California ISO

Stakeholder Comments Template

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

1. ELCC Updated Study Results

Please provide your organization's feedback on the updated ELCC study results for DR resources.

On Thursday June 24th, CAISO held a workshop, where they presented results of the Effective Load Carrying Capability (ELCC) update using 2020 bid data for all three Investor-Owned Utilities (IOUs). SDG&E had not been a participant in the 2019 ELCC model run but was, however, asked to participate in the 2020 refresh. SDG&E supplied its 2020 bid data to E3, the CAISO's consultant that is providing its ELCC expertise. The following comments are related to the inputs and assumptions that are being used in the ELCC modeling.

1) ELCC should not use all hours of the year to value DR

SDG&E disagrees with the CAISO's assertion that the ELCC methodology more accurately captures the value of DR resources by accounting for their use and energy limitation and variable output nature. The current ELCC method models all hours of the year instead of focusing on the highest load hours, the Resource Adequacy (RA) Assessment Hours which the DR programs are designed to serve. Further, evaluating DR resources with the ELCC model during hours outside of the highest load hours will automatically reduce the Qualifying Capacity ("QC") value of these resources because such resources are not designed to be 24x7 resources. SDG&E's Base Interruptible Program (BIP) is the only DR program that SDG&E has that is available 24x7. The approach of utilizing all hours of the year harms SDG&E's entire portfolio value as its BIP is tiny compared to SCE and PG&E's BIP.

2) Comparing daily bids to RA credits is not appropriate given the current RA Construct

CAISO's ELCC methodology measures how SDG&E's daily bids compare with the RA value credited. The methodology does not consider actual performance. Ex Ante values, which are the basis for RA awards, are based on a 1 in 2 weather forecast for peak monthly conditions. CAISO utilizes all daily bid data and derates the DR resource if it is not equal to the RA value. Theoretically, the RA value would equal one daily bid during the month as there is one peak in each month – which would represent a 1 in 2 maximum peak weather condition for the month. It is inappropriate and wrong to expect every bid to be equal to the 1 in 2 peak value for every hour of the day for the entire month. As a result there is a significant difference between SDG&E's bids for 2020, and the RA value that the DR portfolio ought to be credited. That, along with other faulty assumptions, inappropriately derates SDG&E's variable DR values. During the workshop on 6/24, PG&E proposed to re-run the ELCC model using LI protocols profiles. However, because the schedule is so compressed there is no time/budget to re-run the model.

3) The Current ELCC methodology double penalizes the IOUs' demand response resources

The CPUC has already reduced DR by 6% due the removal of the operating reserve in the Planning Reserve Margin (PRM). Any additional derates within the 2020 ELCC should not be taken. Additionally, the IOU's cost effectiveness calculations use the RA that is allocated to the IOUs based on the LIPs. There are additional de-rate factors in the cost effectiveness calculations. If RA starts using the ELCC values, then there will need to be an update to cost-effectiveness so that DR resources are not de-rated twice.

4) There should be no RAAIM penalties for 2022

SDG&E notes that it is already producing its ex ante estimates for 2022 in accordance with current RA processes. It would be unfair to penalize SDG&E for its compliance prior to the RA process being changed or revamped. CAISO ELCC's proposal states on page 9 "CAISO believes that is appropriate to exempt DR RA resources from RAAIM if their QC value is established using an ELCC methodology that's considers DR's contribution reliability and saturation effects".[1]

Further, SDG&E submits that DR should be treated as a variable resource with a Resource Adequacy Availability Incentive Mechanism ("RAAIM") exemption. As the ED correctly points out, the California Independent System Operator ("CAISO") can allow variable resources such as wind and solar to be exempted from RAAIM penalties and has done so previously: CAISO implemented RAAIM in November 2016, and . . . the CPUC subsequently adopted ELCC for solar/wind in 2017 for 2018 implementation; thus, solar/wind variable resources were exempted from RAAIM prior to the implementation of ELCC.

As mentioned in previous comments, the CPUC's ED stated that these variable resources were similarly exempt under CAISO's previous market construct. The Standard Capacity Product and Northern California Power Agency (NCPA) overrode ELCC values for higher deemed values without jeopardizing their exemption from RAAIM and thereby providing variable treatment in the operational space."[2] Thus, use of an ELCC methodology for planning purposes does not require that CAISO implement variable DR under an operational resource model. Accordingly, SDG&E recommends that the CAISO follow a similar approach

[1] Resource Adequacy Availability Assessment Mechanism (RAAIM) Exemption Option for Variable-Output Demand Response Valued Under an Effective Load Carrying Capability (ELCC) or Similar Methodology p.9. June 10th, 2021
[2] Energy Division Demand Response Proposals for Proceeding R.19-11-009 p. 5-6 April 19th, 2021

with the IOUs' DR – i.e., it should be considered variable and not subject to RAAIM penalties, even if the IOUs do not adopt ELCC for valuing DR within a specific timeframe.

5) CAISO's ELCC model reporting and workshop

SDG&E wants to note that in addition to comments it has about the ELCC model methodology, that it also has reservations in general that make SDG&E's team uncomfortable in the final 2020 update results. The following is also problematic for SDG&E:

a) The ELCC model is not public and transparent. E3's ELCC report only provides a high-level overview of the results. SDG&E asked E3 several times for the details behind the ELCC calculation and no response was provided.

b) First-In and Last-In tables in prior versions of the CAISO's ELCC report are not updated in the 6/24/21 report. Tables look similar, but values are different on each axis and SDG&E cannot compare the update with respect to that table and the addition of SDG&E's data as it doesn't appear to SDG&E that the table reflects the updated data.

c) SDG&E emailed E3 about SDG&E's ELCC results. SDG&E was concerned the bid data used does not accurately reflect the actual values. During the email conversation, E3 found that they needed to recalculate SDG&E's results. However, SDG&E received an updated version of the report on 6/24 and it appears that there were no changes to the results.

d) SDG&E felt that the CAISO workshop was heavily controlled, and participants could not see other participants comments, and not all questions that put forth in the chat were addressed by the CAISO or E3. Since the workshop was not a fully transparent process, additional issues and/or discussions were not identified.

e) The ELCC 2020 update was rushed, SDG&E had questions, which led to corrections, and several versions of the PowerPoint were made. In some cases certain pages of the slide deck were not replicated when the corrections were made.

SDG&E believes that its DR resources can be dispatched consistent with the RA assessment hours that the CPUC establishes in conformance with SDG&E's DR program designs. SDG&E would like to develop a more reasonable methodology for establishing its variable DR's RA that better reflects conditions on which bids are made, how DR performs, RA hours that are deemed most important (i.e., recognizing DR as a use-limited resource), and not being penalized twice.

Therefore, for all the reason identified in the paragraphs above, SDG&E recommends that the CPUC adopt the LIP ex ante values for 2022 RA and that DR be excluded from RAAIM for 2022. SDG&E has committed to work with CPUC, CAISO, CEC, PG&E, SCE and other stakeholders to improve the current RA/QC methodologies. SDG&E recommends focusing on establishing a reasonable ELCC methodology that works for all variable DR in 2023 and beyond. This can be achieved by the working group that the CPUC has established that is being run by the CEC. This working group's goal is to develop a more permanent QC methodology for DR, including exploring an alternative ELCC methodology to evaluate DR QC based only on an appropriate percentage (e.g., top 20 percent of hours of each month).

Additional comments

Please offer any additional feedback your organization would like to provide on the updated study results and meeting discussion.