

Comments of Pacific Gas and Electric Company

Reliability Services Initiative – Second Revised Straw Proposal

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) Reliability Services Initiative (RSI) October 22, 2014 Second Revised Straw Proposal.

1. Part 1: Minimum eligibility criteria and must-offer rules

a. **PG&E supports the CAISO's proposed default qualifying capacity criteria for non-generator resources.**

The CAISO proposes to assess the default qualifying capacity of all non-generator resources (NGR) based on the amount of output the resource can sustain over a four-hour period. This represents a modification from the previous straw proposal in which the CAISO proposed default qualifying capacity rules for REM NGRs based on the ability to provide 15 minutes of energy while non-REM NGRs would be measured over four hours. PG&E supports this change as the CAISO's previous proposal would have allowed REM NGRs to seemingly qualify for an undue amount of flexibility and could have resulted in significantly more REM than what the CAISO needs to run its system. PG&E also agrees that this is consistent with the CPUC's recently released qualifying capacity provisions, in which the CPUC made no distinction between a REM and non-REM NGR resource for RA purposes.

b. **PG&E supports the CAISO's proposal to allocate flexible capacity requirements to metered subsystems (MSS) load-following LSEs for their contribution to the CAISO's flexible capacity needs.**

PG&E agrees with the CAISO that it is important to ensure responsible parties fully cover their allocable share of flexible capacity. Because there is nothing currently in the CAISO tariff that requires an MSS load-following LSE to include all of its contracted variable energy resources (VERs) in its designated resource portfolio there is the potential for an MSS load-following LSE to lean on other LSEs to provide flexible capacity needed to address the variability of these resources. This could occur if there is a deviation between the resources that are designated as being part of an MSS load-following LSE's resource portfolio during the annual flexible capacity needs assessment and what ends up in its final resource portfolio for a given RA

month. PG&E supports the CAISO's proposal to require an MSS load-following LSE that does not include all of its contracted VERs in its portfolio of resources designated to follow load to provide adequate flexible capacity to address the contributions these resources might have on the CAISO flexible capacity need.

c. PG&E opposes the CAISO's proposal that a non-generator resource be classified as non-use-limited.

PG&E opposes the CAISO's proposal that a non-generator resource (NGR) be classified as non-use-limited. PG&E believes that most NGRs will have some use limitations in order to limit system degradation, such as total energy throughput and charge/discharge cycles.

PG&E also has serious economic and operational concerns with the CAISO's proposal to insert bids for NRGs. It is PG&E's understanding that the CAISO does not manage the state of charge (SOC) for NGRs, other than 15 minute REM-only resources. Therefore, bid insertion done by CAISO software for non-REM NGRs could result in an inefficient dispatch of NGRs, create infeasible schedules, or worse, damage to the resource if such infeasible schedules were to be followed. Without management of the SOC, CAISO will not have the ability to accurately insert bids. For instance, it is unclear what bid insertion will look like for the full cycle of charging and discharging and how that would be optimized in the market.

PG&E proposes that bid insertion is not appropriate for NGRs at this time. NGRs are emerging resources and market participants are still figuring out the rules for how they will fit into the market. PG&E recommends that the CAISO should exempt NGRs from bid insertion and it would be best to classify NGR as use-limited until revisiting the issue at a future date.

d. PG&E requests two clarifications on the minimum availability requirements for Proxy Demand Resources.

PG&E appreciates the clarifications provided by the CAISO on the requirements for Proxy Demand Resources (PDR). However, it appears that there remain a few areas of clarification that were not addressed in the Second Revised Draft Proposal:

- In Section 4.4, the proposal states that a PDR must be capable of being dispatched for a minimum of 24 hours per month, for three consecutive days, for at least four hours per dispatch. However, there is no indication of what days of the week the PDR must submit bids into the IFM. If the CAISO is seeking to be consistent with the CPUC's RA requirements, PG&E recommends that PDRs be required to submit bids for non-holiday weekdays.
- In Section 6.11, the proposal describes a new outage category, Non-Environmental Use-Limit Reached, proposed for a PDR that has been dispatched for at least 24 hours in a month, if the PDR chooses to no longer be available for the balance of the month. The same type of outage tag could be submitted for a PDR dispatched for three consecutive days. However, the

proposal is not clear on whether that outage tag would last through the end of the month or a shorter period of time. PG&E suggests a PDR that has been dispatched for three consecutive days, but has not yet been dispatched for a total of 24 hours in the month, be allowed to submit a one-day outage tag.

2. Part 2: Availability Incentive Mechanism

a. **The AIM price should be linked to the CPM soft offer cap price.**

PG&E believes that the AIM price and the CPM soft offer cap price should be aligned because there is a strong link between the backstop price associated with deficiencies and the penalty charged to RA capacity that does not offer into the energy market. A link between the AIM price and the CPM soft offer cap price can ensure correct market incentives are in place and send appropriate price signals to RA resources to be available. Under the CAISO's current RSI proposal, there is a disconnect between the AIM and the CPM. In the CPM Replacement Initiative, the CAISO has proposed a market-based CPM that will utilize a soft offer cap reflective of the likely marginal generation technology type during residual procurement. The soft offer cap price would be updated every three years based on estimated going forward costs. On the other hand, the proposed AIM price is not tied to anything directly and would be fixed. While the CAISO has proposed to reevaluate the price every three years, it is unclear if or how the price would be evaluated and updated. Therefore, if the CPM soft offer cap were to rise, there is no mechanism to ensure the AIM price rises proportionately and the prices could become significantly misaligned. This could distort price signals further, as an unavailable RA resource would incur a low AIM penalty, while a resource needed to maintain reliability during a CPM event in the same month would be valued up to the CPM soft offer cap.

Thus, it is important to link the AIM price in some way to the CPM market mechanism. PG&E has recommended a 1:1 link between the AIM price and the CPM soft offer cap price and believes that this would result in an appropriate value to incent resource performance. It is especially critical to maintain a 1:1 link for a situation where a deficiency causes a CPM call, as this would provide an accurate reflection of the value of capacity at that time. Under other circumstances (i.e. where a deficiency does not cause a CPM call), PG&E is willing to move forward with an AIM price that is linked to the CPM soft offer cap through a percentage in order to maintain a connection between the two. PG&E recommends setting the AIM price no lower than 80% of the CPM soft offer cap.

If a low AIM price results in more capacity shortfalls causing reliability events and CPM calls, those costs are ultimately borne by load serving entities (LSEs). Even if there have been few CPMs issued historically because of forced outages, this could very well be because the current SCP incentive mechanism was structured appropriately (i.e. 1:1 link with the CPM) and the penalties were high enough to ensure resources remained available and provided substitute capacity.

b. The AIM price should not be set so low as to incent generators to accept the penalty rather than go to the bilateral market for replacement RA.

If the AIM is the tool that the CAISO will be using to maintain reliability related to outages, it needs to be high enough to incent resource performance and replacement. A higher AIM penalty will incent generators who may be receiving a high bilateral price for their RA to nonetheless provide replacement RA. The CAISO should also keep in mind that it is possible that bilateral prices for replacement RA for time periods shorter than one month may be higher than the standard month-long product seen in the CPUC RA Report, due to the need to recoup transaction costs. This would also suggest that a higher AIM price would provide an appropriate incentive to generators to procure replacement RA for their shorter outages.

c. PG&E opposes the proposed monthly roll-over account for AIM payments.

Under the current SCP process, if the pool of funds collected from incentive penalties exceeds the total pool needed for incentive payments, the funds are allocated back to LSEs through a monthly payment based on load ratio share. In the current RSI, the CAISO proposes to create a roll-over account for any monthly AIM penalties that exceed the total pool needed for AIM payments in that month to be used in AIM payments to high-performers for the following month. Any excess funds in the roll-over account at the end of the year would then be paid to LSEs based on load ratio share.

PG&E opposes the roll-over account for two main reasons. First, there is a general monthly balance argument. A generator that did nothing to help one month when there were a lot of outages and strains on the system could get rewarded in the following month for performing well when there were no outages. This would remove the link between impact and benefit that is currently incorporated into SCP and would seem to be unfair for high-performing resources in the early months of a year.

Second, the CAISO reasons that it has created a roll-over account in order to keep both penalties and payment distributions contained to suppliers as much as possible and that it does not see why load should receive the payments for what is ultimately a supplier incentive tool. While the penalties and payments of this program are used to incent resource performance and replacement, load is still implicated because there is a CPM risk if resources fail to perform and the CAISO has to CPM to ensure grid reliability.

d. PG&E recommends that resources with a Pmax below 10 MW are exempt from the AIM.

Under the current SCP design, and under CAISO's proposed AIM design, resources that have a Pmax less than 1 MW are exempt from non-availability charges and availability incentives. PG&E recommends that small resources with a Pmax below

10 MW are exempt from the AIM. This should be based on resource ID so that aggregated resources are captured under the AIM.

PG&E recommends that this AIM exemption threshold align with forced outage reporting requirements and thus resources with Pmax less than 10 MWs would be exempt from any forced outage reporting (i.e. no 60 minute reporting, no monthly reporting, and no special treatment for RA-only resources).¹ This alignment between the forced outage reporting and the AIM exemption threshold would also simplify RA related AIM settlements and such resources would continue to be eligible for RA demonstrations.

3. Part 3: Replacement and Substitution

a. **PG&E remains concerned with the proposed requirement that the supplier will be responsible for all outage replacement starting in the 2017 RA Year.**

The CAISO has proposed that suppliers of RA will be responsible for providing replacement RA for all outages, including outages scheduled prior to T-45. Not all suppliers have a portfolio of resources for providing replacement capacity. Therefore, they are less able to assess the costs of replacement capacity versus an LSE that can use its portfolio of resources. In an RA market that is not very liquid, suppliers with small portfolios could be exposed to high prices and a limited number of sellers for replacement capacity.

In addition, while CAISO's proposed process would simplify the process within CAISO's CIRA system, it would not simplify the coordination for replacement between an LSE and the supplier. If the contractual obligation to replace remains with the LSE, the proposed process could increase the amount of steps and coordination between the LSE and the supplier. The LSE would have to communicate the new resource to the Scheduling Coordinators of both the designated RA resource and replacement RA resource before any information is uploaded to CAISO's CIRA system. This additional coordination outside of CIRA could lead to more complexity and errors.

Finally, it is possible that capacity prices seen in the RA bilateral market could increase due to the added outage replacement risk and coordination responsibility taken on by suppliers, particularly for small suppliers that are not accustomed to coordinating outages with the CAISO. This secondary impact on the overall bilateral RA market would then lead to higher customer costs.

¹ Variable Energy Resources (VERs) would continue to provide telemetry (as required) to the CAISO to support on-going VER forecasts.

- b. **PG&E recommends that the CAISO develop its outage processing system to accept replacement RA for an outage from both the SC of the resource on outage and the LSE contracting for the resource to reduce the potential cost impact on the bilateral market from switching the responsibility of outage replacement to the supplier.**

As the CAISO has acknowledged, ultimately it is the contract between the LSE and the supplier that dictates which party is obligated to procure replacement capacity. Thus, it is important that the CAISO has the capability to accept replacement from either the LSE or supplier. In line with the CAISO's overall goal of developing a more streamlined and simplified process, the CAISO should structure the outage processing software to allow for LSEs to provide replacement capacity if the contract dictates that obligation. One possible approach that PG&E envisions is that the outage processing software could provide the option for both the LSE and the supplier to provide data as part of the uploaded RA Plans and Supply Plans that clearly indicates that the replacement obligation falls on the LSE for a particular resource due to contractual arrangements. That information could be used within CAISO's CIRA system to assign the replacement requirement to the appropriate entity.

- c. **PG&E proposes modifications to the Proposed RA monthly process for the 2017 RA year to allow market participants sufficient time for cure periods and restore the start of the monthly process to T-45.**

After further consideration of the proposed RA monthly process, PG&E has identified a few changes that would streamline the process and restore the length of cure periods needed by market participants. PG&E proposes:

- The deadline to submit RA plans and supply plans remain the same deadline of T-45 as is used in the current RA process.
- That CAISO's deadline to release the Validation results to LRA, LSE and Suppliers be changed to T-42, with the understanding that CAISO may release the data sooner, if available. This change would allow at least 12 days to address validation errors and cure any LSE deficiency associated with the T-45 filing.
- That CAISO's deadline to release the replacement requirement be T-22 with the understanding that CAISO may release the data sooner, if available. This change would allow at least 14 days to provide replacement capacity, which restores the length of the cure period provided in the current RA process.
- That the CAISO release a preliminary outage replacement report to the relevant Scheduling Coordinators after the T-45 submittals. The new report would indicate the expected replacement requirement based upon an outage snapshot at T-45, and would be non-binding and for informational purposes only. This additional report would provide useful information to allow suppliers to reschedule outages and/or seek replacement capacity in advance of the official outage snapshot at T-25.

Other steps in CAISO's proposed RA monthly process provided within Figure 18 of the Second Revised Straw Proposal would be unchanged, including the Monthly CPM assessment at T-30, the Outage Snapshot at T-25, and the deadline to provide the replacement requirement at T-8.

4. Proposed Phase II of the RSI

a. **PG&E supports the CAISO's reassessment of block dispatchable pumping load. The CAISO should consider the issue in Phase 1 of the RSI.**

In the CAISO's Flexible Resource Adequacy Criteria and Must Offer Obligation (FRAC-MOO) initiative, the CAISO recognized the benefits that flexible hydro resources can provide, but did not determine whether or how to count the pumping capabilities of a pump hydro resource for flexibility. PG&E agrees that pumping load should count as flexible capacity. PG&E's Helms units can routinely reduce the CAISO's flexibility needs both through its generation and pumping functions.

The recent FERC ruling conditionally approving the ISO's FRAC-MOO tariff instructed the ISO to continue to examine how resources like Helms would be able to provide flexible capacity. PG&E appreciates that the CAISO remains committed to conduct the reliability assessment instructed by FERC and to resolve this issue, however maintains that timely resolution of this issue is important – it should be a Phase 1 issue - so that the CAISO's market recognizes the appropriate value that all storage resources can provide and so that parties can properly value different technology types in the upcoming procurement of storage resources.

b. **The CAISO should comprehensively examine the requirements placed on all storage technologies in receiving RA credits.**

PG&E supports the CAISO conducting a comprehensive analysis not only of deliverability for all storage technologies, e.g. hydro pumped storage, but also of how variable loading, transition time, and state of charge management impact a storage resource's ability to deliver flexibility to the grid, in both charging and discharging modes. The results of CAISO's analysis should inform revisions to the CAISO's counting criteria for storage resources. Revised counting criteria for storage resources should ensure that the value that flexible storage resources is properly accounted for on an equal basis with other technologies. Timely resolution of this issue is important so that the CAISO's market recognizes the appropriate value that all storage resources can provide and so that parties can properly value different technology types in the upcoming procurement of storage resources.