



Comments of Pacific Gas & Electric Company Resource Adequacy Enhancements – Fourth 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 Corporation’s (CAISO) Resource Adequacy (RA) Enhancements – Fourth Revised Straw Proposal (the Proposal), published March 17, 2020, and discussed in the stakeholder meeting on March 24.

PG&E appreciates the CAISO endeavoring to respond to stakeholder requests; particularly the request for more robust analysis. However, rather than splitting the proposal to allow more time for some of those analyses, the CAISO should take the time that it needs to fully develop a harmonized proposal.

PG&E would like to reiterate its guiding principles for RA reform:

- Simplicity – for reasons of compliance, staffing, and alignment with the California Public Utilities Commission (CPUC)
- Focused scope and clearly defined rules to support compliance, operation, and forward sales
- Reflect physical reality – the reliability need and resource capability
- Achieve reliability fairly – avoid leaning, cost shifting, and over procurement
- Provide the proper incentives for RA to offer and at reasonable prices

PG&E appreciates and broadly supports the CAISO’s own design principles, though some distance remains between the sets of principles and the proposal.

PG&E’s comments can be summarized as follows:

1. PG&E is concerned by the possibility of some Load Serving Entities leaning on others, driven by gaps between stated up-front RA requirements and the portfolio assessment, but offers support in principle for the use of stochastic modeling.
2. PG&E recommends planned outage treatment receive more focused development. It opposes Option 1 and Option 2.
3. PG&E urges the CAISO to focus on establishing non-recallability protocols with other Balancing Authority Areas in the West and supports Energy Division’s import RA proposal in the CPUC RA Proceeding, Track 1.
4. The CAISO should maintain backstop design aligned with the CPUC and its own various incentive structures.
5. PG&E asks the CAISO to take the time it needs to fully develop each revision of the proposal.

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1. PG&E is concerned by the possibility of some Load Serving Entities leaning on others, driven by gaps between stated up-front RA requirements and the portfolio assessment, but offers support in principle for the use of stochastic modeling.

PG&E is concerned by the relationship between the up-front system RA requirement and the system RA portfolio assessment

PG&E is concerned that the proposed system RA portfolio assessment creates an unknowable “shadow requirement” that sits behind and may diverge from the up-front requirement. This “shadow requirement”, which is energy-based, appears to represent the CAISO’s *actual* system reliability requirements. While it is not binding to the individual Load Serving Entities (LSEs), deficiencies in their respective RA showings may drive portfolio assessment deficiencies and backstopping. Those costs would then be socialized. PG&E asks the CAISO to address this concern comprehensively and to the satisfaction of market participants.

PG&E appreciates that the CAISO is looking to create a path from the existing capacity-based RA paradigm to an energy-based one and that this is difficult. However, the problem of LSE leaning while transiting that path needs to be addressed. For example, LSEs could show large amounts of Effective Load Carrying Capability (ELCC)-based Unforced Capacity (UCAP), Demand Response UCAP or other RA capacity that satisfies their share of the up-front capacity-based system RA requirement but drives a portfolio assessment energy-based deficiency because of shown capacity’s inability to contribute to system reliability in hours outside of the peak load window. The CAISO does briefly mention in the Proposal that revised CPUC Maximum Cumulative Capacity (MCC) buckets and coordination with other Local Reliability Authorities (LRAs) may help “pre-specify resource requirements”. However, this is unclear. Also, it is unclear how necessary attributes like ramping and load-following will be appropriately reflected in the up-front requirements. PG&E reiterates that the CAISO should address these concerns comprehensively. Achievable standards must be established up-front at the CPUC to provide the appropriate market signals. This mitigates the concern of LSEs procuring to a capacity-based requirement in one venue and being evaluated under an energy-based requirement in another venue.

PG&E supports stochastic modeling in the proposed portfolio assessment but has concerns and asks several questions

In previous comments, PG&E stressed the importance of consistent assumptions, logic and design in the CAISO’s reliability studies.¹ PG&E supports a stochastic modeling approach in the portfolio assessment that is aligned with other studies; in this instance, the annual Summer Loads and Resources Assessment. The CAISO has also shown a desire to align data sources, stating, for example, that while it will begin with its own 1:2 load forecast, it will move towards using the same data set as the California Energy Commission (CEC).

PG&E supports the CAISO in further developing this modeling approach, satisfying stakeholder concerns, and answering key questions before seeking tariff changes. For example, the CAISO should:

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

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1. Thoroughly explain and justify all aspects of the model, including how it differs from the Summer Assessment and why. This includes the assumptions and optimization of use-limited hydroelectric resources, renewable resources, storage and imports.
2. Coordinate with the CPUC and CEC on a common set of hourly load profiles; and
3. Determine the definition of a capacity shortfall and establish this up-front and consistently across all LRAs, ideally consistently with the Integrated Resource Plan.

Additionally, PG&E asks the following:

- How will the UCAP requirement relate to the portfolio assessment, as Net Qualifying Capacity (NQC) is used in the Summer Assessment and will apparently be used in the stochastic modeling of the portfolio assessment?
- The CAISO had previously stated that stochastic modeling would take too long when choosing net load deterministic modeling. Why is this no longer a concern?
- In the net load deterministic model, solar and wind *were not* must-take, but appear to be so in the stochastic model. If so, could this not be problematic, particularly when modeling hourly resource commitment?

PG&E reiterates its request that the CAISO demonstrate how its proposed portfolio sufficiency test would have resulted in Capacity Procurement Mechanism (CPM) designations using past annual and monthly showings.² This would help market participants understand how the CAISO's chosen stochastic modeling option will define, determine, and address deficiencies, as contrasted with how the current approach has assessed the same circumstances. This analysis would also promote a healthy discussion of the key objectives, assumptions, design principles, as well as the CAISO discretion in backstop procurement.

The CAISO should coordinate with the CPUC and other LRAs

Close coordination and full alignment with the CPUC is critical to creating a program that is feasible to implement. The CAISO should make the case to the CPUC and other LRAs that the proposed portfolio assessment sitting behind the up-front requirements is workable and address any concern that this approach may not align with up-front procurement requirements.

2. PG&E recommends planned outage treatment receive more focused development. It opposes Option 1 and Option 2.

PG&E supports a planned outage process that provides outage certainty and accurately reflects the system need. However, PG&E sees challenges with both Option 1 and Option 2.

² Examples of possible study cases: In July 2019 no Collective Deficiency was determined for Humboldt and no designation made, though a significant need quickly arose with successive Exceptional Dispatch CPMs; also, the October 1, 2018 Significant Event at http://www.caiso.com/Documents/October_1_2018_Significant_Event_CPM_Designation_Report.pdf.

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The current planned outage process is complex and reform requires more focused development and significant stakeholder input. Since its design is not contingent on a UCAP framework or necessarily other elements of this initiative, it would likely benefit from its own workstream, as PG&E has suggested in past comments.³ PG&E is working on an alternative approach and plans to reach out to the CAISO and other parties to build support for a workable solution that achieves the objectives of simplicity and clearly defined rules to support compliance and the reliability need.

PG&E opposes Option 1

The usefulness of an exaggerated UCAP requirement in off-peak months inclusive of an “outage reserve margin” seems dubious. In the examples provided, it seems clear that the reliability assessment overrides the previously set reserve margins. This is illustrated by the proposal to permit outages in excess of the outage reserve margin if they satisfy the reliability assessment.

Additionally, this new Option 1 appears to raise the same concern that was deemed fatal to the Option 1 in the prior proposal; namely, it appears to create an incentive to submit outages as early as possible to avoid a substitution obligation. In the previous Option 1, the incentive began immediately following the T-45 showings. While this new Option 1 may not have a bright line at T-45, there still appears to be the incentive to submit outages early and perhaps even in excess of need to lock in priority and maintain optionality.

PG&E also asks how the reliability assessment will determine whether a planned outage is allowable before the RA monthly requirements are established at T-60 or LSE RA plans are submitted at T-45.

Finally, Option 1 appears to present issues in evaluating and approving multi-day outages.

PG&E opposes Option 2

PG&E has previously advocated that the CAISO procure required substitute capacity on behalf of market participants and appropriately allocate the costs. Some version of the proposed marketplace could be part of the solution. However, it would be important to clearly characterize procured capacity as outage substitute capacity in the operational timeframe as neither CPM capacity nor RA capacity. This should limit jurisdictional issues by clarifying the division and transition between the CPUC (earlier than T-45) and the CAISO (after T-45); particularly if the CAISO were to eliminate annual local CPM authority.

PG&E is concerned that the marketplace, as proposed, could be messy, particularly when it comes to assessing and pricing substitution for outage requests spanning multiple days, as well as its interaction with the existing CPM Competitive Solicitation Process. How will the daily outage substitution process work if the CAISO isn't considering multi-day assessments? Must each day clear separately for the outage to be approved?

³ Please see PG&E's comments at <http://www.caiso.com/InitiativeDocuments/PGEComments-ResourceAdequacyEnhancements-RevisedStrawProposal.pdf>, 4.

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Finally, as with Option 1, PG&E asks how the CAISO will determine whether a planned outage is allowable before the RA monthly requirements are established at T-60 or LSE RA plans are submitted at T-45.

3. PG&E urges the CAISO to focus on establishing non-recallability protocols with other Balancing Authority Areas in the West and supports Energy Division’s import RA proposal in the CPUC RA Proceeding, Track 1.

PG&E does not support the CAISO’s proposal for RA imports. Instead, PG&E encourages the CAISO to focus on establishing non-recallability protocols with other Balancing Authority Areas (BAAs) in the West. In the near term, RA imports should either be self-scheduled or bid in with a very low bid cap, as PG&E has supported at the CPUC.

The CAISO should focus on establishing non-recallability protocols with other BAAs in the West

The CAISO should focus on non-recallability agreements between BAAs and include pseudo ties and dynamic scheduling. If these agreements require firm transmission rights, then they should be required. If not, firm transmission should not be required.

PG&E supports Energy Division’s import RA proposal in the CPUC RA Proceeding, Track 1

PG&E supports the CPUC Energy Division staff’s (“ED staff”) proposed clarifications to the existing rules and requirements and further enhancements for import RA.⁴ PG&E reiterates in part its comments submitted into that proceeding below and directs the CAISO to its full comments.⁵

ED staff’s proposal largely mirrors the current CPUC requirements, with several important clarifications, including a non-resource-specific option with requirements for: (1) fixed energy prices without curtailment, (2) delivery or self-scheduling of energy into the CAISO day-ahead and real-time markets, (3) delivery of energy during the CAISO’s existing availability assessment hours and consistent with the CPUC’s MCC buckets, and (4) delivery of energy that is not sourced from resources internal to the CAISO BAA.⁶ These clarifications and further enhancements result in improvements to existing import RA rules that will address pressing issues, including the sale of paper capacity that is not backed by any particular resource (also referred to as “speculative supply”) and bidding strategies that rely on loopholes in the RA program to bid at high prices, including at or near the bid cap, that are unlikely to result in CAISO market awards for the dispatch of energy. An import specific bid cap that is \$0/MWh or low would address parties’ concerns regarding the delivery of energy when prices are negative.

⁴ *Administrative Law Judge’s Ruling on Energy Division’s Track 1 Proposal*, dated February 28, 2020, Appendix A (*Energy Division Resource Adequacy (RA) Import Proposal for Proceeding R.19-11-009*), p. 5.

⁵ California Public Utilities Commission Rulemaking 19-11-009, *Comments of Pacific Gas and Electric Company (U39 E) on Track 1 Proposals*, dated March 6, 2020, at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M329/K216/329216623.PDF>.

⁶ *Administrative Law Judge’s Ruling on Energy Division’s Track 1 Proposal*, dated February 28, 2020, Appendix A (*Energy Division Resource Adequacy (RA) Import Proposal for Proceeding R.19-11-009*), p. 5.

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PG&E disagrees that firm transmission is necessary for import RA

A firm transmission requirement could result in only a few market suppliers making import RA available due to market power associated with firm transmission rights. Transmission holdings should not be used as a lever to exercise market power in the capacity market. PG&E believes it is not appropriate to require firm transmission for import RA until the appropriate mechanisms are in place to mitigate any market power.⁷

4. The CAISO should maintain backstop design aligned with the CPUC and its own various incentive structures.

PG&E's primary concern is misalignment with the CPUC and asks the CAISO to consider the interaction between its proposals, including the UCAP deficiency tool, and the discussions ongoing in the RA proceeding.

The CAISO has left its backstop provisions proposal largely unchanged. For this reason, PG&E directs the CAISO to its previous comments.⁸ These comments include opposition to an implied UCAP CPM soft offer cap higher than the current \$6.31/kW-month for NQC.

PG&E also reiterates that the CAISO should carefully consider the interplay between the various, overlapping incentive structures. For example, the proposal for the UCAP deficiency tool is that LSEs committing capacity above their obligation will not receive any incentive payment if no LSEs are deficient, and that any incentive payment would also be capped at the CPM soft offer cap; with the collective penalties of deficient LSEs in turn capped at this maximum incentive payment. This appears to diminish the incentive to showing more capacity and disincentive to being deficient. LSEs will consider the trade-offs of committing capacity above their requirement and holding capacity to either bid into the CSP, bid into the planned outage Option 2 marketplace, or to avoid unreasonable standard bidding obligations.

The CAISO should explain the need for various CPM designation authorities

PG&E asks the CAISO to explain the continued need for annual CPM designations, whether for system or local RA, whether for UCAP or NQC. PG&E does not understand the need for system RA annual deficiency CPM authority since, as stated in the proposal, the CAISO cannot act on the current 90% annual showings requirement.⁹ Further, PG&E does not understand the need for the authority to designate system RA CPM capacity for an NQC need since the system requirement is a UCAP requirement. Moreover, unlike the current proposal for local RA, the system RA requirement is not even derived from an NQC requirement.

⁷ California Public Utilities Commission Rulemaking 19-11-009, Comments of Pacific Gas and Electric Company (U39 E) on Track 1 Proposals, dated March 6, 2020, at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M329/K216/329216623.PDF>.

⁸ Please see PG&E's comments at http://www.caiso.com/InitiativeDocuments/PG_EComments-ResourceAdequacyEnhancements-ThirdRevisedStrawProposal.pdf, 7.

⁹ The Proposal, at <http://www.caiso.com/InitiativeDocuments/FourthRevisedStrawProposal-ResourceAdequacyEnhancements.pdf>, 9.

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5. PG&E asks the CAISO to take the time it needs to fully develop each revision of the proposal.

The CAISO stated that one of the main reasons that the RA Enhancements proposal was again split into two parts was to allow for the additional time necessary to collect data, analyze and effectively present the robust analyses that stakeholders requested in support of certain elements of the proposal. PG&E appreciates the CAISO endeavoring to respond to this important stakeholder request. However, rather than splitting the proposal, perhaps to meet the publication deadlines it itself sets, the CAISO should take the time that it needs to fully develop a harmonized proposal. This would save time and effort on everyone's part.