

Stakeholder Comments Template

Subject: Regional Resource Adequacy Initiative

| Submitted by | Company | Date Submitted |
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| <i>Peter Spencer Xian Ming “Cindy” Li Patrick Cunningham peter.spencer@cpuc.ca.gov 415 703-2109</i> | <i>Office of Ratepayer Advocates- California Public Utilities Commission</i> | <i>January 11, 2017</i> |

California’s Office of Ratepayer Advocates (ORA) provides the following comments on the California Independent System Operator Corporation’s (CAISO) Draft Regional Framework Proposal on Regional Resource Adequacy (RA), issued on December 1, 2016, (Proposal) and the briefing materials presented at the December 8, 2016 stakeholder meeting.

1. Load Forecasting

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 proposed¹ also should support consistent and accurate load forecasting and transparency.

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.”² 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.³ 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

¹ Proposal, p. 18.

² Proposal, p. 14.

³ *Potential Topics within the Primary Authority of the Western States Committee*, October 7, 2016.

granted the CPUC jurisdiction over RA and called upon the CAISO to work cooperatively with the CPUC.⁴

2. *Reliability Assessment*

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-procure⁵ 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).⁶

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.

⁴ Public Utilities Code Section 380(a).

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

⁶ 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.

3. System-Wide Planning Reserve Margin (PRM)

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.⁷ 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.⁸ 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)⁹ 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.

4. Uniform Counting Rules

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,

⁷ Proposal, p. 21.

⁸ Proposal, p. 22.

⁹ 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.) 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.

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.

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 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.¹¹ 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.

5. Resource Adequacy Showings and Validation Process

ORA generally supports the plan to incorporate the current monthly requirement for LSEs to demonstrate that their bilateral procurement satisfies RA requirements.¹² 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.¹³ 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.

¹⁰ Proposal, p. 23.

¹¹ Proposal, p. 24.

¹² Proposal, p. 28.

¹³ Proposal, p. 30.

6. *Backstop Procurement Decision and Cost Allocation Process*

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.¹⁴ 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.¹⁵ 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

¹⁴ Proposal, pp. 30-32.

¹⁵ Proposal, p. 32.

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.

7. Maximum Import Capability (MIC)

The Proposal states that it does not contain any significant changes to MIC modifications contained in previous straw proposals.¹⁶ ORA generally supports the MIC proposal with one notable exception expressed below in Section 8. ORA observes that the MIC process will require further modifications and stakeholder involvement to arrive at a final proposal ready to be incorporated into a new tariff.

8. MIC 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.¹⁷ 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.”¹⁸ 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

¹⁶ Proposal, p. 33.

¹⁷ Proposal, p. 42.

¹⁸ Ibid.

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.

9. Resource Substitution Rules

The CAISO introduces a new proposal for treating forced outages under Section 5.5.1.¹⁹ 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.²⁰ 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

¹⁹ Proposal, pp. 44-46.

²⁰ Proposal, pp. 46-47.

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.

10. Allocating RA Requirements to LRAs and LSEs

The Proposal describes two changes that would be made to the current process for allocating RA requirements.²¹ First, the Proposal would allow LRAs the option to have the Expanded ISO directly allocate RA requirements to LSEs under the jurisdiction of the deferring LRA. Second, in order to address issues with multi-jurisdictional LSEs, the Proposal would give the Expanded ISO the authority to allocate RA requirements directly to multi-jurisdictional LSEs. These are reasonable changes to the current allocation process, especially given the challenges of allocation for multi-jurisdictional LSEs. ORA continues to support the CAISO's RA allocation proposal.

11. Monitoring Locational RA Needs and Procurement

ORA supports the CAISO proposal to monitor locational resource adequacy needs across the expanded balancing area, and to consider new and existing constraints under the current CAISO study processes in place today.

12. Other Issues

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.²² 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

²¹ Proposal, pp. 47-49.

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

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.