California ISO

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.

PG&E appreciates the opportunity to provide comments on the important work of reforming the CAISO's resource adequacy (RA) program. PG&E looks forward to continuing to work with the CAISO and other stakeholders on developing a sensible, effectual, cost-effective, and durable RA framework.

However, PG&E requests additional clarity as to what problems the CAISO is attempting to address with each proposal area and how the problems are addressed in a comprehensive manner. PG&E recommends the CAISO provide problem statements (including CAISO's underlying objectives) identifying how each proposal addresses the problems, rather than a list of existing tools it can modify. Stakeholders could then evaluate how the proposal addresses the problems and meets the objectives.

For example, outage management and substitution requirements are two areas where obvious, specific problems currently exist. While many of these problems require fixes far sooner than the expected implementation date of this initiative – and their resolution lies perhaps in business practice manual (BPM) revisions rather than tariff reform – this initiative should ground the discussion of outage management and substitution requirements in resolving a reliability problem. The CAISO should undertake a holistic consideration of outage management and substitution requirements that clearly states objectives, recognizes and addresses root problems to meeting those objectives, and proposes a rational and durable framework that incorporates meantime BPM changes.

Please provide your organization's comments on the following issues and questions.
Specific areas where this would apply to each issue are listed below.

1. Rules for Import RA

Please provide your organization's feedback on the Rules for Import RA topic. Please explain your rationale and include examples if applicable.

PG&E agrees that it is important to review RA import rules. New rules should draw the treatment of external generation closer to that of internal generation, to the degree practical, to ensure CAISO gets at least comparable value from RA to meet its operational and reliability needs affordably. PG&E believes that clear and consistent RA rules for imports are of particular importance during critical system and market conditions, which, when materialized, may not be limited to the CAISO Balancing Authority Area (BAA).

Specification of RA Import Resource Source

The CAISO proposes to require that Load Serving Entities (LSEs) specify the source Balancing Area of RA import resources, at a minimum, and perhaps the specific resource(s) behind RA imports to mitigate potential RA double-counting and speculative supply. These requirements are, perhaps, also one means of assuring the delivery of that power, as sought by PG&E.

While PG&E acknowledges that the proposal is in an early phase, it is important to note that a significantly more robust discussion will be necessary before PG&E can offer a firm position. This discussion should include a detailed examination of the problems facing the West, the benefits and advantages of the proposed design solutions, and the possible issues and disadvantages they may present. For example, what would the impact of these requirements be on existing "firm" energy transactions? How would requiring source BAA and resource-specific information prevent double-counting of resources in the WECC? That is, how does CAISO propose to verify that resources are not double-counted? How does CAISO intend to coordinate with other BAAs?

PG&E requests CAISO explain and discuss the benefits and disadvantages of having resource-specific import RA in meeting the CAISO's RA objectives. PG&E requests CAISO discuss with detailed examples how the import RA from resource specific RA and system resources would help assure CAISO has sufficient energy if conditions are tight in both CAISO and the rest of the West.

One final point regarding speculative supply: If the CAISO believes entities are engaging in anti-competitive conduct such as submitting bids that are unjustifiably high, would it not be appropriate for CAISO to consider availing itself of the authority granted in Section 39 of its tariff, and impose mitigation measures on such conduct? The proposal could impose significant disruption to the existing approach to import RA with potentially no benefit in mitigating anti-competitive conduct.

Bidding Rules and MOO for RA Imports

The CAISO is proposing to expand the 24/7 requirement for import RA resources – for all shown RA capacity – into the real-time, along with a 15-minute bidding and scheduling Must-Offer Obligation (MOO). Again, PG&E believes new rules with respect to reliability should draw the treatment of external generation closer to that of internal generation. However, any new bidding requirements will likely impose procedural complications and costs, so expected offsetting benefits should be reasonably demonstrated through analysis. Specifically, discussion is necessary on how such requirements would impact existing RA import contracts, bidding and transmission scheduling in the real-time, and e-tagging.

One final point on expanding the 24/7 requirement: In the very first paragraph of the issue paper, CAISO defended the need for reform on the basis that the generation fleet looks less and less like the dispatchable gas and hydro resources around which the original 24/7 must-offer obligation was developed. PG&E agrees that durable RA reform recognizes this fundamental shift. By insisting on the 24/7 requirement, we end up with one or a mix of two outcomes: either an overbuilt system, and/or creative accounting of the attributes of resources that may help meet reliability needs for blocks of hours but are unable to truly meet a 24/7 requirement.

2. RAAIM 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.

PG&E supports the CAISO in its intention to undertake a holistic review of outage management and substitution requirements; one that clearly states objectives, recognizes and addresses root problems to meeting those objectives, and proposes a rational and durable framework.

With respect to the specific proposals, CAISO's first option for planned outages proposes the CAISO provide the option of procuring capacity on behalf of the resource. This is an interesting idea. The CAISO is well-situated to arrange for planned outage substitute capacity, but it is unclear how this service would interact with the CSP for intramonth

capacity. PG&E would like to discuss this further, including whether this could and should be extended to forced outages.

Regarding planned outages, PG&E requests CAISO make changes to the current Planned Outage Substitution Obligation (POSO) process that respect the principles outlined in the first paragraph in this section. For example, currently, approved planned outages may be cancelled for marginal quantities of capacity during non-peak hours for what seem like procedural rather than reliability reasons. Changes should reduce uncertainty for outage management and planning and be squarely focused on truly supporting reliability objectives. Outage management balances two risks: short-term and long-term reliability risks. Transmission and generation need to be able to take outages with some level of certainty and lead time to maintain and build out their facilities. Without such outages, certainty, and lead-time, is it impossible to have both a reliable and cost-effective system.

PG&E requests the CAISO discuss the possible merits of eliminating availability assessments in favor Net Qualifying Capacity (NQC) reductions, while being mindful of avoiding over-procurement and carefully examining possible impacts to other parts of the RA procurement process, such as bilateral contracts, showings, etc. However, subjecting resources to *both* an availability assessment and NQC reductions is double-penalization. Further, given the planning reserve margin, wouldn't NQC reductions lead to over-procurement? How is CAISO employing the 15% planning reserve margin?

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

While PG&E appreciates the CAISO's discussion of the various issues confronting RAAIM, PG&E recommends the CAISO state the problem it is trying to solve, how the existing mechanism is inadequate at addressing that problem, and the merits of each proposal to addressing that problem. Is the problem reduced reliability? If so, is there evidence that resource performance has been its cause? Have incentive mechanisms been effective at increasing reliability? What expected benefit would be obtained by enhancing the burden on non-exempt resources?

The issue paper and straw proposal raised the prospect of eliminating RAAIM altogether but did not discuss the option. In its comments on the issue paper, PG&E asked for analysis on the effectiveness of RAAIM to inform the discussion and guide policymaking toward the best alternative, whether it be the elimination or the improvement of RAAIM. No analysis was provided. It isn't reasonable to attempt to improve something without understanding how effective it has been and what gaps exist. Absent facts, the policy development devolves into a speculative exercise.

Examples of questions that ought to be answered:

1. What was the change in offered energy bids when RAAIM was binding versus advisory? Over which hours did we see the most change in offered energy? How did capacity shown in RA plans change their bids?
2. What was the total system cost of RAAIM during the binding months, by hour? This will allow us to compute a dollar per increased megawatt of shown capacity.

This appears an appropriate juncture to reiterate questions PG&E posed in its comments on the issue paper: What is the RA program is trying to achieve: Ensure available capacity for reliability? Ensure bid sufficiency to clear the market with more competitive pricing? Or both?

Absent this type of straightforward analysis on the effectiveness of RAAIM as it exists today, it is impossible for stakeholders to evaluate the merit of proposed modifications.

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

Availability & Performance Assessment Triggers

PG&E believes CAISO needs to have substantial discussion on the value of using triggers in meeting its reliability objectives, while having implementation remain feasible. PG&E believes that incentive / penalty mechanisms exist to guide behavior by providing known consequences for a given action. If there is ambiguity, the mechanism is weakened and made detrimentally confusing. Triggers could, on the other hand, allow for a more targeted incentive during the key periods when CAISO has needs. PG&E looks forward to additional discussion on these tradeoffs (including potential implementation challenges for participants) in meeting CAISO's objectives.

Calculating Availability & Performance

The CAISO proposes to modify availability assessment to consider bids *and* performance (dispatch vs. meter). PG&E believes this would create double-penalization and is an apparent repackaging of Uninstructed Deviation Penalty; in the tariff but without effect since 2004. The non-delivery of an energy award is handled by Uninstructed Imbalance Energy. This proposal commingles the markets for energy and capacity. Compensation for metered generation, or penalty for lack thereof, should in theory come from the prices in the energy market, not be incorporated into RAAIM, which is an incentive for performance in the capacity market. To the degree practical, there should be clear delineation

between performance in the capacity markets and performance in the energy market. PG&E would appreciate the CAISO's perspective on how to best separate capacity availability and energy market incentives.

The CAISO also raises the possibility of providing incentive payments to resources that provide capacity above their shown RA value and perform according to dispatch instructions. Is this only for Eligible Capacity on RA Resources? Or is this for all Eligible Capacity? Resources would be paid just for participating in the market? If the market doesn't provide sufficient incentive to attract participation, the problem exceeds RAAIM. As PG&E enquired in its comments to the issue paper, in asking for detailed analysis of the effectiveness of RAAIM: "…[D]oes the complex system of offer obligations, outage exemptions, and availability incentives reveal a lack of belief in the energy market and that the prices it produces can provide adequate incentives to resources to provide needed reliability?"

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.

The CAISO proposes to update the Local Capacity Technical Studies to include availability limitations, adding a MWh component, and eventually hourly load and available resource data. These seem like good additions to the CAISO studies, if they can be done and provide actionable results.

Regarding including the impact of behind-the-meter PV in projected hourly load, while this is important, PG&E cautions against taking such generation for granted in determining Local Capacity Requirements.

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.

PG&E asks whether it is prudent to dedicate so much effort to designing this product considering it would require temporary implementation using the Minimum Online Commitment (MOC) Constraint, with a subsequent re-implementation using elements from two as-yet unimplemented initiatives? Furthermore, there are greater priorities and it is unclear how significantpau the benefits would be.

Notwithstanding the above, PG&E would like to take the opportunity to ask a few questions:

1. Is the CAISO sure that it can optimize for pre-contingency dispatch and post-contingency redispatch? The ISO proposes to develop market processes that could enforce flow limits on transmission constraints after a contingency by dispatching the Slow Demand Response resources in preventive mode while using the Contingency Modeling Enhancement (CME) procedures to procure corrective capacity on faster resources that can be deployed post contingency. During the CME discussion, stakeholders raised concerns as to whether the ISO would be able to solve the preventive-corrective dispatch problem in the time available to clear the energy markets. CAISO indicated that it would only apply CME for a very limited number of transmission elements and contingencies. In applying the CME approach to treat Local Reliability Requirements and Slow Demand Response resources, would CAISO propose to expand the number of transmission constraints and contingencies modeled using the CME approach? If so, PG&E would request that CAISO provide information on the number of such corrective constraints it would model and the effect on the time required to clear the market.
2. Could the pre-dispatch notification be cancelled? Will it always be financially binding? If the pre-dispatch notification could be cancelled once issued, could the ISO give conditions under which it would cancel the notification? Also, could the ISO discuss how it would determine the new dispatch over the forecast horizon that it would use to give a revised pre-dispatch notification to the Slow Demand Response resources?

Additional comments

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