



Comments of Pacific Gas & Electric Company

Regional Resource Adequacy – 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) Regional Resource Adequacy Second Revised Straw Proposal.

PG&E appreciates the amount of work the CAISO has dedicated to educating regional entities on the existing rules for Resource Adequacy (RA) and how the CAISO works with Local Regulatory Authorities (LRAs) to administer the RA program. As part of this Regional RA Initiative, PG&E requests that the CAISO commit to creating a Resource Adequacy process that values simplicity.

PG&E offers comments on the following topics, in order of priority for PG&E:

1. PG&E strongly supports the CAISO's decision to monitor internal transfer capability constraints and move away from unnecessarily including these constraints into RA requirements.
2. The CAISO's proposed Maximum Import Capability counting rules require further justification and have the potential to cause reliability shortages.
3. The CAISO has not provided sufficient rationale for allocating Maximum Import Capability to Regional TAC Sub-Regions.
4. The CAISO should provide more details on how internal and external resources differ and on the reliability issues associated with substituting an RA resource that has different operating characteristics from the original resource.
5. PG&E supports the CAISO proposal to use a probabilistic Planning Reserve Margin structure.
6. The CAISO should continue the positive development of providing justification for why a resource type has a unique counting criterion.
7. PG&E supports the general principle of using an hourly load forecast to remove the need for a coincidental adjustment factor.

1. PG&E strongly supports the CAISO's decision to monitor internal transfer capability constraints and move away from unnecessarily including these constraints into RA requirements.

PG&E appreciates the CAISO's recognition of the benefits related to refraining from adopting Zonal RA requirements at this time. PG&E previously advocated that these requirements would place more complexity on an already complex RA Program. CAISO's willingness to move towards a monitoring role rather than placing unnecessary administrative burden on LSEs avoids a more complex RA program that puts unnecessary burdens on participating entities. Instead of administratively burdensome zonal RA requirements, the CAISO proposes to monitor zonal needs in an expanded BAA, as well as evaluate the level of procurement in locational areas, in order to be able to determine if any sort of zonal RA concept should be revisited at a later date.

Currently, internal transfer capabilities are modeled by various constraints in the Day Ahead and Real Time markets. PG&E believes these constraints are sufficient to ensure resources located in transmission constrained regions, even those outside local areas, will be sufficiently compensated to be considered economic. As a result, the CAISO will continue to have enough resources offering energy and capacity to clear its markets. With the added analysis proposed in this initiative, the CAISO will have the information needed to determine if a stakeholder initiative is needed to evaluate potential changes to Local RA regions or Zonal RA requirements.

PG&E recommends that the evaluation suggested in the CAISO's proposal take place during the annual ISO Local Capacity Technical Report. Additionally, PG&E recommends the CAISO specify the threshold metric which the CAISO would use to determine when it would need to institute a zonal RA requirement. One such metric could be the reserve margin for each zone assuming all existing resources are available. For example, if the existing resources delivered in SP26 (including allocated imports and path 26 flows) becomes less than 120% of the total zonal resource need then perhaps the CAISO should consider starting a stakeholder process discussing the topic of how market incentives are structured to account for internal transfer constraints. Topics related to market incentives could be how energy market constraints are set, whether local RA region boundaries should change or whether zonal RA requirements should be considered.

2. The CAISO's proposed Maximum Import Capability counting rules require further justification and have the potential to cause reliability shortages.

The CAISO proposes to change the methodology to determine Maximum Import Capability (MIC) to account for the possibility that "a PTO that joins the ISO has a need to serve its peak load that occurs non-simultaneous with the rest of the system and when there are no simultaneous constraints between certain areas of an expanded ISO BAA."¹ In the Second Revised Straw Proposal, the CAISO expands this change to also limit the allocations of Maximum Import Capability for imports that align with TAC sub-regions of the CAISO on a load ratio share basis to the LSEs serving load within those sub-regional TAC areas.

¹ CAISO Regional Resource Adequacy Revised Straw Proposal, pg. 24

While PG&E appreciates the added clarification on the changes in the MIC section of the Second Revised Straw Proposal, it does not support the proposed changes. Once a region joins the CAISO balancing area, the new region's load and resources join a pool in order to meet the entire area's reliability requirements. The region no longer has reliability requirements to meet its own non-coincidental peak. The RA construct associated with System Resource Adequacy requirements, to which the MIC contributes, addresses a single value, the CAISO system coincidental peak, and not separate sub-region peaks. The Second Revised Straw Proposal proposes to change this construct by accounting for peaks of particular sub-regions when calculating MIC. The non-coincidental peaks of the PTOs in the existing CAISO balancing area play no role in determining system RA requirements. The CAISO should provide further justification for the proposed changes to the MIC methodology. Formulas for how the MIC would be calculated in both the existing CAISO footprint as well as in the expanded BAA would be helpful so that stakeholders can better understand how the changes could work in practice.

The CAISO's proposed changes have the potential to cause reliability shortages. There is a possibility that values for imports that relate to non-coincidental peaks will be over-counted in reliability assessments that are based on the system peak. As a result, the CAISO system will not have the reliability it expects from the resources it has assessed in its monthly validation checks. This over-counting will increase the possibility of reliability shortages since the CAISO backstop will not adequately address this potential over-counting.

3. The CAISO has not provided sufficient rationale for allocating Maximum Import Capability to Regional TAC Sub-Regions.

In addition to the proposed changes to the MIC counting rules, the CAISO has also proposed to allocate MIC capability based on sub-regions that have been proposed in the TAC stakeholder process. Linking proposals in separate stakeholder processes does not allow due consideration of the implications in either stakeholder process. In this case, the CAISO has provided no rationale for allocating the MIC to Regional TAC sub-regions. Creating artificial barriers between CAISO and PacifiCorp only limits the benefits of regionalization and can often lead to unnecessary complexity. PG&E believes this is the wrong direction for the RA Program. The CAISO should continue to use the existing MIC for new entrants and only make transitional changes, if necessary. For example, for the MIC allocation process, PacifiCorp LSEs could be given the ability to treat 100% of their current coincidental imports as Pre-RA Commitments in its first year, which would decrease over time, to reach 0%.

4. The CAISO should provide more details on why internal and external resources are treated differently for system RA and on the reliability issues associated with substituting an external RA resource that has different operating characteristics from the original resource.

In its Second Revised Straw Proposal, the CAISO has added two new items to the scope of the Regional RA stakeholder process. These items include: (1) Resource Adequacy Outage Substitution Rules for Internal and External Resources; and (2) Discussion of Import Resources that Qualify for Resource Adequacy Purposes. The CAISO does not make a proposal to address eligibility rules for imports used for RA purposes. The CAISO proposes to allow an external resource to substitute for an internal resource if:

- 1) External resource has similar operating characteristics of the outage resources;
- 2) External resource/entity has sufficient MIC allocation to be used for substitution; and
- 3) External resource has the capability to fulfill the RA must-offer obligation of the outage resources.

PG&E appreciates the need to clarify these rules, as the existing tariff does not provide a simple description of eligibility requirements for imports to count towards RA. Additionally, PG&E suggests that the CAISO provide an explanation of the differences between internal and external resources so stakeholders can provide solutions to eliminate these inconsistencies.

PG&E requires more information on the conditions the CAISO has made in its proposal. The condition that the external resource must have similar operating characteristics to the original resource is unnecessarily vague. The CAISO should specify the reliability issues associated with substituting an RA resource that has different operating characteristics from the original resource.

5. PG&E supports the CAISO proposal to use a probabilistic Planning Reserve Margin structure.

The CAISO proposes to develop a probabilistic study to determine a system-wide PRM target. The CAISO agrees with the argument PG&E expressed in its comments on the Revised Straw Proposal that while a deterministic PRM is simpler, the planning reserve margin is sufficiently important to study the PRM using a stochastic approach. PG&E continues to urge the CAISO to also conduct a PRM study when an external BAA decides to join the existing BAA. PG&E believes this study should occur before the integration of two BAAs in order to properly understand the impacts of the integration on reliability.

6. The CAISO should continue the positive development of providing justification for why a resource type has a unique counting criterion.

In its previous comments, PG&E suggested that the CAISO should take this initiative as an opportunity to provide a justification for why a resource type has a unique counting criterion. In its Second Revised Straw Proposal, the CAISO explained the reason for a four hour test for Non-Generator Resources (NGR) as opposed to Pmax. As NGRs are limited in their ability to provide a sustained output due to the need to recharge their fuel source, the CAISO believes a four hour test is needed to understand the resource's ability to provide four hours of continuous output at its maximum discharge capability. PG&E agrees with this justification and suggests that the CAISO include this justification in its tariff or in a Business Practice Manual.

7. PG&E supports the general principle of using an hourly load forecast to remove the need for a coincidental adjustment factor.

In the CAISO's Regional Resource Adequacy Second Revised Straw Proposal, the CAISO proposes that all LSEs provide the ISO with mid-term (one year forward) hourly load forecasts. The CAISO argues that these hourly forecasts will allow the ISO to develop a load forecast aggregation methodology that will allow the ISO to determine the system-wide coincident peak as well as each LSE's contribution at the system peak for each LSE. PG&E supports the general principle of using an hourly load forecast. PG&E agrees that this approach would eliminate the need to develop a specific coincidence factor methodology.