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**PG&E Comments on the final Supply Side Demand Response QC
Proposals**

Additional submitted attachment is included below.

October 17, 2022

California Energy Commission
517 P Street
Sacramento, CA 95814
Docket Number 21-DR-01

RE: Pacific Gas and Electric Company Comments on the final Demand Response Qualifying Capacity Proposals (Docket Number 21-DR-01)

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to participate in the California Energy Commission (CEC)'s stakeholder working group on demand response (DR) as requested by the California Public Utilities Commission (CPUC) in Decision 21-06-029 (Rulemaking 19-09-001). PG&E also appreciates the opportunity to comment in response to the five final proposals for the Demand Response (DR) Qualifying Capacity (QC) methodology for implementation in the 2023 Resource Adequacy (RA) compliance year, posted on the docket (Docket Number 21-DR-01)¹ on September 28, 2022.

PG&E offers the following responses:

1. Discuss your organization's position on each of the five proposals (i.e., support or oppose and why) and the extent to which each proposal does or does not meet the principles.

1. California Efficiency + Demand Management Council (CEDMC): Incentive-Based Method DR Counting Methodology Proposal

Unlike the Load Impact Protocols (LIP), the CEDMC proposal places "a majority of the rigor on the actual performance" of the DR resources by incorporating a penalty mechanism.²

PG&E does not support CEDMC's proposal because it does not shed much light on how the year-ahead QC should be set and solely relies on an after-the-fact settlement penalty structure to incentivize performance. Fundamentally, the CEDMC proposal merely resembles a settlement method that applies to the contracting of DR resources rather than a QC method applicable for resource planning purposes. PG&E believes this proposed method threatens reliability because it lacks the analytical rigor necessary for resource planning.

¹ CEC Docket Log: [California Energy Commission: Docket Log](#)

² CEDMC Proposal, p. 4. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=246235&DocumentContentId=80417>

Additionally, PG&E believes the proposed penalty structure is too lenient for underperformance. For example, CEDMC proposes that there should be no penalty unless the resource's performance drops below 50 percent of the QC.³

While PG&E proposes a similar penalty structure for the Capacity Bidding Program (CBP) in its DR 2024-2027 application, the CBP program is not exempt from the LIP process in determining the QC. PG&E's proposed CBP penalty structure has no direct bearing on the program's QC value. While the CEDMC method may be easy to calculate, PG&E has the following concerns:

- The relationship between the ex-ante impacts and historical performance is not transparent;
- The demonstrated performance is based on the best hour⁴, which is highly upward biased and inconsistent with other QC methodologies; and
- The use limitations, availability limitations, and variability in load impacts are not explicitly accounted for in determining the QC, which is likely to result in inconsistent measurement across DR providers.

II. OhmConnect Proposal: Simplified LIPs Proposal

The OhmConnect proposal aims to winnow down the LIP requirements to those that OhmConnect considers necessary for the determination of the QC of supply-side DR resources.

PG&E does not oppose simplifying or even eliminating certain LIP requirements for event-based resources to streamline the process. However, PG&E believes that certain protocols, which OhmConnect proposes to eliminate, are still required. These protocols include:

- Protocol 1 (evaluation plan) is necessary for an evaluation, regardless of whether it's the demand response provider's (DRP) first evaluation or whether material changes to the resource are expected. If the evaluation plan is not different from the previous one, it would not take much effort to update the plan for the current year.
- Protocols 12 through 16 do not apply to supply-side DR resources and should be retained for non-event-based DR resources as originally intended.
- Protocol 25 concerns portfolio adjustment in that resources should not be double counted in the case of dual participation. Some Investor-Owned Utilities (IOUs)'s DR programs have dual participants. Protocol 25 should be kept to address any double counting.

In addition, PG&E clarifies that OhmConnect does not propose a new DR QC methodology; instead, it suggests largely maintaining LIPs, which PG&E supports. By simplifying certain protocols, the proposal reduces barriers to participation in the resource adequacy program.

III. California Large Energy Consumers Association (CLECA): Proposal for DR Resource Counting for Slice-of-Day

The CLECA proposal estimates expected DR load reduction for an hour by incorporating DR performance history and weather conditions, if applicable, allowing DR load profiles to vary by hour. PG&E finds that the CLECA proposal is reasonable and meets most of the DR QC principles.

³ CEDMC Proposal, p. 9. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=246235&DocumentContentId=80417>

⁴ CEDMC Proposal, p. 6. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=246235&DocumentContentId=80417>

However, PG&E does not agree with CLECA’s proposal to retain the planning reserve margin (PRM) adders. The reasons are discussed in the response to question five (5) below.

IV. Demand Side Analytics (DSA) Proposal

The DSA proposal retains the LIP to a large extent but makes some modification to produce hourly DR impacts that are compatible with the Slice-of-Day (SOD) framework. PG&E supports DSA’s proposal and finds that it meets the vast majority of the QC principles. (See further discussion in Section 2 below.) PG&E believes that the DSA proposal offers a viable and transparent methodology where the QC determination is grounded in ex-post impacts and can account for the characteristics, variability, and use-limitations of DR resources in the SOD framework.

V. California Energy Commission (CEC) Hourly Regression Capacity Counting Methodology for Supply-Side DR

The CEC proposes an hourly regression capacity counting methodology that sets up a highly standardized modeling approach while allowing flexibility in the ex-ante projection to account for changes in enrollment and customer composition.⁵

PG&E has concerns about the CEC Proposal because the QC, which is mostly based on historical bids, may overstate the true impact available for the hour. The proposal uses bids and actual reduction (if events were called) as input for the ex-post analysis. Over the course of a season, there will be more hours with only bids than hours with actual performance data, because DR is a use-limited resource. Bids typically reflect the resource’s capability in a single-hour event, which likely over-estimates the actual load impact of a multi-hour event. That is, bids may not account for impact decay during a multi-hour event. As a result, the bid-dominated ex-post analysis is likely to overstate the true impacts. The upward biased ex-post analysis may, consequently, lead to an inflated QC.

Moreover, PG&E believes that the methodology is overly prescriptive and generates a large amount of output not critical to the QC. The hourly regression approach is not statistically efficient in that it requires a regression separately for each hour while only a single data point in each hourly regression is used for the QC determination.

2. Discuss your organization’s position on the extent to which each proposal does or does not meet the nine principles developed by the working group

The table below summarizes PG&E’s view on how much each proposal meets the QC principles.

PG&E Position	Party Proposal				
	CEDMC	OhmConnect	CLECA	DSA	CEC
	Oppose	Support in part	Support	Support	Oppose

⁵ CEC proposal, p. 1. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=246244&DocumentContentId=80427>

	Party Proposal				
	CEDMC	OhmConnect	CLECA	DSA	CEC
	No	Yes	Yes	Yes	No
Transparent and understandable?	No	Yes	Yes	Yes	No
Using best available information?	No	Yes	Yes	Yes	No
Allow DR providers to quickly determine or update QC values?	Yes	Maybe, depending on the specific modeling approach			Unclear, since the approach is prescriptive
Compatible with the Slice-of-Day (SOD) Framework?	No	The proposal does not explicitly address this principle	Yes	Yes	Yes
Account for use limitations, availability limitations, and variability in output?	No	The proposal does not explicitly address this principle	Yes	Yes	Yes
Reflects contribution of DR Resources to Reliability?	No	No	Yes	Yes	Yes
Include methods to determine ex post that are compatible with the QC?	No	No	No	Yes	Yes
Present a substantive barrier to participation in RA?	No	Unclear, depending on the modeling approach	Unclear, depending on the specific modeling approach		Yes

	Party Proposal				
	CEDMC	OhmConnect	CLECA	DSA	CEC
	This principle appears only remotely relevant as the QC methodology is not explicitly required to factor in when the reliability needs are highest				

- 3. Discuss your organization’s position on whether, and if so what, enhancements to intracycle adjustments to demand response qualifying capacity during the resource adequacy compliance year, as adopted in D.20-06-031, are feasible and appropriate to account for variability in the demand response resource in the month-ahead and operational space.**

PG&E recommends using the latest load impact filing to inform intracycle QC updates during the compliance year. For example, the load impact filing in April 2023 should be used to inform the QC updates in the 2023 RA compliance year.

- 4. Discuss your organization’s position on whether implementation of any elements of demand response qualifying capacity method modifications that might be adopted by the commission should be phased in over time.**

PG&E believes that both DSA’s and CLECA’s proposals can be implemented entirely without phasing in certain elements over time. However, if the CEC adopts any additional elements, such as the capacity shortfall penalty structure included in the CEC proposal - which PG&E does not support - PG&E recommends that any new penalty be phased in over time. Ultimately, the permanent QC methodology needs to be tested and well understood by stakeholders before a new penalty is considered.

- 5. Discuss your organization’s position on whether, and if so how, any changes to demand response adders should be reflected in demand response qualifying capacity methodology.**

PG&E supports retaining the adders for transmission and distribution (T&D) but proposes eliminating all PRM adders. PG&E recommends eliminating PRM adders for the following reasons:

- The adder for operating reserves/ancillary services (OR/AS) should be zero because DR resources do not reduce the need for operating reserves in the real-time market.
- DR is a variable output resource, for which a buffer/planning reserve is needed to offset the variability of the resource.
- DR variability includes forecasting error and forced outages. The difference between the two uncertainties is not well defined for DR in practice.

PG&E appreciates the opportunity to comment on these proposals and share our position to be included in the CEC’s report to the CPUC. Please reach out to me if you have any questions.

Sincerely,

Licha Lopez
State Agency Relations