

California Community Choice Association

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Contact

Shawn-Dai Linderman (shawndai@cal-cca.org)

1. Please provide your organization's feedback or any additional questions requesting clarification on the ISO's RA 101 overview of current showing mechanics, data inputs, and the CPM processes.

Summary:

The California Community Choice Association (CalCCA) appreciates the opportunity to comment on the California Independent System Operator's (CAISO) December 6, 2023, RA Modeling and Program Design Working Group (WG).

The review and revision of the resource adequacy (RA) structure has become increasingly important. As the CAISO notes in its discussion paper, the types of resources, expectations of load, and programmatic changes of RA all have varying impacts on the ability to reliably serve customer needs. As the CAISO and stakeholders move forward in this WG and ultimately, a stakeholder process, the objectives of this effort and existing conditions on the grid should be made clear. This clarity should be provided by:

- Evaluating the efficacy of the available fleet through a probabilistic assessment and whether the stack-type analysis of the RA program will find the same outcome;
- Using data available to the CAISO such as RA showings, net qualifying capacity (NQC) listings, and historical import levels and trends to estimate future RA showings;
- Evaluating the ability of mechanisms to better incent resource availability in RA, such as unforced capacity (UCAP), consistently with Local Regulatory Authority (LRA) programs or proposals;
- Ensuring that LRA and CAISO rules are consistent and do not result in outcomes that are counter to LSE incentives;
- Providing the market with more transparency into the use and availability of RA resources for compliance purposes; and
- Encouraging the department of market monitoring (DMM) and other balancing authority areas (BAA) in the Western Electricity Coordinating Council (WECC) to coordinate to provide additional transparency of capacity conditions and expectations in the west.

*** END OF SUMMARY ***

1. CalCCA Response:

In response to a question from Southern California Edison Company regarding why the CAISO did not backstop for central procurement entity deficiencies, the CAISO responded, in part, that resources may not be available because load serving entities (LSE) may be holding resources to avoid Resource Adequacy Availability Incentive Mechanism (RAAIM) charges. However, RAAIM is a charge applicable to a Scheduling Coordinator for the generator, not an LSE. Only in the case that an LSE is a Scheduling Coordinator for generation would the potential holding of excess resources to avoid RAAIM be a potential issue. This is a narrow set of resources for which a local RA-eligible facility would be in the hands of a Scheduling Coordinator that is also an LSE, and the LSE has decided to hold the resource for potential RAAIM charges. Therefore, other causes (lack of incentive, locking in of a resource year-ahead (YA), showing a local resource for a system need, etc.) are more likely than RAAIM. This distinction is important because as market participants examine issues like this, the causes of the issue must be identified precisely so that changes can be made to make the RA process more effective and efficient. In this case, belief that the holding of RA capacity to serve RAAIM needs would suggest potential changes to mechanisms under the control of the CAISO. However, if the causes were elements like the lack of incentive, locking in of a resource YA, or the showing of a local resource to meet system need by an LSE, the changes to those mechanisms must occur at the LRA instead.

2. Please provide your feedback to the modeling discussion. The ISO is particularly interested in feedback on the current gaps or future objectives with modeling as it relates to the scope, models, methodology, assumptions, time frame, and suggestions on assumptions the ISO should make in the year ahead time frame (e.g., assessing if there is sufficient capacity if only 90% of system resources shown).

The CAISO Should Ensure Assumptions are Consistent with Local Regulatory Requirement Setting and Planning

The CAISO presented a modeling approach that looks at three time frames: year-ahead, 2-4 years forward, and 5-10 years forward. Each would use probabilistic modeling to ensure the assumed fleet meets a 1-in-10 loss of load expectation (LOLE) planning target. The CAISO's general approach and set of studies appear that they will offer valuable information about the sufficiency of the RA fleet to meet demand. It will be critical for the CAISO to use the same assumptions as the California Public Utilities Commission (CPUC) for use in their planning reserve margin (PRM) setting and integrated resource planning (IRP) to maximize the probability that RA showings will meet a 1-in-10 LOLE. To the extent the CAISO makes different assumptions than the CPUC, then the CAISO should make its assumptions public so LSEs know what they need to do to meet CPUC requirements and CAISO assessments.

The CAISO Should Issue Stack Analyses in addition to Probabilistic Modeling for Each Study Time frame

For transparency and ease of showing key drivers of the outcomes, the CAISO should use the same assumptions and data sources to conduct an RA Stack Analysis in each of the three time frames (YA, 2-4 years, 5-10 years) that parallels the probabilistic LOLE modeling. The stack should yield similar results, at least directionally, and any big differences will suggest the need for updating/refining the effective load carrying capability approach to ensure peak and net peak needs are satisfied. A stack is also more similar to how compliance is assessed, and it would be helpful to know if the supply stack expected to be available in those time horizons will satisfy LSEs compliance obligations.

Using only a probabilistic assessment for future RA periods (YA, 2-4 years, and 5-10 years in advance) will tell the CAISO whether the resource mix studied meets a probabilistic simulation of potential combinations of conditions over those future years. What it will not tell the CAISO, the LRAs, and stakeholders is whether the same fleet of resources that either passes or fails the probabilistic simulation would pass or fail an RA showing which is based on a stack type of process. If a set of resources fails the probabilistic simulation but passes a stack analysis, the conclusion is logically one of the following:

- An unlikely combination of inputs in a significant number of draws in the probabilistic simulation (a mathematically unlikely outcome);
- Resource counting that inaccurately predicts resource capacity for RA; or
- Inaccuracy of the PRM to account for ancillary services, forced outages, and load forecast error.

Unless the CAISO has identified a different manner to compare the results of its probabilistic modeling to the results of an RA showing, then evaluating these time frames on a stack basis (rooted in the showing requirements of the LRA) will be necessary to determine if the RA program will routinely produce a portfolio capable of meeting grid needs and capable of meeting RA showings compliance.

In the 2-4 and 5-10 year time frames, the comparison of probabilistic assessment and stack analysis will show whether there is a mismatch between methods. In the event that the probabilistic assessment predicts a reliable fleet but the stack analysis does not, then the IRP should evaluate the cause of the misalignment. Doing so will allow either; the IRP to account for these differences to produce a reliable fleet, or the RA program to consider changes to counting rules and PRMs to enable compliance under 1-in-10 conditions.

The CAISO Should Estimate a 100 Percent Annual Showing by using data and history already available to the CAISO

The CAISO explains that in its year-ahead RA sufficiency analysis, the CAISO will need to determine what resources to include in the analysis to get to a 100 percent shown capacity equivalent (because the year-ahead RA requirement is only 90 percent).

The CAISO asked if LSEs could provide additional information year-ahead about their expectations for their month-ahead (MA) showings to complete the 10 percent need. Doing so is both impractical and burdensome. In the current market conditions of scarce capacity, it is unlikely that LSEs know the availability of internal and import resources that could fill the remaining 10 percent. Without such knowledge, LSEs will be left to speculate without the benefit of knowing how much of the CAISO interconnected NQC is still available for procurement after the YA showing.

Instead, the CAISO has access to all LSE YA showings and supply plans. The CAISO also has the current NQC listing as well as knowledge of historical RA imports in the YA and MA time frame and the trend of those imports over time. Equipped with that knowledge, the CAISO is in the best position to use its available data to understand what is likely to be available to CA LSEs to meet the remaining MA RA requirement.

3. Please provide any feedback that was not already captured in response to the Problem Statement 2 (program design) and Problem Statement 3 (cost causation).

Problem Statement 2 should be updated to include UCAP as a sub-issue. UCAP is interrelated with RAIM, the lack of a tool to incentivize performance, and rules for substitution and planned outages sub-issues. Including UCAP is likely to address many of the problems associated with these sub-issues. UCAP is also listed as a topic that will be explored in the upcoming RA proceeding at the CPUC (Rulemaking 23-10-011), and it will be important for the CAISO and CPUC to align on UCAP proposal development and implementation.

Problem Statement 3 should be updated to include proposed revision request 1280/credited resources as a sub-issue. The CAISO's tariff does not allow the CAISO to consider "credited" resources (resources count for RA under CPUC rules but are not shown on CAISO RA plans and supply plans) when allocating Capacity Procurement Mechanism (CPM) costs, a problem that while known of prior, became a reality after the CAISO's August 2023 CPM. In this circumstance, there were LSEs that had met their RA target when including the "credited resources" and LSEs that had not met their RA target even with their share of the "credited resources". However, when the CAISO performed its backstop and cost allocation, some of the previously compliant LSEs became short of RA once the CAISO had removed the "credited resources" from their showing. Thus, LSEs that had otherwise met their RA requirement were allocated a portion of the CAISO backstop cost that would not have been allocated to them if other LSEs would have met their compliance requirements. The CAISO should work with the CPUC to ensure credited resources' RA capacity is recognized, either through changes to the CPUC rules to have credit resources shown on supply plans or through a CAISO tariff change to support credited resources when allocating CPM costs.

4. Please provide your organization's feedback on current RA metrics published by the CAISO on CAISO's Today's Outlook, the Monthly Summer Performance Report, the Monthly Market Performance Report, or OASIS.

The Monthly Summer Performance Report's scope extends far beyond RA and includes detailed analysis that takes time to complete. The result is that the monthly RA showings' reports in the Monthly Summer Performance Reports are not always timely relative to the showing (e.g., it is December and the September 2023 monthly report is still not posted). The CAISO should consider separating out the RA portion of this report and posting it separately (e.g., on the Open Access Same-time Information System (OASIS)) so that it can be posted in a timelier manner. Timeliness of data should ensure that it is not posted too early so that it can be used to the detriment of the market (e.g., before the RA cure period concludes) but should also be posted soon thereafter so that the LRA can better assess market conditions that may have impacted LSEs ability to comply.

As discussed in question 2, the CAISO has access to information that would help the market determine the availability of capacity resources in California. The CAISO knows from supply plans the resources and quantities of RA committed to the CAISO. From the NQC list, the CAISO also knows all of the resources and quantities that are qualified to provide RA. The CAISO should publish aggregated information about the amount of resources available and the actual showings from those resources. The aggregation could be as simple as listing the amounts by technology (e.g., gas, wind, solar, hydro, etc.)

It has become increasingly difficult for LSEs to find available capacity resources. While this information will not provide a complete map to where capacity can be found, it can at least begin describing how much of the existing NQC list is being made available as RA.

In addition, the RA imports included in the reports do not include the pseudo-tie and dynamic transfers. Since the dynamic transfers are not in the NQC list posted to the CAISO site, it is difficult for third parties to use data in the reports to discern key information like what fraction of the eligible RA resources on the NQC list were shown. Earlier datasets posted by the CAISO include all RA imports (e.g., <https://www.caiso.com/Documents/HistoricalResourceAdequacyImportAggregateData.xlsx>). It would be helpful if CAISO reported aggregate RA imports from both specified and unspecified resources.

5. Please provide feedback to the DMM discussion of a sample of the RA metrics provided in the Annual Report.

The DMM should track actual capacity transaction prices rather than assume how hypothetical Combustion Turbine (CT) or combined cycle gas turbine (CCGT) earns the CAISO soft-offer cap, as the CAISO shows on slides 61 and 62. CalCCA's analysis of FERC Electric Quarterly Report (EQR) data shows that the weighted average price of capacity in California for the 12-months ending in September 2023 would add \$101/kilowatt (kW)-year to the revenue of a CT or CCGT, much higher than the \$76-88/kW-year capacity revenue based on the CAISO's soft-offer cap. In fact, the weighted average price of capacity in the month of September 2023 was \$13.2/kW-month which is 80-110 percent higher than the CAISO soft-offer cap. Individual transactions for capacity in September 2023 were above \$60/kW-mo. Such high prices should be monitored and analyzed by the DMM.

Given the current market conditions for RA, it is imperative that the need for and availability of resources is examined more closely than it is today. In questions 2 and 4 of these comments, CalCCA has identified additional public information that should be made available. In addition, the DMM would be an ideal organization, due to its expertise in markets and independence, to examine and evaluate the cases in which CAISO interconnected NQC is not shown in an RA showing and the trend of import RA available to meet California LSE needs. Better still would be coordination between the DMM and other BAAs in the WECC to evaluate the complete set of resources, rules, and availability to better inform current RA needs as well as new resource build needs. A more complete analysis of the availability of RA resources is necessary to understand how best to ensure that resources are made available to meet grid needs.

6. Please provide any feedback not already captured.

CalCCA has no additional feedback at this time.