Please provide your organization’s overall position on the RA Enhancements fourth revised straw proposal:

☐ Support  
☐ Support w/ caveats  
☐ Oppose  
☐ Oppose w/ caveats  
☐ No position

Please provide your organization’s comments on the following issues and questions.

1. **System Resource Adequacy**

Please provide your organization’s feedback on the System Resource Adequacy topic as described in section 4.1. Please explain your rationale and include examples if applicable.

   a. Please provide your organization’s feedback on the System RA Showings and Sufficiency Testing topic as described in section 4.1.1. Please explain your rationale and include examples if applicable.

   Calpine supports an all-hours sufficiency test.

   The CAISO’s stochastic approach, as used in the summer assessment, seems a reasonable approach. However, simplifications may be in order given that it would be applied to the following month (and the test would be done just a couple weeks before the start of the month). For example, the ranges of certain input variables may be narrower or known and needn’t be simulated.

   The CAISO proposes and Calpine supports, the use of only “shown” RA resources, including import RA, in the analysis. This will obviate the need to estimate imports.
The CAISO queries how the reliability margin should be enforced in these tests, for example “how often” operating reserves should be allowed to dip below 6 percent. Calpine believes that any instance in which operating reserves fall below a level that would warrant involuntary load shedding should be treated as a loss-of-load event. The CAISO should then test whether RA portfolios meet a loss-of-load standard, such as 1 event in 10 years (1-in-10). The 1-in-10 standard is typically applied annually, so the CAISO may want to consider whether it should apply the same standard to each month, i.e., 1/12 of an event per month, or allow more potential loss of load in more challenging months.

The Fourth draft leaves unclear whether the sufficiency tests will be performed on local areas, or as the draft indicates on smaller “areas or subareas”, (CPM discussion at p. 33.) Calpine believes that the ISO now has two clear examples that demonstrate that sufficiency testing should be performed within local areas. First, the CAISO’s study of Moorpark clearly showed that the typical RA-qualifying, 4-hour storage system was insufficient to meet the needs of the CAISO. Second, and more recently, the LCR review of the South Bay / Moss Landing area has indicated that off-peak import limits may limit the ability of storage devices to charge, and in fact, there might already be too much storage in that local area.

All of this said, Calpine is concerned that there may be an insufficient runway to accomplish all that the CAISO has proposed within the few days before the month begins. Setting aside, for the moment, the changes to POSO, below, the CAISO proposes to evaluate sufficiency after receiving the RA showings at T-45 (as shown in Figure 1 at page 14.) This sufficiency process appears to be running in parallel with the outage substitution process, the result of which are not available until roughly T-22. So the ISO will be simultaneously seeking outage substitution, evaluating sufficiency, allowing a cure period for each and potentially using CPM – possibly as late as T-8.

On the other hand, if the CAISO implements its proposed Option 1 (increasing the off-peak month reserve margin) for planned outage substitution the timing of the sufficiency test could work.

Calpine also remains concerned about the absence of any clear alignment between the proposed Portfolio Assessment and ex ante procurement requirements. If the CAISO only will identify deficiencies in procurement close to the delivery month and will not be able to attribute deficiencies to any specific LSE’s procurement, the Portfolio Assessment may provide limited guidance for LSE procurement. Consequently, Calpine is encouraged that the CAISO plans to collaborate with the CPUC on ex ante procurement requirements that will encourage procurement that satisfies the Portfolio Assessment.
b. Please provide your organization’s feedback on the Planned Outage Process Enhancements topic as described in section 4.1.2. Please explain your rationale and include examples if applicable.

Calpine supports Option 1 – increasing the reserve margin during off-peak months to accommodate planned outages. Option 1 would provide generators with forward certainty about when they can take outages. In addition, by requiring load to pay for planned outages upfront through higher planning reserve margins in shoulder months, Option 1 would provide load with certainty about the costs of planned outages.

Option 2, with daily a daily capacity, as-bid auction seems unduly complicated and exposes a resource to unknowable replacement costs – which could vary daily. In fact, one likely outcome of this proposal is that generators would bilaterally contract (or otherwise substitute capacity) in order to hedge the unknowable cost of daily capacity.

i. Please provide your organization’s feedback on when bids should be submitted and how and when they could be changed under Option 2: CAISO procures all planned outage substitution capacity, and what are the implications of doing so under any proposed option.

In essence, the CAISO would be creating a new backstop capacity product. If the CAISO adopts Option 2, Calpine would question, not only the mechanics of bid submission, but the entire market design such as appropriate offer or price caps and whether the market should be pay-as-bid or clearing-price. These details should be ironed out only when and if the overall design is adopted.

ii. Please provide your organization’s feedback on whether or not the Planned Outage Substitution Capacity Bulletin Board is necessary and, if so, why given the effort to develop and maintain.

No comment at this time.

c. Please provide your organization’s feedback on the RA Import Provisions topic as described in section 4.1.3. Please explain your rationale and include examples if applicable.

Calpine generally supports the import RA aspects of the proposal. Calpine favors import RA rules that ensure that import RA is backed by physical supply and subject to requirements similar to those for internal resources.

Consequently, Calpine believes that the proposal moves in the right direction by requiring that import RA is backed by physical capacity that is not committed to serve non-CAISO load and can be delivered to CAISO. Relatedly, Calpine
supports proposed requirements for import RA to be subject to a real-time MOO comparable to the real-time MOO for internal resources\(^1\).

While Calpine supports the firm transmission requirements in the proposal as minimum requirements, Calpine is not convinced that firm transmission that is not secured until the day-ahead time frame provides sufficient assurance that import RA resources will be deliverable. Ideally, transmission should be secured in the showing time frame, but Calpine recognizes acknowledges the complicated issues associated with the timing of when some types of firm transmission become readily available in some BAAs.

2. **Backstop Capacity Procurement Provisions**

Please provide your organization’s feedback on the Backstop Capacity Procurement Provisions topic as described in section 4.2. Please explain your rationale and include examples if applicable.

   a. Please provide your organization's feedback on the Capacity Procurement Mechanism Modifications topic as described in section 4.2.1. Please explain your rationale and include examples if applicable.

   Calpine generally supports the expansion of the the CAISO’s CPM authority to cover deficiencies in UCAP, deficiencies identified by the CAISO’s proposed portfolio assessment, and deficiencies identified in the CAISO's analysis of energy sufficiency in local areas.

   b. Please provide your organization's feedback on the Making UCAP Designations topic as described in section 4.2.2. Please explain your rationale and include examples if applicable.

   No comment at this time.

   c. Please provide your organization's feedback on the Reliability Must-Run Modifications topic as described in section 4.2.3. Please explain your rationale and include examples if applicable.

   No comment at this time.

   i. Please provide your organization's feedback on an appropriate availability incentive design to apply to RMR resources after the removal of the RAAIM tool.

   Calpine continues to support the incentive mechanisms of the former RMR agreement. These mechanisms reduced the resource-specific RMR payments based on unusual unavailability. The target for unavailability was based on a negotiation of historic service hours.

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\(^1\) Related to the proposed real-time MOO, Calpine strongly supports the qualification in footnote 23 that import RA resources only would be subject to a real-time MOO to the extent that they are physically capable of meeting it, e.g., it would not apply to long-start resources that have not been committed day-ahead.
Calpine prefers this approach to the use of the CPM soft-offer-cap to an RMR incentive.

d. Please provide your organization’s feedback on the UCAP Deficiency Tool topic as described in section 4.2.4. Please explain your rationale and include examples if applicable.

Calpine understands and agrees with the motivation for the UCAP Deficiency Tool, i.e., it would penalize deficient LSEs even in instances in which the CAISO does not use CPM to procure capacity on their behalf because aggregate showings are sufficient. Calpine would like to understand better why CPM itself couldn’t be modified to provide similar incentives, i.e., why CPM couldn’t be used to cure LSE deficiencies even when aggregate showings are sufficient.

3. Please provide your organization’s feedback on the implementation plan, including the proposed phases, the order these policies must roll out, and the feasibility of the proposed implementation schedule, as described in section 5. Please explain your rationale and include examples if applicable.

Calpine generally supports the implementation plan, in particular the deferral of topics related to flexible RA until presumably they can be better coordinated with the DAME initiative.

Additionally, Calpine supports an initial phase in which the portfolio deficiency calculations are performed, made transparent and evaluated with broad stakeholder involvement. Future phases can be planned based on the results of these trials.

4. Please provide your organization’s feedback on the proposed decisional classification for this initiative as described in section 6. Please explain your rationale and include examples if applicable.

No comment at this time.

Additional comments

Please offer any other feedback your organization would like to provide on the Resource Adequacy Enhancements fourth revised straw proposal.

Thanks.