

Stakeholder Comments Template

Resource Adequacy Enhancement Initiative: Second Revised Straw Proposal

Submitted by	Organization	Date Submitted
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System Resource Adequacy

1. Determining System RA Requirements

Please provide your organization's feedback on the System RA Requirements proposal as described in the second revised straw proposal.

At 14-15, the proposal distinguishes between “top down” and “bottom up” approaches to deriving system RA requirements and ultimately endorses a bottom up approach. The proposal suggests that a top down approach would be based on an LOLE analysis that utilizes assumptions about class-average forced outage rates. In contrast, a bottom up approach would be based on ensuring sufficient UCAP, reflecting actual unit-specific forced outage rates, to meet a load forecast plus (at least) operating reserves. The proposal does not include an analytic basis for determining the load forecast on which to base a bottom up requirement but somewhat subjectively suggests that something higher than 1-in-2 might be warranted.

Calpine believes that reliability requirements should have an analytic basis, such as a LOLE. Consequently, Calpine favors what CAISO characterizes as a top down approach. CAISO's main objection to the top down approach seems to be its reliance on assumptions about forced outage rates. In Calpine's experience, LOLE analysis can be performed with actual unit-specific forced outage rates. For example, PJM develops estimates of the installed capacity requirement that meets an LOLE standard (the Installed Reserve Margin) using an LOLE analysis based on unit-specific forced outage rates. It then translates the IRM into UCAP terms (the Forecast Pool Requirement) using the fleet average forced outage rate.¹ Calpine recommends that CAISO pursue a similar approach.

¹ For example, see <https://www.pjm.com/-/media/committees-groups/subcommittees/raas/20181004/20181004-pjm-reserve-requirement-study-draft-2018.ashx>.

2. Forced Outage Rates Data and RA Capacity Counting

Please provide your organization's feedback on the Forced Outage Rates and RA Capacity Counting and Forced Outage Rate Data topics as described in the second revised straw proposal.

Calpine notes that in the event that CAISO performs an LOLE analysis to determine system RA requirements, as Calpine recommends above, it should simulate outages and translate installed capacity requirements to UCAP terms in a manner that is consistent with the forced outage metric that it utilizes to determine UCAP for RA counting.

Calpine also understands that the CAISO intends on using GADS data as the basis of its UCAP evaluations (page 21). The CAISO identifies the default use of GADS as necessary given that the data residing in the Outage Management System (OMS) is not readily retrievable, but apparently could be, with time and investment. However, as the CAISO identifies, there are many substantive differences between the reporting requirements and outage classifications of GADS and the CAISO. A mapping of these differences by the CAISO is likely to yield better insight into unintended consequences of temporarily using GADS.

Above all, however, Calpine recommends that if the CAISO uses GADS, that it avoid any duplicative reporting obligations by basing the data requirements on the existing NERC GADS definitions, unmodified. Also, Calpine observes that proper interpretations of GADS definitions and reporting requires specialized and detailed skills. As such, should the CAISO move forward with its proposal to use this GADS data, the CAISO should convene workshop(s) of the experts from various stakeholders – including experts from other RTOs to verify their use of data.

3. Proposed Forced Outage Rate Assessment Interval

Please provide your organization's feedback on the Proposed Forced Outage Rate Assessment Interval topic as described in the second revised straw proposal.

No Comments at this time

4. System RA Showings and Sufficiency Testing

Please provide your organization's feedback on the System RA Showings and Sufficiency Testing proposal as described in the second revised straw proposal.

Calpine continues to support sufficiency testing – with hourly granularity.

5. Must Offer Obligation and Bid Insertion Modifications

Please provide your organization's feedback on the Must Offer Obligation and Bid Insertion Modifications proposal as described in the second revised straw proposal.

Calpine objects to the proposal (page 38) to eliminate multi-hour block RA import schedules. Until and unless the CAISO requires unit-specific modeling of external resources (including commitment costs, start time, minimum run times, transitions, etc.) the CAISO must allow resource owners to bid blocks that simulate those constraints. Additionally, as discussed in the stakeholder workshop, Calpine does not understand the difference between a multiple-hour block self-schedule and multiple consecutive self-scheduled individual hours.

6. Planned Outage Process Enhancements

Please provide your organization's feedback on the Planned Outage Process Enhancements proposal as described in the second revised straw proposal.

Calpine appreciates the CAISO's effort to enhance the Planned Outage Process. As identified in our earlier comments, the addition of hourly sufficiency testing may (1) extend the last POSO date closer to the outage start time, and (2) increase the possibility of deficiencies requiring replacement.

As identified by the SDG&E representative in the stakeholder meeting, the CAISO proposal does not seem to accomplish the goal of improving the certainty that the prior approval of a planned outage will not be reversed.

Resource outage planning requires owners to stage the delivery of parts and contractors well in advance of the actual start of the outage. When approved outages are later cancelled (or a POSO is imposed) the costs of replacement or demobilizing a workforce are largely unavoidable. The CAISO tariff recognizes this inequity in section 9.3.7, where compensation is provided for verifiable costs if the approved outage is cancelled the day prior to the commencement of the outage².

This same concept could be expanded to certain approved outages. For example, the tariff could create a strong incentive to submit and have outages approved before T+45 if the tariff provided similar compensation (or use CPM for a POSO) for approved outages cancelled within two weeks of the start date.

Finally, Calpine supports the elimination of the highly prescriptive, and likely unachievable requirements for replacement "comparable" capacity (page 41).

² 9.3.7 "In addition, the CAISO may, by providing notice no later than 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence, direct the Operator to cancel an Approved Maintenance Outage, when necessary to preserve or maintain System Reliability or, with respect to Reliability Must-Run Units or facilities that form part of the CAISO Controlled Grid, to avoid unduly significant market impacts that would arise if the Outage were to proceed as scheduled."

9.3.7.3 "The CAISO will compensate the applicable Participating TO or Participating Generator for any direct and verifiable costs that such Participating TO or Participating Generator incurs as a result of the CAISO's cancellation of an Approved Maintenance Outage pursuant to this Section 9.3.76."

7. RA Imports Provisions

Please provide your organization's feedback on the RA Imports Provisions proposal as described in the second revised straw proposal.

Calpine generally supports the CAISO's proposed modifications to import RA requirements. In particular, Calpine agrees that "at minimum, RA import resources must specify the source BA." It is unclear to Calpine that this requirement will be sufficient, particularly if suppliers are able to update source BAs on a daily basis, as suggested on slide 83 of CAISO's October 9th presentation. Ideally, this would only occur when the designated resource was uneconomic or otherwise unavailable, but this condition is not specified in the proposal. The flexibility to update source BAs on a daily basis would provide limited incentives for suppliers to secure actual physical capacity on a forward basis, as Calpine believes is necessary to address concerns about speculative supply.

The proposal also suggests that the CAISO will incorporate CPUC requirements with respect to the firmness of energy underlying import RA into its own requirements. The CPUC has recently reinterpreted these requirements to entail firm energy *delivery* regardless of whether such deliveries are economic. Calpine does not support such firm delivery requirements and urges the CAISO to reflect its views on the issue in the next draft of the proposal. More generally, Calpine encourages the CAISO and CPUC to continue to work together to address concerns about speculative import RA supply through means other than requiring energy delivery, perhaps through energy offer caps for import RA capacity and/or requirements to tie import RA to specific physical resources.

Calpine also supports the CAISO's proposal to not subject import RA capacity to a real-time must-offer as long as sufficient import capacity can be made available in real time through changes contemplated to the day-ahead market, including a new imbalance reserve product.

Flexible Resource Adequacy

8. Identifying Flexible Capacity Needs and Requirements

Please provide your organization's feedback on the Identifying Flexible Capacity Needs and Requirements topic as described in the second revised straw proposal.

The proposal distinguishes between primary, secondary, and tertiary flexibility requirements and suggests that only tertiary flexibility requirements should be addressed through forward capacity products. Calpine continues to question whether any of the requirements should be addressed through forward capacity procurement. For example, the CAISO argues that the spot market for frequency regulation provides sufficient compensation and incentives to retain resources that are capable of providing frequency regulation. Calpine does not completely understand why the IFM and real-time markets, particularly as complemented by a new imbalance reserve product, could not provide similarly appropriate incentives for resources to address tertiary flexibility requirements.

Nevertheless, to the extent that the CAISO believes that forward flexible capacity requirements are needed, Calpine generally supports the approach in the current

proposal. In contrast to previous versions of the proposal, this version attempts to tie flexible capacity requirements to relatively clear operational requirements, i.e., the need for imbalance reserves, greatly simplifies the suite of proposed flexible capacity products, and dispenses with arbitrary restrictions on what resources can provide flexible capacity. Calpine looks forward to further development of the proposal in parallel with the development of the imbalance reserve product in the Day-Ahead Market Enhancements stakeholder initiative.

9. Setting Flexible RA Requirements

Please provide your organization's feedback on the Setting Flexible RA Requirements topic as described in the second revised straw proposal.

[No Comments at this time](#)

10. Establishing Flexible RA Counting Rules: Effective Flexible Capacity Values and Eligibility

Please provide your organization's feedback on the Establishing Flexible RA Counting Rules: Effective Flexible Capacity Values and Eligibility topic as described in the second revised straw proposal.

[No Comments at this time](#)

11. Flexible RA Allocations, Showings, and Sufficiency Tests

Please provide your organization's feedback on the Flexible RA Allocations, Showings, and Sufficiency Tests topic as described in the second revised straw proposal.

[No Comments at this time](#)

12. Flexible RA Must Offer Obligation Modifications

Please provide your organization's feedback on the Flexible RA Must Offer Obligation Modifications topic as described in the second revised straw proposal.

[No Comments at this time](#)

Local Resource Adequacy

13. UCAP for Local RA

Please provide your organization's feedback on the UCAP for Local RA topic as described in the second revised straw proposal.

[No Comments at this time](#)

Additional comments

Please offer any other feedback your organization would like to provide on the RA Enhancements Initiative.