



Stakeholder Comments Template

Resource Adequacy Enhancements

The proposal, stakeholder meeting presentation, and other information related to this initiative may be found on the initiative webpage at: <http://www.caiso.com/StakeholderProcesses/Resource-Adequacy-Enhancements>

Upon completion of this template, please submit it to initiativecomments@caiso.com.

Submitted by	Organization	Date Submitted
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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.

Energy Division Staff (hereafter, “ED Staff” or “Staff”) continues to appreciate the CAISO’s efforts to coordinate its Resource Adequacy (RA) Enhancements Initiative with the CPUC’s RA program (and other local regulatory authorities). However, Staff remains concerned that the CAISO is moving ahead of the CPUC in enhancing its backstop mechanisms and sufficiency tests prior to the CPUC developing upfront RA requirements.

The significant changes the CAISO is seeking need to also be approved by the CPUC and this may take more time than envisioned in the proposed schedule. CAISO has yet to file much of its RA Enhancement proposal in the RA proceeding, but also envisions Board approval in Q1 of 2021. This would mean CPUC would need to consider and adopt this framework on the same timeline.

Staff recommends that the proposed timeline be dependent on the adoption by the CPUC prior to consideration by the Board. If there are aspects to the proposal that the CPUC does not agree with and chooses to not adopt, Staff envisions that these elements would also have to be incorporated into CAISO’s proposal to ensure that the agencies remain aligned in setting RA requirements. Usually upfront RA requirements are adopted by the CPUC in coordination with the CAISO prior to CAISO taking these requirements to its Board. The CAISO’s current proposal and schedule assumes perfect alignment on the issues in a CPUC stakeholder initiative, and prejudges the CPUC’s determination on these issues. Staff

reiterates that any changes made to RA requirements need to be closely coordinated with the CPUC. If the CPUC fails to adopt the same requirements the CAISO is proposing in this initiative, then there will be two separate RA frameworks in California leading to excessive costs and market confusion.

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. System RA Showings and Sufficiency Testing topic as described in section 4.1.1.

The CAISO proposes to conduct two sufficiency tests for system capacity: an individual deficiency test and a portfolio deficiency test.¹The individual UCAP deficiency assessment has not been modified from the CAISO's previous proposal. However, the CAISO has made numerous changes to the portfolio deficiency test. Staff provides comments below on both the individual UCAP assessment and portfolio sufficiency test.

Individual LSE UCAP assessment

With regards to the individual LSE UCAP assessment, Staff has noted that, in theory, it sees value with this type of framework. However, Staff remains opposed to UCAP framework until the CAISO provides stakeholders with data analysis² to fully vet the framework compared with the status quo. CAISO did not provide additional data analysis OR further refinements to the UCAP framework in its Fourth Revised Straw Proposal as requested by Staff (and other parties). Therefore, Staff continues to remain opposed to the UCAP framework, including an individual LSE UCAP deficiency assessment.

In addition, Staff remains concerned that the UCAP proposal fails to address potential impacts on existing contracts, where payments may be based on the current RA value metrics (which may include capacity payments that already include forced outage replacement costs). Without addressing existing contract provisions, moving to a UCAP framework could potentially increase costs for ratepayers without providing any incentive for generators to maintain their facilities (i.e., payment based on NQC, but assessment based on UCAP, which could result in LSEs needing to procure additional capacity).

During the stakeholder meeting on March 24th, SCE requested that the CAISO more closely examine current contract provisions so that it can properly evaluate the impact that such a change would have on both counterparties (i.e., generators and LSEs). Staff supports SCE's suggestion and requests that CAISO discuss and quantify these potential impacts in the next iteration of its proposal.

Finally, Staff continues to request that CAISO provide more analysis regarding why the current availability mechanism is not working (e.g., too many exceptions, penalties too low, etc.). This will help stakeholders understand what critical elements need to be included in developing a UCAP framework. Staff also requests that CAISO provide a mock-up of the estimated UCAP requirements and UCAP supply, so that stakeholders can properly assess the potential costs and benefits of this proposal. Not having sufficient detail to analyze the costs and benefits of moving to a UCAP framework makes it impossible for Staff to support an individual LSE UCAP sufficiency test at this time.

Aggregated portfolio sufficiency assessment

The CAISO proposes a portfolio assessment tool to determine if the monthly shown RA fleet is sufficient to meet the established reliability criteria in all hours of the month. The CAISO further proposes to use a stochastic production cost model, currently used in its Summer Loads and Resources Assessment model, for its assessment. If the monthly RA portfolio is insufficient, then CAISO will designate backstop procurement to fill the collective deficiency.

¹ Additionally, CAISO plans to also conduct a flexible and local capacity needs test, however, these elements are not covered in its current Straw Proposal.

² CPUC Staff Comments at p.2

In past comments Staff stated that it

conditionally supports a collective portfolio sufficiency test that will inform backstop procurement, **provided there is a comparable change to the RA framework that will identify the energy needs to which CAISO will be backstopping.** Having a procurement requirement in place that signals the right portfolio of resource upfront, will result in more effective efficient procurement that will minimize total system costs.

Once a use-limited RA framework (updates to the MCC buckets or energy requirements) is designed, Staff would be open to CAISO allocating backstop costs to the deficient LSEs prior to the collective LSEs, as is currently being proposed. This would provide LSEs an additional incentive to procure the right resources.³

In Track 2 of the CPUC’s current RA proceeding (R.19-11-019), Staff proposed a revised Maximum Cumulative Capacity (MCC) bucket structure that seeks to limit the overreliance on use limited resources in meeting system RA requirements. The proposed MCC bucket structure is based on a load duration curve analysis.

Staff is concerned that the proposed portfolio analysis is not being coordinated with the MCC bucket structure proposed in the RA proceeding. This will likely result in a disconnect between CPUC upfront requirements and CAISO backstop decisions. MCC buckets should be developed based on the same data used to perform the monthly portfolio analysis. Additionally, resources should be assigned buckets (similar to how flex resources are assigned to categories) based on their operational characteristics and contract restrictions. This will allow for transparent durable products to transact in the bilateral market. Staff requests that CAISO modify its proposal to coordinate more specifically with the MCC buckets or alternatively propose a similar bucketing approach that would inform upfront requirements.

With regards to the stochastic model, CAISO mentioned that one challenge is to establish a reliability criterion. Staff requests that CAISO and other stakeholders consider the reliability Metrics used in IRP and RA proceedings. The reliability metrics can be found in “Unified Resource Adequacy and Integrated Resource Plan Inputs and Assumptions –Guidance for Production Cost Modeling and Network Reliability Studies”⁴ document.

In general, LOLE measure the expected number of hours of unserved energy observed over the course of a period of time (Net Load > Supply). CPUC Staff use the SERVM production cost model to measure operational performance and verify consistency with the the Planning Reserve Margin (PRM) requirement. The loss-of-load event occurs when the frequency response constraint is fully relaxed and when regulation up (1.5% of hourly forecast load) and spinning reserves (3.0% of hourly forecast load) cannot be maintained, i.e. firm load is assumed to be curtailed when available capacity is less than 104.5% of load.

- 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.

Staff thanks the CAISO for including two options to address planned outages. Under option 1, CAISO would establish a planned outage reserve margin for off-peak months, and no longer allow resources to submit planned outage during peak months.

³ CPUC Staff Comments on CAISO’s RA Enhancement Third Revised Straw Proposal at p. 6

Staff has two main concerns with this approach. First, establishing a planned outage replacement margin for load serving entities pushes the replacement cost obligation onto LSEs. Second, the cost causation principals are flawed in that one LSE procuring the additional PRM does not necessarily receive the benefit of the additional PRM if none of its resources are approved for a planned outage.

Staff also has several questions regarding option 1:

- How will the CAISO determine the appropriate planning reserve margin associated with each month? For example, will it be based on historical planned outage data, and if so, how will the CAISO analyze the current and prior interaction between forced and planned outages with regards to calculating the planned outage margin?
- How will CAISO prioritize the outage requests for these resources? For example, will they be based on first in, last out, or will the CAISO give priority to LSEs that have not depleted their planning reserve margin?

With regards to Option 2, Staff believes this approach may yield more efficient planned outage procurement in addition to equitable allocation of planned outage replacement obligations. Staff also believes this option appropriately assigns cost responsibility to the resource owner rather than the LSE.

However, Staff emphasizes that it **only** supports this option if replacement costs go to the Scheduling Coordinator (SC) for the resource (not the SC for LSE). A change to this part of the proposal would alter Staff's position on this issue.

If replacement costs were to go to the SC for the LSE then Staff would view this option as resembling a centralized capacity market, which Staff strongly opposes. Staff has significant concerns with a centralized capacity market, even if it starts out as only a planned outage substitution market.

- i. 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).

To help resources manage planned outages,

CAISO proposes to develop a calendar that shows in advance and on a daily basis, the potential availability of additional system RA headroom. This RA headroom should allow resources to identify potential calendar dates with RA headroom in advance of requesting planned outages, thus mitigating replacement obligations and helping the CAISO maintain adequate available capacity. If the calendar shows no available headroom, then any RA resource requesting a planned outage will be required to show substitute capacity.⁵

CAISO also proposes to develop an outage substitution bulletin board to make it easier for resources to find substitute capacity.

Staff is supportive of a calendar and bulletin board that will provide generators with additional resources to manage outages. However, it is unclear to Staff how this bulletin board would be coordinated with Option 1 or Option 2 of its POSO proposal. For example, how will the calendar identify RA headroom under Option 1 or Option 2? Under Option 1, would CAISO allow for headroom up to the Planned outage reserve margin? Under both Option 1 and Option 2, how will the CAISO know ahead of time what the headroom will be each day if the CAISO does not yet have the shown RA plans (will it be using something else to assess headroom)?

⁵ CAISO's RA Enhancements Fourth Revised Straw Proposal at p.19-20.

Under Option 2, will generators use the bulletin board ahead of T-45 to try to secure bilateral replacement capacity that they think they can get cheaper than the ISO can get it in the outage replacement market?

- 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.

The rules for RA imports are currently an open issue in the CPUC's RA proceeding (R.17-09-020) that will hopefully conclude in the coming months. In that venue Staff has proposed to continue with the current energy requirement for non-specific import resources (resources that are not dynamically scheduled or pseudo tied) in addition to adding further clarifications around this requirement. While Staff does see value in elements of CAISO's import proposal, such as including a real-time MOO and increasing telemetry, Staff continues to believe that until these elements are in place, and proven to be working to address speculative supply, an energy product should still be required for unspecified import RA. Therefore, Staff supports the CAISO moving forward on its proposal, even if the CPUC does not end up adopting the same import RA rules at this point in time. This will allow the CPUC to properly evaluate the impacts of these new rules at a later date.

CAISO's proposal also requires that attestations be provided to verify that an import resource is not duplicative. Staff notes that there may be issues with ensuring compliance with attestations, with no verification or associated compliance program.

2. Backstop Capacity Procurement Provisions

- 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.

CAISO's current tariff 43A.2 provides CAISO the authority to designate eligible capacity to address the following six circumstances:

- Insufficient Local Capacity Area Resources in an annual or monthly Resource Adequacy Plan;
- Collective deficiency in Local Capacity Area Resources;
- Insufficient Resource Adequacy Resources in an LSE's annual or monthly Resource Adequacy Plan;
- A CPM Significant Event;
- A reliability or operational need for an Exceptional Dispatch CPM; and
- A cumulative deficiency in the total Flexible RA Capacity included in the annual or monthly Flexible RA Capacity Plans, or in a Flexible Capacity Category in the monthly Flexible RA Capacity Plans.

The CAISO proposes to add three new scenarios to its current CPM authority. These include:

1. System UCAP deficiencies through the RA process;
2. Inability to serve load in the portfolio deficiency test; and
3. An identified need to procure local RA after an area or sub-area fails to meet the energy sufficiency test.

CAISO states that "[t]hese three needs are proposed extensions of the existing CPM authority".

Regarding System UCAP deficiencies through the RA process, Staff believes that CAISO already has existing backstop authority to procure for system RA deficiencies. If the framework moves to a UCAP framework, as proposed, then this authority should apply. However, CAISO is not proposing to remove the current authority in exchange for the system UCAP deficiencies. Staff request the CAISO either clarify why it is not removing it or modify its proposal to remove it. Additionally, as noted above, Staff does not yet support a UCAP framework, and therefore does not support adding UCAP CPM authority at this time. Until more vetting and impact analysis of moving to a UCAP framework is done, Staff cannot support UCAP CPM authority.

Regarding the inability to serve load in the portfolio deficiency test, Staff does not support CPM authority based on CAISO's portfolio assessment because upfront requirements have not yet been developed to align with the portfolio assessment. As noted above, RA backstop decisions should be based on failure to bring adequate RA products. If those RA products are defined by MCC buckets then the CAISO should do a portfolio analysis based on the upfront products (MCC buckets) established in advance of procurement. We should not tell LSEs to bring us blue procurement in the year ahead space and then turn around in the month ahead space and say they should have brought us red. Any portfolio analysis used to backstop the RA program should also be the same assessment that develops the upfront RA requirements. Further, CAISO's proposal encourages the type of leaning it purports to oppose (i.e., it will allocate deficiency costs to all customers, even though it may be due to the failure of particular LSEs to bring resources sufficient to address reliability needs in CAISO's stochastic assessment). Finally, Staff notes that if what the CAISO really wants is an 8670-hourly product, then maybe a capacity construct is no longer the best fit and CAISO should consider whether what it is really asking is for LSEs to meet their 8760 energy needs.

Finally, regarding an identified need to procure local RA after an area or sub-area fails to meet the energy sufficiency test, Staff believes that more information should be provided to the market regarding the specific local products that the CAISO needs in each local and sub-local area. One issue that is not clear from the CAISO's recent LCR study is the amount of storage (or use-limited resources) that can currently be used in each local area and counted on to effectively meet the LCR needs.

If the goal is to meet local reliability in all hours on a 1-in-10 load day under a N-1-1 contingency, then market participants need to know what products will be effective at meeting these needs under the current grid topography not just under a no-gas scenario. The LCR studies should provide clear information to the market so that procurement can occur in an efficient and cost-effective manner. Staff believes that similar to system RA requirements, buckets should be developed to address hourly local needs. This will ensure that LSE are provided upfront requirements that reflect what the CAISO will be backstopping to.

- 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.

See comments above.

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

In its current proposal, CAISO is considering modifications to the performance penalties and incentives for RMR resources. RMR resources are unique, in that they are paid their full-cost-of service, which provides ratepayers with both the capacity and energy value of the resource. With the elimination of RAAIM, these resources may not have the same incentives to perform as other RA resources that would be subject to a UCAP framework, which would derate the capacity value of the resource based on the historical performance. CAISO is considering: whether incentive payments are appropriate for RMR resources, whether changes are needed to the current RMR availability thresholds, and how incentive payments should be distributed.

Staff believes that an availability incentive mechanism is needed for RMR resources. At this time Staff does not take a position on whether a customized availability threshold or seasonal availability threshold should be used, rather than applying the current RAAIM availability threshold.

With regards to the penalty rate, Staff would be supportive of applying a penalty rate equal to the rate of the specific RMR contract rather than applying the soft-offer-cap. Staff believes that for an RMR resources a carrot and stick approach is not appropriate. Staff supports only the use of a penalty to ensure that the resource performs. This is appropriate given the fact that ratepayers are already paying for outage maintenance of the resource. Providing an incentive payment would potentially lead to paying the generator twice for the same maintenance.

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.

The CAISO proposes to develop a new tool called the UCAP deficiency tool, which is intended to discourage LSEs from failing to provide insufficient UCAP RA and incentivizing LSEs to show above their UCAP obligations. The tool would apply a penalty to the deficient LSE and distribute the penalty revenues to the LSE that has showed excess UCAP.⁶

The UCAP deficiency tool remains largely unchanged from the last version of CAISO's proposal. In prior comments, Staff raised concerns that the proposed tool would be duplicative and interfere with the CPUCs ability to enforce the RA program required by PUC 380.

Staff stated in prior comments that this tool appears to be duplicative of the CPUC's RA compliance penalty structure, which fines LSEs for not curing deficiencies (with penalties going to the State general fund). Staff had asked that the CAISO clarify how this tool will be coordinated with the CPUC's compliance program.⁷ The current straw proposal did not address Staff's concern or request.

The current CPUC penalty for system deficiencies is set at \$6.66/kW-month. The UCAP incentive tool would penalize deficiency LSEs \$6.31/kW-month (the soft offer cap). Staff understands that the deficiency tool would be applied prior to making CPM decisions. Therefore, if an LSE is short in meeting its UCAP requirement, and presumably another LSE is long in showing UCAP requirements, then the short LSE will pay \$6.31 kW-month for the amount they are short and the LSE that is long will get paid that same price for its excess capacity. What remains unclear to Staff is when the CPUC would determine that the LSE is deficient. Would the CPUC wait until the UCAP deficiency tool has concluded or would the LSE still be subject to the CPUC penalties independent of the UCAP deficiency tool. If the CPUC waits until the UCAP tool has concluded then presumably more time would be needed for the CPUC to provide LSEs a deficiency notice and a cure period. If the LSE is subject to the

⁶ CAISO's RA Enhancements Forth Revised Straw Proposal at p. 9

⁷ CPUC Staff comments on Third Revised Straw Proposal at p. 6

"CAISOs proposal regarding a UCAP deficiency tool appears to be duplicative of the CPUC's RA compliance program (which fines LSEs for being deficient in meeting their RA requirements). How is the CAISO planning to coordinate this tool with the existing RA compliance program? If the CPUC does adopt a UCAP requirement, then it would enforce its program to that requirement (as directed by PUC 380). How would this tool alter the CPUCs current compliance program?"

CPUC penalty framework independent of a UCAP outcome then the LSE would be penalized twice (\$6.66 kW-month by the CPUC if the LSE does not cure and \$6.31 for the CAISO UCAP penalty).

In summary, it is unclear to Staff if CAISO's proposal would alter the CPUC's RA compliance program. Penalties and incentives need to be clearly laid out so that stakeholder can appropriately weigh in on the proposal. Staff is concerned that the penalties and incentives being proposed are unclear and the tool make not function as intended.

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.

No comments at this time.

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.

It is Staff's understanding that the CAISO plans to seek approval of this initiative from the CAISO Board only (not the EIM). Staff supports the proposed decisional classification.

Additional comments

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

No comments at this time.