISO would validate LSE showings. The Proposal provides for individual

notification of LSE deficiencies and the granting of an initial cure period along with a “last chance” time frame for curing deficiencies by the LSEs.<sup>13</sup> However, as explained in the following section, the Expanded ISO would not directly create or enforce a penalty structure for deficient LSEs that fail to meet requirements in the cure periods. LSE requirements should be enforced and penalties should be applied to LSEs that fail to meet cure deadlines to prevent capacity leaning and gaming. Enforcement policies play a critical role in the effectiveness of regulatory efforts.

<sup>5</sup> It is not unusual within the California RA program for LSEs to contract for a capacity amount that exceeds their mandated requirement.

<sup>6</sup> Public Utilities Code Section 380.5 (c) states that:

Each load-serving entity shall maintain physical generating capacity and electrical demand response adequate to meet its load requirements, including, but not limited to peak demand and planning and operating reserves.

<sup>12</sup> Proposal, p. 28.

<sup>13</sup> Proposal, p. 30.

### ISO Response

The CAISO appreciates the ORA comments related to the proposed reliability assessment. CAISO understands the concerns that ORA explains related to the system-wide deficiency check being performed before assessing individual LSEs deficiency. CAISO agrees that there is some potential for individual entities to lean in the proposed sequence of assessment, in the case that other entities have over-procured. CAISO believes that this potential would create an incentive for LSEs to only show up to their requirements and not to over-show/over-procure resources beyond their requirements. The proposal would not result in deficient LSEs receiving a lower requirement because the established RA requirements would not change due to the actions of other LSEs. CAISO believes that the ORA concerns related to individual LSEs meeting their individual requirements (as required by California statutes) could most easily be solved if the LRA or State Regulatory Agency requires its jurisdictional LSEs to meet individual requirements. The CAISO is concerned with meeting system-wide needs in order to maintain reliability.

As far as the other concerns raised by ORA related to enforcement of RA requirements, CAISO believes that it would be very difficult to design an enforcement or penalty mechanism that would apply to all LSEs since there are potentially many LRAs and other jurisdictional agencies that would have enforcement oversight. Simply extending California enforcement rules to all other LSEs may be a cause for concern from other jurisdictions. The CAISO understands the concerns that different enforcement or penalty structures for different LSEs may have some potentially negative consequences and inequitable outcomes for particular LSEs. However, CAISO believes that the enforcement and penalty aspects of these issues should be left to LRAs and/or other State Regulatory Agencies and is not in the purview of a regional ISO but CAISO is open to further discussion regarding these issues in the future.

### Organization

[California Public Utilities Commission \(CPUC\)](#)

CPUC staff appreciates and supports the CAISO decision to relocate the PRM issue to the governance stakeholder process. Staff reiterates the need to work out the governance structure, before establishing the details of a PRM. CPUC Staff continues to recommend that the WSC have a central role in determining the approach to be taken regarding if or how a standardized PRM is adopted. Discussing details of a CAISO study is premature. Other ISOs defer to the states in this regard. Rather than CAISO prescribing an approach, once the WSC is established, members should determine the approach to be taken and who should carry out a Loss of Load Expectation (LOLE) study if one is determined to be necessary. Although CAISO has stated verbally that language regarding the WSC was removed from the recent draft of the regional RA framework because the issue has been moved to the governance process, staff requests that the CAISO keep references to the governance process in this document (for example, any language related to the PRM should be footnoted stating: “to be determined in the governance stakeholder process”).

#### **ISO Response**

The CAISO appreciates the CPUC comments regarding the PRM topic. CAISO agrees that important roles and responsibilities and the delegation of certain authority to various entities, including the WSC will need to be thoughtfully considered. These issues will be discussed further under the governance proposal discussions. CAISO will take these comments under consideration when deciding how to best address these important issues in the future.

#### **Organization**

[Environmental Justice Parties \(EJ Parties\)](#)

**(Asian Pacific Environmental Network, Communities for a Better Environment, and The Greenlining Institute)**

#### **ISO Should Not Unilaterally Decide Issues Related to the PRM.**

In its Draft RA Framework, ISO proposes calculating a system-wide planning reserve margin. ISO does recognize that states should play an important role in setting the PRM.<sup>10</sup> However, ISO’s current proposal decides several important questions including: whether states can set their own PRM, how the PRM should be calculated, and the type of reliability metric for calculating the PRM. These issues should be left to the states rather than decided unilaterally by ISO.

Initially, ISO should allow states to set their own PRM based on their own perceived need. As the CPUC staff notes, MISO has a process that allows states to rely on their own PRM.<sup>11</sup> A PRM process similar to MISO that defers to state determinations should be the initial default before states have an opportunity to decide whether and how a system-wide PRM should take individual LRA PRM decisions into account.

In its Draft RA Framework, ISO also proposes a “probabilistic study” to determine a default system-wide PRM target. ISO states that “[t]he specified level of reliability can be measured using an established reliability criterion, such as a 1-in-10 Loss of Load Expectation (“LOLE”).”<sup>12</sup> These are exactly the types of decisions that should be made by the state. When the CPUC considered these issues in the 2014 Long Term Procurement Proceeding, there was disagreement about how LOLE should be defined and work was needed to validate the stochastic model before it could be relied upon.<sup>13</sup> This demonstrates that neither of these issues are settled. In addition, there are other ways of calculating a PRM and reliability criterion. Therefore, these issues should be vetted by states before a decision is made as to what type of study to use and what the reliability criterion should be.

10 Draft RA Framework at p. 21 (“The ISO recognizes that states should have significant input into establishing a system wide PRM and has proposed a specific role for the WSC in that regard.”)

11 CPUC Staff Comments on the Third Revised Straw Proposal, October 27, 2016, *available at*

<https://www.caiso.com/Documents/CPUCComments-RegionalResourceAdequacy-ThirdRevisedStrawProposal.pdf>.

12 Draft RA Framework at p. 21.

13 See CPUC Proceeding 13-12-010, ALJ Ruling Discontinuing Phase 1A and Setting Forth Issues for Phase 1B (March 25, 2015), *available at* <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M148/K825/148825409.PDF> .

### ISO Response

The CAISO understands the concerns raised by the EJ parties related to allowing opportunity for states to weigh in on important outstanding PRM issues. CAISO agrees that the states should be involved with decisions related to details of how any PRM issues are settled and has envisioned a role for states to do so through the proposed WSC. CAISO has not finalized governance modification efforts and commits to working through the process to ensure that states have adequate authority over important areas of authority, including aspects of the PRM issues that are still under development.

## *Planning Reserve Margin*

### Organization

[Los Angeles Department of Water and Power \(LADWP\)](#)

On the uniform PRM, it is not clear if the same margin would be appropriate for all subregions within a region as diverse as the WECC. Given that operating reserve requirements for maintaining reliability can vary, has CAISO considered that some subregions could need higher or lower margins even accounting for locational transmission constraints?

### ISO Response

The CAISO appreciates LADWP's comments on this PRM issue. CAISO has considered the need to explore the suggestion that some areas may need different reserve levels in order to maintain reliability under the previously proposed zonal RA concept that was not pursued further due to concerns over design and implementation complexity. CAISO has not developed all of the details related to the proposed PRM analysis, but plans to explore these important considerations further in future as regional efforts.

## Organization

[Office of Ratepayer Advocates \(ORA\)](#)

The CAISO proposes to use a probabilistic study to determine a default system-wide PRM. A stakeholder initiative would be conducted to establish the modeling inputs, variables, cases, and model but it remains unclear how stakeholder involvement will be structured under a redefined Expanded ISO with a new governing body.

The Proposal acknowledges that the states should have significant input into establishing a PRM and asserts that the CAISO has proposed a specific role for the WSC in the governance forum.<sup>7</sup> To ensure state input in the system-wide PRM, ORA recommends that the CAISO's RA Proposal grant the WSC primary authority over establishing the system-wide PRM. Otherwise, stakeholders must accept a PRM process and associated costs without knowing the level of input they would have under future governance policies. The WSC should be responsible for weighing the costs and benefits of different levels of reliability to reach a consensus on a system-wide PRM target that is in the best interest of ratepayers in the region. The CAISO should confirm that the WSC will lead the PRM process and approve the default PRM. As noted in the Proposal, the Western Electricity Coordination Council (WECC) has not established a reliability criterion standard and, thus, allows some flexibility for ISOs under its jurisdiction.<sup>8</sup> Therefore, the CAISO's proposal to adopt a 1-in-10 Loss of Load Expectation (LOLE) standard as an input for modeling is premature.

Also, the Proposal calls for adoption of an LOLE metric but does not address other key metrics, such as expected unserved energy (EUE)<sup>9</sup> which assesses the ratepayer costs associated with load losses. Ratepayer costs, along with reliability benefits, must be considered in the development of a system-wide default PRM. All metrics, including LOLE, should be developed by stakeholders participating in the WSC and should not be predetermined by the CAISO. The CAISO should revise the Proposal to remove language adopting a 1-in-10 LOLE and instead defer adoption of a metric for determining the PRM to the WSC.

<sup>7</sup> Proposal, p. 21.

<sup>8</sup> Proposal, p. 22.

<sup>9</sup> Expected unserved energy or EUE is a robust metric that is widely used in evaluating the costs and benefits of reliability. For example, PacifiCorp uses EUE in its modeling. (PacifiCorp – 2015 IRP Appendix I –Planning Reserve Margin Study, page 135.)

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The Brattle Group stated: "Normalized EUE is the most meaningful reliability metric that can be compared across systems of many sizes, load shapes, and other uncertainty factors," in Resource Adequacy Requirements: Reliability and Economic Implications, a September 2013 report prepared for FERC (p. 3). The North American Electric Reliability Corporation (NERC) Reliability Assessment Working Group (RAWG) Meeting September 1, 2015, includes EUE analysis in the scenarios discussed at page 7 of NERC Probabilistic Assessments Overview & Future Improvements, Noha Abdel-Karim, PhD., p. 5-6.

### ISO Response

The CAISO appreciates the ORA comments related to these important PRM issues. CAISO understands the positions stated by ORA related to WSC authority over PRM issues. CAISO has deferred further development of any PRM details pending the outcome of regional governance discussions. CAISO also appreciates the suggestions by ORA to consider the application of EUE analysis to consider the costs associated with various potential PRM levels and will further consider these suggestions in future regionalization efforts.

### Organization

[Southern California Edison \(SCE\)](#)

As noted in the CAISO proposal, the CAISO is currently working on a Western States Committee (WSC) structure that could potentially have a role in establishing a system-wide PRM. Given that such a process is not well defined and given that no discussion has occurred as to whether the CAISO default PRM would serve as any form of a minimum role or would be replaced if the WSC establishes a different number, there is not sufficient information at this stage to comment on the efficacy of the provided proposal. SCE recommends that the inputs supporting the PRM calculation be from information that is public or available with a non-disclosure agreement. SCE looks forward to reviewing any developments as the WSC methodology and its impact on PRM is developed.

### ISO Response

The CAISO appreciates SCE's comments on the PRM issue. CAISO understands that parties need further information on the proposed role of a potential WSC in order to make informed comments and plans to further develop those details before issuing any further proposals under the regional stakeholder initiatives. CAISO also appreciates the suggestion that any data and information sources use publicly available data for transparency and will take the comment under consideration in future proposals.

### Organization

[San Diego Gas and Electric \(SDG&E\)](#)

SDG&E understands the ISO's desire for consistent levels of reliability across the expanded system. However, given the ISO's authority for CPM, RMR and Risk of Retirement, the ISO should allow the LRAs to set the relevant planning reserve margins for their jurisdictional LSEs. If there is a collective deficiency, the ISO can then backstop procure for capacity and

allocate the appropriate costs to the LSEs which are below the ISO's default PRM. One of the benefits of expanding the ISO is to integrate the diversity of generation by region. The ISO should not supersede the LRA's decision to set a different PRM unless it impacts grid reliability. The ISO should not increase ratepayer costs unnecessarily. Instead, the ISO should actively provide guidance to ensure sufficient generation is built in the long term in the correct locations to have a reliable market. Second, LSEs ultimately will also have to comply with LRAs' requirements. Having different PRM requirements, for the jurisdictional LSEs within an LRA, compared to the ISO's default PRM will create confusion for LSEs and market participants.

SDG&E strongly recommends the ISO to reconsider its position and validate LSE RA plans against the LRAs' set PRMs first and then designate CPM capacity if there is a collective deficiency.

#### ISO Response

The CAISO appreciates SDG&E's comments on aspects of the proposed PRM methodology. CAISO agrees that the proposal should not increase ratepayer costs unnecessarily, but disagrees with the SDG&E assertion that the current proposal would do so. It is unclear what cost impacts would occur at this point because CAISO has not developed the necessary details of how a study would be performed and what inputs and assumptions would be used in the analysis, in order to determine what the PRM target would be in a regional balancing area. CAISO plans to develop these details in future efforts. CAISO also appreciates the SDG&E concern that a potential for different PRM requirements set by LRAs and the CAISO would cause unnecessary confusion. CAISO will consider these issues and hopes to address the issues in future proposals and reiterates that it does not intend to increase ratepayer costs unnecessarily with its PRM proposal.

#### Organization

[Silicon Valley Power \(SVP\)](#)

The CAISO's proposal to allocate backstop capacity costs to LSEs that have not met CAISO's PRM, rather than the Local Regulatory Authority (LRA)'s PRM, will infringe on LRA control over planning reserve margin and resource counting methodologies for their jurisdictional load serving entities. Because the existing system has functioned well and there is no indication of a need to change, SVP does not support the methodologies proposed. SVP continues to support the statement by the Northern California Power Agency (NCPA) in its objection to any CAISO infringement on the jurisdictional authority of LRAs to determine the planning reserve margins and the resource counting methodologies for their jurisdictional LSEs. Any allocation of backstop capacity procurement should be allocated only to LSEs that have not met their individual RA requirements as established by their LRAs. LSEs that comply with their LRAs' RA requirements should not receive an allocation of backstop procurement costs.

SVP understands that some LRAs in the Pacific Northwest, portions of which are proposed to become a part of a Regional ISO, plan for average energy and not peak capacity. This is a large difference from what is the case today in California. We believe that this will be a difficult issue to manage in a Regional RA system, if the methodology is to be the same for all participants. SVP observes that the Loss of Load Expectation (LOLE) analysis technique appears to be a more complicated method that will likely be difficult for market participants to replicate, resulting in a less transparent process. Given that the West appears to currently be experiencing a resource surplus (and with forecasts for this situation to continue for some time), transitioning to a full LOLE methodology may be addressing a problem that we do not currently have, and the added complexity may not be justified under the circumstances.

Notwithstanding the above concern with transitioning to the use of LOLE to establish a PRM, if a LOLE methodology is to be used, more information is needed prior to selecting the specific reliability criterion such as a one day in ten years (1-in-10) LOLE. It is premature to set a criterion prior to the ability to even model the system's performance against the metric. Proper selection of a criterion requires understanding of how loads and resources specific to the area are modelled and the risks and consequences of the selection of a specific criterion. None of these are known at this time. If the decision is to move towards a LOLE metric in setting the PRM, the models must be developed and the reliability of service to load versus the resource cost implications known before selecting a criterion.

During the stakeholder process, the CAISO provided an example showing the PRM increasing from their current level of 115% to 123%. This extraordinarily large increase comes with a potential for a costly rate impact to customers without a commensurate improvement in system reliability. The proposed increase was attributed to a requirement for operating reserves being included in the development of planning reserve margins. It is inappropriate to address operating reserves in the PRM because it results in duplicate coverage of risks that occur in different time horizons – operating reserves address operational risks, while PRM creates resource acquisition targets to addresses the need to cover risks of changes in load and resources. While the example presented was illustrative and did not constitute a specific proposal for a PRM, the example highlights SVP's concern that LRAs should not lose their authority over PRMs, and that such PRMs should reflect the portfolio characteristics and balance the reliability and costs associated with a PRM selection.

#### **ISO Response**

The CAISO appreciates the comments and concerns raised by SVP on the PRM issues. CAISO understands the objections to a system-wide PRM determination and the related requests to maintain LRA autonomy and authority over issues such as PRM requirements. The CAISO has indicated previously that its position on this issue is related to the need to avoid the potential for capacity leaning by certain entities. CAISO also appreciates the concerns of SVP expressed regarding the proposed LOLE analysis methodology and agrees this suggestion may be an important aspect to explore further in future development of the PRM proposals.

The CAISO believes that the example that SVP cites related to a 123% PRM being discussed during the stakeholder meeting is mischaracterized in SVPs comments. CAISO has previously explained that the PRM is intended to cover needs that could be as large as 123%, when looking at the worst-case scenarios for both forced and planned outages, as well as load forecast error. However, this prior CAISO example was not intended to show that the CAISO proposal would cause an increase in the PRM requirement up to 123% as SVP claims. In fact, the proposed system-wide PRM target level would only be determined once the details of the proposed study were developed. The SVP concern over the operating reserves being included as duplicative under the PRM was also not CAISO's intent, it was not meant to suggest the PRM would be a duplication of operating reserve requirements, rather, the example was only intended to explain aspects that are meant to be covered under the overall PRM target and was provided only for information purposes.

## ***Uniform Counting Rules***

### **Organization**

[California Large Energy Consumers Association \(CLECA\)](#)

Proposed DR Testing Requirements Diverge From Current Practice, Lack Evidentiary Foundation, And Are Unduly Discriminatory and Arbitrary; They Should Be Changed

Most importantly, CLECA remains adamantly opposed to the needlessly stringent and unduly discriminatory proposed testing requirement for Demand Response (DR) in the Draft Regional RA Framework Proposal and the proposed changes in counting rules for DR resources. These were developed rather late in this initiative, have changed, and have not been subject to any analysis. No other resource would be subject to twice-yearly, four-hour tests – just DR, a preferred resource pursuant to California state law.<sup>1</sup> The precatory language states that it seeks to only make minimal requirements necessary for an expanded balancing area; no proof, however, has been offered over the course of this initiative to demonstrate the need for the significant changes proposed for DR testing and DR counting; there has been no evidence or analysis showing that they are required for an expanded balancing authority area, despite repeated requests for a demonstration of need.<sup>2</sup>

SCE noted that seasonal testing of the Reliability Demand Response Resource (RDRR) for four hours per test risks undermining customer participation in the program;<sup>3</sup> CLECA agrees; it is foolhardy to risk a critical, emergency resource – particularly where there is *no evidence* that such risk is in any way warranted. The CPUC explained:

California currently utilizes about 1,500 MW of demand response to satisfy Local Capacity Requirements. The CAISO currently defers to CPUC counting conventions for such resources, by using August capacity values year round when counting local resources. The seasonal testing proposed in the Straw Proposal would constitute a major departure from current practice, without a clear justification for why the current convention would not be adequate under a regional framework. Rather than change these rules at this point, the CAISO should continue to defer to the CPUC and other LRAs' counting rules and to allow a Western States Committee to oversee stakeholder initiatives to address changes, if needed, to transition to using seasonal testing values for demand response.<sup>4</sup>

CLECA continues to agree with the CPUC and SCE and urges the CAISO staff to revise the proposed testing requirement. While CAISO staff notes in a footnote that no Reliability DR Resources appear on the 2016 RA showings,<sup>5</sup> CLECA understands that that is because that DR is currently being credited on the load side for purposes of RA showings by the utilities. The CAISO should not blithely dismiss the deleterious impact its testing proposal could have on customer participation levels. In February 2014, the Base Interruptible Program, which is being integrated into the CAISO's markets as RDRR, was triggered due to the Polar Vortex and high demand for natural gas in eastern markets; then, the emergency reliability demand response helped maintain the CAISO grid, as it has in multiple other grid emergencies. The DR then was not subject to the proposed testing requirements, but still it performed reliably. The CAISO has not demonstrated why or how an expanded regional market necessitates a change in testing requirements for DR. It is highly unreasonable and imprudent to risk this critical resource with unduly burdensome tests without such proof.

Moreover, the CAISO should consider how other organized markets handle DR for purposes of testing. The Joint DR Parties noted that this proposal differs dramatically from all other regional markets:

DR resource testing requirements should not be disconnected from the testing requirements of other resources.

PJM: The DR testing requirement to determine capacity value is a one hour self-scheduled test in the summer. This is the same as the requirement for generators providing resource requirement parity.

New England ISO and NY ISO both require two one hour tests – one in the summer season, one in the winter season. This matches the requirements for generator tests. ERCOT - requires one 15-30-minute test of DR resources each year

No other market has instituted or proposed a more onerous testing requirement for DR resources than it has imposed on generation resources – nor a testing requirement as onerous as proposed by CAISO under the Regional RA proposal.<sup>6</sup>

CAISO staff did not address these comments, and failed to explain why its expanded regional market would be so different from these other markets as to need the onerous four-hour test twice a year – which no other market requires. Additionally, compared to the once a year,

one-hour test for participating hydro and use of historical output for run of the river hydro, both of which can vary dramatically due to drought or other conditions, the proposed testing requirement for DR appears unduly discriminatory, arbitrary and capricious.<sup>7</sup> As SCE reasons, “rules should combine the historical experience with the DR resources in question, with reasonable testing requirements that do not over-burden customers who are willing to help the grid in time of need, but otherwise have a business to run.”<sup>8</sup> For system RA resources, the maximum testing requirement for all resources should be once per year, near the system peak, for one hour. The DR testing requirements should be changed to once per year near the system peak for a one-hour period; for temperature-sensitive DR, CLECA agrees with SCE that an established counting methodology could be used in place of testing. SCE notes that the CPUC, as SCE’s LRA has:

well-established and robust methodology for determining DR capacity through its Load Impact Protocols. Since this statistical methodology is likely to provide a more robust MW estimate, it may obviate the need for additional seasonal tests.<sup>9</sup>

**The DR Counting Rules Should Remain the Same, with Deference Given to the LRA**

The CPUC further recommended no change to the counting rules at this time, as there has been no adequate explanation for why a change is needed now, in connection with the counting of renewable resources, concluding the ISO should:

instead to defer to the LRA’s method for counting renewable capacity, unless and until the CAISO has demonstrated that deference will actually be likely to yield reliability problems.<sup>10</sup> CLECA agrees; this recommendation applies equally to DR. CLECA previously explained:

California’s current demand response policies and programs help retain industries, particularly those that are energy-intensive, in California; this critically aligns with the state’s overarching climate goals. Moreover, there is no information in the record of this initiative that there are different counting rules for the different types of resources - including reliability demand response resources - that provide RA in what would be the expanded ISO footprint for a Regional ISO encompassing the current CAISO footprint and PacifiCorp. For example, despite several requests for information on the counting rules of the other LRAs for PacifiCorp, we don’t know if there are different counting rules for demand response resources in the other states in which PacifiCorp operates. We don’t know if there are different counting rules for other preferred resources either. The Regional RA proposal, however, suggests implementation of new, default counting rules that vary significantly depending upon resource type, raising questions about a technology-neutral philosophy and also raising concerns over the treatment of preferred resources. CLECA is very concerned by the divergence in the proposed CAISO and current CPUC counting rules.<sup>11</sup>

As CLECA and others have explained, California state law vests jurisdiction over the RA requirements with the CPUC in consultation with the CAISO. Like CLECA, CPUC Staff raised

this concern in its October comments, stating in connection with the RA Showings and Validation proposal based on the uniform counting rules:

First, the proposed process would vastly diverge from the existing CPUC validation process and may result in conflicting determinations between the CPUC's and CAISO's assessment of whether an LSE has met its CPUC-allocated RA requirements, particularly if the process does not account for CAM credits. The divergence may warrant phasing out the CPUC's resource adequacy program. However, this is inconsistent with Public Utilities Code Section 380. It is unclear to CPUC Staff, however, why the CPUC should administer parallel but separate processes, particularly if the CAISO will make determinations of whether deficiencies arise that require invoking the CAISO's backstop procurement authority and issuing a CPM designation for reliability.<sup>12</sup>

Despite staff's statement that its proposal reflects "a reasonable, workable balance", for DR resources, it does not. DR is undergoing a significant transition; the threatened imposition of unduly onerous, discriminatory testing and counting rules is not warranted and needlessly risks long-standing resources that have served system reliability and the grid very well for decades. The record in this initiative does not support the staff's proposed changes. The Draft Regional Framework Proposal's suggested requirements for DR testing and counting should be revised to align with and defer to the current LRA practice.

1 See P.U. Code 454.5(b)(9)(C).

2 See CLECA Comments on August 10, 2016 working group meeting, at 2; see also CLECA Comments, Oct. 27, 2016, at 3 ("We don't know if there are different counting rules for demand response resources in other states in which PacifiCorp operates.")

3 See SCE Comments, Oct. 27, 2016, at 4.

4 See CPUC Comments, Oct. 27, 2016, at 5.

5 Draft Regional RA Framework Proposal, at 25, footnote 13.

6 See Joint DR Parties Comments, Oct. 27, 2016, at 2.

7 See Draft Regional RA Framework Proposal, at 24.

8 See SCE Comments, Oct. 27, 2016, at 4.

9 *Id.*, at 5.

10 See CPUC Comments, Oct. 27, 2016, at 5.

11 See CLECA Comments, Oct. 27, 2016, at 3 (internal footnote omitted).

12 See CPUC Comments, Oct 27, 2016, at 4.

## ISO Response

The CAISO recognizes and supports DR as a preferred resource and has worked diligently to lower barriers and costs to integrating DR resources into the CAISO market. The CAISO understands that certain DR resources can be weather sensitive and have different attributes and capacity ratings across seasons. Given the potential variable nature of certain DR resources, seasonal testing is appropriate and prudent to ensure DR resource providers are accurately stating their capacity value by season. Additionally, an additional test is reasonable given that the CAISO's proposal allows DR resource providers the autonomy to declare their resource's capacity value, which no other resource type is granted. Further, the CAISO has specified that the conditions under which test events would occur would seek to utilize DR resources under peak or load conditions designed to represent the times in which

DR resources would most likely be used. Further, actual dispatch events can be used as a demonstration of the DR resource's capacity value, eliminating the need for a test event. Contrary to CLECA's perspective, the CAISO is not "blithely dismiss[ing] the deleterious impact its testing proposal could have on customer participation levels." In fact, the CAISO reduced the proposed number of test events from its original proposal and has placed limits on when those tests can occur. In the absence of the operational and technological parameters used to determine the capacity value of other technology types and the limited conditions under which a test would occur, the CAISO believes two annual test events should not be seen as unduly burdensome, but as a prudent safeguard and means for the CAISO to validate a DR resource's claimed capacity amount.

Finally, CLECA continues to request the CAISO utilize LRA counting rules to set a DR resource's qualifying capacity value. The CAISO reiterates that it needs consistent resource counting rules across an expanded BAA.

#### **Organization**

[California Public Utilities Commission \(CPUC\)](#)

#### **ELCC for Wind and Solar QC Value**

CPUC staff supports the CAISO's decision to move the details of an Effective Load Carrying Capacity (ELCC) methodology for wind and solar Qualifying Capacity (QC) value to a separate stakeholder process. We agree that specific details need to be more completely specified, and this stakeholder process may not be sufficient for that dialog. As noted in earlier comments, CPUC staff has spent considerable time in developing an ELCC methodology as directed by SB 2 (1X). Therefore, CPUC staff requests that the CAISO build off work that has already been done. This will help facilitate consistency that may potentially ease the transition to a regional RA construct.

In this stakeholder process, CAISO has not specified any intention that it will collaborate with Local Regulatory Authority's (LRA) that have made significant progress towards establishing ELCC QC values for wind and solar resources in their jurisdictions on this issue. CPUC staff requests that the next draft (of the CAISO's regional RA framework) specify that the CAISO will seek to utilize any existing ELCC work (done by LRAs) in developing a regional RA ELCC methodology in addition to seeking Western States Committee guidance.

#### **Ancillary Service (AS) Resources Counting as RA Capacity**

In its draft proposal (pg. 27), the CAISO discusses AS testing for RA capacity value. Both participating load and Regulation Energy Management (REM) Non-Generator Resources (NGR) resources are noted as providing valuable services (non-spinning reserves and regulation) to operate the grid. The ISO proposes that both these resources use a 15 minute energy test to determine the capacity value of these resources.

During the December 8th workshop, CAISO staff noted that the CAISO currently allows this under Section 40.8.1.9 of its tariff. CPUC staff examined this section of the tariff, but found that it only relates to participating loads (not REM NGRs). CPUC staff requests that the CAISO clarify that its proposal would change the existing rules related to AS resources counting towards meeting RA requirements.

### **Non-Dispatchable Resource Calculations**

CPUC staff request that the CAISO clarify (in the next regional RA straw proposal draft) who will perform the non-dispatchable resource QC calculation. Pursuant to CPUC decision and CAISO tariff, CPUC and other LRAs carry out these calculations which are subsequently adopted by CAISO. However, the current proposal seems to indicate that CAISO would perform these calculations under a regional structure. Given that the current structure allows for multiple LRAs, CPUC staff would like the CAISO to justify this change, if a change is being proposed. As the current system of collaboration has worked well, CPUC staff does not see a reason for it to change in cases where the LRA wishes to continue to determine QC resource values.

### **ISO Response**

The CAISO has been a very active participant in the CPUC's RA proceeding and the work done to establish an ELCC for wind and solar resources procured by CPUC jurisdictional LSEs. The CAISO expects that many of the lessons learned and work conducted by the CPUC will provide great insight into the CAISO process to develop a regional ELCC methodology. The CAISO will work with all LRAs and market participants to develop an ELCC methodology that works for an expanded CAISO footprint.

The CAISO will further clarify its requirements for NGR-REM resources, AS testing, and RA provisions in future proposals.

### **Organization**

#### [Environmental Justice Parties](#)

(Asian Pacific Environmental Network, Communities for a Better Environment, and The Greenlining Institute)

### **ISO Should Respect LRAs' RA and ELCC Determinations**

In its Draft RA Framework, ISO proposes to make resource adequacy determinations for resources by utilizing uniform counting rules, implementing new requirements for demand response, and developing Effective Load Carrying Capacity ("ELCC") modeling for solar and wind resources. Many aspects of these proposals intrude upon the current jurisdiction of LRAs.

In California, for example, these determinations fall squarely under the jurisdiction of the CPUC under requirements such as Section 380 of the California Public Utilities Code. This

section requires the CPUC to balance many requirements including establishing new demand response products or tariffs and maximizing the ability of community choice aggregators to determine load.<sup>8</sup> In addition, as the CPUC’s staff comments describe, the CPUC is currently developing an ELCC, and it has counting conventions for demand response.<sup>9</sup> ISO should not undercut these determinations. Rather ISO can and should defer to these determinations.

8 See Cal. Public Util. Code § 380.

9 CPUC Staff Comments on the Third Revised Straw Proposal, October 27, 2016, *available at* <https://www.caiso.com/Documents/CPUCComments-RegionalResourceAdequacy-ThirdRevisedStrawProposal.pdf>.

**ISO Response**

While the CAISO understands that the EJ Parties request that the CAISO defer to CA’s ELCC counting rules, the CAISO points out that this issue impacts system wide reliability. ELCC values, by the nature of the study methodology, depend on the resource portfolio used in the study. As such, relying solely on state-by-state ELCC values likely would not provide the CAISO with an accurate measure of the resources’ reliability contribution when measured over the expanded system.

**Organization**

[Los Angeles Department of Water and Power \(LADWP\)](#)

On uniform counting rules, has CAISO considered a transition period to reduce the shock to LSEs that are using a different methodology that what is currently used by CAISO?

**ISO Response**

The CAISO expects that completing and implementing all the initiatives needed for regional expansion will provide sufficient time for LSEs to plan mitigation strategies to avoid any “shock” from using different methodologies.

**Organization**

[Joint DR Parties \(Cpower, EnergyHub, EnerNOC, Comverge\)](#)

The Joint DR Parties continue to be concerned about the new and onerous testing requirements being proposed as a part of uniform counting rules to determine the capacity value of Supply Side Demand Response Resources. CAISO proposes that a 4 hour test be conducted for each winter and non-winter periods. While this is an improvement from the “seasonal” proposal contained in the Third Revised Straw proposal, it is neither comparable to current Demand Response resource tests, nor to requirements placed on generation resources which only require a single hour test – even for run of the river hydro resources which are highly sensitive to weather and hydrological conditions. We believe strongly that it

should be the underlying goal of any set of uniform rules in the proposed Regional RA framework to treat resources comparably. No one resource type should be provided a more onerous test than another. In other organized markets the capacity value tests of demand response resources align with those imposed on generation resources.

No other resource in CA, that the Joint DR Parties are aware of, are tested on this basis, even though they are available as an annual RA resource. DR resource testing requirements should not be disconnected from the testing requirements of other resources. Only if all resources were tested in this manner would it make sense. No other market in the US has instituted a testing protocol that is more rigorous for one type of resource than another.

Additionally, the CPUC has not separated the Resource Adequacy resource rules under its jurisdiction into RA seasons. We recognize that this is a proposal that broadens the CAISO's reach beyond CPUC jurisdictional entities – but we believe that as an anchor participant in any expanded regional ISO that the existing CA RA structure should be respected and utilized as the basis for forming expanded market rules. At a minimum it should be noted that the local jurisdictional entities counting rules may supersede those proposed in a regional document.

The Joint DR Parties believe this proposal violates the mantra used in markets around the country that resources be treated with parity. Singling out and imposing more onerous requirements on Demand Response resources may stifle the growth and participation of resources at the same time that CAISO has encouraged supply side DR resources to be integrated into its markets rather than be dispatched separately outside of its own market models.

#### ISO Response

The CAISO recognizes and supports DR as a preferred resource and has worked diligently to lower barriers and costs to integrating DR resources into the CAISO market. The CAISO understands that certain DR resources can be weather sensitive and have different attributes and capacity ratings across seasons. Given the potential variable nature of certain DR resources, seasonal testing is appropriate and prudent to ensure DR resource providers are accurately stating their capacity value by season. Additionally, an additional test is reasonable given the CAISO's proposal allows DR resource providers the autonomy to declare their resource's capacity value, which no other resource type is granted. Further, the CAISO has specified that the conditions under which test events would occur would seek to utilize DR resources under peak or load conditions designed to represent the times in which DR resources would most likely be used. Further, actual dispatch events can be used as a demonstration of the DR resource's capacity value, eliminating the need for a test event. The CAISO reduced the proposed number of test events from its original proposal and has placed limits on when those tests can occur. In the absence of the operational and technological parameters used to determine the capacity value of other technology types and the limited conditions under which test would occur, the CAISO believes two annual test events should not be seen as unduly burdensome, but as a prudent safeguard and means for the CAISO to validate a DR resources claimed capacity amount.

Finally, the Joint DR Parties request that the CAISO allow LRA counting rules to supersede the CAISO's uniform counting rules. The CAISO disagrees and reiterates that it needs consistent resource counting rules across an expanded BAA.

**Organization**

[Large-scale Solar Association \(LSA\)](#)

**Transition to ELCC:**

The CAISO should consult more closely with the CPUC (and perhaps other LRAs) about overlap and conflicts in this major RA area. LSA is very concerned about the apparent lack of CAISO-CPUC coordination on the details and transition to ELCC.

As LSA has pointed out before (and the CAISO has agreed), application of the ELCC methodology is highly complex. The CPUC has been working on the details for more than two years, but many issues remain unresolved (including the numerous methodological issues detailed in prior LSA comments). Even if the CAISO and CPUC adopted the same methodology, applying that methodology to the larger RISO footprint would raise additional issues and likely yield different results.

LSA is most concerned that the CAISO and CPUC still do not appear to have discussed the timing, methodology, and/or transitional details of developing and implementing ELCC on a RISO level. Aside from the jurisdictional issues (which might occur also with states besides California), it would be impractical to have separate, overlapping, and potentially inconsistent efforts, for LSEs and other stakeholders, and for the CAISO and CPUC themselves. Instead, the CAISO, CPUC, and perhaps other potential RISO LRAs, should design a collaborative, consolidated plan. This joint plan should avoid or address state jurisdictional issues, effectively use scarce resources (of these entities, and also stakeholders), complete the necessary work in the time allowed, and provide LSEs and resource developers clear and consistent guidance about the relative value of different technologies and locations.

**ISO Response**

The CAISO has been a very active participant in the CPUC's RA proceeding and the work done to establish an ELCC for wind and solar resource procured by CPUC jurisdictional LSEs. The CAISO expects that many of the lessons learned and work conducted by the CPUC will provide great insight into the CAISO process to develop a regional ELCC methodology. The CAISO will work with all LRAs and market participants to develop an ELCC methodology that works for an expanded CAISO footprint. Specific implementation details and timing will be worked out through a stakeholder process specifically dedicated to developing the ELCC methodology.

<b>Organization</b>
<a href="#">NRG Energy</a>
<p><b>Setting RA Qualifying Capacity Values for Wind and Solar Resources through Effective Load Carrying Capability (ELCC) Analysis.</b></p> <p>While NRG does not oppose using ELCC analysis to set wind and solar QC values, and supports the concept of a common methodology to establish capacity values for all jurisdictions, the prospect of an ELCC-focused CAISO stakeholder process separate from the efforts already underway to develop the use of ELCC analysis in the current Resource Adequacy proceeding (R.14-10-010) needlessly subjects market participants to double-jeopardy with regards to the difficult work of considering the complex, complicated details of using ELCC analysis. The CAISO and CPUC must work together to develop a common ELCC analysis that will be applied to all resources.</p> <p><b>Limit on RA Capacity from REM-NGRs.</b></p> <p>NRG supports the CAISO assessing the need to apply a limit on how much RA capacity can reliably come from 15-minute duration REM resources.</p>
<b>ISO Response</b>
<p>The CAISO has been a very active participant in the CPUC's RA proceeding and the work done to establish an ELCC for wind and solar resource procured by CPUC jurisdictional LSEs. The CAISO expects that many of the lessons learned and work conducted by the CPUC will provide great insight into the CAISO process to develop a regional ELCC methodology. The CAISO will work with all LRAs and market participants to develop an ELCC methodology that works for an expanded CAISO footprint. Specific implementation details and timing will be worked out through a stakeholder process specifically dedicated to developing the ELCC methodology.</p>

<b>Organization</b>
<a href="#">Office of Ratepayer Advocates (ORA)</a>
<p>The Proposal endorses uniform counting rules to allow the Expanded ISO to confirm that sufficient capacity has been procured, enable LSE demonstration of capacity in RA showings, and ensure that procured capacity reflects contributions to the Expanded ISO, not just the LRA.10 The Proposal does not grant any oversight or dispute resolution oversight to the WSC.</p> <p>Counting rules have a significant impact on capacity procurement, state policies, and associated ratepayer costs. Similar to the PRM, counting rules are a matter of state policy and the WSC should have authority to establish uniform counting rules that balance the need</p>

for reliability with ratepayer costs. Counting rules should be developed by the LRAs and LSEs through the WSC rather than being imposed by the Expanded ISO.

In California, many unique counting rules evolved in the RA program to address and support California's aggressive policies to meet renewable energy standards and climate change goals. The CPUC has worked diligently to create counting methodologies that best reflect the contributions of renewable resources, demand response, energy storage, and energy efficiency in support of the state's policy goals. The Proposal does not explain how resource capacity will be counted in a manner that continues to advance California's climate change initiatives and procured cost efficiently. Therefore, ORA recommends clear and transparent involvement of the WSC in development and ongoing refinement of uniform counting rules.

*a. Effective Load Carrying Capability (ELCC)*

The CAISO proposes to develop an ELCC methodology to determine counting rules for wind and solar resources.<sup>11</sup> ORA supports the development of an ELCC counting methodology because of its potential to more accurately analyze the capacity benefits of wind and solar as they increase proportionally in state energy portfolios. The ELCC methodology should be developed through an independent stakeholder initiative.

<sup>10</sup> Proposal, p. 23.

<sup>11</sup> Proposal, p. 24.

**ISO Response**

The ISO believes it is important to consider the delegation of authority to the proposed WSC under the ISO governance proposal in the future. The ISO is committed to developing the governance proposal in the future to ensure appropriate authority has been delegated to the WSC.

The ISO's proposed counting rules would only apply to the CAISO's system-wide assessment. As discussed in the CAISO Draft Framework, the LRA may count resources consistent with state policy goals.

The CAISO will work with all LRAs and market participants to develop an ELCC methodology that works for an expanded CAISO footprint. Specific implementation details and timing will be worked out through a stakeholder process specifically dedicated to developing the ELCC methodology.

**Organization**

[Southern California Edison \(SCE\)](#)

The proposal for uniform counting rules for supply-side Demand Response (DR) starts on a reasonable premise – if the Scheduling Coordinators (SCs) have the latitude and flexibility to

determine the registered capacity for their resources, then the CAISO must have the ability to verify the capacity value of these DR resources. The CAISO proposes two tests per year; which is a reduction from three tests in the prior proposal. The issue with the current proposal is that it still does not recognize that there are different types of DR resources, and therefore its one-size-fits-all testing approach will not accurately measure their value and may have significant negative customer impact on DR participation.

For example, reliability DR resources are designed for infrequent dispatch, under high system stress conditions. Testing these resources any more than once per year is unnecessary, will have significant negative customer impact, and will result in customers leaving these programs; leading to a potential loss of hundreds of MW that can be counted on in times of emergency. This is especially true for participating customers with commercial or industrial processes who experience significant expenses when tests are conducted. From a customer perspective, repeated testing is not the purpose of the program and is not an appropriate justification for the disruption and cost to their business. For commercial customers, excessive testing could cause them to depart from the program which is counter to California's energy policy to promote demand response participation.

Another example are weather-sensitive DR resources, which can deliver significant MW reduction during hot summer days by interrupting air-conditioning loads, which are the primary drivers of high load conditions. However, during cool summer days with plenty of excess supply, these resources may deliver only limited MW and could appear as "under-performers" even though they are fully available to mitigate high load conditions, if they were to occur. Testing the A/C interruptible resource on a cool day would not result in a valid measure of the program's ability on a hot summer day.

While the current proposal may work well for economic DR resources designed for frequent dispatch, the CAISO should work with the stakeholders to develop better or alternative accounting rules for reliability DR resources. Such rules should combine the historical experience with the DR resources in question, with reasonable testing requirements that do not over-burden customers who are willing to help the grid in time of need, but otherwise have a business to run.

SCE recommends that the CAISO consider adopting the capacity values as determined by an independent third party, and approved by the LRA. In the case of SCE, the CPUC (a LRA) has a well-established and robust methodology for determining DR capacity through its Load Impact Protocols. Since this statistical methodology is likely to provide a more robust MW estimate, it may obviate the need for additional seasonal tests. Another option is to move some DR programs as load modifying and would be under the LSE and LRA to determine the proper accounting.

One final point of clarification SCE proposes is that in the event of a failed test(s), the LSE or the Scheduling Coordinator for the resource should be able to utilize the substitution rules for the MW amount that was not verifiable in any CAISO-ordered

test where such failure results in Resource Adequacy Availability Incentive Mechanism (RAAIM) penalties.

### ISO Response

The CAISO recognizes and supports DR as a preferred resource and has worked diligently to lower barriers and costs to integrating DR resources into the ISO's market. The CAISO understands that certain DR resources can be weather sensitive and have different attributes and capacity ratings across seasons. Given the potential variable nature of certain DR resources, seasonal testing is appropriate and prudent to ensure DR resource providers are accurately stating their capacity value by season. Additionally, an additional test is reasonable given the CAISO's proposal allows DR resource providers the autonomy to declare their resource's capacity value, which no other resource type is granted. Further, the CAISO has specified that the conditions under which test events would occur would seek to utilize DR resources under peak or load conditions designed to represent the times in which DR resources would most likely be used. Further actual dispatch events can be used as a demonstration of the DR resource's capacity value, eliminating the need for a test event. The CAISO reduced the proposed number of test events from its original proposal and has placed limits on when those tests can occur. In the absence of the operational and technological parameters used to determine the capacity value of other technology types and the limited conditions under which test would occur, the CAISO believes two annual test events should not be seen as unduly burdensome, but as a prudent safeguard and means for the CAISO to validate a DR resources claimed capacity amount.

The CAISO will clarify that an LSE can provide substitute capacity for the MW amount that was not verifiable in any CAISO-ordered test where such failure results in Resource Adequacy Availability Incentive Mechanism (RAAIM) penalties.

### Organization

[Silicon Valley Power \(SVP\)](#)

SVP is concerned that different state laws and requirements, such as for the counting of resource adequacy attributes from intermittent resources (the Effective Load Carrying Capacity [ELCC] methodology required by state law in California is an example), could create significant differences in how LRAs/LSEs are able to qualify similar resources for resource adequacy in different subregions of the regional entity.

Individual LRAs will lose the essential local control over their programs on which the RA program has been built if the CAISO uses uniform load forecasting and counting methodologies throughout the entire region.

SVP is supportive of the CAISO's proposal to use ELCC to establish the capacity values for wind and solar resources. This is an important development so that the capacity contribution

of such resources can be properly considered in determining whether policy driven transmission upgrades - to access the capacity from such resources - are justified.

SVP is also supportive of NCPA comments opposing the CAISO's intention to replace the current RA program that allows each LRA to establish rules for its jurisdictional LSEs, as to what resources qualify for system RA. As explained in its March 16, 2016 stakeholder comments in this initiative, NCPA strongly opposes any infringement upon the jurisdiction of LRAs. As stated by NCPA, "The current deference allowing local jurisdictional authorities to establish programs for their respective LSEs is a key element to the success of the overall program. Each LSE may have unique resources, planning and procurement strategies and requirements that are driven by the needs of their customers and other conditions, such as environmental goals. There is no reason for CAISO to assume that LRAs outside of the current CAISO footprint are any less responsible than those within the current footprint." As with NCPA, SVP strongly urges CAISO to harmonize its reliability mandate with LRA policy objectives by keeping the existing policy of providing standard default counting criteria, and allowing LRAs to establish counting criteria for their LSEs. As stated by NCPA in that comment, "By imposing mandatory uniform counting rules through the Reliability Assessment, CAISO effectively precludes LRAs from adopting different counting rules for their LSEs (unless an LRA were to direct its LSEs to procure RA capacity twice (at twice the cost)—once to meet CAISO's Reliability Assessment and once to meet the LRA's policy goals."

#### ISO Response

While the CAISO understands SVP's request that the CAISO defer to LRA counting rules, the CAISO must point out that the CAISO would be tasked with ensuring system wide reliability. As an example, ELCC values, by the nature of the study methodology, are dependent on the portfolio of resources used in the study. As such, relying solely on state-by-state or LRA by LRA ELCC values or other counting rules would likely not provide the CAISO with an accurate measure of the resources' reliability contribution when measured over the expanded system.

### ***Backstop Procurement: CPM***

#### Organization

[Environmental Justice Parties \(EJ Parties\)](#)

(Asian Pacific Environmental Network, Communities for a Better Environment, and The Greenlining Institute)

**ISO Should Not Expand Its Backstop Authority.**

Importantly, ISO still has not demonstrated any reason why it needs to expand its backstop authority. ISO already has backstop procurement authority to maintain reliability.<sup>1</sup> ISO recently changed this backstop procurement to a competitive solicitation process.<sup>2</sup> Rather than assess whether the current backstop procurement meets its needs, ISO is now requesting a broad expansion of its current backstop authority to cover:

- Insufficient RA resources in a LSE's annual or monthly RA plan
- Deficiency in local capacity area resources in a LSE's annual or monthly RA plan
- Collective deficiency in a local capacity area after accounting for all procured RA resources
- Cumulative deficiency in the total flexible RA capacity in the annual or monthly flexible RA capacity plans or in a flexible capacity category in the monthly RA plans of LSEs<sup>3</sup>

The only justification given for requesting this expansion now is that ISO's proposed system PRM may show a shortage. That justification, even if it was valid, does not support ISO's request for an expansion of its backstop authority. Indeed, two of the four categories relate to local capacity area resources, not system resources. ISO's proposed PRM relates to the system, not local area.<sup>4</sup> Therefore, ISO's proposed expansion of its backstop authority for local area needs is not justified in reliance on potential system expansion. The other two categories request backstop procurement authority based solely on forward looking annual or monthly plans.

However, earlier in the Draft RA Framework, ISO describes situations for modifying monthly forecasts and for increasing imports within the month.<sup>5</sup> Moreover, ISO fails to describe why its current backstop authority is not adequate for these situations. In addition to failing to provide justification for its expansion, ISO should not expand its backstop authority because it conflicts with statutory authority and jurisdiction of local regulatory authorities ("LRAs") such as the California Public Utilities Commission ("CPUC").<sup>6</sup> Procurement decisions are currently made by LRAs such as the CPUC, which have statutory responsibilities related to the administration and oversight of the procurement processes. These statutory responsibilities expand beyond reliability and include areas such as protecting disadvantaged communities and air quality.<sup>7</sup> The Legislature entrusted the CPUC to make to implement these decisions and ensure that future procurement balances these types of considerations. An expansion of backstop procurement authority would undercut the CPUC's jurisdiction related to these important policies and mandates. To respect these authorities and LRA's jurisdiction, ISO should not expand its backstop authority.

<sup>1</sup> Draft RA Framework at p. 30 ("The ISO is permitted to engage in backstop procurement pursuant to its Capacity Procurement Mechanism ("CPM") provisions in a limited number of defined circumstances to maintain reliability.")

<sup>2</sup> Draft RA Framework at p. 30 (noting that effective November 1, 2016, CPM capacity was procured pursuant to a competitive solicitation process).

<sup>3</sup> Draft RA Framework at p. 31.

<sup>4</sup> Draft RA Framework at p. 21 (discussing the system-wide PRM ISO intends to calculate).

<sup>5</sup> See, e.g., Draft RA Framework at p. 12.

<sup>6</sup> See Environmental Justice Parties' October 27, 2016 Comments on Regional RA.

<sup>7</sup> See, e.g., Cal. Public Util. Code §§ 399.13(a)(7), 454.52(a).

**ISO Response**

The CAISO is not proposing an expansion of its CPM authority. As noted in each iteration of the Regional RA proposal, the CAISO has explained that it proposes only to update the language related to its CPM authority to recognize the proposed Regional RA reliability assessment and proposed cost allocation methodology. This change is intended to reflect the language and situations that would be applicable in a regional ISO. The CAISO has already been granted the authority to perform all of the listed CPM designations if needed to maintain reliability, therefore the CAISO is not seeking to broaden its CPM authority. Finally, it would be imprudent for the CAISO to recommend that its CPM authority simply be advisory since making CPM designations is an essential reliability tool available to the CAISO when forward procurement is ineffective or deficient.

**Organization**

[Office of Ratepayer Advocates \(ORA\)](#)

The Capacity Procurement Mechanism (CPM) grants the CAISO a limited, last-resort process to procure backstop capacity to meet reliability needs. The Proposal would continue the current backstop authority and apply it to the Expanded ISO.<sup>14</sup> ORA recognizes the need for backstop authority by the Expanded ISO to ensure grid reliability in unusual and unforeseen circumstances. However, the Proposal would essentially use backstop procurement as an enforcement mechanism to ensure LSE compliance with RA procurement requirements. The Expanded ISO would notify LSEs of procurement deficiencies under the Showings and Validation Process and would grant LSEs two cure periods to correct the deficiencies. The Expanded ISO would use the CPM to procure backstop capacity for any failure by an LSE to meet its RA requirements. This use of the CPM to mitigate LSE RA procurement obligations is not an appropriate tool to enforce RA compliance. The CPM should be used only as a last resort to ensure grid reliability and should not be utilized as an enforcement mechanism for LSE RA obligations. The Proposal could have the effect of turning the CPM into a capacity market for LSEs that choose not to cure deficiencies. Instead, ORA recommends the adoption of enforcement policies and appropriate penalties to ensure LRA and LSE compliance with RA obligations.

The Proposal seeks to revise the ISO tariff to grant CPM authority to correct LSE procurement deficiencies based on reliability assessments.<sup>15</sup> The Proposal would inequitably cure deficiencies and allow for gaming by LSEs. First, LSEs would only be required to correct deficiencies after the Expanded ISO performs a cumulative reliability assessment to determine if the procurement deficiency causes grid reliability concerns. If the Expanded ISO determines that grid reliability is satisfactorily met, then the LSEs would not need to correct their procurement deficiencies. In these situations, deficient LSEs would avoid paying an equal share toward grid reliability. If the Expanded ISO reliability assessment indicates a shortfall in meeting reliability, then deficient LSEs would be assigned a proportionate amount

of CPM costs. The capacity procurement assigned to deficient LSEs might be lower than the LSE's actual deficiency since other LSEs often over-procure. Additionally, the Expanded ISO's CPM would use a competitive bid process to keep CPM costs as low as possible. Thus, the costs assigned to deficient LSEs might be the same or even lower than the capacity costs for a deficient LSE to meet its RA obligations in a timely manner. The Proposal would allow LSE's to delay their contribution to grid reliability and would encourage potential gaming by LSEs.

ORA supports an enforcement mechanism similar to the existing CPUC mechanism to ensure LSE compliance with their RA obligations. The existing CPUC mechanism issues fines to LSEs that fail to meet their obligations after a cure period. The result has been that LSEs cure any deficiencies to avoid paying daily fines. This penalty mechanism has avoided the use of the CAISO CPM to correct individual LSE deficiencies. The CPM based on reliability assessments should not be the primary avenue to address LSE failures to meet RA requirements. The Proposal could result in increased use of the CPM as an enforcement mechanism rather than a last resort to solve short-term reliability issues. A CPM event related to deficient LSE procurement should only occur in the very rare event that an LSE failed to comply with strict enforcement policies.

14 Proposal, pp. 30-32.

15 Proposal, p. 32.

### ISO Response

The CAISO understands the ORA's comments regarding the use of fines or penalties versus the use of CPM designations in order to ensure compliance/enforcement of RA requirements. The CAISO notes that under its current CPM authority CAISO already has the authority to issue a CPM in the month ahead time-frame to resolve deficiencies in LSE showings. The CAISO does not have the authority to impose other fines or penalties on entities that have not met their RA obligations. CAISO believes its current CPM authority and the proposed application of that authority on a regional basis is appropriate.

### Organization

[San Diego Gas and Electric \(SDG&E\)](#)

SDG&E urges the ISO to consider allocating CPM costs based on the region where the event occurred in addition to its current cost allocation mechanism. If an exceptional dispatch CPM were designated in PAC-East while the rest of the ISO BAA did not have any issues, then the cost should be allocated only to the LSEs in PAC-East. Currently, the ISO allocates costs based on Local and System deficiencies. This additional requirement will enable CAISO to better identify those entities that should be allocated the costs related to the event. SDG&E recommends the ISO to also consider allocating costs based on regional deficiencies.

### ISO Response

CAISO will consider SDG&E's suggestion to explore the need to allocate exceptional dispatch CPM costs in ways that better align with cost causation principles.

## ***Maximum Import Capability***

### **Organization**

[Imperial Irrigation District \(IID\)](#)

IID understands that CAISO uses its MIC methodology to assess deliverability of RA imports. CAISO's MIC methodology establishes the baseline import capability based on historical usage, looking at the maximum amount of simultaneous energy schedules into CAISO BAA, at the CAISO coincident peak system load hours over last two years. CAISO proposes to modify the MIC calculation for limited situations where the peak load of a "new" region added to the expanded balancing area occurs seasonally, non-coincidental with the peak load of the rest of the system and there are no simultaneous constraints between areas. The CAISO's reasoning for this proposed change is that if it continues to determine MIC at the expanded BAA system's coincident peak, it will *"unduly restrict the MW amount that can actually be reliably achieved for certain branch groups."* CAISO proposes to use previous operational or planning studies to determine if simultaneous import constraints exist between the new system joining the CAISO and the existing CAISO. If none exist, then MIC will be calculated for non-simultaneous peak conditions. Expectedly, the modification proposed is intended to assure that the addition of PacifiCorp's system to the CAISO's balancing authority does not limit import capability from potential RA resources throughout the West during non-simultaneous peak periods. CAISO's analysis states:

*"The CAISO has also determined that there currently are no simultaneous import constraints between the existing CAISO system and the PacifiCorp system. Therefore, the CAISO can determine the MIC into the existing CAISO system and into PacifiCorp on a nonsimultaneous basis without causing reliability issues."*

Based on stakeholder comments, CAISO further clarifies its MIC calculation proposal with the following implementation details and notes:

- a) This new approach will be used for new PTOs joining the expanded CAISO BAA and there is no need to reassess for existing CAISO PTOs since they have the same seasonal peak.
- b) Constraints and the conditions to be studied by CAISO will be done in a public and transparent manner via the annual Transmission Planning Process (TPP). CAISO

intends to assess under multiple load scenarios (summer, winter, fall and spring) and run relevant sensitivities and consider prevalent scheduling practices.

c) CAISO intends to run deliverability studies that review all resources (NQC) before any new PTO joins. *“At this time, the CAISO expects little to no impact to the current or queued internal resources NQC values as a result of this proposed modification to the MIC calculations.”*

The CAISO also proposes to change its MIC allocation methodology to allocate the shares of MIC based on LSE’s load-ratio share in the Regional TAC sub-regions. CAISO believes this allocation methodology aligns with the proposed Regional TAC framework to split the MIC allocation based upon TAC sub-regions that are paying for the underlying transmission of the overall system. In effect, the allocation methodology is intended to give the similar MIC access to CAISO’s existing LSEs at the interties as they have currently. Similarly, new LSEs joining will have full access to the MIC capability at the interties to their sub-region. And, all LSEs will be able to nominate “Remaining Import Capability” (RIC) at any intertie connecting to the subregions where it has load. CAISO provides an example of how it plans to track and validate MIC allocations based on load-ratio share in its 3<sup>rd</sup> Revised Proposal document, pgs. 32-35.

The example demonstrates that entities with the largest share of load within a sub-region will initially receive the majority of the MIC allocations at interties excluding any ETC, TOR or Pre-RA import commitments (through Step 7). At Step 8, any LSE will have the opportunity to bilaterally trade MIC allocations to be able to utilize MIC at other sub-regions. And at Step 13, if any remaining MIC exists, LSEs will be able to nominate such capability for RA imports.

Lastly, with this proposal, CAISO recommends an approach for allocating MIC created by new regionally cost-shared transmission projects. In the proposed framework, if new projects approved under its regional TPP increase MIC, CAISO would allocate the shared transmission capability proportionally to each sub-regional TAC area based on the relative shares of the costs of the project included in that sub-regional TAC areas rate.

**Impact to IID:**

The changes to MIC calculation and allocation methodology proposed with the Regional RA Framework does not improve MIC import capability from the IID area, since this proposal only addresses issues affecting new PTOs joining the expanded CAISO BAA, in particular those affecting PacifiCorp. Under this framework, MIC calculated from the IID interties to the expanded BAA will continue to use historical flows from the last two years under the same simultaneous peak load scenarios as studied today. ETC, TOR and Pre-RA commitments will continue to be honored, reducing total capability available for MIC. CAISO narrowly focused its changes presuming that its current MIC methodology effectively determines MIC from other California BAAs into the existing CAISO footprint. By design, this presumption was not reassessed through the stakeholder initiative and, as a result, CAISO’s MIC from other non-PTO California BAAs, such as IID, will always be more restrictive than the intertie’s path ratings.

With respect to increased MIC resulting from regionally cost-shared transmission projects, CAISO appears to be on the right track to allocate MIC based on the share of TRR allocated to the sub-regions. However, it remains unstated as to what consideration, if any, CAISO provides to external transmission upgrades that benefit MIC. That is, if an external transmission project is demonstrated to increase potential MIC, will the CAISO consider these benefits and how will it be allocated to LSEs? This proposal does not address such scenarios.

**Comments to CAISO:**

It seems that the Regional RA Framework initiative would be an appropriate forum to address existing concerns about limitations of CAISO's use of historical import flows for MIC from other California BAAs into an expanded regional CAISO BAA. However, CAISO narrowly focuses its proposal to address issues for select entities rather than seek to expand RA market opportunities and efficiencies for the entire WECC region. The CAISO proposal is discriminatory as it allows different MIC calculations for certain entities based on an arbitrary set of criteria and not based on the actual physical characteristics of the system and cost-effectiveness, thus choosing winners and losers. Instead, CAISO should focus on establishing MIC that (1) maximizes the utilization of existing assets (2) minimizes the cost of RA to California ratepayers (3) promote consistent policies across all BAAs in the WECC region. For instance, if resources from IID can deliver more cost effective RA, then resources from PacifiCorp should not be selected over resources from IID.

In summary, IID respectfully objects to CAISO considering multi-state resource adequacy options for regionalization because no legislative authority exists for such planning. The governor has postponed any further legislative action on regionalization and IID is of the settled belief it is premature at best for CAISO to be planning how to obtain multi-state resource adequacy under a regionalization paradigm that is not likely to exist.

Moreover, IID is concerned CAISO's multi-state planning resource adequacy planning will trigger preemption and dormant commerce clause problems for California renewable energy policies<sup>1</sup>. These concerns are explained in detail in the legal opinions CAISO obtained from The Utilities Reform Network (U.S. SUPREME COURT UPHOLDS PREEMPTION OF MARYLAND RESOURCE PLANNING EFFORTS-*Understanding the potential consequences for California*) and UC law professor Ethan Elkind's 3 May 2016 email both, of which are in CAISO's possession (see attachment).

In addition to these concerns, we note above that CAISO continues its policies of denying IID adequate access to the CAISO grid to allow full development of renewable resources in the Imperial Valley. See supporting documents on pages 6-15 in IID comments submitted.

**Additional IID comments:**

The CAISO assesses the deliverability of imports from other BAAs by way of a MIC calculation methodology. The CAISO's Business Practice Manual for Reliability Requirements describes the CAISO's method for calculating the MIC for each intertie.<sup>2</sup> In pertinent part, for

most interties, the CAISO calculates MIC megawatt amounts based on historical usage, looking at the maximum amount of simultaneous energy schedules into the CAISO BAA, at the CAISO coincident peak system load hours over the prior two years.<sup>3</sup> The CAISO will expand this MIC MW value for only those interties for which it determines during the Transmission Planning Process (“TPP”) that the historical MIC MW values will be insufficient to support RA deliverability for the MW amount of resources included in the base case resource portfolio that is used to identify policy-driven transmission based on state and federal policy goals.<sup>4</sup> For example, if the adopted policy mandate for identifying policy-driven transmission in the TPP is the State’s 33% renewable portfolio standard, the CAISO establishes the resource portfolio in collaboration with the CPUC, and this portfolio includes renewable resources that will be sufficient to meet the 33% RPS mandate.<sup>5</sup> The average of net import schedules plus the average of unused Existing Transmission Contract (“ETC”) rights and Transmission Ownership Rights (“TOR”) represent the MIC for each intertie.<sup>6</sup> The CAISO calculates MIC values for each intertie annually for a one-year term, and the CAISO’s 13-step Available Import Capability Assignment Process is used to allocate import capability to Load-Serving Entities (“LSEs”).<sup>7</sup>

IID has previously expressed to the CAISO its concerns with the CAISO’s historically-based MIC methodology. Specifically, IID has explained that the reliance on historical import flows and CAISO-determined target import limits, as opposed to assessing import capability strictly based on the physics and locational aspects of the interconnected system, results in underuse of existing transmission capacity (including IID’s existing transmission capacity), provides incentive to locate projects that have the highest adverse impact on the grid, results in over-use and congestion on the CAISO’s system, and increases costs to both IID and CAISO ratepayers.<sup>8</sup>

The CAISO’s RA Framework Proposal does not propose to change the historical calculation of the MIC. However, it proposes to use a forward-looking methodology for new projects that will be cost-shared by two or more sub-regions. The CAISO states that this is the same forward looking methodology that is already established for evaluating MIC for public policy needs. *Id.* at 39-40. The CAISO supports limited application of this proposal to only situations where the costs are shared by two or more sub-regions on the grounds that using a forward-looking study based methodology would require speculation between generation development internal and external to the ISO BAA and influence the ultimate development of generation internal and external to the ISO BAA. *Id.* at 40. In response to stakeholder comments, the CAISO states it may reconsider major changes to all of the MIC processes in the future, as necessary, but it maintains that the current proposal is appropriate at this time. *Id.*

As noted above, the historically-based MIC calculation methodology fails to maximize use of available transmission capability and renewable resources in California. IID thus urges the CAISO to undertake a new stakeholder process to assess the entire MIC methodology to ensure that the MIC calculation and allocation will be consistent with the broader goals of SB 350 by ensuring benefits to California by taking advantage of existing available California

transmission and available California renewable resources. Given that the CAISO now proposes to use a forward-looking methodology for new projects that will be cost shared by two or more subregions, IID believes it is feasible and equitable to use a forward-looking methodology for all MIC determinations. As regards the CAISO's concerns that broader application of the forward looking methodology would require speculation between generation development internal and external to the ISO, IID has previously explained that the locational effects of generator output should be considered to maximize deliverability and reduce congestion costs.<sup>9</sup> The CAISO's concerns about speculation on generation development are unclear and are misplaced given that transmission planning should require consideration of the most cost-effective and efficient solutions. Policies such as the historical MIC allocation that hinder SB 350's objectives to facilitate the use of the most efficient and cost-effective path to access renewables should be reconsidered and revised in the best interests of the ratepayers of the State.

**Curtailment of Internal Generation and Imports to Resolve Simultaneous Constraints:**

Other aspects of the CAISO's RA Framework Proposal on MIC are also of concern as they may disincentivize use of California renewable resources. Specifically, the CAISO proposes to resolve simultaneous deliverability constraints among imports and/or internal generation by curtailing the internal generation and/or import that has the highest impact. Id. at 35. The CAISO's proposal appears to be intended to facilitate the deliverability of imports to the existing and new sub-regions, and particularly sub-regions that have peak loads that occur non-simultaneously with the peak load of the rest of the system. Id. at 34-35. However, IID is concerned that this proposal could adversely impact use of in-State imports of renewable generation (such as from IID's BAA). The manner in which the curtailment decisions would be made is unclear and the CAISO's general reference to the process in the Generator Interconnection Business Practice Manual does not provide clarity on how curtailment decisions would be made. Id. at 35. Therefore, the CAISO should undertake an affected system analysis to understand the potential operational impacts, if any, to interconnected California BAAs such as IID of the proposed change to the MIC calculation. The CAISO should also study the probability of curtailment of California renewable generation as a result of its proposed MIC adjustments. The CAISO should also make clear if such curtailment to resolve simultaneous constraints would occur only in the case where a peak load of a PTO that joins the ISO occurs seasonally non-coincidental with the peak load of the rest of the system or if this will be standard procedure for resolving simultaneous import constraints in the expanded ISO BAA.

**MIC Allocation by TAC Sub-Region:**

Another MIC-related aspect of the RA Framework Proposal that is of concern is the proposal to limit the initial allocations of MIC capability only to those ISO sub-regions that are defined by the Regional TAC sub-regions based on a load ratio share of the LSEs serving load within those sub-regional TAC areas. Id. at 36. The CAISO states modifying the MIC allocation process to reflect the ISO's proposed Regional TAC policy better aligns MIC allocation based upon TAC sub-regions that are paying for the underlying transmission of the overall system,

and is “appropriate given the underlying cost causation and payment structure that is being envisioned under the Regional TAC policy.” *Id.* at 36-37.

Reliance on a cost structure proposed by the CAISO in the Regional TAC Options initiative is of concern when it may not be the ultimate cost structure approved for a regional ISO. Moreover, the CAISO should have studied whether its proposal to split MIC allocations to TAC sub-regions would create the need for new transmission when there is existing transmission capacity available in California BAAs. The CAISO should also be required to assess the impact its proposal would have on the State’s policy goals of increasing use of renewable generation and advancing the economic interests of the State. Regionalization should enhance, not detract from use of existing transmission and renewable resources.

2 BPM for Reliability Requirements at p. 83-93, accessible at:

[https://bpmcm.caiso.com/BPM%20Document%20Library/Reliability%20Requirements/Reliability%20Requirements%20BPM%20Version%2030\\_clean.docx](https://bpmcm.caiso.com/BPM%20Document%20Library/Reliability%20Requirements/Reliability%20Requirements%20BPM%20Version%2030_clean.docx)

3 CAISO Second Revised Straw Proposal on Regional Resource Adequacy at 15, accessible at:

<http://www.caiso.com/Documents/SecondRevisedStrawProposal-RegionalResourceAdequacy.pdf>

4 *Id.*

5 BPM for Reliability Requirements at p. 84.

6 CAISO Second Revised Straw Proposal on Regional Resource Adequacy at 16.

7 *Id.* at 15.

8 See, e.g., IID’s March 3, 2016 Comments on the 2015-2016 Draft Transmission Plan,

accessible at: <https://www.caiso.com/Documents/IIDCommentsDraft20152016TransmissionPlan.pdf> and

IID’s Comments following the CAISO’s November 16, 2015 Stakeholder Meeting in the 2015-2016 TPP, accessible at:

[https://www.caiso.com/Documents/IIDComments2015-2016TransmissionPlanningProcessStakeholderMeetingNov16\\_2015.pdf](https://www.caiso.com/Documents/IIDComments2015-2016TransmissionPlanningProcessStakeholderMeetingNov16_2015.pdf)

9 See, e.g., IID’s March 3, 2016 Comments on the 2015-2016 Draft Transmission Plan (including Discussion Paper Prepared by ZGlobal on behalf of IID attached thereto).

## ISO Response

The ISO appreciates IID’s comments on the MIC proposal. The ISO understands the concerns raised with the historical methodology that is used to calculate MIC. The ISO disagrees that the Regional RA initiative is the appropriate venue to explore modification to the historic methodology used to calculate the MIC values. The ISO further disagrees with IID’s contention that the ISO’s current policies deny IID adequate access to the ISO grid to allow for renewable development in the Imperial Valley. The ISO has addressed these issues with IID in other contexts.

The ISO is not proposing to curtail internal renewable resources to accommodate external resources. This process is intended to study the deliverability of import capability and does not include any proposal to curtail internal resources in order to allow other import resources to be delivered. For a full description of the MIC process please refer to the second revised straw proposal under this Regional RA initiative.

The ISO does not agree that the regional RA proposal will trigger preemption and dormant commerce clause issues for California renewable energy policies. For a discussion of preemption and dormant commerce clause issues, see the August 1, 2016 analysis entitled “Evaluation of Jurisdictional and Constitutional Issues Arising from CAISO Expansion to include PacifiCorp Assets” authored by several law professors at the request of the ISO. This

paper was submitted by the ISO in the California Energy Commission’s regional grid operator and governance docket, 16-RGO-01.

IID requests that the ISO undertake further study work. The ISO takes such requests under advisement. The ISO has, however, already conducted significant study efforts in order to determine the impacts to the California State energy policy and cost and benefit impacts as directed by SB 350.

**Organization**

[Los Angeles Department of Water and Power \(LADWP\)](#)

As all loads within the sub-region of an expanded regional ISO will pay the same TAC rate, the CAISO should consider improving on its MIC allocation proposal by creating a mechanism to redistribute the unused MICs allocated to the LSEs within the sub-region to LSEs within the same sub-region that have the need for extra MICs. Such a redistribution mechanism would improve efficiency and prioritize the “use” of the grid for RA purposes based on need, rather than transmission entitlement.

**ISO Response**

The CAISO understands the suggestions by LADWP to allocate remaining MIC capability to entities based on need. CAISO has not proposed to make changes to the allocations of MIC capability beyond the proposed split of MIC allocation for the proposed TAC sub-regions. At this time, CAISO believes that any changes that go further than the proposed modifications are beyond the scope of this initiative, however, the CAISO would potentially reconsider the suggestion in the future should broader MIC methodology changes be considered.

**Organization**

[Public Generating Pool \(PGP\)](#)

As mentioned above, there are several load serving entities within the PacifiCorp BAAs that rely on BPA to meet all of their load requirement needs, including the need for system flexibility. A significant gap in the ISO’s current RA framework is the limitation of external resources to provide flexible RA capacity. It is critical that the ISO move forward with its proposal in the ISO’s Flexible RA Criteria and Must Offer Obligation Phase 2 initiative to allow import resources to provide flexible RA capacity *prior* to expansion of a regional ISO. It is also important that the CAISO’s Maximum Import Capability (MIC) rules do not limit BPA’s ability to serve those loads consistent with the long-term agreements in place that are serving them today.

**ISO Response**

The CAISO appreciates the comments and concerns of PGP. CAISO is committed to working through potential changes to its flexible RA rules and the external resource issue that has been raised. The CAISO agrees that the MIC process, allocation, and calculation should not limit any entity's ability to serve customers consistent with long-term arrangements that have been used historically. CAISO believes that its proposed modifications to the MIC calculation and allocation methodologies will ensure that parties are not negatively impacted.

**Organization**

[Public Power Council \(PPC\)](#)

In regard to the process and rules for allocating Maximum Import Capability (MIC) in the RRA process, the CAISO's Framework proposal does not propose any changes to its previous straw proposals. Framework, p. 33. PPC appreciates CAISO staff's clarification of the operation of its tariff. Id., p. 33-34.

The clarification, however, does not address the fundamental issues raised by PPC and others. The problem lies in the application of the current CAISO tariff's RRA provisions to loads that are forcibly included in the CAISO, are dependent largely or wholly on long-standing, long-term imports from outside the CAISO, and are located inside constrained areas of PacifiCorp's transmission system. The CAISO implicitly concludes that PPC members' existing transmission rights (ETCs) and power supply arrangements will be protected and that ETCs or Pre-RA Commitments will ensure sufficient MIC allocations. These conclusions are erroneous as they ignore the facts at hand.

As we have previously discussed in our comments, PacifiCorp proposes to abrogate all OATT contracts that it executed with its transmission customers. The CAISO appears to wholly acquiesce to this plan. See CAISO, PacifiCorp Contract Conversion Discussion Paper, June 2, 2016. Thus, there would be no ETCs for the CAISO to honor in the MIC allocation process. Although we believe abrogation is unlawful,<sup>1</sup> it is inappropriate for the CAISO to ignore the effect that abrogation would have on PPC members. Because abrogation would deprive PPC members of ETCs, the CAISO tariff provides no protection to PPC members through operation of its ETC provisions. The CAISO, of course, could easily remedy this by grandfathering and honoring with roll over all transmission arrangements in effect on January 1, 2017.

The other source of protection identified by the CAISO would be to qualify the imported power supply to PPC members as Pre-RA Commitments. Id., p. 33. Assuming that the power supply contracts do qualify, however, these Pre-RA Commitments must then compete for MIC against all other Pre-RA Commitments at each of the many constrained intertie points and other constrained paths inside PacifiCorp's transmission system. We previously noted to the CAISO that we have every reason to expect that PacifiCorp will also claim Pre-RA Commitments for its loads on these interties and that those asserted commitments, combined with PPC's members' Pre-RA Commitments, will exceed the MIC at some system locations.

PPC has already made these points to the CAISO and demonstrated that it is not a hypothetical concern. PacifiCorp has already attempted to deny BPA rights to use the AMPS line to serve its loads despite the fact that the line was used for decades to serve those loads and BPA had a right to transmission service using the line. See e.g., BPA Complaint, FERC Docket No. EL15-13, Oct. 30, 2014. PacifiCorp's basis for that attempted denial was that it needed the AMPS line to serve loads. It asserted that BPA's need for transmission on the path could not be accommodated. *Id.*

In a resulting pro rata allocation, PPC's members will not receive a sufficient MIC allocation to count all of their long-term imports towards their RRA requirements. See particularly, Joint Comments of PPC, Northwest Requirements Utilities and Western Public Agencies Group, Oct. 27, 2016, p. 2-4. The CAISO's Pre-RA Commitment clarification assumes that, so long as the amount of MIC allocated sums to a load's forecasted needs, regardless of which flowgates the MIC is on, the MIC allocation will be sufficient for the load. This is incorrect because PPC members can only access imports on certain flowgates. Given the location of the generation and amounts of energy used to serve PPC members' loads under their existing contracts and the constrained nature of PacifiCorp's system, the inability to obtain MIC on certain in-demand flowgates is likely to be decisive as RIC at those points is likely to be non-existent. In other words, the current MIC allocation provisions in the CAISO tariff do not provide protections for PPC members' loads inside PacifiCorp's transmission system. The CAISO tariff provisions in fact would damage the economic value of those existing power supply contracts, increase costs to utilities and "[T]he [CA]ISO commits to monitor the MIC process as the [CA]ISO and stakeholders gain experience with these proposed refinements in an expanded footprint and will reevaluate the need for further MIC refinements in the future." p. 33. This is no solution for PPC members. Monitoring does not provide a clear path to redressing the immediate injury the CAISO tariff would inflict and certainly provides no assurance that any solution would be forthcoming. We believe that the problem can and should be addressed now. The CAISO should work now with the affected customers to develop tariff-based solutions to avoid a result that is not just or reasonable and is unduly discriminatory.

These and the other issues raised by PPC remain unresolved. As this is the case, the CAISO should not determine the Framework proposal to be "close to final" with the intention of closing off conversations with customers and stakeholders.

<sup>1</sup> See Federal Power Act, sections 217 and 218.

### ISO Response

The CAISO understands the concerns raised by PPC's comments regarding MIC and protections for existing arrangements. The current CAISO MIC process does in fact protect pre-existing RA commitments, regardless of the calculated MIC on a particular intertie. This means that if an entity has Transmission Ownership Rights (TORs), Existing Transmission Contracts (ETCs), or Pre-RA Commitments (contractual obligations that were pre-existing), CAISO will protect those prior commitments and arrangements and provide matching MIC

allocations. If there are existing ownership rights and/or contracts that support existing arrangements, those rights and contracts would not be allowed to over-subscribe the Available Transmission Capability (ATC) on any particular intertie – this means that CAISO would be able to provide allocations of sufficient MIC to all entities with existing arrangements on a particular intertie in order to protect those existing arrangements - even if the calculated available MIC was below the total sum of all ownership/contractual rights and Pre-RA commitments on a particular intertie. Therefore, the concern raised that there will insufficient MIC provided to protect existing arrangements is inaccurate and the situation described in the PPC comments would not materialize. CAISO disagrees that the application of the ISO tariff pertaining to the MIC process would cause injury to parties.

CAISO also understands the issues and concerns raised related to the transmission contracts transfer proposal. CAISO agrees that these are very important issues and commits that they will need to be resolved within a separate forum.

#### Organization

[Silicon Valley Power \(SVP\)](#)

SVP reiterates its prior comments that it is important to ensure that the MIC continues to allocate capacity based on existing contractual rights and commitments. SVP seeks and requires assurances that it will be able to obtain (through updated tariff or Business Practice Manual language) sufficient MIC allocations as might be needed in the expanded ISO footprint – as SVP currently receives today (based on grandfathering of its existing contracts and commitments). SVP takes some comfort from the CAISO’s statement that “the proposal continues to give Pre-RA Import Commitment protection at any intertie scheduling point even if it is located in a different sub-regional TAC than the LSE’s native load.” Regional Framework at 37. However, the framework does not provide details as to how this would work in practice. Depending on how the details are eventually worked out regarding imports and resource adequacy, SVP submits there may be challenges in allocating MIC based on existing commitments, taking into account existing contracts that involve firming and shaping of resources. At times, the daily scheduling of deliveries under such contracts may involve or result in different energy sources on different days, where such energy sources could be outside of, inside of, or require wheeling through the expanded CAISO footprint.

SVP also supports a transition period for MIC calculation proposal, as it would appear to minimize implementation issues and allow parties time to address questions and complications that may arise.

#### ISO Response

The CAISO appreciates the SVP comments on the MIC proposals. CAISO expects that entities will be able to obtain sufficient MIC allocations as might be needed in an expanded ISO footprint – based on grandfathering and recognition of entities existing contracts and

commitments. CAISO understands the requests for additional clarification related to how these proposals would work. CAISO also appreciates the comments raising the issues related to the potential difficulty related to existing commitments that use firming and shaping – these concepts are not considered under the current MIC processes and CAISO agrees that these circumstances may potentially need further consideration in future Regional RA proposals.

## ***RA Import Requirements***

### **Organization**

[Calpine Corporation \(CPN\)](#)

Calpine does not support the proposed treatment of imports in the proposal. Calpine believes that the CAISO should strengthen RA requirements by requiring RA imports to be procured on a forward basis from specific physical resources with sufficient transmission to be delivered to the CAISO and that cannot be “recalled” by their host BAs in emergencies. Instead, the proposal goes in the opposite direction by explicitly allowing intra-month purchases of non-resource-specific import RA, i.e., “short term arrangements,” which are arguably permissible under current rules. The proposal would allow LSEs to use short term arrangements to meet up to 10 percent of their RA requirements with some limited mechanisms to ensure that RA capacity backed by short term arrangements actually performs.

As indicated in previous comments, strengthening RA requirements in the manner recommended by Calpine would mirror the treatment of external resources in PJM’s capacity market.<sup>1</sup> In the discussion of the CAISO’s proposal at the last MSC meeting, Scott Harvey pointed out that while PJM has relatively rigorous requirements with respect to resources that count explicitly towards capacity requirements, it implicitly accounts for the possibility of satisfying reliability requirements through short term arrangements in setting its planning reserve margin, i.e., PJM adjusts its planning reserve margin downwards to account for the Capacity Benefit Margin associated with transmission between PJM and surrounding regions.<sup>2</sup> Calpine notes that even after this adjustment, PJM requires forward procurement of physical resources to meet planning reserve margins similar to the planning reserve margins utilized by LRAs in CAISO. Absent a showing that reliance on short term arrangements in combination with forward procurement of external and internal physical resources is sufficient to meet resource adequacy requirements, CAISO should not explicitly allow reliance on short term arrangements to meet resource adequacy requirements.

In addition to Calpine's general opposition to explicitly allowing short term arrangements to count towards RA requirements, Calpine is concerned that the CAISO's proposed mechanism to ensure that RA capacity backed by short term arrangements actually performs may not work.

First, the CAISO proposes to allocate the costs of CPM procurement to address the non-performance of RA resources backed by short term arrangements to the non-performing resources. Calpine is concerned that the non-performance of RA resources backed by short-term arrangements may occur when capacity in CAISO and surrounding areas is scarce and hence there are no available resources to procure through CPM.

Second, Calpine could support the CAISO's second mitigation strategy, i.e., to impose significantly higher availability penalties in system emergencies. This is similar to approaches that have been implemented in PJM and New England.<sup>3</sup> Implementing stronger financial performance penalties, however, would not necessarily ensure that physical reliability standards are satisfied.

Finally, requiring documentation that an LSE has not exceeded the CAISO's proposed 10% limit on short-term arrangements would not address the fundamental threat to reliability associated with the 10% limit itself.

Calpine reiterates its request that the CAISO eliminate the ambiguity in current rules that facilitates reliance on short term arrangements rather than codifying an acceptable level of such reliance, as the CAISO has proposed.

1 See section 4.2.2 of <https://www.pjm.com/~media/documents/manuals/m18.ashx>.

2 See the discussion of Capacity Benefit Margin and Capacity Benefit of Ties in <http://www.pjm.com/~media/planning/res-adeq/2016-pjm-reserve-requirement-study.ashx>

3 See the high level comparison of ISO-NE's Pay-for-Performance and PJM's Capacity Performance here: <http://www.pjm.com/~media/committees-groups/task-forces/urmstf/20160602/20160602-item-09-pay-for-performance-and-capacity-performance-comparison.ashx>.

### ISO Response

The CAISO appreciates the comments by Calpine and understands the concerns raised regarding the proposed RA import requirements. CAISO believes that further consideration and development of these aspects of the proposal are needed and plans to incorporate stakeholder feedback into future proposals.

### Organization

[Department of Market Monitoring \(DMM\)](#)

### Requirements for resource adequacy imports

The draft regional framework proposal includes a provision to allow short term capacity import arrangements to account for up to ten percent of the total system resource adequacy requirement for each load serving entity. This is a substantial shift in direction from the third revised straw. The third revised straw included a provision to require non-resource specific imports to be contracted prior to being utilized in a showing to satisfy resource adequacy requirements. That provision has been removed in the draft regional framework.

This represents a change that would substantially weaken existing resource adequacy program requirements. This change would increase the ability and economic incentive to increase reliance on resource adequacy imports that would not need to be backed by physical resources or forward purchases of firm energy from outside the ISO.

Under the ISO's current resource adequacy regulations, non-dynamic non-resource specific imports ('resource adequacy imports') do not have the same must offer obligation as internal resources. Resource adequacy imports are not required to bid in all hours of the day-ahead market. Day-ahead bidding requirements for resource adequacy imports are also limited by inter-temporal constraints such as multi-hour run blocks or contractual limitations.

In addition, resource adequacy imports are only required to bid in the day-ahead market. They do not have any must-offer obligation in real-time if not accepted in the day-ahead market. Internal resources either capable of starting in real-time or incrementing from day-ahead schedules are required to bid available resource adequacy capacity in real-time.

Historically, import bids submitted in the day-ahead market at or near the current price cap of \$1,000 per MWh are extremely unlikely to clear.<sup>9</sup> Thus, it would be possible to meet resource adequacy must offer requirement by simply submitting an energy bid at the bid cap into the ISO's day-ahead market. In the rare instance that the resource adequacy importer bidding at or near the \$1,000/MW bid cap received a day-ahead schedule, it could attempt to source its import from spot market purchases at market hubs outside of the ISO.

Under the worst case scenario for this importer, if they were unable to purchase the power on the spot market to import in real-time, they would simply have to buy back their day-ahead schedule in real-time at the same \$1,000/MWh price at which the import was paid in the day-ahead market. Any penalty the ISO would impose on the resource adequacy importer for failing to deliver in these rare, but critical, conditions would almost certainly be less than the money that the importer would save from avoiding a capacity payment to an actual physical resource to support his resource adequacy obligation.

Therefore, as previously expressed in stakeholder meetings held to discuss this proposal, DMM is concerned that these rules would create the economic incentive for all load serving entities to meet a significant portion of their resource adequacy requirements with day-ahead market import bids that are not supported by any physical resource or forward purchases of firm energy from outside the ISO.

The cumulative effect of this may also be functionally equivalent of reducing the formal planning reserve margin by the percentage of resource adequacy capacity that is allowed to

be met by short-term non-resource specific imports. For example, if the ISO sets a planning reserve margin of 115 percent, but it allows 10 percent of requirements to be met by such resource adequacy imports, the effective planning reserve margin would actually be only 103.5%.<sup>10</sup>

FERC's recently issued Order 831 raises the hard price cap from \$1,000 to \$2,000 per MWh.<sup>11</sup> This order, which has not yet been scheduled for implementation in the ISO's markets, will require cost verification for bids between \$1,000 and \$2,000 per MWh for internal resources before they may set market clearing prices. Order 831 does not require this verification for economic exchange transactions, including imports. Under these provisions an import resource could submit a bid in the day-ahead market at the price cap of \$2,000 per MWh with an even lower chance of being dispatched than a similarly situated import resource today.

<sup>9</sup> Since January 1, 2011, less than one half of one percent of hours cleared in the day-ahead market included any price node with a day-ahead market price of \$990 per MWh or above. The percentage of hours clearing with any node at a price above \$990 in the residual unit commitment process is even lower: less than one eighth of one percent in all years since 2011. Nodes clearing at prices above \$990 in the day-ahead market or residual unit commitment process are typically located in areas with supply limited by available transmission capacity and are thus unlikely to include inter-tie points.

<sup>10</sup> 10 percent of 115% = 11.5%. 115.0%-11.5%= 103.5%.

<sup>11</sup> 157 FERC ¶ 61,115. UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION 18 CFR Part 35 [Docket No. RM16-5-000; Order No. 831] Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators (Issued November 17, 2016) <https://www.ferc.gov/whats-new/comm-meet/2016/111716/E-2.pdf>

### ISO Response

The CAISO appreciates the comments by the DMM on RA import requirements. CAISO understands the concerns that have been raised by DMM on this important topic. The DMM comments raise many important issues and CAISO will need to further explore these concerns and how to best balance stakeholder needs. CAISO is focusing on regional governance modifications before it will take up finalization of the other regional RA stakeholder initiatives. CAISO will address these important considerations and other outstanding issues in future proposals.

### Organization

[Industrial Customers of the Northwest Utilities \(ICNU\)](#)

### Requirements for RA Imports

ICNU supports the ISO's proposal to permit up to 10% of an LSE's total system RA requirements to be met through short-term capacity.<sup>17/</sup> This proposal shows flexibility on the ISO's part, and a willingness to find reasonable compromises in direct response to concerns raised by stakeholders associated with potential new PTOs, such as ICNU and PacifiCorp.<sup>18/</sup> It is common practice for utilities not located in the ISO to procure capacity in the month-ahead, and other short-term markets, after the ISO's RA showing due date. Restricting the ability of utilities to rely on these markets may impose costs on new participants, who are not presently bound by the RA showing timeframes required by the

ISO. ICNU is supportive of providing flexibility for new PTOs to continue these sorts of procurement practices.

17/ Id. at 42.

18/ E.g., ICNU Comments on Third Revised Straw Proposal at 5; ICNU Comments on July 21 RA Working Group at 5 (July 29, 2016); PacifiCorp Comments on Third Revised Straw Proposal at 2-3.

### ISO Response

The CAISO appreciates ICNU's comments in support of the proposed RA imports requirements.

### Organization

[Los Angeles Department of Water and Power \(LADWP\)](#)

In regards to short-term RA imports, 10% allowed short-term contracts does seem to be an arbitrary number. LADWP shares the concern of other LSEs that this is may effectively weaken the RA requirement and create a reliability risk. CAISO should evaluate this more carefully and show more evidence that this level would not threaten reliability.

### ISO Response

The CAISO appreciates the suggestions of LADWP regarding the proposed RA import requirements. CAISO believes further work is needed to develop these issues and will consider the stakeholder feedback that has been received in future development of these issues.

### Organization

[Northwest and Intermountain Power Producers Coalition \(NIPPC\)](#)

In its comments to prior versions of the Regional Resource Adequacy proposals, NIPPC has consistently objected to allowing short term bilateral market purchases to qualify for resource adequacy. NIPPC does not support the current proposal which would allow a load serving entity to meet up to 10% of its total system resource adequacy requirement with short term purchases executed after the due date of the resource adequacy showing.

NIPPC recognizes that some potential new members of an expanded ISO footprint currently use market purchases to meet their capacity requirements. That decision may be rational under current market conditions where some regions have surplus capacity available in the short term markets. However, as market conditions change (i.e through generating resource retirements, or changing hydro conditions) that surplus may not always be available.

NIPPC has always been open to allowing new ISO participants a transition period to reduce their reliance on short term market purchases to meet their resource adequacy needs. The

CAISO's Draft Regional Framework Proposal does not establish a transition period but would allow load serving entities to rely indefinitely on the short term market for their resource adequacy needs. Accordingly, NIPPC does not support Section 5.4.

NIPPC believes that enhanced penalties or increased reporting obligations are not an adequate substitute for simply requiring load serving entities to make their resource adequacy showings with specific resources. Furthermore, the CAISO proposes to "apply a more forceful nonperformance penalty to all non-performing resource adequacy resources during those situations, including both internal and external resources." These more forceful non-performance penalties should be imposed in the first instance upon the load serving entity which relied on the short term market purchase not the seller under the contract. The load serving entity and seller of the short term contract should be allowed to agree to allocate penalties between them; but a seller in the spot market should not unwittingly take on a risk of enhanced non-performance penalties.

#### **ISO Response**

The CAISO appreciates the comments by NIPPC and understands the issues raised on the RA imports requirements proposals. CAISO believes that additional development of this aspect of the proposal is necessary and will work with stakeholders in the future to address potential concerns.

#### **Organization**

[NRG Energy](#)

#### **Short-Term Capacity Arrangements.**

NRG opposes the proposal to allow short-term spot market capacity arrangements (which can be executed after the Resource Adequacy showings) to count up to 10% of an entity's RA obligation. Such a provision runs completely counter to the tenets of the current CPUC-jurisdictional RA program, which generally requires capacity from specific resources to be arranged for and shown well in advance.

#### **ISO Response**

The CAISO appreciates the comments provided by NRG. CAISO understands the position of NRG on this topic. CAISO is unaware of any CPUC rules or proceedings that have limited RA imports in the manner that NRG has indicated in its comments. The CAISO would appreciate specific references that state these rules and procedures in order to better understand the positions of commenters. CAISO has not received any comments from the CPUC on this important topic to date. Further, the CAISO has not received any other information from parties related to what specific rules, if any, exist regarding imports in the CPUC-RA program other than some references to conditions for MIC allocations for qualifying

imports for RA. Nevertheless, CAISO understands the concerns raised by NRG and believes that further work is necessary to more fully develop these aspects of the Regional RA proposal in the future.

## Organization

[Office of Ratepayer Advocates \(ORA\)](#)

### Requirements for RA Imports

The Proposal takes a divergent position from the prior proposal that restricted short-term import arrangements to satisfy RA requirements. The Proposal would allow an LSE to meet up to ten percent of its system RA requirement with short-term arrangements rather than month-ahead obligations.<sup>17</sup> The CAISO justifies this revision as an attempt to “strike some balance between the [CA]ISO’s robust resource provisions and current commercial practices of many entities in the West.”<sup>18</sup> ORA opposes this change.

This issue elicited much discussion at the December 8, 2016 stakeholder meeting. Stakeholders posed numerous questions and important issues remain unanswered, such as the reasoning behind the ten percent value and the basis for concluding that reliability would not be unduly jeopardized by relaxing capacity requirements. The proposed allowance for short-term imports reflects a fundamental change to current RA rules which require that capacity contracts must be in place at least one month in advance to guarantee reliability. While there may be a potential for ratepayer savings with relaxing this requirement and allowing spot market import purchases to count toward RA requirements, additional analysis and stakeholder involvement is necessary prior to ISO Board consideration. The issue was first introduced at the December stakeholder meeting and under the current schedule stakeholders have only one opportunity to respond in comments due today. As pointed out by some stakeholders as well as the CAISO’s Department of Market Monitoring, the effect of the proposed change is to lower the monthly RA requirement from 115% of peak load to 105% by allowing up to 10% to be purchased in spot markets. ORA agrees with concerns that the Proposal would result in lower contracting requirements and reliability implications that have not been adequately studied.

Details on how spot markets would be utilized for RA import purposes have not been made available. During the December 8, 2016 meeting, stakeholders sought answers to questions such as who would make spot market purchases - the Expanded ISO or the LSE, what time frames would be allowed, and how backstop procurement would be implemented in time to prevent a reliability problem. One example is a reliability incident requiring load shedding resulting from an LSE’s failure to meet its obligation in the spot market. In this situation, the expanded ISO could not limit load shedding only in the specific area of the deficient LSE, thus putting ratepayers from other LSEs at risk of load shedding.

The CAISO has not addressed reliability concerns that could arise if all LSEs were allowed to purchase 10% of system requirements as imports on spot markets. The total for California alone could approach 6,000 megawatts. The CAISO has not provided analysis indicating whether spot market procurement of this much capacity is feasible.

The spot market proposal should not be included in the document scheduled for submission to the CAISO board. Many stakeholders expressed concern that much would need to be done before arriving at a workable version of the spot market proposal to allow LSEs to meet up to ten percent of their system RA requirement with short-term arrangements. ORA, therefore, recommends either removing the revised spot market proposal or extending the current RA stakeholder process to further analyze the proposal.

In addition, states currently do not have the same level of MIC allowances. In California, LSEs are limited to amounts well below the proposed ten percent allowance. The spot market proposal would limit LSEs to their MIC allowance levels, which could create a system that treats LSEs differently and grants potential cost savings of unequal value. Further unequal treatment could result from the fact that MIC allowances have value and are bought and sold. The CAISO has provided no analysis of the potential impacts of the proposed ten percent MIC limitation on the allowance values.

16 Proposal, p. 33.

17 Proposal, p. 42.

18 Ibid.

### ISO Response

The CAISO appreciates ORA's comments on RA import requirements and understands the concerns that have been raised by ORA on this important topic. CAISO commits to addressing these important considerations and other outstanding issues related to the requirements for RA imports in future proposals.

### Organization

[PacifiCorp](#)

### Requirements for RA Imports

The ISO has proposes to permit short-term capacity arrangements to qualify towards meeting up to 10 percent (%) of an individual LSE's total system RA requirements. PacifiCorp supports the ISO's proposed short-term capacity change and looks forward to subsequent discussions with internal and external parties. While PacifiCorp currently owns or contracts for the necessary capacity to meet its RA requirements on a monthly basis, the ISO's proposed change recognizes the desire for some flexibility to use short-term arrangements for economic reasons. PacifiCorp also supports the ISO's proposed number of protections, including enhanced incentives and penalties, and believes the ISO's approach is more consistent with reliability

requirements versus a program that would require planning reserve margin percentages that are well above 15% on an hourly basis for the majority of the month. While PacifiCorp understands that reliability is a key focus and concern of the electric industry, serving load with additional amounts of reserve capacity that is in excess of 20% of load, comes at a cost to customers.

PacifiCorp appreciates the ISO's overall changes in its RA proposal and the balance that the ISO has tried to strike with regard to reliability and costs that customers incur to achieve desired levels of reliability. As stated previously, PacifiCorp is able to achieve an economic trade-off by utilizing bilateral energy purchases that can be more cost effective than utilizing its own resources for RA purposes. PacifiCorp appreciates the ISO's recognition of the diverse nature of load characteristics outside California, the flexibility inherent in the PacifiCorp transmission system and other systems used by PacifiCorp, as well as access to liquid market hubs in the western interconnection.

#### ISO Response

The CAISO appreciates the PacifiCorp comments in support of the proposed requirements for RA imports proposal. CAISO looks forward to working with stakeholders in the future to address all stakeholder needs and finalize these aspects of the proposal.

#### Organization

[Pacific Gas and Electric \(PG&E\)](#)

#### **PG&E recommends the CAISO revisit the opportunity for short-term arrangements to count for Resource Adequacy after the CAISO has become a regional entity.**

In the Regional Framework Proposal, the CAISO has significantly changed its approach to counting rules for import transactions that are allowed to count towards Resource Adequacy requirements. In the Third Revised Straw Proposal, the CAISO would have allowed only those contractual arrangements for imports secured prior to RA showing deadlines for the month-ahead time frame. While PG&E voiced concerns related to enforcement of the new requirements, PG&E viewed this approach as a reasonable first step to harmonize RA requirements for internal and external resources. The Regional Framework Proposal instead creates potentially more inconsistency between internal and external resources by allowing short-term (intra-month) import arrangements to count for a defined percentage of an LSE's overall system RA requirement.

There are many issues remaining in this new aspect of the proposal. PG&E's six issues with the Section 5.4 of the current proposal are:

- 1) The CAISO's current proposal appears to directly contradict a current RA rule that forbids liquidated damages contracts from counting for RA.2
- 2) The CAISO has not offered any mechanisms to assure the same physical capacity cannot be shown to meet the capacity requirements of more than one LSE.

- 3) It is not equitable to allow LSEs to procure 10% of their RA requirement from short-term imports without also allowing LSEs to procure short-term internal energy transactions for the same percentage of their RA requirement.
- 4) The amount of short-term import arrangements that are allowed to count for RA appears arbitrary with little to no justification.
- 5) The penalty structure is similarly undeveloped and the data and documentation is undefined and insufficient for this stage of the initiative.
- 6) PG&E asks the CAISO to recognize that by broadening the ability of LSEs to use short term Import RA resources, concerns related to the risk of retirement of flexible resources needed in the longer term is greatly amplified.

Based on all of these factors, PG&E asks the CAISO to recognize that the concept of short-term RA import arrangements is not ripe for consideration at this stage of the initiative, and should be dropped from the proposal moving forward.

### ISO Response

The CAISO understands the comments and concerns raised by PG&E on the RA import requirements topic. PG&E's comments raise a number of important issues that the CAISO intends to address in future proposals. The CAISO plans to focus on governance modifications before working further on other regionalization initiatives and will address outstanding concerns in future proposals.

### Organization

[Public Generating Pool \(PGP\)](#)

### Import RA Resources and Uniform Accounting Rules

The purpose of RA is to ensure the forward procurement of sufficient physical resources to meet peak load, plus a planning reserve margin. It is important that the RA framework remain a forward capacity requirement. We have concerns that reliance on short-term energy purchases without forward capacity procurement could undermine grid reliability and integrity in an expanded ISO footprint.

Additionally, it is important that the uniform accounting rules adequately account for the capacity of hydro resources and that the CAISO recognize BPA's unique obligation to meet the full requirements of certain LSEs. We urge the CAISO to work with BPA to determine an accounting method that finds balance and meets the needs of both BPA's unique circumstances and obligations with the CAISO's reliable operation of an expanded ISO grid.

PGP finds the issue of allowing market purchases to be used to satisfy RA to be a significant change from previous proposals. PGP is uncertain of the impact, but believes that this change is significant enough that it should be thoroughly evaluated by the ISO and stakeholders prior to any formal approval.

**ISO Response**

The CAISO appreciates the comments by PGP on this issue. CAISO believes that additional development of this aspect of the proposal are necessary and commits to working with stakeholders in the future to address outstanding concerns.

**Organization**

[San Diego Gas and Electric \(SDG&E\)](#)

**Requirements for RA Imports**

SDG&E does not support the ISO's revised proposal to limit the portion of total system resource adequacy requirement that may be met with "short-term" capacity arrangements. The ISO's revised proposal seems to assume that if a LSE were to contract with a 3<sup>rd</sup> party, another LSE or energy supplier, then the 3<sup>rd</sup> party will automatically have secured the energy ahead of time. This type of capacity transaction does not count towards the limit. However, if the LSE were to self-supply, then the ISO assumes that the energy will be procured in the short term. This capacity will count towards the limit. The revised proposal remains ambiguous on what types of capacity only transactions will be considered under the short-term. SDG&E believes the ISO should incentivize behavior of all suppliers rather than discriminate against LSE who self-supply. In the bilateral capacity market, the transacting parties rely on the must offer obligations to ensure bids are submitted into the ISO's energy markets.

As SDG&E stated in its prior comments, the ISO's proposal and now, revised proposal does not resolve any of the concerns that DMM has with how intertie capacity is bid into the ISO markets. Primarily, the ISO is not creating a must offer obligation for intertie capacity to bid into the real-time market. SDG&E believes that if a real-time must offer obligation were created, this would incent behavior of all import suppliers to ensure the energy is deliverable to the ISO even in real time or face financial penalties that currently already exist.

SDG&E does not support the ISO's three proposed modifications for short-term, non-resource specific imports. First, the ISO's proposed cost allocation mechanism would only apply to capacity designated as "short-term" contracts. The ISO should not assume or prejudge the inability to deliver energy to be from a LSE's desire to skirt the capacity commitments. Rather, the inability to delivery energy should be treated in the same manner as any other resource on forced outage. If the ISO wishes to allocate CPM costs based on cost causation principles, then the ISO should apply the same reasoning to all other generators that could not provide energy in real time. Singling out specific capacity contracts to allocate certain costs creates inconsistent treatment for a standard capacity product.<sup>1</sup>

Second, SDG&E does not support the ISO's proposal for enhanced non-performance penalties during system emergencies or significant events. The ISO existing penalty is set at 60 percent of the CPM soft offer cap for all capacity products. Instead of changing the per-

MW price, the ISO should require a real-time must offer obligation and change the way the availability is measured for intertie capacity. This would increase incentive without changing the price specific toward one type of capacity contract.

Third, SDG&E does not support the ISO's proposal to review contract documents. CAISO's proposal is inconsistent with the approach it has advocated in other initiatives.<sup>2</sup> The ISO has consistently stated that it does not review contracts between parties because it does not want to interpret contractual language. SDG&E agrees and believes that the ISO should continue to refrain from interpreting contract language unless the ISO adopts the same viewpoint for all other initiatives. The ISO notes that an after the fact review would provide an additional layer of protection. SDG&E is unsure how the review would provide protection for other LSEs. The ISO should provide information on how many MWs of "short-term" capacity has previously shown to the ISO. This would help provide the magnitude of a problem and how much effort should be spent on this. SDG&E recommends that the ISO provide data on how many MWs of RA were committed from non-resource specific intertie IDs and a distribution of the prices bid into the ISO markets. In addition, the ISO should further break down the data and show how much of the awarded energy was not delivered in real-time.

SDG&E recommends that the ISO to reconsider creating a real-time must offer obligation and changing the RAIM assessment for all intertie capacity. A real-time must offer obligation would ensure that all capacity products have the same performance obligations.

1 The ISO filed Tariff with FERC back in 2009 to develop a standard capacity product where all capacity products have the same availability standard metrics and established must offer obligations. Adjusting the cost allocation of CPM specifically for this one of capacity contract would make the capacity products non-standard because the LSE would take on the obligation of CPM risk if the supplier did not deliver the energy whereas the LSE would not take on the cost if the supplier of a "non-short term" capacity contract does not deliver the energy.

2 Commitment Cost Enhancements Phase 2 and Commitment Cost Enhancements Phase 3

### ISO Response

The CAISO appreciates the comments and concerns raised by SDG&E on the RA imports requirements proposal. CAISO understands the issues that have been raised and believes that additional development of this aspect of the proposal is necessary. The ISO plans to address any remaining concerns in future proposals.

### Organization

[Western Power Trading Forum \(WPTF\)](#)

### Short-term imports to qualify as RA

The CAISO proposes to allow up to 10% of an LSE's portfolio to be provided by short-term capacity arrangements in order to accommodate PacifiCorp's current planning practices. WPTF does not support this proposal as it is fundamentally not compatible with a month-ahead RA process or the premise of the CAISO's RA program. In PacifiCorp's Integrated

Resource Plan, short-term capacity arrangements that are not monthly arrangements are the equivalent of spot market purchases. It is WPTF's understanding that the proposal is to allow LSEs to carry an open position intra-month and use bilateral spot market purchases to fill that position in the DA or RT markets. If this understanding is correct, this is, as was pointed out during the meeting by several participants, the equivalent of lowering the Planning Reserve Margin to 105% (115% - 10%). If this the CAISO's proposal, there would need to be significant more analysis done to determine the impact on both reliability and the RA market.

Specifically because PAC would likely to be purchasing out of the bilateral spot market to fill these positions using their import capacity, at a minimum the CAISO should assess (a) the overlap with merchant generators in PAC's sub-region (b) the likelihood that there is sufficient capacity to meet all LRA's planning requirements.

Additionally, there is a concern with regard to the must-offer obligation parity between these "10%" resources and other RA resources. Many of these contracts are most likely firm deliveries that can be booked out or resold, which in addition to leading to reliability concerns, gets into questions of market access and parity.

Finally, most of these contracts likely don't have dispatchability and will come into PAC as self-schedules. The CAISO should consider whether they want to incent the continuation of inflexible inerties.

An alternative that WPTF believes is worth discussing is allowing LSE's to do monthly contracting and not submit an annual plan to the CAISO. The CAISO does not subject resources on the annual plan to a must-offer obligation and has never found the need to backstop annual capacity, even when, presumably, there have been individual shortages for certain months.

WPTF supports the evaluation of non-performance penalties, but not in the context of spot-market purchases, which are WSPP Sched C "firm" contracts, so the risk of non-performance is really down to force-majeure events only. Performance penalties should be a holistic discussion across RA types as it has implications across programs and markets.

#### **ISO Response**

The CAISO appreciates the comments of WPTF on the requirements for RA imports proposal. As indicated in the WPTF comments, there are many issues that remain in need of further development on this topic. CAISO agrees that further consideration of these issues is needed and plans to continue to work with stakeholders to fully develop these aspects of the proposal in the future.

## ***Resource Substitution Issues***

### **Organization**

[Department of Market Monitoring \(DMM\)](#)

### **Allowing imports to substitute for internal resources**

The draft regional framework proposal also changes current market rules to allow external resources to substitute for internal resources that are on outage. DMM believes this will also lower the overall level of reliability afforded by resource adequacy program requirements. In principle, DMM believes that a resource adequacy resource on outage requiring replacement should be replaced by a resource capable of providing the same set of relevant resource adequacy characteristics as the resource it is replacing.

As noted above, under current resource adequacy regulations, non-resource specific imports do not have the same must offer obligation as internal resources. Additionally, resource adequacy availability incentive mechanism (RAAIM) penalties are not structured to incentivize performance of non-resource specific import resources as strictly as internal resources. Furthermore, internal resources can be exceptionally dispatched in extreme situations; non-resource specific import resource adequacy resources cannot. Finally, under the ISO's proposal, resource adequacy imports could simply be backed by spot market purchases at market hubs outside the ISO.

Allowing resource adequacy imports to substitute for internal resources could reduce the incentives for internal resource adequacy resources to incur the expenses needed to operate reliably. As described in the section above, resource adequacy imports backed only by spot market purchases could effectively be procured without any capacity payment. This would make it much less costly to meet resource adequacy requirements through non-resource specific imports rather than internal resources. If an internal resource expects to be inoperable, it could go on outage and avoid a penalty by substituting a much lower cost non-resource specific import.

The ISO's proposal would therefore tend to shift internal resource adequacy contracts away from higher cost, more reliable resources and towards lower cost, less reliable resources. This would decrease reliability relative to the ISO's current resource adequacy framework. If resource adequacy imports were required to have the same bidding requirements and other relevant features as internal resources, it would be more appropriate to allow imports to be substituted for internal resources.

### **Revisions to the resource adequacy availability incentive mechanism (RAAIM)**

The current proposal includes a new provision which would weaken existing resource adequacy availability incentive mechanism (RAAIM) penalties for resources on forced outages. Rather than assessing RAAIM for all resources on forced outage, the ISO proposes to assess penalties based a new daily assessment called the *forced outage assessment*. This assessment would compare total available capacity to a daily estimated reliability requirement. RAAIM penalties would be assessed only on the portion of resource adequacy on forced outage needed to meet that daily estimated requirement.

As under current provisions, a resource on forced outage could be substituted with an available resource adequacy resource. Monthly requirements are based on projected peak load and would exceed the daily estimated reliability requirement. Treating resources on forced outage similar to resources taking planned outages weakens resource adequacy penalties associated with failing to bid in a resource shown to meet a monthly requirement. In addition, this change reduces the incentive to report an outage as a planned rather than a forced outage. This reduces the planning time available for the ISO's market to re-dispatch the system after accounting for the lack of a resource with a must offer obligation.

Instituting this provision would reduce the volume of capacity required on any day to meet resource adequacy requirements without penalty. PacifiCorp supports this provision on the grounds that it will lower costs. PacifiCorp states that treating forced outages of resource adequacy per current practice in the ISO would require PacifiCorp "to procure for forced outages that may occur on each day of the month, which would significantly increase its planning reserve margin and would require it to carry greater than 115% of its expected peak load for the month in every hour of the month. In addition, requiring a LSE to contract or procure capacity that is greater than 115% of its expected peak load in every day of the year is an unreasonable reliability requirement and, more importantly, it would cause PacifiCorp's customers to pay for resources that will not be used or needed".<sup>12</sup>

Resource adequacy has played a critical role in the ISO's markets. It is intended to ensure that sufficient capacity with the requisite characteristics to maintain system and local reliability is made available to the ISO. The ISO specifies the criteria for resource characteristics and locations that will ensure system reliability in consultation with local regulatory authorities.

However, if resource adequacy resources do not perform according to the characteristics that the ISO and local regulatory authorities assume the resources will provide, the resource adequacy process may not ensure system or local reliability. Reducing the quantity of capacity with a must offer obligation also increases the likelihood of market power conditions requiring mitigation. The must offer obligations also provide one measure of protection against physical withholding.

Since January 1, 2011, less than one half of one percent of hours cleared in the day-ahead market included any price node with a day-ahead market price of \$990 per MWh or above. The percentage of hours clearing with any node at a price above \$990 in the residual unit commitment process is even lower: less than one eighth of one percent in all years since

2011. Nodes clearing at prices above \$990 in the day-ahead market or residual unit commitment process are typically located in areas with supply limited by available transmission capacity and are thus unlikely to include inter-tie points.

10 10 percent of 115% = 11.5%. 115.0%-11.5%= 103.5%.

11 157 FERC ¶ 61,115. UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION 18 CFR Part 35 [Docket No. RM16-5-000; Order No. 831] Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators (Issued November 17, 2016) <https://www.ferc.gov/whats-new/comm-meet/2016/111716/E-2.pdf>  
 12 Brown, Kelcey. PacifiCorp Stakeholder Comments Template Subject: Regional Resource Adequacy Initiative, November 2, 2016. <http://www.caiso.com/Documents/PacifiCorpComments-RegionalResourceAdequacy-ThirdRevisedStrawProposal.pdf>. P 2.

**ISO Response**

The CAISO appreciates the comments regarding substitution issues and understands the concerns that have been raised by DMM on this important topic. The DMM comments raise many important issues and CAISO agrees that it will need to explore these concerns and how to best balance all stakeholder needs. CAISO is focusing on regional governance modifications before it will take up finalization of the other regional RA stakeholder initiative and will address these important considerations and any remaining issues in future proposals.

**Organization**

[Industrial Customers of the Northwest Utilities \(ICNU\)](#)

**Resource Substitution**

ICNU also supports the ISO’s proposal to remove current restrictions on the use of external resources as a substitute for internal resources.<sup>19/</sup> Here again, the ISO has shown flexibility and a willingness to reconsider proposals based on the concerns of stakeholders associated with potential new PTOs, such as ICNU and PacifiCorp.<sup>20/</sup>

19/ Framework Proposal at 46-47.

20/ E.g., ICNU Comments on Third Revised Straw Proposal at 5; ICNU Comments on July 21 RA Working Group at 5; ICNU Comments on Second Revised Straw Proposal

**ISO Response**

The CAISO appreciates the ICNU comments in support of the resource substitution modifications that have been proposed.

**Organization**

[Imperial Irrigation District \(IID\)](#)

One aspect of the RA Framework Proposal that IID supports in concept, but believes requires further thought and development is the proposal to permit external resources to substitute for internal resources that are experiencing outages. *Id.* at 46-47. For instance, greater clarity is needed for the requirement that the external resource/supplier have sufficient MIC allocation to be used as the substitute resource, and whether MIC allocations would increase if an

external resource is routinely required to substitute for internal resources that are experiencing outages.

**ISO Response**

The CAISO appreciates the comments by IID in support of the proposed modifications. CAISO agrees that aspects of the proposal will require further thought and development before they can be finalized and will address any outstanding concerns in future proposals.

**Organization**

[Los Angeles Department of Water and Power \(LADWP\)](#)

On resource substitutions, LADWP shares the concern expressed by PG&E in the stakeholder process that external resource substitutions could provide an incentive for providers to put expensive units on forced outages and procure cheaper resources. Would CAISO consider monitoring resource substitutions and putting a limit on them for individual resources to mitigate this?

**ISO Response**

The CAISO understands the concerns that have been raised by LADWP and believes that further development of these items will be needed to finalize them. CAISO will consider the suggestions and comments of stakeholders in the future development of these resource substitution issues proposals.

**Organization**

[Northwest and Intermountain Power Producers Coalition \(NIPPC\)](#)

**External Resource Substitution for Internal Resources**

In comments on earlier versions of this proposal, NIPPC supported the CAISO proposal to allow external resources to substitute for internal resources when specified criteria were met. NIPPC also supported the ISO's proposed criteria for allowing substitution of an external resource when; 1) The substituted resource has similar operating characteristics to the outage resource; 2) the substitute resource has sufficient MIC allocation; and 3) the substitute resource has the capability to fulfill the must-offer obligation of the outage resource.

NIPPC does not support the current proposal to eliminate the third requirement — that the substitute resource has the capability to fulfill the must-offer obligation of the outage resource. NIPPC does not agree that a 5X8 or 5X16 contract is an adequate substitute for a 24X7 resource. As the CAISO notes 5X8 and 5X16 contracts are required to meet must-offer obligations only during specified hours. If the CAISO requires a resource to be available 24X7

for resource adequacy needs, it makes no sense to allow that resource to be substituted with an import that is available for fewer hours.

**ISO Response**

The CAISO understands NIPPC's comments regarding these resource substitution issues. CAISO believes that further work is needed to finalize these aspects of the proposal and will consider how to best address these issues and meet stakeholder's needs in the future.

**Organization**

[NRG Energy](#)

**Allowing External Resources to Substitute for Internal Resources.**

The CAISO has proposed to allow external resources to substitute for internal system resources where there is adequate import capability to provide for delivery of power from the import resource. The CAISO initially considered a second condition, namely, to require that the import resource be subject to a 24x7 must-offer obligation (MOO), but dropped that second condition. The CAISO dropped that second condition because it currently allows subset-of-hours contracts to qualify as RA resources, and those resources may only have a 5x16 or even 5x8 MOO. The CAISO decision to allow external resources with inferior MOOs to substitute for internal resources highlights the discrimination between the conditions that are imposed on internal and external resources providing RA capacity. If the CAISO has gotten comfortable with allowing 5x16 or 5x8 resources to provide RA capacity, the CAISO should allow internal resources the ability to adopt the lower quality MOO while still providing RA capacity. In any case, re-examining what resources should be subject to what MOO may be a good idea given Energy Division's proposal to eliminate the Maximum Cumulative Capability in the RA proceeding.

**ISO Response**

The CAISO appreciates the comments by NRG regarding external resource substitution. CAISO will consider how to best address the issues that have been raised by NRG and other stakeholders in future proposal development.

**Organization**

[Office of Ratepayer Advocates \(ORA\)](#)

The CAISO introduces a new proposal for treating forced outages under Section 5.5.1.<sup>19</sup> One part of the proposal for treating forced outages seeks to align the treatment of forced outages with the treatment of planned outages. This issue responds to stakeholder concerns that the CAISO's Resource Adequacy Availability Incentive Mechanism (RAAIM) might cause LSEs to withhold some reserves to avoid RAAIM penalty charges. The CAISO also proposes that the

Expanded ISO would conduct forced outage assessments for each outage on a daily basis. The Expanded ISO would monitor overall system-wide RA needs to determine the need for substitution resources. The new proposal for treating forced outages has not been vetted by stakeholders and important concerns were raised during the stakeholder meeting such as potential disadvantages for merchant generators and short time frames making contracting challenging. Further analysis and stakeholder discussion are necessary.

Section 5.5.2 of the Proposal also contains significant changes from the previous proposal.<sup>20</sup> The changes relate to external resource substitution for internal resources and have been debated by stakeholders and altered in many ways in prior iterations of the straw proposal. The CAISO’s resource substitution proposal requires more time for evaluation and stakeholder involvement prior to a CAISO Board decision, given the significant changes from prior versions and limited opportunity for comments and discussion.

**19 Proposal, pp. 44-46.**

20 Proposal, pp. 46-47.

**ISO Response**

The CAISO appreciates the ORA comments and agrees that further discussion and development are necessary for both of these important resource substitution proposals. CAISO will consider the stakeholder input received and provide further opportunity for collaboration in the future as the ISO develops these aspects of the proposal.

**Organization**

[PacifiCorp](#)

PacifiCorp appreciates the ISO’s continued efforts to find a reasonable and workable balance among the stakeholders’ positions and proposals. PacifiCorp had previously cited concerns associated with the ISO’s Resource Adequacy (RA) requirements related to substitution and availability penalties. The ISO’s recent proposals related to resource substitutions and availability penalties are improved and are very supportive in recognizing the differences in how PacifiCorp’s system is structured, e.g. load can be served by an “internal” resource or an “external” resource on the same transmission lines. PacifiCorp appreciates the ISO’s efforts in this area and acknowledges that the most recent proposal is a significant improvement over the prior version.

1. Substitution of internal Resource Adequacy resources with external resources

PacifiCorp supports the ISO’s recent consideration to allow external resources to substitute for internal system resources experiencing outages. PacifiCorp’s utilization of third-party transmission to serve load in its Balancing Authority Areas (BAA) means that many of its physical resources are considered “external resources” by the ISO. Under the ISO’s current RA construct, PacifiCorp’s external resources, such as the Swift hydro facility located in Washington, would not be allowed to substitute for a resource that is located in Wyoming to serve its load requirements in the Pacific Northwest. As stated previously, PacifiCorp is an

entity that serves its load utilizing long-haul transmission lines across six-states and through multiple other BAAs, including the Bonneville Power Administration. Accordingly, in some cases imported power to PacifiCorp’s loads from an “external” resource or market purchase can actually be closer or more deliverable to load versus an internal resource, or similarly, will use the same transmission to deliver to load as a “local” or internal resource. PacifiCorp appreciates the ISO’s recognition of differences in regions outside California and looks forward to further conversations and refinements on its proposal.

2. Treating forced outages comparable to planned outages

PacifiCorp supports the ISO’s proposal to review its resource substitution and Resource Adequacy Availability Incentive Mechanism assessment in a manner that is similar to its planned outage assessment. In reviewing the requirements of a must offer obligation for each hour of the month for a peak load over an historical period, PacifiCorp observed many instances in which it would have been required to procure a substitute resource for hours or days in which loads were forecast to be significantly below the peak hour. In its Integrated Resource Plan, PacifiCorp is planning to meet its load for a peak hour; it is not attempting to plan to meet its peak load in every hour. This type of requirement from a planning perspective would change how PacifiCorp conducted its planning process and likely increase its costs in order to avoid availability penalties or to meet must-offer obligation requirements. PacifiCorp believes that the ISO’s approach is consistent with its planned outage assessment and addresses comments made by PacifiCorp and other external entities.

**ISO Response**

The CAISO appreciates the PacifiCorp comments in support of the proposed resource substitution issues. CAISO looks forward to working with stakeholders to address all stakeholder needs and finalize these aspects of the proposal in the future.

**Organization**

[Pacific Gas and Electric \(PG&E\)](#)

**The proposal to modify the treatment of forced outages should be removed from the Regional Framework Proposal as it does not conform to the stated purpose of the RAAIM.**

In the Reliability Services stakeholder initiative, the stated goal of the Resource Adequacy Availability Incentive Mechanism (RAAIM) was to enhance reliability by aligning the CAISO’s need for high quality resources with market participants’ incentives to provide RA capacity. In order to reduce potential gaming of the availability incentive mechanism, the measurement of performance is based on a monthly, rather than a daily or hourly value.<sup>3</sup> The proposed changes to measuring RAAIM based on a daily forced outage assessment call into question whether the CAISO believes that a monthly value is still appropriate. Allowing certain days to be exempt from RAAIM creates perverse incentives that will promote the exact opposite behavior of what the CAISO intended when it created the RAAIM.

By reducing the penalties of unavailability for an unknown number of days throughout the month, while still keeping RA as a monthly product, the only market participants that could benefit from this change will be those participants that choose not to substitute for forced outages regardless of the daily exemptions. The reason this change is limited to these market participants is because acquiring substitute capacity takes longer than a day. Thus, it is likely that the vast majority of substitute capacity is procured before the delivery month has already begun. A more constructive way to reduce the cost of availability penalties would be to reduce the availability percentage threshold for when a penalty occurs. To ensure strong incentives for making resources available, the CAISO should increase the RAIM penalty price. PG&E continues to believe what it has argued in the past; namely, the RAIM penalty price should be set at the CPM soft offer cap.

**PG&E does not support the CAISO’s proposal to selectively weaken the requirements for forced outage substitution for external resources and instead recommends the CAISO revisit must offer obligation requirements for all resources to align with subset of hours contracts.**

In the Regional Framework Proposal, the CAISO states that it no longer believes that the substitution resource requires a similar must-offer obligation condition for the outage resource. The CAISO argues that it has changed its views due to the potentially disparate treatment between external substitute resources and the “subset of hours” import contracts the CAISO currently allows. PG&E does not agree with this premise. The “subset of hours” contracts are provided to the CAISO more than a month in advance, and are limited by the CPUC’s rules related to Maximum Cumulative Capacity Buckets. By providing the contracts more than a month in advance, the CAISO is able to study the potential impact of these imports. In contrast, external substitution resources could be provided a day in advance, which gives the CAISO limited options to address any potential shortfalls.

Regardless of differences between external substitute resources and “subset of hours” import contracts, PG&E asks the CAISO to consider the potential disparate treatment the CAISO is creating between external substitution resources and internal substitution resources in the current proposal. Unless the CAISO is proposing to reduce the must offer obligation hours of all substitute resources, LSEs will have a strong economic incentive to procure imports over internal resources as substitute RA under the CAISO’s proposal. The discussion related to “subset of hours” contracts points out an inconsistency in treatment of RA imports between CPUC jurisdictional entities and new entities. Therefore, if the CAISO continues to consider allowing external substitution, rather than solely relaxing the must offer obligation rules for import substitution resources, the CAISO should instead consider whether the “subset of hours” that the CAISO currently allows for imports could be used as the generic must offer obligation for all resources.

3 Reliability Services Initiative Phase 2 (“RSI2”), Draft Final Proposal, pg. 32

## ISO Response

The CAISO understands the concerns that have been raised by PG&E on the resource substitution proposals and agrees that further development is necessary in order to address the issues that are still outstanding for both resource substitution proposals. CAISO will consider this stakeholder input in future proposal development.

**Organization**

[San Diego Gas and Electric \(SDG&E\)](#)

**Resource Substitution**

SDG&E has previously suggested in other initiatives<sup>3</sup> that the ISO should reassess the need to provide capacity substitutions for forced outages similar to the planned outage substitution process. Although, SDG&E supports the concept of the ISO proposal, SDG&E does not believe that the proposal offers an efficient means for SCs to acquire the substitute capacity by the relevant deadline. Notifying the SC without a procurement mechanism slightly lowers the penalties. On the opposite side, each non-exempted RAIM hour incrementally increases the non-availability percentage because there are less total available assessment hours. For example, 10 hour of 100 hours is only 10 percent while 10 hour of 80 hours, because 20 hours were exempted, is 12.5 percent. Therefore, substitution becomes even more crucial as the pool of hours decrease due to exemptions.

In the bilateral market, counterparties must issue solicitations or call various counterparties and negotiate contracts. As such the ISO needs to develop a process to allow market participants to efficiently transact for substitute capacity on a daily basis. This process can occur on a day-ahead or even real-time basis and after a scheduling coordinate wishes to not self-supply the substitute capacity. This would also ensure that the ISO can optimize for the capacity from the right resources.

SDG&E believes there would be sufficient market participant interest in discussing this proposed process and SDG&E would encourage the ISO to discuss this topic in its next version of the proposal. SDG&E believes that without an efficient process similar to the ISO energy markets, the ISO proposal will not resolve the RAIM substitution concerns for most generation owners and only minimizes the penalties for LSEs that also own surplus generation.

**External Resource Substitution for Internal Resources**

SDG&E is extremely confused with the relaxation of the second condition as previously described by the ISO. On the one hand, the ISO wants firm energy deliveries and is willing to charge CPM costs to those LSEs whose capacity contracts fail to deliver energy. Here, the ISO is going to allow external non-resource specific resources to provide the substitute capacity for internal resources and not require those resources to have the same must offer as the original resource on forced outage. These two positions seem to be polar opposites and provide inconsistent signals to stakeholders.

Not having the same amount of expected megawatt hours from the substitute resource could actually create capacity shortfalls. For example, if the ISO expected 2400MWh of energy bids from a resource and the resource went on forced outage and the ISO receives only 800MWh of bids from an external resource. This deficit would have to be made up with RUC or ED CPM and those costs may be charged to all LSEs because it's a system deficiency. This relaxation should not be allowed. Also, given the ability for a Local resource to be shown as a System only resource, this exception would cause further concern for reliability.

SDG&E believes the ISO should create a standard must offer obligations for all capacity that can be easily understood by market participants. As an example, the ISO recently implemented Reliability Services Initiative 1A where it no longer allows intertie contracts increments of less than 24 hours to qualify as RA. It has become physically impossible to show such contracts for less than 24 hours in each day. Therefore, the minimum must offer for intertie capacity is for a minimum of 1 day. This is on page 33 of the reliability requirements business practice manual. It is unclear to SDG&E, how an intertie contract for less than 24 hours affects the substitution process as stated by the ISO. Within the ISO RA tool, all day-ahead substitutions last 24 hours while real-time are for at a minimum the balance of the day plus the next calendar day. This is stated on page 124 of the reliability requirements business practice manual. These requirements contradict the CAISO's justification for removing the second condition. SDG&E seeks clarification on if the business practice manual is inaccurately interpreting the ISO Tariff.

SDG&E does agree in principle that external resources should be allowed to provide substitute capacity under the right conditions. SDG&E believes, as the ISO did previously, (1) that MIC allocation should be required, (2) substitute capacity should have the same must offer obligation and (3) external resources cannot substitute for Local capacity.

3 Outage management system replacement and Reliability Services Initiative Phase 1

### ISO Response

The CAISO understands the concerns raised by SDG&E regarding external resource substitution. CAISO believes that further development of these topics is necessary and will consider how to address the issues that have been raised in future proposal development.

### Organization

[Silicon Valley Power \(SVP\)](#)

It is important that LSEs' existing qualifying RA resources do not lose their applicability/countability under the CAISO's proposed zonal methodology. Existing RA resources located outside of an LSE's native load zone(s) must continue to count toward meeting system, local and flexible RA requirements, as applicable, as they do today.

SVP is supportive of the CAISO's proposal to allow RA system capacity requirements, including substitution requirements, to be met with imported resources.

### ISO Response

The CAISO appreciates the comments by SVP on these resource substitution issues. CAISO appreciates SVP's support of the proposal and understands the SVP recommendations. The ISO will consider these stakeholder comments in the development of future proposal iterations.

### Organization

[Western Power Trading Forum \(WPTF\)](#)

#### **Forced outage rules that take into account the load-serving entities total daily RA**

The CAISO proposes to modify the forced outage rules so that the CAISO will only assess resources under RA availability rules if the LSE that has contracted the capacity is "short" each day. The CAISO will conduct some sort of daily assessment for the current or potentially following day. The exemption from RA availability rules would be assessed one day at a time. This rule has significant issues. First and foremost, it is discriminatory to resources not owned by or scheduled by the Load Servicing Entity (LSE) they are contracted to serve. LSEs will have prior knowledge of whether their portfolio is short or not going forward. Independent generators will have no specific knowledge of whether the LSE that has contracted their capacity is at risk of being short or not. Therefore, if two generators have a forced outage on the same day and know they will be on outage for the next five days, the non-LSE resource will be significantly at a disadvantage because it will not have information as to whether it should purchase substitute capacity or not. The LSE owned or scheduled resource on the other hand will have a much better understanding of whether and on which day additional capacity will need to be procured in order to avoid availability penalties<sup>1</sup>.

Another issue with this proposal is that it assumes it is possible for a scheduling coordinator to contract for day-of or next-day RA capacity. The bilateral market is not this fast and as Alan Wecker of Pacific Gas and Electric noted at the December 8 Regional RA meeting, even sophisticated entities like Pacific Gas and Electric take at least three days to sign contracts and schedule the resource. In order to begin to make a proposal like this even useful to LSEs, the CAISO would have to propose a complementary automatic daily capacity market.<sup>2</sup> There are also several other technical and timing issues that make this proposal challenging from both the CAISO perspective and market participant perspective.

Finally, the proposal does not make sense from an incentive alignment perspective. The goal of RSI 1b, which is to be implemented this fall, is to provide incentives for resources, whether or not they are owned or scheduled by LSEs. RSI 1b moves the obligation to replace all planned and forced outage capacity (and therefore all availability penalties and payments) to

the resource, which prevents ownership-based discrimination in the market in addition to ensuring that availability incentives are all impacting the specific functional entity that can control the outages - the resource owner/operator. By putting in place a policy that moves whether a generator needs to be replaced or not back onto the LSE, the CAISO is weakening these incentives, and they are weakening them, as discussed above, for no real benefit.

1 WPTF understands that LSE's outside of California historically have a different resource ownership model than what has developed in-state and have different processes with their local regulatory authorities for determining whether future capacity purchases should be utility-owned or third-party. However, WPTF believes that in a market-based multi-state ISO the long term goal should be to promote a competitive marketplace regardless the legacy procurement practices of new of LSEs and PTOs in an expanded footprint.

2 SDG&E has proposed this at multiple points in different Resource Adequacy initiatives.

### ISO Response

The CAISO understands the concerns that have been raised by WPFT and believes that further development is necessary in order to address the issues that are still outstanding for both resource substitution proposals. CAISO will consider this stakeholder input in the future development of the proposal.

## ***Local Regulatory Authorities and Load Serving Entities RA Requirements***

### Organization

[Bonneville Power Administration \(BPA\)](#)

Bonneville maintains its position that the Draft Regional Framework Proposal removes a great deal of the flexibility and autonomy afforded to the Local Regulatory Authority (LRA) that is currently in the ISO Tariff, and has been in place for at least 10 years. Bonneville has submitted this comment repeatedly during this Stakeholder Initiative, both in writing and in person at stakeholder meetings, however the issue has not been addressed by the CAISO. Specifically, under the current proposal, LRAs will no longer have the ability to plan for and meet load service obligations within the policy guidelines and statutory frameworks of their jurisdictions. Jurisdictions will no longer set their own Planning Reserve Margins (“PRM”), or set their own rules for counting the capacity from their own resources. Bonneville and its customers should not be placed in a worse position than we are in today simply because some BPA customers and their loads reside in a BAA controlled by an entity that chooses to become a PTO, and that BAA establishes uniform counting rules that fail to consider the actual resources serving those loads.

Further, FERC specifically rejected CAISO's original attempt to establish a standard PRM requirement. *Cal. Independent System Operator Corp.*, 116 FERC ¶ 61,274 at P. 1153-1155 (Sept. 21, 2006). When CAISO proposed its tariff changes in the Market Redesign and Technology Upgrade ("MRTU") process, CAISO included a standard 15% minimum reserve margin for all LSEs. Parties raised several concerns with a fifteen percent reserve margin, including: 1) 15% is an arbitrary amount; 2) the reserve margin imposes an extreme burden on entities that have not already acquired 15% reserves; and 3) the restrictions on imports and qualifying facilities make it difficult for LSEs to satisfy the reserve requirement. *Id.* at P. 1147. FERC rejected CAISO's proposal to set a mandatory 15% reserve margin and required CAISO to allow LRAs to establish the reserve margin for their own LSEs. *Id.* at P. 1153-1155. FERC stated it is okay for CAISO to establish a default reserve margin of 15% for entities that had not set their own, but required CAISO to allow LRAs to determine their own reserve margins:

We believe that setting a 15 percent reserve requirement for non-CPUC LSEs is inconsistent with MRTU's purported deference to the RA programs of Local Regulatory Authorities. . . . However, we believe that if a Local Regulatory Authority fails to implement a reserve margin, then the CAISO should continue to implement the 15 percent default reserve margin included in IRRP in order to ensure the reliable supply of energy at reasonable prices.

*Id.* at 1153 (Emphasis added). In addition, the Commission acknowledged that the planning reserve margin of an LRA may be below CAISO's 15 percent default, provided that it remained within levels acceptable to the Western Electricity Coordinating Council (WECC):

Though not an explicit planning reserve margin, WECC has also adopted Minimum Operating Reliability Criteria (MORC) requirements that range between five to seven percent. Any planning reserve margin adopted by a Local Regulatory Authority must equal or exceed these MORC requirements.

*Id.* at 1154. The Commission affirmed *both* of these points – ensure flexibility to LRAs to set their own reserve margin and use of the WECC MORC standard as a minimum level – in its rehearing order on MRTU:

As we stated in the September 2006 Order, we believe that setting a minimum reserve requirement for non-CPUC jurisdictional LSEs is inconsistent with MRTU's deference to the RA programs of LRAs. While the Commission takes the CPUC's concern that LRAs could set unrealistically low reliability standards seriously, we note that any planning reserve margin adopted by LRAs must meet or exceed WECC's minimum operating reliability criteria, or MORC. The Commission believes that this will be a sufficient safeguard against the problem identified by the CPUC. The Commission continues to find that sections 40.2.1 and 40.2.2 of the MRTU tariff are consistent with our prior orders, and we believe that these sections appropriately balance proper deference to LRAs and the need for adequate reliability. The CPUC's protest is accordingly rejected.

*California Indep. Sys. Operator Corp.*, 122 FERC ¶ 61017, P. 25 (Jan. 9, 2008).

Thus, FERC's acceptance of CAISO's MRTU market design was founded on LRAs having the flexibility to establish their own reserve margins, and the Commission gave direct guidance on what an acceptable alternative reserve margin may be. The CAISO's proposal removes that flexibility and supplants the Commission's guidance with its own reserve margin standard, which is directly contrary to the conditions the Commission imposed on the CAISO when it approved MRTU.

Accounting for different PRM levels is not a new process for the CAISO, and presumably the CAISO has built systems and processes to manage these differences. A universal PRM could be seen as an effort by the CAISO to assert jurisdiction over equity issues and to force other regions into adopting the CAISO's planning assumptions, when in fact LRAs have been taking responsibly for their load service and operating reliably under different "PRMs" for many years. Bonneville believes that the CAISO can and should maintain reliability within its BAA and it already has the backstop acquisition authority to do so. Maintaining the flexibility provided to LRAs currently in the Tariff is critically important, as it allows recognition and accounting for policy and statutory differences among the group of entities that are LRAs now, or could be LRAs within the broader region. Those specific flexibilities mentioned above in the current ISO Tariff are extremely important to Bonneville in its obligation to provide load service within the bounds of its statutory and contractual construct. Furthermore, Bonneville cannot take an action contrary to its statutory authorities. For instance, being unable to set its own PRM and resource counting rules will mean that Bonneville may be subject to the CAISO's backstop procurement mechanism, even when Bonneville has all the resources it needs to serve its loads reliably under its own standards. CAISO has maintained that uniform PRM and resource counting rules serve the interest of preventing leaning between LSEs. This may indeed be the case, however, in its current proposal the ISO has created a system that now exposes entities that serve loads reliably, and do not lean on neighboring LSEs, to the possibility of backstop procurement.

2 Exhibit 4-3, 2016 Pacific Northwest Loads and Resources Study at p. 50, lines 35-38.

### ISO Response

The CAISO appreciates BPA's comments related to LRA authority over PRM and resource counting methodologies. CAISO understands these concerns and does not intend that the proposed changes would modify an LSE's ability to plan for and meet load service obligations within the policy guidelines and statutory frameworks of its jurisdiction. The CAISO's proposal is intended to allow entities to maintain as much control over their procurement as they do currently. CAISO maintains, however, that it is important to consider the need for changes to existing provisions for how resource capacity values are evaluated today and to the potential need for the CAISO to study and set a system-wide PRM target. These efforts have been described in prior proposals and are a step toward safeguarding all potential participants against potential capacity leaning, and to avoid potential for inequitable procurement incentives which could result from the use of inconsistent counting methods across jurisdictions.

The CAISO acknowledges the FERC ruling described in BPA's comments, but notes that the concept of a regional balancing authority area that encompasses several different states and federal jurisdictions causes a need to reexamine the potential for uniform counting methods and PRM targets being necessary in the context of a regional balancing area. With that in mind, CAISO also acknowledges that states and LRAs play a vital role and should have significant authority in setting PRM targets; therefore, CAISO has proposed a role for oversight and authority through a Western States Committee (WSC), which is being developed under CAISO's regional governance discussions.

Despite CAISO responses to BPA's concerns expressed in previous versions of this proposal, the CAISO recognizes that BPA has some remaining concerns and commits to continue working with BPA and its stakeholders to ensure that any changes to the proposal or its direction will work for all entities in an expanded regional balancing area.

#### **Organization**

[Large-scale Solar Association \(LSA\)](#)

Additional deference to state authority: The RISO should determine whether there is a collective RA deficiency (which would trigger potential RISO RA backstop procurement) before issuing deficiency notices to specific LSEs that are in compliance with their Local Regulatory Authority (LRA) RA counting rules.

RISO backstop procurement is needed only if the collective LSE RA showings indicate a local or system RA deficiency. However, the Proposal indicates that the CAISO would assess LSE RA showings separately, and issue deficiency notices, before performing the overall RISO Reliability Assessment to determine whether any RISO backstop RA procurement is needed. An LSE receiving such a notice that is in compliance with its LRA RA rules would have to decide whether to procure possibly unneeded additional RA (exceeding its LRA standards and raising its costs) or risk allocation of potential RISO backstop procurement costs. With all due respect, this sequence should be reversed, for the reasons described below.

First, the CAISO should only be concerned about whether sufficient RA capability has been procured to ensure reliable service, not whether each individual LSE (or LRA jurisdiction) has procured a portfolio that meets RISO standards.

Second, there is no reason why an LSE meeting its LRA RA rules should have to guess in advance about RISO backstop procurement needs. Performing the collective assessment before issuing LSE deficiency notices would remove this guesswork and allow the LSE (and its LRA) to make rational decisions with all the necessary information.

Finally, and most relevant to the regionalization discussion, the CAISO's proposed sequencing could raise additional issues regarding state/LRA jurisdiction that are not necessary for RISO formation or reliable operation. LRAs can decide for themselves whether they have concerns about their respective LSEs "leaning" on each other, or any inter-LRA "leaning," without the RISO imposing its judgment in this area.

**ISO Response**

The CAISO appreciates LSA's comments related to LRA authority and the sequence of reliability assessment deficiency determination and notification. CAISO agrees that there are many important considerations related to the sequence of the reliability assessment and deficiency notices being issued and CAISO does not intend to propose a solution that would cause entities unnecessary uncertainty. For these reasons, CAISO understands LSA's concerns and will consider these suggestions in the further development of the Regional RA proposals in the future.

**Organization**

[Public Generating Pool \(PGP\)](#)

In the ISO's Regional RA Framework Proposal, Local Regulatory Authorities (LRAs) are no longer able to set their own Planning Reserve Margin, set rules for counting the capacity from their resources, or decide whether or how to count firm load delivery contracts for RA. PGP believes it is important for LRAs to maintain these flexibilities, in particular as they are imperative for BPA in its responsibility to provide load service within its statutory and contractual obligations.

**ISO Response**

The CAISO understands PGP's comments and concerns related to LRA authority. CAISO respects the opinions of entities in the Northwest and commits to working closely with BPA and its customers to find a common ground in hopes of developing solutions that will be workable for all entities in an expanded regional balancing area.

***Updating ISO Tariff Language to be More Generic***

**Organization**

[Industrial Customers of the Northwest Utilities \(ICNU\)](#)

### **Propriety of Directly Addressing Tariff Revisions**

ICNU finds a particular statement in the reliability assessment section of the Framework Proposal worthy of note: “The ISO also provides additional detail on the proposed *revisions to* the current backstop procurement authority and cost allocation *tariff language* that are necessary to fully implement this reliability assessment.”<sup>16/</sup> Plainly, the ISO finds it “necessary” to revise tariff provisions concerning cost allocation and backstop procurement, and to consider direct tariff revisions within the confines of the present RA Framework Proposal. In this sense, ICNU’s concerns on reliability assessment matters—and ICNU’s recommendations to allay such concerns, e.g., those associated with backstop procurement and cost responsibility, as noted above—should be considered appropriate for future RA initiative considerations. This would hold true, even if the ISO maintains a siloed approach, notwithstanding recommendations for a more holistic and nuanced analysis, should regionalization efforts ever resume in earnest. In sum, it would be unreasonable to claim that tariff revisions proposed by ratepayer advocates are beyond the scope of RA initiative consideration, so long as the ISO itself continues to propose direct tariff modification in the context of backstop procurement and cost allocations.

16/ Framework Proposal at 20 (emphasis added). See also id. at 7 (asserting it “necessary to consider potential modifications to the ISO’s resource adequacy tariff provisions”).

### **ISO Response**

The CAISO has noted the ICNU comments and understands the suggestion that other tariff revisions related to cost allocation concerns need to be considered by in this or other future initiatives. CAISO has previously addressed these issues in responses, stating that it declines to include the suggested cost protections within the scope of the Regional RA initiative. CAISO understands these cost impact issues are important to the ICNU members and will continue to work to address these concerns in the future.

### **Organization**

[Silicon Valley Power \(SVP\)](#)

The CAISO appears to have moved away from a conceptual filing approach – where such a conceptual filing would occur before the drafting, sharing and eventual filing of related CAISO Tariff language. SVP supports such a change in approach, and encourages the vetting (with stakeholders) of a comprehensive proposal covering related regionalization issues such as governance, greenhouse gas, and regional transmission access charge, including tariff language, before filings are made at the Commission.

The option that had previously been proposed - that would have resulted in a conceptual-type filing prior to submitting tariff language, as done with MRTU in the prior decade – should not be considered as a viable option. The current RA program does not need to be modified unless and until PacifiCorp or some other entity joins the CAISO. Further, filing conceptual

proposals on discrete components of the regional process may serve to entrench particular portions of the proposals and constrain the flexibility that will be required to move towards a comprehensive proposal reflecting broader region-wide stakeholder consensus.

#### ISO Response

CAISO appreciates the comments by SVP and will consider the recommendations as the CAISO contemplates the future direction of the Regional RA initiative. CAISO remains committed to ensuring that any modifications to its RA provisions reflect broad region-wide stakeholder consensus.

## ***General and Miscellaneous Comments***

#### Organization

[Bonneville Power Administration \(BPA\)](#)

Bonneville has previously suggested that this stakeholder initiative should be suspended until after the governance structure for a regional ISO is finalized and implemented. As such, Bonneville appreciates that CAISO has no imminent plans to submit the Regional RA proposal to its board. However, CAISO has indicated that the Draft Regional Framework Proposal should be viewed as “close to final”, and that it represents something similar to what a final proposal would include. This is problematic for Bonneville because the issues Bonneville has identified remain unresolved. Bonneville has participated as a stakeholder in the Regional RA process from its inception, and has raised significant issues and concerns with the proposal. CAISO has not adjusted its proposal to respond to these concerns. Therefore, Bonneville does not support the current Regional RA proposal.

Bonneville remains concerned the CAISO is developing a Regional RA requirement that ignores power supply and utility obligations and relationships that exist in regions outside of California. For example, Bonneville relies on pro-forma OATT service provided by transmission providers throughout the Pacific Northwest that does not require Bonneville to secure additional capacity to meet resource adequacy requirements. Bonneville alone determines what it needs to be resource adequate to meet its statutory power obligations under contract. Because the proposal seeks to change only an absolute minimum amount of provisions necessary to make the current CAISO RA system work outside of California it will result in parties opposing, resisting, and perhaps challenging CAISO efforts.

Any new participating transmission owners in a Western ISO will have provided many years of transmission in accordance with the pro-forma tariff established by FERC under Orders

888 and 890 (“OATT contracts”). Many LSEs receiving service on transmission provided throughout the contemplated footprint of the Western ISO have established relationships with external generation using long term transmission and associated rollover rights. The current CAISO proposal to abrogate these historic relationships in a non-voluntary manner demonstrates the need for a new governance structure that is more sensitive to the needs of the area the CAISO proposes to serve.

Bonneville maintains that the CAISO has not developed a set of Regional RA standards that are compatible with existing practices in the broader region. Reliable load service is not a new concept to the Pacific Northwest, but the current RA proposal ignores the fact that loads have been, and continue to be, served reliably under the existing contractual and resource paradigm.

Under the CAISO and PacifiCorp proposal, all existing OATT contracts would be abrogated. Other established electricity markets have not taken such a draconian approach to existing contracts. For example, SPP did not require involuntary abrogation of grandfathered contracts<sup>1</sup>; rather, SPP allowed the contract-holder to choose whether or not to convert its transmission service. See *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at P. 99 (February 10, 2004). Some parties argued that SPP should require all existing contracts to be converted, but FERC upheld SPP’s proposal. *Id.* at P. 108. FERC stated, “We encourage transmission customers with grandfathered contracts to convert to direct service under the SPP OATT. However, we are not requiring such conversion nor are we abrogating any contracts.” *Southwest Power Pool, Inc.*, *Id.* Like SPP, CAISO should allow contract conversion to be voluntary.

Further, neither CAISO nor PacifiCorp has shown how forced abrogation of contracts complies with sections 217 and 218 of the Federal Power Act, which provide specific protections to the physical transmission rights held by entities (including Bonneville) in the Western Interconnection and, more specifically, the Pacific Northwest. 16 U.S.C. §§ 824q, 824r. Section 217(f) states:

Nothing in this section shall provide a basis for abrogating any contract or service agreement for firm transmission service or rights in effect as of August 8, 2005. If an ISO in the Western Interconnection had allocated financial transmission rights prior to August 8, 2005, but had not done so with respect to one or more load-serving entities’ firm transmission rights held under contracts to which the preceding sentence applies (or held by reason of ownership or future ownership of transmission facilities), such load-serving entities may not be required, without their consent, to convert such firm transmission rights to tradable or financial rights, except where the load-serving entity has voluntarily joined the ISO as a participating transmission owner (or its successor) in accordance with the ISO tariff.

16 U.S.C. §824q (emphasis added).

Section 218 of the Federal Power Act provides more specific protections to the physical transmission rights held by entities (including Bonneville) in the Pacific Northwest. This

provision, which is titled “Protection of Transmission Contracts in the Pacific Northwest,” provides as follows:

DEFINITION OF ELECTRIC UTILITY OR PERSON.—In this section, the term ‘electric utility or person’ means an electric utility or person that—

- (1) as of the date of enactment of the Energy Policy Act of 2005 holds firm transmission rights pursuant to contract or by reason of ownership of transmission facilities; and
- (2) is located—

(A) in the Pacific Northwest, as that region is defined in section 3 of the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839a); or

(B) in that portion of a State included in the geographic area proposed for a regional transmission organization in Commission Docket Number RT01–35 on the date on which that docket was opened.

(b) PROTECTION OF TRANSMISSION CONTRACTS. – Nothing in this chapter confers on the Commission the authority to require an electric utility or person to convert to tradable or financial rights—

- (1) firm transmission rights described in subsection (a); or
- (2) firm transmission rights obtained by exercising contract or tariff rights associated with the firm transmission rights described in subsection (a).

16 U.S.C. §824r.

Together, the above language makes clear that the Federal Energy Regulatory Commission’s authority under the Federal Power Act to require the conversion of physical transmission rights (such as long-term OATT transmission rights) to financial transmission rights (such as Congestion Revenue Rights (CRRs) under the ISO tariff) is limited to voluntary conversions. These provisions apply to all transmission rights that were in effect as of August 2005 (as well as any follow on agreements that were obtained by exercising OATT rights, including rollover rights). The CAISO/PacifiCorp proposal to abrogate all OATT contracts seems to blatantly violate these statutes. Bonneville has raised this issue in the past and neither CAISO nor PacifiCorp have addressed it.

*Requirements Contracts* - As mentioned in previous comments, Bonneville serves the full requirements of many of its preference customers under long-term wholesale power sales contracts. Depending on the type of power product and/or service BPA supplies under these requirements contracts, which Bonneville is required by federal law to offer, Bonneville can be obligated to meet the full load needs of its customers, including the hour-to-hour variations of the utility’s total retail load and any load growth. For its load following customers, Bonneville also serves the moment-to-moment variations of customer loads located in its BAA, and has contracted for ancillary services from the local transmission provider for its loads in other BAAs for more than 50 years.

In meeting these full load service obligations, Bonneville plans deliveries from its system to meet unexpectedly high peak loads, as well as to provide ancillary services such as contingency reserves for exports from its BAA. The proposed uniform counting rules do not reflect contingency reserves provided with external resources or the planning reserves or load

following and generation imbalance reserves Bonneville holds to ensure the reliable delivery of obligations from its system. For example, Bonneville reduces the forecast output of its 22,000 MW of resources by an average 4300 MW per month of forecast outages. These outages are the equivalent of planning reserves in the CAISO BAA supporting BPA system deliveries. Bonneville also holds 1200 MW of capacity providing ancillary services in its BAA, contingency reserves for generation used in, and exported from, its BAA, and load following and generation imbalance reserves for loads in, and exports from, its BAA.<sup>2</sup> None of these reserves are considered by the uniform counting rules included in the current CAISO proposal. To reiterate, Bonneville has served loads in neighboring BAAs using external resources reliably for decades under such contracts. Having a Bonneville preference customer that is located within a BAA that chooses to join a Regional ISO does not change the terms of BPA's obligation to serve and cannot compel Bonneville to hold out any more reserves than is required by its contractual obligations.

Bonneville again suggests that the CAISO create language in its Tariff that gives an LSE the ability to use a contract for full requirements load service to meet its RA obligations to the ISO. For example, under such a system, an LSE that has contracted out the full needs of its loads (including load following and ancillary services) would be able to show that contract to its LRA for RA compliance, much in the same way current LSEs can show a contract for the output of a generating resource for RA. These contracts meet the full non-coincidental loads of this LSE. In developing business rules for such a Tariff provision, the CAISO needs to address the treatment of ancillary services, load diversity, and reserves provided by external resources.

<sup>1</sup> SPP's grandfathered agreements "include (1) agreements providing long-term firm transmission service executed prior to April 1, 1999 and Network Integration Transmission Service executed prior to February 1, 2000, and (2) bundled wholesale contracts (that reserve transmission as part of the contract)." *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at P. 99 (February 10, 2004).

## ISO Response

The CAISO appreciates BPA's comments and understands the concerns raised, especially the importance of BPA's full requirements contracts to BPA and its customers. At this time, it is premature for the CAISO to determine whether and how the requirements contracts would meet CAISO's RA requirements. CAISO needs to better understand the nature of BPA's contractual arrangements and how the services BPA provides through these contracts align with the RA and operational needs of a regional ISO.

For instance, the ISO must better understand how the reserve services under BPA's requirements contracts align with the proposed system-wide PRM and applicable must offer obligations, which are the resources and tools the ISO relies on to ensure sufficient resources are available to meet all applicable reliability criteria and planning standards. Additionally, the ISO needs to understand how BPA and its customers would be treated under the ISO's current definitions pertaining to LSE and LRA designations, and if certain accommodations would be needed given the nature and structure of BPA's relationship with its customers. We must also frame what the interested parties, including the ISO, BPA, and other Northwest

entities' ultimate jurisdictions, authorities, and obligations will be under a regional ISO construct, which will require further discussion and collaboration between parties to achieve a consensus position.

These important questions are part of this complex set of issues still to be resolved by the ISO, BPA and stakeholders. The ISO is committed to collaborating with BPA, its customers, and interested stakeholders in the future to address and resolve these important matters.

## Organization

### [Industrial Customers of the Northwest Utilities \(ICNU\)](#)

As noted in prior comments, ICNU has not necessarily concluded that integration into the ISO of PacifiCorp or any other particular entity will be beneficial to large power consumers. In order to form such a conclusion, it would be necessary to find, among other things, that: 1) joining the market will result in no harm to large customers of PacifiCorp or other potential new Participating Transmission Owners (“PTOs”); and 2) any incremental benefits associated with the market are shared equitably between market participants.

In general, ICNU believes that a regional ISO will be more successful and more extensible if it is based on a zonal RA framework, similar to that currently used by the Mid-Continent System Operator. Many of the issues surrounding governance, transmission cost allocation, and resource adequacy would be more manageable in a zonal market framework, and accordingly, ICNU continues to believe that a zonal construct will better serve the ISO if it is to be expanded throughout the region. ICNU is appreciative of ISO efforts to adopt some provisions that are generally more consistent with a zonal market, such as providing priority allocation of imports to utilities located in the region where the import occurs.

Notwithstanding, ICNU is concerned that the existing structure may not provide potential new market participants with sufficient value to justify participation in the expanded market. For instance, PacifiCorp already receives a great deal of resource adequacy through the interties with the ISO, as well as its many other interties with many other utilities located throughout the West. Absent a zonal approach, ICNU is concerned that the existing resource adequacy currently available to PacifiCorp through these interties will be diluted. Coupled with potential requirements to plan to higher planning reserve margins (“PRMs”), and there could be significant costs to PacifiCorp customers if PacifiCorp were to join the ISO.

The comments below primarily focus on particular aspects of the Framework Proposal that represent changes from ISO positions stated in the Third Revised Straw Proposal, as well as on issues or discussion topics newly addressed or articulated in a different manner within the Framework Proposal. For ICNU feedback on aspects of the RA initiative that have remained unchanged, please see ICNU's comments on the Third Revised Straw Proposal, submitted October 27, 2016, in addition to prior ICNU comments.

The ISO states that it is not proposing any significant changes to reliability assessment proposals.<sup>9/</sup> Accordingly, ICNU feedback on reliability assessment issues is limited to the two issues below, as a supplement to feedback provided above and in prior comments.

#### 1. Zonal RA Concept v. System-Wide PRM

ICNU has consistently advocated in favor of a zonal RA construct, in which each zone or sub-region of a regional ISO would have a unique PRM, as determined by LRAs under traditional processes.<sup>10/</sup> While the referenced comments provide more detail on the issue, in short, different regions have different loads and resources, which poses unique reliability characteristics and imposes distinct RA requirements. The reliability characteristics of resources used to serve the Northwest, for example, are different than those of resources used to serve Southern California. Accordingly, one expects the PRM of a utility in the Northwest to be different than the PRM of a utility in Southern California, even if calculated using the same methodology.

Using a system-wide PRM disregards the unique characteristics of resources located in different regions, and instead assumes that the reliability characteristics are uniform for all resources located within an expanded ISO. This assumption, however, has the potential to result in a significant problem of leaning. Under a system-side PRM, those regions with resource portfolios possessing better-than-average reliability characteristics may be required to purchase an amount of RA that exceeds the amount required to maintain reliability in that region. Similarly, regions with resource portfolios that are less reliable than the system average may avoid acquiring resources even though additional resources may be needed for reliability purposes in those regions. ICNU does not believe that the use of a single, system-wide PRM is the proper way to conduct system planning, and accordingly, continues to oppose its use in the ISO's RA proposal.

Also, as an appendix to the Framework Proposal, the ISO has provided certain responses that point to the need for reconsideration of zonal alternatives and sub-regional PRM standards to avoid LRA preemption. For instance, the ISO states that it "will use the RA allocations determined by the LRA," but with the major caveat that "the ISO will utilize the proposed system-wide PRM."<sup>11/</sup> ICNU believes that the caveat here effectively swallows up the ISO's ostensible deference to LRAs. Specifically, the ISO submits "that any conflicting determinations" between LRA and ISO can be avoided, because "[e]ntities will have the information related to these determinations available when making procurement decisions."<sup>12/</sup> In operation, however, the ISO is essentially reasoning that an LRA or LSE can avoid conflicts by making procurement decisions based on system-wide PRM information available from the ISO.

While this may be an effective strategy to avoid conflicts, making procurement decisions based on a system-wide PRM would practically undermine the independence of RA allocations determined by an LRA. That is, should an LRA approve a lower PRM determination, as may occur in PacifiCorp's biennial Integrated Review Processes, conflict

would only be avoided if PacifiCorp were to make procurement decisions based on a higher, system-wide PRM from the regional ISO. In this manner, the LRA determination would become an effectual nullity.

Likewise, the ISO notes concerns expressed by the Bonneville Power Administration (“BPA”) and PacifiCorp over the use of backstop procurement authority, but offers similarly unpersuasive rationale to allay LRA preemption concerns.<sup>13/</sup> For example, while understanding “PacifiCorp’s concerns that the backstop procurement, based on the ISO’s PRM ... may be inconsistent with the PRM ... of LSEs,” the ISO contends that, because it will make necessary information “public in advance of procurement ... LSEs will have the necessary information in order to avoid the potential inconsistency.”<sup>14/</sup> Again, this effectively means LSEs can avoid inconsistency by disregarding LRA determinations in preference to ISO guidance. Indeed, the ISO confirms a belief “that it is not appropriate to use LRA PRMs” due to an alleged potential to create “inconsistent levels of reliability across an expanded balancing area and cause the ability for certain entities to lean on other areas of the system.”<sup>15/</sup>

9/ *Id.* at 20.

10/ See, e.g., ICNU Comments on Third Revised Straw Proposal at 7; ICNU Comments on Second Revised RA Straw Proposal at 4; ICNU Comments on Revised RA Straw Proposal at 2, 5-6 (May 4, 2016); ICNU Comments on RA Straw Proposal at 5-6.

11/ Framework Proposal at 59.

12/ *Id.* at 60.

13/ *Id.* at 61. ICNU notes that additional stakeholders, both within and outside California, have also expressed concerns over the effective preemption and diminishment of traditional RA authority exercised by an LRA. See *id.* at 69 (acknowledging concerns by ORA and SCL).

14/ *Id.* at 61. See also *id.* at 67 (arguing again for practical preemption by stating that “LSEs and LRAs will have the necessary information available in sufficient time to allocate RA requirements in a way that avoids conflicting outcomes”).

15/ *Id.* at 62. ICNU notes that other stakeholders have expressed concern over the ISO’s “leaning” arguments in support of a reliability assessment proposals. E.g., *id.* at 59 (“LSA believes that the ISO should not care whether some LSEs are ‘leaning’ on others”); *id.* at 61 (noting “BPA’s concerns over the ISO using its backstop authority to address leaning issues”). See also ICNU Comments on Third Revised Straw Proposal at 8 (expressing concerns about oversupply positions resulting from a system-wide PRM, in contrast to the ISO’s leaning arguments in support of a system-wide PRM)

## ISO Response

The CAISO understands the recommendations and concerns that have been expressed by ICNU. CAISO also understands the recommendation to utilize a zonal construct in future proposals, however, as stated previously, it is still unclear if a zonal construct would align well with a regional ISO’s needs because the benefits are difficult to assess. CAISO believes there are numerous complications with a zonal construct as stated in previous proposals. CAISO previously underwent significant effort to develop a zonal proposal under this initiative and ultimately decided that the proposal was not ripe for further development because of complications that would be caused due to the current substitution rules being applied to a zonal construct, as well as a need for recognizing netting of zonal RA procurement by LSEs in various potential zones of an expanded BAA, both of which were identified as creating excessive implementation complexity. CAISO believes this issue is very important and proposed that it would monitor zonal needs and procurement but has decline to propose actual zonal requirements at this time. CAISO also understands the concerns related to LRA authority and has previously stated the rationale for the proposed construct in prior proposals.

CAISO remains committed to working with stakeholders in the future in order to address any outstanding issues and further develop the regional Ra proposal.

**Organization**

[Office of Ratepayer Advocates \(ORA\)](#)

ORA remains concerned about the lack of clarity on how further refinement and future stakeholder processes will be conducted. While there has been progress in developing a potential RA framework through the stakeholder process, significant work remains. It is unclear who will conduct future stakeholder initiatives and adopt final outcomes - the WSC, the CAISO Board, or a new regional ISO Board? Of particular concern is the need for ratepayer representation in an Expanded regional ISO. ORA recommends the adoption of clear and binding rules and processes for stakeholder involvement prior to adoption of a RA framework.

The CAISO also should clarify how its current California initiatives will apply to PacifiCorp and participating transmission owners that join the Expanded ISO. For example, the CAISO states that “any changes to its flexible capacity product and/or counting rules will be addressed in its separate Flexible Resource Adequacy Criteria and Must-Offer Obligation – Phase 2 (FRACMOO 2)” stakeholder initiative.<sup>22</sup> It is not clear how FRACMOO 2, which is currently a California specific initiative, will be incorporated into the regionalization process. ORA and other stakeholders must be able to evaluate such critical details of how regional RA will impact each state’s ratepayers. The CAISO should address this important procedural step and communicate to stakeholders.

The CAISO proposal will result in significant changes to the CPUC RA program with the CAISO assuming control of uniform counting, ELCC modeling, modeling for planning reserve margins, determination of LSE requirements, validation of LSE filings, and determination of mechanisms to address procurement deficiencies. To assist the states, LRAs, and LSEs in understanding the changes required for the functioning of a Regional RA mechanism, the CAISO should describe the specific authority that the various entities will exercise under each element of the CAISO’s proposed Regional RA structure.

The shift of authority away from the states to the new Expanded ISO should be carefully thought out to ensure that states retain their ability to plan for resources, and in California’s case, continue to follow the loading order, a cornerstone of California energy policy. ORA continues to recommend that the WSC have specific oversight and authority to guarantee that states maintain a strong voice in resource planning and RA regulations. Since much of the current work of the CPUC on the California RA program would become redundant or irrelevant under a regionalization paradigm, the WSC should become an organization that ensures states continue to play an important role in resource planning. The RA framework as

currently proposed fails to specifically address or guarantee continued consensus building with the states and stakeholders, including ratepayer advocacy groups.

21 Proposal, pp. 47-49.

22 See: <http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleResourceAdequacyCriteria-MustOfferObligations.aspx>.

### ISO Response

The CAISO understands the concerns that have been expressed by ORA related to the process and path forward on these regionalization initiatives. CAISO has not yet determined the next steps for the full package of regionalization efforts, and, therefore, must defer providing further guidance at this time. CAISO also understands that there are a number of issues within the Regional RA proposal that will require additional development and CAISO commits to working with stakeholders on future proposals.

### Organization

#### [Pacific Gas and Electric \(PG&E\)](#)

PG&E supports a larger regional footprint that benefits energy customers, and will continue to constructively participate in stakeholder processes supporting that objective. CAISO has stated in its plan for stakeholder engagement that stakeholders should view the Regional Framework Proposal as “close to final.” PG&E is concerned with the significant changes introduced in the Regional Framework Proposal that were not contemplated in previous drafts.

PG&E believes that the CAISO has made a good faith effort to balance stakeholder concerns over most of the duration of the Regional RA stakeholder initiative. However, three new aspects of the Regional Framework Proposal<sup>1</sup> are not fully developed and PG&E has not had an opportunity to comment on these aspects until now. While all three proposals could possibly have merit, and are worthy of continued discussion, we do not believe these aspects of the proposal should be adopted in their current form. As a result, PG&E cannot support CAISO using this draft to represent what a Regional RA program would look like under a Regional ISO. Before setting aside this Proposal to work on regional governance, PG&E asks the CAISO to commit in advance to revising these sections of the draft as soon as there is resolution on the regional governance issues.

<sup>1</sup> Regional RA Regional Framework Proposal, Sections 5.4, 5.51, and 5.5.2

### ISO Response

The CAISO understands the concerns over the addition of new issues into the scope of the proposal that have been expressed by PG&E. CAISO agrees that there are a number of issues within the Regional RA proposal that will require additional development and commits to working with stakeholders on future proposals.

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<b>Organization</b>
<a href="#">Public Generating Pool (PGP)</a>
<p><b>Regional RA Decision Delay</b></p> <p>PGP supports the CAISO’s decision to put its efforts on hold for the Regional RA and Transmission Access Charge Options initiatives, given the uncertainty in process and timeframe for finalizing the initiative on Regional ISO Governance. The finalization and implementation of the Regional ISO Governance structure is an important first step for regional expansion. Finalization of the governance should occur prior to the CAISO moving ahead with other regional expansion initiatives.</p> <p><b>Ability to meet Statutes</b></p> <p>PGP requests that the Regional RA framework consider BPA’s ability to meet its statutory obligations at a cost comparable to today. This may require the ISO to develop standards that recognize BPA’s statutory obligations as a federal power marketing agency when expanding the ISO Balancing Authority Area (BAA) into areas where BPA serves preference customers’ loads. Whenever requested, BPA is required under the Northwest Power Act, to sell wholesale power to meet the firm power requirements of certain utility and federal agency customers across the Pacific Northwest. Several public utilities located in the PacifiCorp East and West Balancing Authority Areas are full requirements customers of BPA. The cost for BPA to serve loads in adjacent BAA’s directly impacts BPA’s power costs, affecting all BPA requirements customers, including PGP member utilities.</p>
<b>ISO Response</b>
The CAISO appreciates the comments by PGP and commits to working with stakeholders to respond to concerns that have been raised in future proposals.

<b>Organization</b>
<a href="#">San Diego Gas and Electric (SDG&amp;E)</a>
<p>SDG&amp;E recommends the ISO to identify which portions of the framework would be suitable as enhancements to the current RA program without need for expansion. Such enhancements should be included in the regional adequacy enhancements initiative set to begin for 2017 as noted in the stakeholder catalog.</p>
<b>ISO Response</b>
The CAISO appreciates the recommendation by SDG&E. At this time CAISO does not plan to identify particular issues that would be suitable for further consideration even in lieu of regional expansion. As stated in all iterations of the CAISO proposals, these changes were

intended to be “need to have” modifications for the expansion of the CAISO balancing area. CAISO understands the recommendations and has placed this regionalization initiative on hold and no subsequent schedule has been determined at this time.

**Organization**

[Seattle City Light \(SCL\)](#)

City Light supports CAISO’s goal to ensure adequate capacity is available and offered to the expanded ISO to ensure reliability. City Light further supports developing a probabilistic method for evaluating loss of load potential and establishing the planning reserve margin (PRM) target.

City Light supports existing commercial and operational practices continuing with no loss of value to non-ISO participants as a result of expanding the ISO. Embedded LSEs depending on existing transmission are serving load reliably. The expanded ISO should not eliminate or devalue the ability of third parties to continue to reliably serve load with remote resources. City Light welcomes CAISO’s proposal allowing some short-term imports to qualify as RA resources. City Light encourages the CAISO to continue to study the increased use of imports as RA resources, particularly for new participants that are serving load reliably with resource the CAISO considers imports.

City Light supports the proposal to allow external resources to substitute for internal systems resources. City Light presently relies on resources the CAISO would likely label both internal and external, and meets load reliably and economically. City Light encourages CAISO to consider more such substitutions in the future.

City Light encourages CAISO and the Western States Committee (WSC) to include consideration of incremental costs and benefits to each market participant as a criteria when developing the PRM. States and LRAs do this presently although in different ways. Including cost effectiveness as part of the derivation of the PRM will provide for stakeholders to offer options and provide for the greatest transparency and ultimately support for the target. Developing the PRM will take time. City Light requests CAISO explain how it will proceed in the interim, and provide a timeline for when it anticipates the PRM will be set.

City Light supports consonance between the sub-regions for the Transmission Access Charge (TAC) and areas studied for regional resource adequacy (RRA). Physical power flows and factors that affect flows should be a critical factor in determining and aligning these topics. Because load ratio share does not always reflect the allocation of costs and benefits, City Light does not support it as a sufficient basis for allocating economic costs and benefits.

City Light does not support the reduction in the role accorded to LRAs in the Regional Framework Proposal. LRA’s were given a much broader/larger/more robust role in the 2nd

straw proposal. The Regional Framework removes decision making from LRAs in several instances: setting local resource adequacy and reserve levels, and choosing the capacity counting method. It is important that LRA's retain more control because they are presently performing these functions and will have continuing responsibility for ensuring proper use of customer dollars.

In addition, City Light does not support the reduction in flexibility to LRAs and LSEs in the Regional Framework. The inability to substitute external resources for internal resources will limit a participants' ability to make the most cost-effective decisions. CAISO has not demonstrated that substitution is infeasible, so it is unnecessarily adding costs to participants. CAISO also proposes a MIC that is more restrictive, which is potentially costly to parties that are currently importing resources and managing a reliable system.

### ISO Response

The CAISO appreciates City Light's support on the noted aspects of the Regional RA initiative. CAISO also understands City Lights recommendations and concerns on other items. CAISO is committed to working with stakeholders on additional development of regional RA proposals and commits to addressing concerns that have been noted in future proposals.

### Organization

[Six Cities \(Cities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside\)](#)

The Six Cities specifically support the following elements of the Framework Proposal:

- Development of a system-wide Planning Reserve Margin ("PRM") (Framework Proposal at 21-23), with input from stakeholders, the Western States Committee, and the Western Electricity Coordinating Council (id. at 57);
- Limiting intra-year updates to load forecasts to revisions based on load migration or submitted and verified by an appropriate regulatory or government agency (Id. at 11-12);
- Development of an ISO guidance document on acceptable load forecasting methodologies (Id. at 17-18);
- Provisions relating to ISO review of LSE forecasts, resolution of any disagreements regarding the reasonableness of LSE load forecasts, and application of ninety percent of the ISO's forecast where disagreements are not resolved by mutual agreement (Id. at 18-19);

- Publication of individual LSE load forecast error percentages (Id. at 18) as long as the approach is applied consistently (e.g., all non-weather adjusted, etc.);
- Development and application of uniform counting methodologies for resource RA values (Id. at 23);
- Development of documentation requirements and testing procedures to validate capacity values (Id. at 23-28);
- Provisions relating to implementation of backstop procurement authority to address collective deficiencies and allocation of costs in the first instance to any deficient LSEs (Id. at 30-32);
- Protection of Pre-RA Import Commitments for MIC allocation purposes, irrespective of the LSE's load ratio share within the relevant TAC sub-region or the location of the relevant intertie scheduling point (Id. at 33, 37, 38);
- ISO monitoring of Locational RA needs and procurement (Id. at 12-13, 49-51);
- Allowing LSEs to use short-term capacity arrangements (which could be executed after the due date for the monthly RA showing) to meet up to 10 percent of an LSE's system RA requirements, subject to the following proposed new incentive and enforcement mechanisms to ensure that the capacity procured through such short-term arrangements actually is made available to the ISO markets: (1) modification of the cost allocation provisions for intra-month exceptional dispatch CPM costs to allocate some such costs to LSEs that included short-term import arrangements in their RA showings that failed to perform when system conditions required an exceptional dispatch CPM; (2) enhanced penalties for non-performance during system emergencies or adverse system conditions, and (3) documentation requirements to demonstrate compliance with the 10 percent limit on short-term import arrangements for RA purposes (see Framework Proposal at 42-44); in addition, the Six Cities recommend that the ISO establish a process for re-evaluating periodically the appropriateness of the 10 percent short-term purchase allowance based on the adequacy of the regional capacity pool and confirm that any price risk associated with relying on short-term capacity purchases would be the responsibility of the purchasing LSE;
- Development and application of a daily forced outage assessment process and exemption from RAIM charges if substitute capacity for a resource on forced outage is not needed (Id. at 45-46); indeed, regardless of the outcome of the Regional RA initiative and/or the regionalization effort as a whole and without awaiting further developments in the regionalization process, the Six Cities request that the ISO take immediate steps to

implement a daily forced outage assessment process and exempt resources on forced outage from RAIM charges for days when substitute capacity is not needed;

- Allowing external resources to substitute for internal resources experiencing outages provided that the external resource has a sufficient MIC allocation to allow delivery of the substitute capacity (Id. at 46-47).

The foregoing elements of the Framework Proposal are consistent with preservation of reliability throughout an expanded regional BAA and will help to limit potential unfair resource “leaning” by sub-regions or LSEs within the expanded BAA.

The Six Cities appreciate the ISO’s express confirmation at page 70 of the Framework Proposal that (i) MIC will no longer be required for interties that become internal to an expanded BAA footprint; (ii) the ISO will preserve LSEs’ ability to count existing RA resources; and (iii) must-offer requirements, RAIM provisions, and substitution rules all will be applied consistently throughout an expanded BAA footprint.

#### **ISO Response**

The CAISO appreciates the support of Six Cities comments on these aspects of the ISO’s proposal. CAISO will continue to update and work with stakeholders once any future plans for future proposal development become available.