



Pacific Gas & Electric Company's Comments

Effective Load Carrying Capability (ELCC) Study Results for Demand Response (DR) Resources

This template has been created for submission of stakeholder comments on the updated ELCC study results for DR resources, which was published on June 18, 2021. The Stakeholder meeting presentation and other information related to the discussion, may be found on the initiative webpage at:

<http://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx>.

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **June 28, 2021**.

Submitted by	Organization	Date Submitted
<i>Gil Wong, (415) 973-2748</i>	<i>PG&E</i>	<i>June 28, 2021</i>

Please provide your organization's comments on the following issues and questions.

1. ELCC Updated Study Results

Pacific Gas and Electric Company's (PG&E) comments on the Refreshed Effective Load Carrying Capacity (ELCC) Study Results from Energy + Environmental Economics (E3) and the ELCC working group meeting on June 24, 2021 hosted by the California Independent System Operator (CAISO) and E3 are set forth below. PG&E generally supports the premise that demand response's (DR) counting methodology should consider DR's variable nature, but would like to call out certain issues with the refreshed ELCC results which were completed under a highly compressed timeline, so that the California Public Utilities Commission (CPUC) can make an informed decision for resource adequacy (RA) 2022.

PG&E identifies two notable issues with the refreshed ELCC results, as follows:

a. The Refreshed ELCC Results Are Noisy And May Be Indicative of the Net Qualifying Capacity (NQC) Not Properly Defined

Slide 29 of E3's presentation indicates the ELCC values can be above 100% for PG&E's Capacity Bidding Program for certain Local Capacity Areas (LCA). In fact, the
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counter-intuitive results are not unique to PG&E as SCE and SDG&E also has ELCC values above 100% on slides 30 and 31. An above-100% ELCC means that the resource is able to provide more capacity than its capacity. This is inconsistent with ELCC as a derating mechanism. It is unclear how a variable resource can be more “useful” than a perfect generator, and an above-100% ELCC would credit the resource above its capacity. The counter-intuitive results are hard to apply and can be indicative of one fundamental issue—the DR capacity may not be defined properly in the refreshed ELCC refresh study. Further analysis and explanation are needed.

b. Applying the Refreshed ELCC Results Based on Poorly-defined Capacity May Double-Penalize Underperformance

The refreshed analysis stops short of presenting a plan how the results can be applied to RA 2022. And some open questions remain, such as “what derate factors should be used?” and “what data in the DR load impact filing should the derate factors be applied to?” As the CPUC considers the refreshed analysis for RA 2022, PG&E emphasizes that DR’s 2022 ex-ante load impacts have already taken historical performance into account.ⁱ 2020 performance was lower than the prior forecast, the ex-ante impacts for future years would factor in the underperformance and adjust the forecast downward. Consider the following example. Suppose the 2020 NQC was 100 MW and the DR bids were around 90 MW, resulting in a (hypothetical) ELCC value of 90%. Assuming no enrollment change, the ex-ante impacts for 2022 would forecast 90 MW. It would seem excessive to apply another 90% on the 90 MW ex ante impacts to calculate the NQC, because it would double-adjust for the same underperformance. Applying another 90% on the 90 MW implies DR performance will continue to fall below the ex ante impacts, such that a derate is needed in determining the NQC. This assumption that DR will consistently underperform relative to the NQC is unwarranted. PG&E cautions against double-penalizing underperformance, and recommends this issue be explicitly addressed in the permanent counting methodology.

PG&E’s Recommendation: Based on the Original ELCC Analysis, Applying a 5% Derate to the 2022 Ex Ante Impacts to Determine the 2022 NQC for DR

Considering the issues discussed above, the refreshed ELCC results based on 2020 bids are not readily applicable to the 2022 ex-ante load impacts for RA 2022. In the absence of solid results from the refreshed analysis, results from the original ELCC analysis can be informative. Slide 35 of the E3 presentation includes a few heat maps showing average ELCC as a function of DR capacity, DR event duration and frequency. Given the size of DR capacity available statewide today (< 2,195 MW), the first-in ELCC is around 95% for DR resources capable of calling 4 to 20 events per year, with 4 hours per event. For the same portfolio size, event duration and frequency, the ELCC value hardly changes between 2019 and 2030. Therefore, PG&E concludes that a reasonable NQC for RA 2022 can be derived by applying a 95% ELCC (i.e., a 5% derate) to the 2022 ex-ante impacts of DR.

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PG&E appreciates the opportunity to provide comments.