



Stakeholder Comments Template

Resource Adequacy Enhancements – Straw Proposal Part 1

This template has been created for submission of stakeholder comments on Resource Adequacy Enhancements Straw Proposal Part 1 that was published on December 20, 2018. The Straw Proposal Part 1, 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 February 6, 2019.

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

1. Rules for Import RA

NRG supports the CAISO's proposal to re-examine the rules for providing RA capacity from imports resources, including evaluating requirements to (1) identify the Balancing Authority Area (BAA) that is the source of the import RA capacity and (2) use only Resource-Specific System Resources as sources of RA capacity. There is currently a significant difference between the rules for providing RA capacity from internal resources and providing RA capacity from import resources, and it is reasonable to review whether that difference, among other things, diminishes the dependable reliability of imported RA capacity.

NRG supports extending to the real-time market the must-offer obligation (MOO) to imported RA capacity to make it more consistent and equitable with the MOO imposed on internal resources providing RA capacity.

2. RAIM Enhancements & Outage Rules

- a. Please provide your organization's feedback on the Addressing Planned and Forced Outage Issue topic. Please explain your rationale and include examples if applicable.

The CAISO has proposed two options for addressing planned outages.

The first option is to use the CAISO's Competitive Solicitation Process (CSP) to procure capacity to offset the capacity that is on planned outage. As NRG understands, this option would completely replace the resource owner's ability to bilaterally secure what used to be called "replacement" capacity to offset the capacity on planned outage. If that understanding – that this option would eliminate the opportunity for a resource owner to secure substitute capacity on its own – is true, NRG is concerned by this option, as it exposes the resource owner to CAISO market outcomes that are beyond its ability to hedge.

The second option is to implement a rule that would prohibit any resource that is taking a planned outage in a month from providing RA capacity in that month. NRG does not support this option, as it would prevent a resource from selling any RA capacity in a month in which it had a planned outage of any duration in that month.

In sum, NRG does not yet support either option the CAISO has presented (understanding these are initial thoughts from the CAISO).

NRG notes that centralized capacity procurement mechanisms of adequate granularity likely offer the most flexible and effective way to not only address the need to address capacity needs arising from planned and forced outages but address other issues, including the cost allocation challenges resulting from load migration. If the CAISO is willing to use its CSP process to manage substitution for outages, NRG hopes the CAISO would consider operating a centralized capacity clearinghouse that would provide much greater benefits than just managing substitution.

- b.** Please provide your organization's feedback on the RAIM Enhancements topic. Please explain your rationale and include examples if applicable.

The misalignment between the 24 x 7 MOO and the five-peak-hour strip of Availability Assessment Hours (AAH) for system/local RA capacity is telling, and points to the need to reconsider the RAIM. NRG agrees that the RAIM needs to be fundamentally re-evaluated and does not oppose efforts to consider reconstructing RAIM to evaluate resource availability and response performance using event-based triggers.

NRG is greatly concerned, however, that efforts to fundamentally restructure RAIM are not yet meaningfully underway before the CAISO intends to move forward to restructure the RMR contract to replace the very precisely and painstakingly crafted availability incentive and compensation mechanism in that contract with a yet-to-be defined RAIM structure that could be radically different from the current structure. The CAISO's intent to subject RMR units – which will be under RMR contract because they have sought to retire but cannot because they are still needed to meet a reliability, almost certainly a local reliability need of very limited duration – to a 24 x 7 MOO has the potential to cause those units to run far more often than they have in the past. Replacing the RMR contract availability provisions, which bounded the resource's availability based on its recent past operation, with a yet-to-be restructured RAIM structure that currently

imposes a 96.5 percent availability target independent of the resource’s historical availability, has the potential to be financially ruinous for the RMR unit.

- i. Please provide your organization’s feedback on the Availability & Performance Assessment Triggers options presented in the proposal.

Performance or Availability Assessment Triggers should be tied to clear, pre-defined, measurable and objective things – reserves or load levels, or even forecasts of these quantities, for example. Exceptional dispatch may involve a level of subjectivity that calls its reliability and usefulness as a trigger into question, as does the declaration of a flex alert or restricted maintenance conditions.

3. Local Capacity Assessments with Availability-Limited Resources

Please provide your organization’s feedback on the Local Capacity Assessments with Availability-Limited Resources topic. Please explain your rationale and include examples if applicable.

NRG strongly supports the CAISO’s efforts to ensure that the duration of the need is accounted for in evaluating and procuring local capacity requirements. When the CAISO incorporates duration into local capacity requirements analysis, will the CAISO assume that the greatest MW-duration need will always be driven by the contingency that drives the highest MW need? Is it possible that, within a given local area or sub-area, that the highest combined MW-duration need could be driven not by the MW need but by the duration of another need that has lower MW requirement but a longer duration? If so, how will the CAISO ensure that procurement meets that need?

4. Meeting Local Capacity Needs with Slow Demand Response

Please provide your organization’s feedback on the Meeting Local Capacity Needs with Slow Demand Response topic. Please explain your rationale and include examples if applicable.

NRG supports the CAISO’s long-term solution to use market modifications developed through its Energy Storage and Distributed Energy Resources (ESDER) and Contingency Modeling Enhancements (CME) to support the pre-contingency *market* dispatch of “slow” DR (DR that takes longer than 20 minutes to respond). The CAISO’s proposal to use a variation of its Minimum Online Commitment constraint (which the CAISO refers to as the “Minimum Online Dispatch” (MOD) constraint) to dispatch “slow” DR on a pre-contingency basis as an interim measure may be reasonable if CAISO adds the market functionality to recognize these dispatches and self-schedule them through real-time; NRG requests that the CAISO more fully explain the pricing and bidding implications of that proposal in a subsequent straw proposal. NRG requests the CAISO consider as a design principle that the long-term or interim solutions should not result in needlessly deploying DR in a manner that would exacerbate customer fatigue. To mitigate that concern, NRG asks the interim solution trigger deployment based on input data from as real-time conditions as possible.

NRG questions whether the market outcome will result in the desired efficiencies of modelling the pre-contingency dispatch of the slow DR in the day-ahead market under

the MOD unless the real-time market can respect the day-ahead (DA) schedule. If the day-ahead schedule is not included in the real-time market (RTM) re-dispatch, the real-time market re-dispatch would not be able to consider the previously procured (in the DA) load reduction. For example, the RTM could re-dispatch the DR so that if the RTM load is lower than the DA load, there would be no need to dispatch the DR even though the binding day-ahead award would still require dispatching the DR. Even if the real-time market can account for the DA schedule, NRG understands CAISO's policy objective is to pre-contingency dispatch slow DR in real-time up to an hour prior to the operating interval where a real-time market exceptional dispatch could be a preferred interim tool. A real-time market exceptional dispatch could be issued in similar time horizons as those that would be provided under the long-term solution (e.g. 52.5 minutes prior to the interval) based on real-time information. This might be the preferred interim tool since it would:

- Better approximate long-term operations through issuing dispatches in hour-ahead or 15-minute ahead time frame
- Better predict whether pre-contingency dispatch is needed in the proposed metric (identifying when load within the pocket exceeds available internal generation and transfer capability) by using near-real-time inputs of metered demand and available generation, accounting for any outages.

In addition, NRG asks the CAISO to provide in its details on this proposal more information as to how the real-time market bids will be adjusted to support the hourly and 15-minute block option. NRG requests more details on what is the shortest lead time and/or shortest duration that would result in a designation of slow DR and will there be a further distinction between lead times between 20 and 300 minutes versus longer than 300-minute lead times? Additionally, can the CAISO confirm whether PDR bids will support bids at hourly or 15-minute granularity under this proposal and whether the hourly block economic dispatch can be for an inter-hour interval (e.g. Hour Ending 4 Interval 2 through Hour Ending 5 Interval 2)?

Additional comments

Please offer any other feedback your organization would like to provide on the RA Enhancements Straw Proposal Part 1.

A "holistic" review of the existing RA tariff provisions should include the changes being contemplated in the CPM-RMR Enhancements process. Given the completely interrelated nature of the two initiatives, the CAISO should synchronize the two initiatives and take to its Board a comprehensive recommendation on changes to these interrelated programs instead of moving ahead unilaterally with changes to the CAISO's backstop authority outside of a holistic review of tariff provisions affecting the RA program.