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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)**

OPENING COMMENTS BY THE CALIFORNIA LARGE ENERGY CONSUMERS ASSOCIATION ON THE REFRESHED ELCC STUDY RESULTS

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The California Large Energy Consumers Association (CLECA)[1] submits these comments pursuant to the email Ruling of Administrative Law Judge (ALJ) Debbie Chiv dated July 9, 2021 (Ruling).

I. INTRODUCTION

On July 1, 2021, the California Independent System Operator (CAISO), Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) submitted a "Compliance Filing Regarding Refreshed Effective Load

[1] CLECA is an organization of large, high load factor industrial customers located throughout the state; the members are in the cement, steel, industrial gas, pipeline, beverage, cold storage, and mining industries, and share the fact that electricity costs comprise a significant portion of their costs of production. Some members are bundled customers, others are Direct Access (DA) customers, and some are served by Community Choice Aggregators (CCAs); a few members have onsite renewable generation. CLECA has been an active participant in Commission regulatory proceedings since the mid-1980s, and all CLECA members engage in Demand Response (DR) programs to both promote grid reliability and help mitigate the impact of the high cost of electricity in California on the competitiveness of manufacturing. CLECA members have participated in the Base Interruptible Program (BIP) and its predecessor interruptible and non-firm programs since the early 1980s.

Carrying Capability [ELCC] Study Results" in this docket, pursuant to a Ruling by Assigned Commissioner Marybel Batjer dated June 3, 2021. The ALJ's July 9, 2021, Ruling requests comments on the compliance filing (filing), which CLECA provides herein.

CLECA submitted comments to the CAISO on the updated study which were included in the filing just described in Attachment D. CLECA does not repeat all of its concerns in these comments but incorporates them here by reference.

CLECA finds there are still many unanswered questions and unexplained results in the refreshed ELCC study, and therefore recommends that its results not be implemented on a temporary basis for 2022. CAISO's recommendation of a roughly uniform 20% reduction in qualifying capacity for demand response (DR) (or an 80% ELCC factor) for PG&E and SCE, and a greater reduction for SDG&E to the current qualifying capacity, definitely does not make sense for the Base Interruptible Program (BIP). BIP participants are high load factor customers that are available for load reduction 24 hours a day. The underlying loss of load probability (LOLP) data recently posted by the CAISO show that the BIP should receive a 95% to 100% ELCC factor, not 80%.

One concern highlighted by the ELCC study is that the delay between the establishment of qualifying capacity for DR using the Load Impact Protocols (LIP), and the use of this qualifying capacity in the RA program, results in an outdated customer enrollment forecast; this issue should be addressed. However, using ELCC will not correct this problem, as the customer enrollment forecast error would remain.

II. COMMENTS

A. The Compliance Filing Includes Conclusions by the CAISO Based on Questionable Data that Do Not Have the Support of the Three Investor-Owned Utilities

The compliance filing consists of a cover statement signed by a representative of the CAISO, and not by the three investor-owned utilities (IOUs) who were also directed to submit the filing. It is notable that the CAISO states that the filing does not imply IOU endorsement or agreement related to the information contained in the attachments".[2] Yet, in CAISO's own comments on the study (attached as part of Attachment D to the filing, which includes the comments of all parties on the study methodology that were submitted to the CAISO on June 28, 2021 and posted on June 30, 2021, with CAISO's own comments posted a day later), the CAISO draws conclusions and makes recommendations based on Attachment B to the filing entitled "Refreshed ELCC Study Results Table by Program and by IOU by Month – Megawatt Values and Percentages". The three IOUs thus do not support the CAISO's conclusions, which are based on Attachment B. In addition, we note that the CAISO's consultant E3's slide deck in Attachment A of the July 1, 2021, filing states that "E3 does not endorse any specific policy or regulatory measures as a result of this analysis."[3] Thus, only the CAISO has made recommendations based on the data underlying the filing.

Attachment B includes figures for ELCC-based net qualifying capacity (NQC) for various IOU demand response (DR) programs, as well as figures for QC for these programs based on the Load Impact Protocols (LIP). The ELCC-based results are compared to the LIP-based results in

[2] Jul1-2021-ComplianceFilingRefreshedEffectiveLoadCarryingCapabilityStudyResults-ResourceAdequacy-R19-11-009.pdf at 2.
[3] Ibid., at Attachment A at 6.

terms of percentage differences and the resulting change in MW of NQC. We note several troubling aspects of Attachment B. In some Local Capacity Areas (LCAs), the ELCC-based QC exceeds 100%; indeed in a few cases, the ELCC-based QC exceeds 400%. Since 100% QC represents perfect capacity, it is not clear how the QC can be four times perfect capacity. The Compliance Filing provides no explanation of how this can occur, or what it means. In addition, there are several rows for IOU DR programs in particular LCAs where the MW under both methodologies show 0%, which the table attributes to the utilities not providing the data to E3 (the CAISO's consultant) because of confidentiality concerns when there are few participants in the DR program in that LCA. Attachment B also includes portfolio-wide ELCC-based QC values for each IOU. It is not clear how the rows with zero data are factored into the portfolio-wide calculations. Furthermore, given the extreme variability of the ELCC-based QC values among IOU programs in Attachment B, we question the CAISO's recommendation in its comments on its own study that a portfolio-wide "derate" to the IOU DR programs be undertaken based on these portfolio-wide calculations. This recommendation raises serious concerns that such an adjustment would undervalue the QC of some programs and possibly overvalue the QC for others, if the across-the-board recommendation even is appropriate, which we question.

It is clear that the CAISO, in its comments on its own study, "strongly supports the result of the study and urges the Commission to adopt them for use as described in the [Assigned Commissioner] Ruling."[4] Furthermore, the CAISO "recommends the Commission use

[4] Ibid., Attachment D, CAISO Comments at 2.

aggregated derates by IOU for ease of implementation."[5] We note that it is unusual for the CAISO to provide comments on its own studies.

Slide 58 (of the latest version of the slide deck) contains ELCC heat maps showing that programs with 6 hours of availability per day, and 10 days availability per month (such as the BIP), have an ELCC-based QC of 95% (for first-in ER in 2019 and 98% in 2030) and 100% (for last-in DR in 2019).[6] The CAISO's proposed across-the-board derate for PG&E's programs is 18% for August 2020, and 21% for SCE.[7] Derating the QC of BIP by roughly 20% would understate its capacity value based on these ELCC results, which are 95% or higher.

As explained in Section B, it also appears that the average ELCC values for programs with at least 6 hours and 2 calls per year, as shown on Slide 58 of Attachment A to the refreshed study, are understated.

B. The Loss of Load Probability Data Posted by the CAISO Do Not Support the ELCC Study Results

CLECA's comments on the refreshed study discussed the lack of detail regarding the underlying loss of load probability (LOLP) to properly validate the ELCC results. Recently, CLECA became aware that CAISO posted the LOLP data from the study on its website for the ELCC initiative.[8] The provided LOLP data consists of 24 hours times 12 months of data, for 288 observations. It appears the LOLP analysis is not for a full 8760 hours, but rather 12 typical days, to represent the peak for each respective month. CLECA has concerns over how this typical day data was used, and finds that it does not support some of the ELCC results.

[5] Ibid., Attachment D, CAISO Comments at 2.
[6] Ibid., Attachment A, Slide 58.
[7] Ibid., Attachment D, CAISO comments at 3.
[8] http://www.caiso.com/Documents/SupplementalDataPursuant-StakeholderRequest.xlsx

CLECA converted the LOLP into a relative LOLP. The difference is that the relative LOLP allows all the observations to sum to 100%. Below are the relative LOLP data posted by CAISO; we note that hours 1-14 were omitted because no LOLP exists.

Sum of LOLE2020	Column Labels									
Row Labels	15	16	17	18	19	20	21	22	23	Grand Total
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0.00%	0.00%	0.00%	2.64%	0.66%	0.00%	0.00%	0.00%	0.00%	3.30%
9	0.00%	1.36%	25.20%	39.50%	21.79%	7.49%	1.36%	0.00%	0.00%	96.70%
10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Grand Total	**0.00%**	**1.36%**	**25.20%**	**42.14%**	**22.45%**	**7.49%**	**1.36%**	**0.00%**	**0.00%**	**100.00%**

The first observation is that there is no LOLP in July, but the ELCC study shows a July result. Slide 12 of the ELCC presentation says that a target resource (i.e., a DR program) is added to the system (reducing LOLP), and then perfect capacity is removed (increasing LOLP) until the target reliability (LOLP) is restored. If there is no calculated LOLP in a particular month, it is unclear how E3 calculated an ELCC for July. CLECA does not understand how that is possible, and the study does not provide any insight on how it obtained a July ELCC if there is no July LOLP.

The second observation is that the relative LOLP is only 6 hours in duration in September, and 2 hours in duration in August. Since the LOLP represents only one day per month, there appears to be no difference between a program having one, or multiple, calls per

month.[9] It appears programs such as BIP, with high load factor customers, available 24 hours a day, for a 6-hour call per event, and up to 10 events per month, should be able to avoid all the LOLP, and yield (or be very close to) 100% ELCC. Yet, the average ELCC tables for 2019 (on slide 58) indicate that a DR program with 6 hours per call and 10 calls per month only yields a 95% ELCC. A program with 8 hours per call and 20 calls per year would also receive only a 95% ELCC. There is no explanation for this discrepancy, as a program for 6 hours and at least 2 calls per year should have a 100% ELCC.

C. The CAISO Proposal for an Across-the-Board Derate of IOU DR Programs Risks a Double Derate, for Two Very Different Reasons

The first reason for the risk of a double derate has to do with enrollment issues. The recent LIP studies dated April 1, 2021, utilized 2020 data to develop load impacts for use in 2021, which incorporate the observed customer performance. To the extent a customer failed to reduce load, it is included in the analysis. Also included in the LIP results is customer departure from reliability DR resources (RDRR) due to customer fatigue caused by frequent DR events in 2020. Therefore the 2021 LIP results will include any performance issues and enrollment reductions from 2020. Applying the ELCC results to the already-embedded derate for customer departure that occurred between 2019 LIP results and 2020 would be a duplicative derate.

Over the past several years there has been departure from non-residential DR programs for several reasons. One reason is the implementation of policy on prohibited back-up generators. Another is economic factors, including COVID-19, which caused customers to

[9] Slide 60 in the study indicates there are no more than two loss of load events per year.

depart from electrical service or to reduce load. Therefore, the forecast for customer enrollment which determined the qualifying capacity was higher than actual customer participation when utilities bid MW into the CAISO market in 2020. It cannot be concluded that the customer forecast will always exceed actual enrollment in the future.

Recently, the California Public Utilities Commission (Commission) in the Reliability OIR (R. 20-11-003) ordered changes to some programs to increase DR enrollment.[10] For example, the incentives for BIP were increased, and enrollment during any month is allowed; both changes could increase customer enrollment that may not be reflected in the LIP. In addition, in March 2021, the Commission clarified the rules on use of renewable fuel, which may result in some customers with backup generators returning to DR programs.[11] In this situation, the adopted qualifying capacity based upon LIP may undercount actual customer enrollment. Therefore, applying a derate based upon the misalignment of customer enrollment reflected by CAISO DR ELCC from the 2020 observations study may also unfairly overly penalize DR.

The second reason is that the expected qualifying capacity is already incorporated by the IOUs in their bidding. The IOUs argue that most DR is weather-sensitive, and that the amount of DR they bid into the CAISO markets must be allowed to vary consistent with how much they think can be delivered given conditions that change over time. Thus, the IOUs already make an adjustment in their bids for what they believe is available. This is the reason why an exemption from the Resource Adequacy Availability Adjustment Mechanism (RAAIM) is

[10] Decision 21-03-056 at 30-31.
[11] Decision 21-03-056, Attachment 1, at 9, footnote 3.

required, since the IOUs have to be able to bid what they think they can deliver from their DR programs.

The Commission found the above argument compelling, and concluded the following in a recent decision:

> The Commission is persuaded by parties' and Energy Division's assertions that DR is a variable resource with behavioral and weather-dependent characteristics and that DR should be treated as such in CAISO's market. DR should be permitted to bid different energy amounts associated with capacity on different days and hours, depending on the operating conditions that affect the magnitude of load expected on a given day and hour. We also concur with PG&E that RAAIM should not apply to DR resources when other variable resources are not subject to it. Therefore, we do not agree with CAISO, as it is clear that DR resource bidding variably according to their availability to reduce load could be penalized through RAAIM for bidding below their QC value depending on applicable conditions on a given day. We find that such penalties would be unreasonable.
>
> CAISO has insisted on the Commission's adoption of an effective load carrying capability (ELCC) methodology for DR as a prerequisite for DR to be exempt from RAAIM. The Commission finds that the historical record is not consistent with CAISO's assertion that an ELCC-determined QC is required in order for DR to be treated as a variable resource. CAISO likewise acknowledges in comments that the CAISO tariff does not require using an ELCC methodology. As further discussed below, the Commission declines to adopt an ELCC-based QC methodology at this time.[12]

D. LIP Improvements: Weekend Values and Updated Enrollment Data

It has become clear that using 2018 data in the 2019 LIP to forecast 2020 RA value creates a serious lag, especially when using a 2019 forecast of enrollments for 2020. There should be a process to update enrollment data based on the most recent information possible, especially since D. 21-03-056 allows enrollment more frequently than in the past.[13] For example, utilities are now permitted to have year-round enrollment in the BIP and AP-I[14]

[12] Decision 21-06-029 at 30-31.
[13] Decision 21-03-056 at 30-31.
[14] Agricultural Pumping – Interruptible.

programs.[15] In addition, since the LIP are based on weekday data, and recent DR events have occurred on weekends (e.g., in 2020), the LIP should be separately developed for weekdays and for weekends and holidays, since load is often lower on weekends and thus, DR load drop potential is lower.

E. CAISO Summary of Party Comments was Inaccurate

The CAISO's summary of party comments in its ELCC stakeholder process, provided as Attachment D to the ELCC Refresh Study, was not accurate. The CAISO's summary misstates CLECA's recommendation: CLECA does not support using ELCC to develop or derate QC for DR. The Commission has already applied a 6% derate with the revision of the planning reserve margin (PRM) adder. Furthermore, as noted above, Slide 58 in Attachment A of the filing shows programs with 6 hours of availability and 10 events per month having an ELCC of 95% to 100% (depending on year and whether first-in or last-in). This does not support an across-the-board 20% derate if the Commission were to use ELCC on an interim basis for 2022 – which CLECA does not support. Only if the Commission concludes that the refreshed ELCC study should be utilized, then a 95%, or greater, ELCC factor should be utilized.

F. Process Issues

The roll-out of the ELCC Study itself was problematic, as was the Refreshed ELCC Study roll-out. The slide deck changed several times, including after the June 24, 2021, CAISO workshop. Party comments were due June 28, 2021, a very short turnaround, and not posted until June 30. The CAISO's own comments were not posted until July 1, and it was only in those comments that it made a recommendation for how to use the results. (CAISO had stated at the

[15] Decision 21-03-056 at 31.

workshop that it did not have a recommendation, and was simply making the information available to the Commission.) Parties had no opportunity to respond to that recommendation, and appreciate the chance to do so now. We also note that the workshop was only two hours long, and many questions were neither asked nor answered.

III. CONCLUSION

CLECA appreciates the opportunity to provide comments on the Refreshed ELCC Study.

Respectfully submitted,

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By:

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CALIFORNIA LARGE ENERGY CONSUMERS ASSOCIATION

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