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PG&E Comments on midterm reliability analysis workshop

Additional submitted attachment is included below.



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California Energy Commission
Energy Assessment Division, Energy System Reliability
Docket Number 21-ESR-01
1516 9th Street
Sacramento, CA 95814

Re: Pacific Gas and Electric Company's Comments on the Workshop on Midterm Reliability Analysis and Incremental Efficiency Improvements to Natural Gas Power Plants (Docket Number 21-ESR-01)

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide feedback on the workshop on midterm reliability analysis and incremental efficiency improvements to natural gas power plants held by the California Energy Commission (CEC) on August 30, 2021.

PG&E applauds the recent efforts by the California Independent System Operator (CAISO), the CEC, and the California Public Utilities Commission (CPUC) to develop multi-year reliability studies. PG&E believes that a Loss of Load Expectation (LOLE) analysis is needed to ensure that the CAISO system reliability standards and procurement decisions are based on a robust analysis that captures various weather and operating conditions and is a reliable measure across many hours, especially the hours of stressed grid conditions.

PG&E offers the following comments on the analysis and processes followed by the California's regulatory agencies related to the CEC's study:

- 1. PG&E encourages the CEC to revise the procurement assumption in the CPUC's Decision (D) 21-06-035 to more accurately capture the requirements put forth in the decision for mid-term reliability (MTR) procurement and encourages the CEC to provide scenario analysis inclusive of varying resource procurement assumptions.**

PG&E agrees that one scenario for allocating D.21-06-035's procurement assumption could be informed by the resource ratios found in the proposed preferred system plan (PSP). However, since the PSP does not adequately capture the resource procurement criteria mandated in the decision, adjustments should be made to ensure the criteria mandated in the procurement

order is reflected in the resource assumptions. For example, the minimum zero-emitting capacity by 2025 category as defined by D.21-06-035 requires a resource to be: (a) a generation resource, a generation resource paired with storage (physically or contractually), or demand response (DR); (b) available every day from 5:00 p.m. to 10:00 p.m. Pacific Time, at a minimum; and (c) be able to deliver at least five megawatt hours (MWh) of energy during each of these daily periods for every megawatt (MW) of incremental capacity claimed. This criterion does not appear to be captured in the resources assumed to be procured in the procurement scenario.

PG&E recognizes that there are significant uncertainties in the type of resources that will be procured to address the MTR procurement order. To address these uncertainties, PG&E suggests the use of multiple scenarios to understand the impact of different resource procurement assumptions on reliability. As stated above, while one scenario can be informed by the CPUC's proposed PSP, another scenario should be built using the marginal effective load carrying capacity (ELCC) values to be published by the CPUC for the MTR procurement. In this scenario, the latest load serving entities' (LSE) plans for the 2019 integrated resource planning (IRP) procurement could be used to inform the mix of resources for procurement of 7,000 MW of "Any type of resource" category of MTR procurement.

- 2. PG&E requests that in preparing a document on inputs and assumptions, with detailed results to accompany the midterm reliability white paper, the CEC and the CPUC work towards developing a section that compares input and assumption differences between the CEC's analysis and the CPUC's reliability analysis put forth in the Administrative Law Judge's Ruling seeking comments on the proposed preferred system plan.**

Generally, key modeling assumptions should be aligned across planning venues for consistency. PG&E recognizes that the CEC's midterm reliability analysis needs to be completed in a short period of time and there may not be sufficient time to align all modelling assumptions with the CPUC's IRP model. There may also be circumstances in which differing study inputs or assumptions provide additional insights. However, for those insights to be identified, differences in inputs or assumptions need to be easily understood and comparable. PG&E asks that the CEC and CPUC work together to document input and assumption differences in their midterm reliability analyses. Documentation of input and assumption differences would more fully contextualize any divergence in results. For example, it is not immediately clear why the CPUC's modeling of the proposed PSP in 2026 results in a 0.064 LOLE while CEC modeling of the proposed PSP in 2026 results in a 0.005 LOLE. Moving beyond the current mid-term reliability studies, documentation could also identify areas where further coordination and consistency could be used if each model is maintained and used in future analyses. PG&E asks that at a minimum, a slightly more detailed table as shown on page 16 (slide 15) of the CEC's deck comparing the midterm reliability analysis study to the 2022 supply stack study be developed.

- 3. PG&E encourages the CEC to provide additional details to determine why the natural gas in place of the PSP (scenario seven) and the natural gas in place of procurement (scenario three) scenarios result in higher or lower system LOLE once inputs and assumptions have been updated.**

The CPUC's Decision 21-06-035 deferred the procurement of fossil-fueled resources to meet mid-term reliability needs pending, in part, the CEC's midterm reliability analysis. While it is clear, based on current inputs and assumptions, that a portfolio containing procurement of preferred resources results in a lower LOLE relative to a portfolio containing procurement of only natural gas resources, it is not clear why. PG&E encourages the CEC to identify and isolate drivers in the results. Additional insights could help inform whether fossil-fueled capacity is procured for the mid-decade as well as identify additional considerations for system planning.

Some additional questions that might be useful in framing the need of additional analysis of the midterm reliability analysis' results are:

- How many of the expected unserved energy (EUE) hours in scenario seven (natural gas in place of PSP) are due to unforced outages?
- Are there portfolio combinations of natural gas and preferred resources that result in a lower LOLE?
- How much additional natural gas capacity would be needed to bring scenarios seven and three LOLE up to the LOLE of the preferred resource portfolios scenario?

4. PG&E requests additional opportunities for stakeholders to be provided the opportunity to review and comment on the CEC's model and results prior to the release of the CEC's final midterm reliability analysis white paper.

PG&E appreciates the CEC's outreach for stakeholders' inputs on preliminary analysis. PG&E agrees with the CEC that additional runs will be required with the new marginal ELCC values developed by the CPUC for compliance towards D.21-06-035 procurement. Changes to the marginal ELCC values used in the CEC's analysis could have a significant impact on the capacity associated with D.21-06-035 procurement and modeling results. Therefore, stakeholders should have an opportunity to understand updated results and provide comments. Similarly, PG&E encourages the CEC to release its model and results so more robust feedback can be provided by stakeholders.

PG&E appreciates the opportunity to comment on the workshop on midterm reliability analysis and incremental efficiency improvements to natural gas power plants and looks forward to working with the CEC and other state agencies. Please reach out to me with any questions.

Sincerely,

Licha Lopez