



Stakeholder Comments

Resource Adequacy Enhancements – Working Group on June 10, 2020

Submitted by	Organization	Date Submitted
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PG&E appreciates the CAISO hosting a working group to help stakeholders better understand the basis of the proposed portfolio assessment, possible transition paths to an Unforced Capacity (UCAP) paradigm, and UCAP evaluations for different resource types in advance of its Resource Adequacy Enhancements (RA) Fifth Revised Straw Proposal.

1. Production Simulation: Determining UCAP Needs and Portfolio Assessment

PG&E applauds the CAISO for looking at different ways to assess system need while leveraging – as appropriate – existing frameworks and tools. PG&E encourages the CAISO to continue driving internal consistency in the RA program. PG&E looks forward to growing consistency in the objectives, assumptions, logic, and design of the various reliability studies, working to determine clearly defined and transparently understood reliability needs and well as the CAISO actions that result from identified needs.¹

The CAISO has an opportunity with this new portfolio assessment, and indeed in this initiative broadly, to be more transparent in its decision-making; for example, the decision to backstop. The CAISO stated on slide 15 that ‘based on the output of initial tests, the CAISO will identify criteria for Capacity Procurement Mechanism designations’. PG&E asks the CAISO to help market participants understand the reliability basis for declaring and backstopping system portfolio insufficiencies. PG&E also asks whether criteria will be expressed in terms of minimum Unloaded Capacity Margin and will be verified by an LOLE study.

¹ Please see PG&E’s comments at http://www.caiso.com/InitiativeDocuments/PG_ECommentsResourceAdequacyEnhancements-ThirdRevisedStrawProposal.pdf, 2, 3.

2. Transitioning to UCAP Paradigm

The CAISO proposes two options for how it would label the proposed Unforced Capacity. Option 1 – designed to address a stakeholder concern regarding existing contracts – would replace the existing Net Qualifying Capacity (NQC) with the term Deliverable Qualifying Capacity (DQC). This way, DQC adjusted for availability could be named NQC (instead of UCAP). Option 2 would keep NQC as it is and use the term UCAP for the value reflecting the adjustment for availability. PG&E has concerns with the meaning of NQC changing over time and the confusion it could create.

PG&E supports the CAISO’s proposal to implement non-binding UCAP requirements in the RA year preceding binding requirements. This will provide important information and lessons to Load Serving Entities and promote alignment of reliability requirements between regulators.

PG&E encourages the CAISO RA Enhancement policy team to begin engaging its implementation personnel early and often, if it hasn’t already, to successfully keep pace of intended timelines and preserve the non-binding year. PG&E appreciates that in many ways the CAISO is looking to simplify its RA design, but notes that resource-level assessments can add substantial complexity and present many issues, e.g., the RA Availability Incentive Mechanism (RAAIM).

3. Unforced Capacity Evaluations

New “Urgent” outage type

The CAISO proposes to introduce a new “Urgent” outage type to better align CAISO Balancing Authority Area outage reporting to its CAISO Reliability Coordinator (RC) outage reporting requirements. Aligning standards in general is good but many market participants may not be familiar with the RC requirements and asks the CAISO spend time on this topic. PG&E asks what benefits are gained with the introduction of the “Urgent” outage type and how this would affect the outage reporting of scheduling coordinators. Additionally, timing is currently the only factor determining whether an outage is forced or planned, which is a clear criterion. It’s important to understand how “Urgent” is defined and quantified. For example, the vague descriptor “increased risk” points to a need for discussion and better understanding.

- a. UCAP methodology: Seasonal availability factors topic as described in slides 27-46.

Seasonal Average Availability Factors

The CAISO proposes to calculate Seasonal Average Availability Factors using the top 20% of tightest supply condition hours for each season. PG&E notes that the proposed definition of supply tightness is not an objective metric. Instead, it is relative to other hours. The CAISO should consider the merits of an objective reliability metric; that is, determining whether an hour is an availability assessment hour (AAH) based on a clear metric of supply tightness and

supported by data analysis. This metric should be tied to the planning reserve margin or represent an RA margin akin to and more consistent with the Unloaded Capacity Margin in the portfolio assessment. An ancillary benefit of this approach is that resource owners would be aware of their performance on a continual basis, rather than only once the year has passed. If the CAISO maintains a fixed quantity of assessment hours, the approach should be calibrated such that the Loss of Load Expectation is apparent.

The proposal represents a substantial increase in assessment hours for most RA capacity. The CAISO notes that the proposal to assess 20% of hours each season is based on RAIM. However, the 5-hour assessment window for system and local RA applies to weekdays and non-federal holidays. A comparable assessment would be closer to 15%. Again, the CAISO should support its selection of 20% (or any AAH choice) with rigorous data analysis. The analysis should indicate that the AAHs are tied to a clear reliability need. Transparency and understanding are important and support a scheduling coordinator's ability to operate resources effectively.

Finally, PG&E asks why the proposed Peak window for purposes of UCAP is May through September, while the proposed Peak window for its Planned Outage proposal Option 1 is June through October.

- b. UCAP methodologies for non-conventional generators topic as described in slides 47-59.**

Demand Response

PG&E generally supports the approach taken for demand response (DR) of considering a resource's availability and historical performance over the prior three years. In fact, it is comparable to how PG&E estimates DR's ex ante impacts today – however, the ex-ante impacts consider historical performance adjusted by weather and future enrollment changes. DR's deliverability (relative to its capacity) is time-dependent and may be weather-sensitive. Accordingly, PG&E recommends the CAISO's model consider time and weather, or there could be unnecessary discrepancies between the delivered capacity to the CAISO and the capacity adopted by the CPUC. Ignoring time-dependency and weather-sensitivity could discourage resources from being dispatched frequently. For example, if the hour or the weather is not optimal for a resource to deliver as much as its capacity, the resource may bid at a very high price to avoid being dispatched which would result in low deliverability. This consequence may go against the CAISO's desire that DR should be "used and useful".

PG&E also recommends that this model not only apply to the scheduling coordinator but also the program and entity. As each of PG&E's programs has different weather sensitivity and availability, per their CPUC tariffs, PG&E recommends availability be addressed by programs. The CAISO may also want to consider a demand response provider-level (DRP) availability, as some scheduling coordinators represent multiple DRPs. Lastly, PG&E recommends the CAISO provide clarity and some examples of how the last three years of performance would be calculated if the weighting examples do not apply to DR.

Non-Generator Resource

The CAISO proposes a non-generator resource-specific (NGR) UCAP assessment. PG&E requests a more detailed description and calculation examples, including a better understanding of the NRG assessment window. Additionally, PG&E asks why the CAISO proposes to consider derates to the charge portion of a resource if the resource can still provide full discharge and any such limitation would be reflected in a future hour, depending on the state of charge of the resource. Similarly, PG&E asks the CAISO to more fully explain the treatment of the End-of-Hour State of Charge parameter, as it could impact resource availability in a future hour.

Additional comments

None