



Comments of Pacific Gas & Electric Company
Resource Adequacy Availability Incentive Mechanism Modification –
White Paper

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) offers the following comments on the California Independent System Operator’s (CAISO) Resource Adequacy Availability Incentive Mechanism Modification White Paper

PG&E agrees that the current approach does not properly account for both the overlap and variation in the Generic and Flexible Resource Adequacy (RA) availability assessment hours. PG&E shares the CAISO’s concern about the potential for manipulation of Resource Adequacy Availability Incentive Mechanism (RAAIM) assessments and associated penalties or payments.

1. The CAISO’s proposed timeline for this initiative is not sufficient to properly review the CAISO proposal.

The CAISO’s proposed timeline for this initiative is not sufficient to properly review the CAISO’s proposal, particularly considering that other changes to RAAIM are being implemented at same time that the CAISO has requested comments on its proposed RAAIM modification.¹ These other changes and the effort to evaluate them are significant. The CAISO’s approach to scheduling these tasks continues to increase the risk of missing fatal flaws in the calculation’s implementation. Therefore, PG&E recommends the CAISO delay the Draft Final Proposal to October, and release a Straw Proposal in late September that includes more detailed examples.

In addition, since imprecise tariff language has led to the need for this stakeholder process, PG&E believes delaying the release of the Draft Final Proposal until after a Straw Proposal, and including proposed modified tariff language in the Draft Final Proposal will result in a more successful stakeholder process. Providing stakeholders more opportunities to review the tariff language will reduce the chance of imprecise tariff language. A positive outcome from this approach could be a quicker resolution between approval of the Board of Governors and filing the tariff amendment at FERC.

¹ The RAAIM changes that are currently being implemented can be found on slide 4 of the July 26, 2017 Agenda and Presentation on Resource Adequacy Availability Incentive Mechanism Update http://www.caiso.com/Documents/Agenda-Presentation-ResourceAdequacyAvailabilityIncentiveMechanismUpdate-Jul26_2017.pdf

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2. PG&E asks the CAISO to provide a Straw Proposal that contains more discussion of additional variables that impact the CAISO’s proposed solution and clear, mathematically presented examples of how these variables are treated in the RAIM calculation.

While the CAISO’s proposed solution to modify the RAIM availability assessment calculation more appropriately assesses resource availability by using the daily availability of a resource, it is not clear whether this change properly aligns the objective of RAIM and the availability calculations used. In its White Paper, the CAISO provides numerous examples that attempt to address this lack of clarity. However, more discussion of additional variables is needed to determine if the RAIM calculation fully eliminates the potential interactions that could impact the incentives for each product that the CAISO is attempting to fix. For issues that CAISO has addressed, some examples are not clear enough to alleviate concerns about miscalculations or unclear interpretation of policy.² For the issues where CAISO has not addressed in its white paper, the CAISO should address these concerns and provide examples.³ In particular, PG&E would appreciate if the CAISO could address in more detail How overlapping hours of assessment can impact performance of resources that are shown for both generic and flex RA. Other issues the CAISO should address in the Straw Proposal include: how substitution resources get evaluated in a daily assessment if they do not have a full day’s worth of obligations due to a partial day outage; how the real-time and day-ahead performance of a resource affects the final availability percentage if it is shown for both generic and the resource performs worse for each product in different markets; and how different forms of use-limit plans and different uses of use-limit outage cards affect the final availability percentage. While calculating the availability of generic RA and Flexible RA separately ensures each one has comparable incentives, without more expansive examples, the separation alone does not clearly eliminate the potential interactions between the two products that could impact the incentives for each product.

3. The CAISO should list out the steps associated with the RAIM calculation to ensure that all factors of the calculation are captured correctly in the process the CAISO describes in its proposals and its tariff.

In order to understand whether the CAISO’s proposed change to assess daily availability fully captures all the potential variables of RAIM charges, PG&E found it useful to list out all of the steps that affect each resource’s RAIM incentive or penalty.

² Examples in the White Paper that could be improved include how overlapping hours of assessment between generic RA obligations and flexible RA obligations can impact performance of resources that are shown for both generic and flex RA, how the performance of a resource on weekdays and weekends affect the final availability percentage, as well as how the different categories of flexible RA affect the final availability percentage.

³ Examples that were missing from the White Paper relate to the use of real-time or day-ahead performance, and how different forms of use-limit plans and use-limit outage cards affect the final availability percentage.

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Steps to evaluate when determining each resource's RAAIM incentive/penalty

Step 1) Which RA Product, between Generic RA and Flex RA Category 1, Flex RA Category 2, and Flex RA Category 3, is being assessed?

Step 2) What Time Period, in terms of which hours and which days, is relevant for the related RA Product?

Step 3) There are three forms of obligation adjustments that have different types of exemptions.⁴ What Obligation Adjustments are needed for this particular resource?

Step 4) What was the Resource's Performance, in the form of quantity of MWs economic bid for flexible RA and bid/self-scheduled for generic RA, for the relevant assessment hours?

Step 5) How did the resource perform in both the Day Ahead and Real Time Market?

Step 6) Is the resource being evaluated a substitute resource?

Values that are consistent across all resource types are the number of hours assessed, as well as which hours in the day, and the days in the month, for each RA product (Collectively referred to as "the RAAIM Assessment Hours"), and the monthly percentage thresholds that trigger penalties and incentives.⁵

Based on all the factors involved in this single calculation, it is likely that any combination of these variables is likely to be complex. While it is debatable whether the complexity is needed or could be reduced with substantial policy changes, PG&E understands the focus of this initiative is solely to quickly fix what is broken about the existing structure. Therefore, PG&E recommends that the CAISO create a clear step by step process that a Market Participant could use to calculate its own resource's performance. While the CAISO has provided a calculator for stakeholders to evaluate various scenarios, the goal of verbally listing out the steps associated with the calculation is meant to ensure that all factors are captured correctly in the process the CAISO describes in its proposals and, more importantly, are captured correctly in the Tariff. PG&E also hopes this step by step process can also help simplify the tasks both market participants and CAISO will have in the implementation phase of this stakeholder process. PG&E recommends that this step by step process be incorporated into the CAISO Tariff to the extent possible.

⁴ The first form of adjustment of obligation is a result of exempt outages either based on acceptance of planned outage without substitution or based on nature of work type of forced outage. Second form of adjustment of obligation is due the amount of time and MWs the Scheduling Coordinator has elected to provide substitute capacity for resource on outage. Third form of adjustment of obligation is due to the impact of bid insertion and the Scheduling Coordinators' use of use-limited outage cards.

⁵ The number of hours for generic capacity assessment and which days of the week are included in the RAAIM assessment are included in the CAISO tariff (Section 40.9.3a). The hours of the day that are included in the RAAIM assessment and Monthly percentage thresholds that trigger penalties and incentives are found in the Business Practice Manual (Reliability Requirements BPM, pg. 100). The days of the week, the number of hours, and the hours of the day for flexible capacity assessment are all in the CAISO Tariff (Section 40.10.6.1) for Flexible Category 1. The particular hours of the day for Flexible Category 2 and Flexible Category 3 are found in the Business Practice Manual (Reliability Requirements BPM, pg. 100). These values are not truly static, but are considered static for the calculation formulation since they would require CAISO action to change.

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4. RAAIM Assessment Hours should be revisited in a future stakeholder process within the next year.

PG&E recommends that the CAISO use this stakeholder initiative to determine whether the challenges with evaluating overlapping generic and flexible assessment hours should lead the CAISO to evaluate whether the RAAIM Assessment Hours for each RA product should be re-visited to simplify the RA program. While this stakeholder process may not be the correct stakeholder process, we believe now is an appropriate time to have a discussion related to whether this topic should be included in a future stakeholder initiative within the next year. By making the assessment hours for each RA product more transparent and consistent, a great deal of the confusion associated with RAAIM implementation and RA compliance could be eliminated.⁶

⁶ Another way that the assessment hours could be more transparent is to have a simple and understandable process for how the number of days in the month, the number of hours in the day, and the hours themselves are set.