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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee
the Resource Adequacy Program, Consider
Program Refinements, and Establish Forward
Resource Adequacy Procurement Obligations.

Rulemaking 19-11-009
(Filed November 7, 2019)

**COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON THE
ORDER INSTITUTING RULEMAKING TO OVERSEE THE RESOURCE
ADEQUACY PROGRAM**

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Pursuant to the Order Instituting Rulemaking (“OIR”) initiating this proceeding, issued by the California Public Utilities Commission (“Commission”) on November 13, 2019, Pacific Gas and Electric Company (“PG&E”) provides its initial comments, as requested in the OIR.

Below, PG&E discusses several refinements to the current resource adequacy (“RA”) program that it recommends the Commission adopt beginning with the 2021 RA year. PG&E suggests that the Commission establish multiple tracks or workstreams to appropriately prioritize and consider these refinements in a timely manner. PG&E’s comments below are organized by order of priority, with “Track 1” items indicating extremely time-sensitive refinements, “Track 2” items indicating more complex and slightly less time-sensitive modifications and refinements, and “Track 3” items indicating other modifications and refinements not already addressed in Tracks 1 and 2. PG&E also offers a proposed timeline for each Track in the comments below.

I. PROPOSED REFINEMENTS TO THE CURRENT RESOURCE ADEQUACY PROGRAM

A. TRACK 1 – ITEMS TO BE CONCLUDED BY THE END OF MARCH 2020

1. Mechanisms to Ensure the Right Mix of Resources (e.g. Maximum Cumulative Capacity Buckets)

PG&E recommends consideration of modifications to the maximum cumulative capacity (“MCC”) buckets in an expedited Track 1 to ensure the Commission can address resource mix issues that may arise in the Integrated Resource Plan (“IRP”) proceeding (Rulemaking 16-02-007)

procurement track solicitations that are ongoing in response to Decision 19-11-016 (“IRP capacity procurement”). In the IRP proceeding, the California Independent System Operator Corporation (“CAISO”) presented a stack analysis that showed that the peak hour shifts from hour ending 17 to hour ending 18 in 2022, with a significant need extending into hour ending 19.¹ While the CAISO analysis and comments both suggested that IRP capacity procurement should prioritize resources that can provide generation in the later evening hours,² the final decision, Decision 19-11-016, relies on existing RA qualifying capacity (“QC”) counting rules to determine if a resource qualifies.³ This means that availability-limited resources, such as solar-only or demand response, could count under the existing rules, even if the resource does not address the needs of the later hours. For this reason, it is important that the Commission expedite consideration of mechanisms that can prevent unlimited amounts of the IRP capacity procurement coming from resources that do not address reliability needs in later evening hours.

In particular, PG&E recommends considering a cap on operationally constrained capacity. In other words, capacity that is unable to bid above zero in all hours should only be allowed to be shown up to a predetermined cap. The RA construct currently includes binding requirements for geography (local RA) and some resource attributes (flexible RA), but the only limitation on time of delivery is related to contractual constraints (MCC buckets), which need to be expanded to effectively address future capacity issues. Significant volumes of availability-constrained generation have been added to the system – and more is on the horizon – necessitating an update to the RA paradigm to ensure that evolutions in the power mix also support system reliability.

¹ See Rulemaking 16-02-007, *Reply Comments of the California Independent System Operator Corporation*, dated August 12, 2019, pp. 10-11.

² *Id.*, p. 12.

³ See Decision 19-11-016, *Conclusions of Law 2*, 26.

2. Qualifying Capacity Counting Rules for Third-Party Demand Response Resources

PG&E recommends that consideration of QC counting conventions and requirements for third-party demand response resources be included in Track 1 if these resources are included in the IRP capacity procurement. Not having a well-established process for including third-party demand response resources in the load-impact protocol evaluations makes it more challenging to value these projects. Thus, clarification of capacity eligibility and accounting rules may be necessary. For these reasons, PG&E recommends that Track 1 address QC counting issues for third-party demand response.

B. TRACK 2 – ITEMS TO BE CONCLUDED BY THE END OF JUNE 2020

1. Qualifying Capacity Counting Rules for Hydroelectric Resources

PG&E recommends consideration of QC counting conventions and requirements for hydroelectric resources be included in Track 2, with an anticipated completion date of end of June 2020. The Commission should seek better alignment of the net qualify capacity value a particular resource with that resource's ability to generate when required by the CAISO. This has become an issue for hydroelectric resources. The timing of this is also important given power charge indifference adjustment ("PCIA") working group 3 deliberations in Rulemaking 17-06-026 and potential resource allocation in 2020. Should the PCIA allocation occur, changes to hydroelectric accounting after the allocation could present problems for LSEs in meeting their 2021 RA showings. Some options to consider for hydroelectric resources are a mechanism to permit mid-year adjustments in any hydro year that varies by a certain percentage from average and an exceedance approach.

2. Overall Enhancements to Effective Load Carrying Capacity Methodology, Including Timeline/Schedule, Advisory Values, Etc.

PG&E supports further consideration in Track 2 of the effective load carrying capacity ("ELCC") methodology to address issues identified in previous proceedings. These include:

- Granularity: PG&E has previously supported calculation of ELCC values on a more granular level (e.g., by technology and location). This is because wind and solar production depend on local weather, and, consequently, more granular calculations regarding technology type and location in northern or southern California may be in order.
- Marginal v. Average: Marginal versus average ELCC values have been discussed at length previously without resolution.
- Accuracy v. Certainty: There must be a balance struck between certainty of a resource counting for compliance purposes and accurate counting of a resource's contribution to reliability. PG&E believes that there should be some certainty regarding the reliability contribution of a resource for a specified period into the future (e.g., 3 years), but there must also be recognition that a resource's contribution to reliability changes as the system portfolio mix changes. Consequently, the Commission should consider in Track 2 adopting ELCC values for a fixed period, followed by recalculation.
- Indicative Future Values: In addition to or in lieu of established values for some set period, procurement certainty could potentially be enhanced if indicative future QC values could be provided.

3. Review of Market Power Mitigation Mechanisms, Compliance Penalties, and RA Waivers

PG&E recommends that changes to market power mitigation mechanisms, compliance penalties, and the RA penalty waiver process also be addressed in Track 2 to inform 2021 RA showings. There is increasing evidence that the RA market is tightening. The Energy Division

Report concluded this⁴ and the increase in the number of penalty waiver requests served on October 31, 2019 supports this finding.⁵ In light of the market conditions, a review of the market power mitigation mechanisms, compliance penalties, and RA penalty waiver process for the 2021 showing is warranted.

4. Behind-the-Meter Resources

It is possible that some load serving entities (“LSEs”) may be looking to meet IRP procurement requirements with behind the meter (“BTM”) resources, like BTM solar and storage, for RA purposes. PG&E has concerns regarding the use of BTM resources to address capacity needs. Since BTM resources are not visible to the CAISO or under its operation control, it is unclear how effective they can be in addressing reliability concerns. Further, BTM resources that are backed up by front of the meter resources calls into question the basis for setting LSEs’ RA requirements. Lastly, many BTM resources may seek to use existing incentive programs or tariffs in their bids for IRP capacity procurement. This necessitates establishment of rules to clarify how these incentives can be used for projects benefiting specific LSEs, when all customers may pay for these incentives. PG&E believes these issues must be addressed in Track 2 before BTM resources can be counted for RA purposes.

C. TRACK 3 – ITEMS TO BE CONCLUDED BY THE END OF JUNE 2021

1. Examination of RA Structure to Address Energy Attributes and Hourly Capacity Requirements

PG&E recommends consideration in Track 3 of potential changes to the RA program that are necessary to reflect the evolving nature of resources being added to the system. Many of these resources have limitations on their availability to produce energy to meet load. For example, wind,

⁴ See *Assigned Commissioner’s Ruling on Energy Division’s Resource Adequacy State of the Market Report*, dated September 3, 2019, Appendix A - *The State of the Resource Adequacy Market* (“Energy Division Report”). p. 20.

⁵ In total, 19 LSEs served Tier 2 Advice Letters requesting waivers of local RA penalties on the service list in Rulemaking 17-09-020 on October 31, 2019.

solar, storage, and demand response are playing ever greater roles in meeting reliability, but all present unique reliability issues. Wind and solar resources can only be counted on for reliability when the wind blows and the sun shines. Storage is not a source of energy but, in fact, consumes energy to make it available at a different time. Demand response only provides capacity as a change in the consumption pattern. The existing RA program is not well-suited to address all of the issues presented by these resources because it was designed on a capacity basis, with the assumption that resources needed to meet peak requirements will be available to meet load in all other hours of the year. The resource-specific issues highlighted above underscore the need to modify the RA program to ensure the “right” resources are available to meet loads when availability limits prevent other resources, like wind and solar, from operating.

One way to address this issue would be to have different capacity requirements based on load and only have available resources able to count to meet those load requirements. For instance, the Commission could adopt a net-load consumption peak that only allows resources that can be available at that time to count for their contribution to meeting that peak. PG&E believes the Commission should address this in Track 3 of the proceeding, with the possibility that Track 3 run concurrently with Track 2.

2. Evaluation of Local Capacity Technical Study for Determining Local RA Requirements

PG&E believes that the local RA process suffers from the same issues described above that are reflected in the changing resource mix on the system, as well as an outdated methodology to calculate the need for capacity to address every local contingency. In particular, the local RA process examines recovery from the most serious N-1-1 contingency under a 1-in-10 load scenario and assumes that all resources available to meet that contingency are also available to meet any other contingency that may occur at any other time. As the resource mix continues to include greater availability-limited resources, it is unclear whether this assumption is the best way to

ensure local reliability. PG&E believes this area requires significant consideration and evaluation by the Commission and should be scoped into Track 3.

3. Expansion of Multi-Year Requirements to System and Flexible RA

PG&E believes there is a need to coordinate between the RA proceeding and the IRP proceeding, particularly on system RA issues. The IRP procurement track has highlighted significant cross-over between the two proceedings that has not been discussed to date. For instance, the multi-year forward requirements for local RA have required capacity procurement into 2022, and the IRP requires some new capacity to be on-line by August 1, 2021. Consequently, the new capacity required by 2021 will be unable to meet local procurement requirements that have already been shown. To the extent that new procurement can meet both system and local needs, there should be greater incentives to do so. Extending multi-year requirements to system RA should be considered as part of the larger IRP / RA coordination question. The Commission should therefore scope into this proceeding coordination between the RA and IRP proceeding, as part of Track 3.

In terms of flexible RA, PG&E believes that a durable paradigm is a necessary precondition for adopting multi-year requirements for flexible RA. Flexible RA is still operating under an interim definition and requirements. Extending flexible RA to a multi-year forward requirement therefore risks market disruption and potentially stranded flexible capacity, should a durable paradigm be adopted after these requirements are established. Consideration of a permanent definition and requirements for flexible RA should be included in Track 3 if the Commission wishes to extend flexible requirements forward.

4. Permanent Qualifying Capacity Counting Rules for Hybrid Resources

The Proposed Decision Granting Motion Regarding Qualifying Capacity Value of Hybrid Resources with Modifications, mailed November 26, 2019 (“PD”) charts a course for addressing near-term hybrid accounting rules and states that permanent accounting rules will be addressed in

