



Stakeholder Comments Template

RA Enhancements

This template has been created for submission of stakeholder comments on the RA Enhancements Issue Paper that was published on October 22, 2018. The Issue Paper, Stakeholder Meeting presentation, and other information related to this initiative may be found on the initiative webpage at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/ResourceAdequacyEnhancements.aspx>

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

Submitted by	Organization	Date Submitted
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Submissions are requested by close of business on **November 14, 2018**.

Please provide your organization's comments on the Issue Paper scope items listed below and any additional comments using this template.

Scoping Items

The ISO's has identified the following items for the initial scope of this stakeholder process. Please provide comments on each of the scoping items.

1. RA Counting and Eligibility Rules

a. System RA

The ISO proposes to review the RA counting and eligibility provisions related to RA resource NQC adjustments in this initiative, including a review of the application of Effective Forced Outage Rate (EFOR) performance criteria and accompanying NQC reductions and a review and clarification of RA counting rules for RA resources. Please provide comments on this scope.

Comments:

The Planning Reserve Margin (PRM) already takes into account the forced outage rates of generating units as well as load forecast error. This is because

modeling of the resource mix includes resources' operating capacity¹ and forced outage rate. The stochastic modeling then applies various combinations of forced outage rates and load forecast scenarios. This will yield various scenarios of unit availability and load forecasts. The stochastic modeling is performed assuming different amounts of resources (MWs) until the desired reliability metric is met. The amount of resources in excess of the 1-in-2 load forecast is used to determine the PRM. Therefore, the PRM requirement already takes into account the forced outage rate of the resource fleet. This means that if the CAISO is going to reduce the net qualifying capacity (NQC) for forced outage rates, there will be a double counting for forced outage rates.

CLECA believes that one of the downsides of using the PRM to account for unit reliability is the inability to account for individual unit performance in resource adequacy accounting. 10 MW of highly reliable resources selected by Party A would be counted exactly in the same way as 10 MW of unreliable resources selected by Party B. Incorporating a forced outage rate for individual units could resolve the problem.

However, CAISO's proposal raises more questions than it answers. For example, what will be the method by which the NQC of an individual unit will be adjusted for the forced outage rate? Since the forced outage rates for units are currently embedded in the PRM, how would the latter be modified to account for the former? Will a Load Serving Entity (LSE) have to procure extra resources to account for its forced outage rate? For example, if an LSE has a 100 MW resource that has a forced outage rate of 10%, will it have to acquire an additional 10 MW of RA?

Does the CAISO have historical data on forced outage rates that can be used to implement this method? The straw proposal should discuss in more detail the source of forced outage rates for resources and how they would be applied to compute qualifying capacities. The NERC Generating Availability Data System reports include outage data from conventional resources greater than 20 MW.² The source of outage data for renewable resources and conventional resources less than 20 MW is less well known.

Therefore, the implementation details of this proposal would need to be worked out. Coordination between the CAISO and the CPUC will be needed should they decide that accounting for forced outages in determining net qualifying capacity is superior to using the PRM.

b. Flexible RA

The ISO proposes to continue exploring enhanced flexible RA counting rules started in the FRACMOO2 stakeholder process. More specifically, the ISO will continue assessing the operational capabilities required from the fleet to align with both the Day-Ahead Market Enhancements (DAME) and the Extended Day-ahead

¹ The generating unit's capacity for modeling purposes is what it can be expected to deliver under normal operating conditions. There is no specific derate for forced outages.

² <https://www.nerc.com/pa/RAPA/gads/Pages/default.aspx>

Market (EDAM) and what flexible RA counting rule changes may be needed. Please provide comments on this scope.

Comments:

One of the controversial issues in the Flexible Resource Adequacy Must Offer Obligation (FRACMOO) stakeholder process was the measurement of flexibility need for real-time operations. The measurement issue arose because of the difference in granularity between the hourly day-ahead market and the fifteen-minute market. For example, assume that for a one-hour interval the load is increasing over the hour. The day-ahead award will be an average of the intervals across the hour. Therefore, even with a perfect forecast, the fifteen-minute market will reduce the dispatch point for the first two intervals and an increase in the last two intervals. This is known in advance. The implementation of 15-minute granularity in the day-ahead market will better align dispatch with the real-time fifteen-minute market.

The second controversial item was the proposal to create a flexible capacity product and provide a payment that would be available to Resource Adequacy (RA) resources that are already receiving a capacity payment to offer all their resource attributes, including flexibility, into the existing CAISO market structure. This would result in a double capacity payment. CLECA continues to oppose this.

The implementation in DAME of fifteen-minute market granularity will allow the CAISO to better measure the flexibility that is needed in real-time. Afterward, improved flexible accounting rules can be developed around the measured flexibility need. The issue paper states that the DAME phase 1 (15 minute granularity) policy will be completed in Q1 2019 and the DAME phase 2 (flexible capacity product) will be completed in Q2 2019. This schedule is problematic as there will be no actual market results to use to develop a flexible capacity product. CLECA recommends changing the schedule for flexible accounting rules and any flexible capacity product to be developed to occur after DAME phase 1 has been implemented and actual market results have been observed. Otherwise there is a significant risk of implementing a product that does not solve the problem.

As for the proposed EDAM to allow other balancing authorities to engage in the day ahead market, it is unclear if changes to flexible RA rules are needed for this purpose. Other balancing authorities are responsible for meeting their own reliability criteria requirements. Since flexibility is needed for real-time operations and the Energy Imbalance Market (EIM) already includes sufficiency conditions to prevent resource leaning, it is unclear if this is also needed in the day-ahead market. Again, without better knowledge of the results from the DAME phase 1 implementation, it is difficult to design what is needed for EDAM.

2. Review of Resource Adequacy Import Capability Provisions

The ISO proposes to conduct a comprehensive review of the ISO's Import Capability provisions, including; calculation methodologies, allocation process, and

reassignment/trading provisions. The ISO believes that it may also be necessary to consider multi-year assessments and allocations. Please provide comments on this scope.

Comments:

CLECA supports a review of import capability and notes that the following items should be addressed as part of the scope:

- The issue paper mentions that the import limit is based upon historical observations at the time of peak. It is unclear how increases occur when there are transmission upgrades or new remedial action schemes. How are the limits adjusted when changes to the system occur?
- Since there are a lot more California-based must-take resources that provide output during the day-time, a review of the time period to best measure import capability should be reviewed. The CAISO may observe that the hours 16:00-21:00 have higher amounts of imports and should form the basis for determining maximum import capability.

3. Rules for RA imports

The ISO proposes to include a review of RA import rules and provisions in the scope of this initiative, including a reassessment of the requirements and rules for the sources behind RA imports. Please provide comments on this scope.

Comments:

The lack of a real-time bidding requirement for RA resources without a day-ahead award appears problematic since these resources are receiving a capacity payment to bid or self-schedule into the CAISO market. A CAISO Department of Market Monitoring (DMM) report noted that RA imports are frequently bidding at the price cap.³ This bidding behavior would allow them to satisfy their RA bidding obligation while reducing the likelihood of receiving a day-ahead market award unless prices are very high. One solution would be to include a bidding requirement for both day-ahead and real-time markets regardless of whether the resource receives a day-ahead award. (An exception would be resources with long start-up times which would not be available in real-time if they are off-line because they did not receive a day-ahead award.) We question if this solution would work for two reasons.

First, it is unlikely that an additional real-time bidding requirement would resolve the problem identified by DMM because the resource could still be bid at the price cap to avoid getting a real-time award. The issue paper mentioned that price caps for import bid submissions are out of scope.⁴ Thus the options for resolving this concern without investigating improvements in either bid caps or market power mitigation appear to be limited.

³ [DMM Special Report: Import Resource Adequacy](#), September 10, 2018

⁴ Issue paper at page 9.

Second, changing the bidding requirement to include a mandatory real-time bid submission could also impact the cost of RA contracts. An external resource that fails to receive a day-ahead award would want the option to sell the capacity to another party. If it has a mandatory real-time bid requirement, it would lose the ability to sell capacity to other parties. This would likely impact the price of the RA contract. This issue needs more investigation so that the solution does not drive up contract costs with minimal impact on unit deliverability as long as the resource can still bid at the price cap.

4. Must Offer Obligations, Substitution Rules, and RAAIM

The ISO proposes to include a review of the following set of issues as a part of this stakeholder initiative; need for substitution rules and RAAIM, developing an emergency or event based RAAIM trigger, and must offer obligations for RA imports. Please provide comments on this scope.

Comments:

CLECA supports including in the scope must offer obligations and performance penalties. During the workshop, some parties pointed out that under the RAAIM rules there is a disincentive for LSEs to show more than 115% of their Net Qualifying Capacities (NQC). Currently, if any RA capacity over the required 115% requirement is shown and is on outage, then there is a requirement to replace the excess amount or be subject to penalties. Therefore, there is a disincentive for showing excess capacity; instead, LSEs need to have an incentive to show their excess capacity.

The issue of RA capacity being withheld from RA showings because of RAAIM and substitution rules is of concern and we are glad the CAISO is going to address it. In addition, we support investigating the concept of only applying an event-based trigger for penalties as this would take into consideration the times when availability is of greatest concern.

The straw proposal should also consider scaling the penalty or replacement amount based upon conditions. This would provide a strong price signal during times of system constraint as well as a signal to prevent a party from chronically failing to deliver RA capacity on mild or moderate days.

5. System and Flexible Capacity Assessments and Adequacy Tests

As part of this stakeholder initiative, the ISO is considering a new tool to assess the adequacy of the system and flexible RA fleet. Please provide comments on this scope.

Comments:

CLECA is supportive of a transparent tool to assess the adequacy of system and flexible RA shown by load-serving entities. In addition, we agree that the categories of Maximum Cumulative Capacity (MCC) buckets should be re-

evaluated as they were developed at a time when California energy policy did not envision a preference for renewable and other resources, which inherently have use limitations of availability. CLECA also supports the CAISO's decision to keep the MCC buckets in place until a suitable alternative can be developed.

The CAISO states, "Additionally, the transition to ELCC (Effective Load Carrying Capacity) values for wind and solar resources is an important first step towards improved RA counting values. However, the ELCC values derived for wind and solar are derived using a different fleet than the one that is shown for RA."⁵ It is not clear what the CAISO means by the above language. Is the CAISO referring to the fact that in modeling the ELCC values for wind and solar, the CPUC removes certain fossil resources from the fleet in order to artificially simulate an annual LOLE of 0.1, thereby creating a difference between the simulated fleet vis-à-vis the actual resources on the CAISO system? Or is it referring to the fact that the ELCC modeling included non-RA resources that are still available to meet load? Or is it referring to something else?

In conclusion, CLECA welcomes an improvement to RA counting rules.

6. Meeting Local RA Needs

a. Local capacity assessments with availability limited resources

As part of this stakeholder initiative the ISO proposes to enhance the ISO's local capacity technical analysis to assess the impact of availability limited resources on local capacity needs. Please provide comments on this proposed scope.

Comments:

CAISO should address the ability to sequentially dispatch use-limited resources to meet duration requirements in local areas. For example, two four-hour use-limited resources could be used to meet an eight-hour duration requirement. The initiative should investigate which changes to CAISO systems would need to accomplish this.

b. Meeting local capacity needs with slow demand response

Through this initiative, the ISO proposes to explore how to best operationalize slow DR through pre-contingency dispatch so these resources can mitigate local reliability concerns and qualify for local RA. Please provide comments on this scope.

Comments:

CAISO states that there is a 30-minute requirement to respond after a N-1 event and that it needs 10 minutes for it to perform its "real-time assessment and react to the contingency conditions."⁶ As a result, the CAISO says resources to

⁵ Issue Paper, at 12.

⁶ Issue paper at page 14.

meet local RA requirements must be available within 20 minutes. If they are not available within 20 minutes, the alternative is that they be pre-dispatched to assure their availability. Since California has a policy preference for demand response resources over other resources⁷, the CAISO should investigate what steps it could implement to reduce the 10-minute assessment time. In addition, with CAISO taking over the system reliability coordinator function from Peak Reliability, it is possible that communications internal to the CAISO would be improved and shorten the 10 minutes CAISO now says it needs to perform the internal assessment and to respond to an N-1 event.

CAISO plans to define a DR resource that cannot respond in 20 minutes as a slow-start resource. This is inconsistent with the treatment of resources which are considered fast-response units in the real-time unit commitment (RTUC) process. Per CAISO tariff section 34.3.1, RTUC can make commitment decisions every fifteen minutes and this occurs 22.5 minutes prior to the trading interval. Since the CAISO has 30 minutes to respond to an N-1 event, the RTUC process may be able to resolve the event. If some resources have 22.5 minutes to respond, it is not clear why the CAISO is requiring a more restrictive 20 minutes for DR resources to respond.

The issue paper mentions pre-dispatching a resource for a contingency but does not address how a pre-dispatch would occur for an unknown contingency, nor which criteria would be used to select a resource. Would it be price, location, effectiveness, or some combination of factors? There is insufficient information presented in the issue paper to provide a response at this point.

If a DR resource is pre-dispatched, but the CAISO later determines that it is not needed, would the dispatch be canceled or would it be dispatched regardless? If yes, how would a cancellation be notified? Would the resource still receive some type of payment?

CLECA notes that we have filed comments multiple times on this issue at the CPUC as well as at the CAISO in the past. We hope that the CAISO will take note of parties' concerns.⁸

This issue should also be taken up in the CPUC's resource adequacy proceeding.

7. CPM/RMR Review

Through this initiative, the ISO is planning to identify any needed changes to the capacity procurement mechanism (CPM) or reliability must run (RMR) mechanisms, particularly focusing on the existing cost allocation tools. Additionally,

⁷ Demand response is at the top of the loading order in the [2003 Energy Action Plan](#). See also [Implementing California's Loading Order for Electricity Resources](#), CEC Report 2005.

⁸ See for example Comments of CLECA on Rulemaking 17-09-020, dated October 30, 2017, at 2, Comments of CLECA on Resource Adequacy Track 1 workshop and Proposals, filed March 7, 2018, etc.

the ISO will specify the process for backstop procurement of essential reliability resources (ERRs) if they are not procured through the RA process. Please provide comments on this scope.

Comments:

CLECA supports the CAISO's intention to reconsider the cost allocation tools used for CPM and RMR. All load-serving entities should receive an allocation of related costs based on the load they are serving at any given time, which means that the issue of load migration must also be addressed as part of the initiative as well as effectiveness.

As part of the scope of this initiative, the CAISO should also address whether the identification of ERRs will be made public, only disclosed to load serving entities, or only disclosed to the proposed central buyer that is being developed in the CPUC's RA proceeding.

Scope of Policy Examination

The ISO's has identified the initial scope for this stakeholder process as the items listed above. Please provide comments on the proposed scope. If there are specific items not already identified by the ISO that you believe should be considered, please provide specific rationale for why the ISO should consider it as part of this initiative.

Comments:

see above comments

Other

Please provide any comments not addressed above, including any comments on process or scope of the RA Enhancements initiative, here.

Comments:

not addressed