

October 17, 2022

Email to: [docket@energy.ca.gov](mailto:docket@energy.ca.gov)  
Docket Number: 21-DR-01  
Subject: Supply Side Demand Response

**Re: Comments of the California Energy Storage Alliance on Stakeholder Supply-Side Demand Response Qualifying Capacity Proposals**

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Dear Sir or Madam:

The California Energy Storage Alliance (“CESA”) appreciates the opportunity to comment on proposals being discussed in the Supply Side Demand Response (“SSDR”) Qualifying Capacity (“QC”) Working Group. CESA commends the California Energy Commission (“CEC”) for hosting this working group to allow for stakeholders to understand and provide feedback on the new QC methodology options for SSDR, which is and will continue to be a critical resource for electric reliability in California.

CESA is a 501(c)(6) organization representing over 120 member companies across the energy storage industry. CESA member companies span the energy storage ecosystem, involving many technology types, sectors, configurations, and services offered. As the definitive voice of energy storage in California, CESA has a direct interest in the proceeding in shaping the policies, procedures, and rules for the Resource Adequacy (“RA”) QC value for SSDR resources. Energy storage is often a critical resource and technology type included in demand response (“DR”) portfolios and programs, and DR QC methodologies should be able to reflect the unique value provided by behind-the-meter (“BTM”) energy storage.

**I. INTRODUCTION & SUMMARY.**

Since California experienced rotating outages in 2020, there has been a critical focus on electric reliability throughout the state, and increased attention on how DR can support grid reliability. In the past two years, the California Public Utilities Commission (“CPUC”) has created an emergency DR program, the Emergency Load Reduction Program (“ELRP”), and the Legislature has provided funding for the CEC to create the Demand Side Grid Support Program (“DSGS”). These programs acknowledge the role DR can play in helping maintain grid reliability; however, both are designed to operate largely during grid emergencies and are not incorporated into state planning.

California has used the RA program to ensure that enough resources are available to serve load. After CPUC Decision (“D.”) 14-03-026, increasing amounts of DR have been integrated into the California Independent System Operator (“CAISO”) energy market and the RA Program to

become a part of load-serving entity (“LSE”) supply plans. Currently, DR resource QC values are determined via the Load Impact Protocol (“LIP”) process, which requires complex forms of regression modeling of DR resources under multiple weather conditions in ex-ante analysis to determine QC values. Ex-post performance analysis is also conducted, where applicable, and incorporated into the ex-ante analysis. Given the amount of analysis and limited number of consultants that can conduct a LIP, the entire process for QC determination typically lasts over nine months and costs hundreds of thousands of dollars. LIPs pose a significant barrier to demand response provider (“DRP”) participation in RA and has posed challenges to increasing the role of DR in supporting grid reliability. This is a major concern when DR resources can be quickly deployed (*e.g.*, no interconnection required or relatively quicker interconnection via Rule 21 is required for BTM storage resources), and customers demonstrated their critical role in avoiding outages during the September 2022 heat wave.

In 2022, the CPUC approved significant reform to move towards a slice-of-day (“SOD”) framework, whereby load requirements will be calculated for 24 hourly slices for the “worst” day of each month – the day with the highest coincident peak load forecast. D.22-06-050 tasked this CEC Working Group with developing a QC value for DR resources for RA Year 2025 and beyond. The methodology needs to be compatible with the SOD framework and should reflect the contributions of DR resources to reliability. The CPUC has also asked this working group to consider whether the working group-recommended QC value is transparent and how the methodology could be implemented in a time-efficient manner. In these comments, CESA makes the following general comments:

- The California Efficiency + Demand Management Council’s (“the Council”) Incentive-Based proposal should be adopted as the long-term DR QC methodology.
- QC ex-ante and ex-post evaluations should be able to incorporate submetering for resources using CAISO’s Meter Generator Output (“MGO”) settlement methodology.

CESA also provides perspectives on the five other proposals being considered by the CEC working group and QC adders.

## **II. THE CALIFORNIA EFFICIENCY + DEMAND MANAGEMENT COUNCIL’S INCENTIVE-BASED PROPOSAL SHOULD BE ADOPTED AS THE LONG-TERM DR QC METHODOLOGY.**

Overall, CESA recommends that the Council’s Incentive-Based proposal be adopted as the long-term QC methodology for DR for RA years 2025 and beyond. The Council’s proposal is based on proven capacity methodologies in PJM, Independent System Operator New England (“ISO-NE”), and the New York Independent System Operator (“NYISO”). This proposal allows DRPs to evaluate their own portfolios to provide a QC value, which would be reviewed and approved by CPUC Energy Division. Throughout working group discussions, parties have acknowledged that not all DR resources are the same – resources can be significantly weather dependent, sensitive to

customer fatigue, backed by physical distributed energy resources (“DER”) such as generation or storage, or can be called frequently. Additionally, there is variation in specific DR portfolios, and DRPs can have shifting customers, changing portfolio sizes, and different ages of resources, such that historical data availability can vary significantly. This is already acknowledged in the LIPs, where DRPs submit unique resource evaluation plans and use different statistical methodologies to measure performance.

Like the Council, CESA acknowledges that Energy Division will have to spend time reviewing DRPs data submissions and that the additional variety in the methodologies being used by DRPs could add complexity to the evaluation process. However, the penalties being faced by DRPs will incentivize rational creation of proposed QC values. In their proposal, the Council recommends that the penalty structure be aligned with a proposed Capacity Bidding Program (“CBP”) penalty structure being discussed in Pacific Gas and Electric’s (“PG&E”) DR Program Application at the CPUC, which imposes penalties for demonstrated capacity that is less than 50% of contracted capacity. CESA is also open to a more stringent penalty mechanism, such as the Hybrid Penalty Structure proposed in the CEC Interim Working Group Report or existing CBP or DRAM penalty structures, to ensure that DRPs are sufficiently incentivized to provide realistic capacity determinations. Over time, penalty structures should be aligned between investor-owned utility (“IOU”) programs and other third-party DR resources, but more stringent penalties may be appropriate for the first years of adoption to provide the CPUC and LSEs additional confidence. As experience and comfort with this QC methodology grows, penalties can be adjusted.

For storage-backed DR resources in particular, the Council’s Incentive-Based Proposal is a good fit because the load reduction and shaping potential for RA purposes can be more readily evaluated, measured as the amount of load that can be reduced during different times of the day based on how much of the storage reservoir is expected to be made available. For example, customer fatigue, and, to a lesser degree, weather sensitivity of load play a smaller factor in the ex-ante analysis. Ex-post performance is also directly measurable. Together, portfolios that consist of entirely or increasing proportions of storage-backed DR resources should pose less administrative challenges in evaluating their claimed QC values.

The timelines for determination of a QC value proposed by the Council are also much more reasonable than the existing timelines for the LIP. The Council proposes that claimed QC or intra-year updates be submitted to the CPUC by April 1 of each year and that Energy Division would provide a final QC value by June 1 of each year. CESA supports this timeline, including the removal of stakeholder and public comment on draft ex-ante evaluations currently in place for the LIPs. CESA also supports the submission of ex-post Demonstrated Capacity evaluations being due to the Energy Division in January for the prior year. Given that Demonstrated Capacity evaluations will be based on actual CAISO market dispatch, test events, or CAISO market bids, data for evaluation should be readily available for the yearly evaluation. This will reduce the friction of extensive ex-post data processing to align with ex-ante weather conditions.

Overall, CESA believes that the Council’s proposal meets all the working group principles, including being consistent with RA and SOD, translating load reduction capabilities into a reliability value while reflecting limitations, and is transparent and does not pose a barrier to RA participation.

The most difficult principle to assess may be whether this methodology accounts “for a resource’s capacity when reliability needs are highest,” given that there is flexibility for what hours resources could be shown and a lack of clarity around availability requirements for DR generally. However, CESA believes that flexibility is appropriate in a 24-hour SOD framework, and the Incentive-Based proposal can easily incorporate specific hourly availability requirements if those are established by Energy Division.

### **III. QC EX-ANTE AND EX-POST EVALUATIONS SHOULD BE ABLE TO INCORPORATE SUBMETERING FOR RESOURCES USING CAISO’S MGO SETTLEMENT METHODOLOGY.**

In many party proposals, the preferred baseline methodology to be used for the creation of a QC value is the CAISO settlement methodology. CESA supports the use of the CAISO settlement methodology to evaluate QC performance given that it increases transparency, aligns market performance, and represents a methodology familiar to DRPs. In our view, improvements can be made to these settlement methods, but these items fall outside the scope of this working group.

Currently, battery energy storage installations are growing across the state, and CESA anticipates that the amount of storage-backed DR will grow in the coming years. Additionally, electric vehicles (“EV”) are growing in popularity and can also provide demand response, whether through managed charging (“V1G”) or through vehicle-to-building (“V2B”) capabilities. For DR that is driven by these physical-backed resources, sub-metering is the ideal means to directly measure the output of these devices to measure their response more accurately to event calls or market dispatch.

The CAISO has an approved submetering settlement methodology, the Metered Generator Output (“MGO”) model, which is available for proxy demand resources (“PDRs”). Meanwhile, D. 22-08-024 also recently approved a sub-metering methodology and standards for EV supply equipment (“EVSEs”) for retail billing purposes. For SDR resources that are backed by physical devices and are using the MGO model for settlement, CESA recommends the use of sub-meter data for QC valuation and performance evaluation methodologies, regardless of whether ex-post evaluations are based on settlement methodologies or alternatives. Such direct-measurement approaches are appropriate for energy storage to fully capture the services provided, inclusive of both load reductions and exports. Given that RA is ultimately a program designed to ensure sufficient resources are made available to the CAISO market, there should be alignment between points of measurement for RA and the CAISO market.

### **IV. COMMENTS ON ADDITIONAL PARTY PROPOSALS.**

CESA also provides perspectives on the five other proposals being considered by the CEC working group and QC adders.

### **A. CEC Hourly Regression Methodology**

The CEC is the only other stakeholder, outside of the Council, that proposes a QC methodology that does not use the underlying LIPs. Instead, the CEC uses ex-post analysis to create regressions for each hour that show the correlation between weather and load reduction. The temperature of the “worst day” used to create the RA load requirement would then be used to determine the QC value for the coming year.

CESA believes that leveraging ex-post data to the development of a QC value is important to ground the QC of a resource on demonstrated ability. At the same time, for brand new resources without any previous performance data and an ex-post capacity of 0 MW, it is unclear how DRPs would propose an ex-ante regression analysis. Additionally, CESA is unclear of the timelines that DRPs would be required to submit ex-post and ex-ante analyses and the timeline for approval of a QC value by Energy Division. If this methodology is adopted, QC values should be provided to DRPs in June or July to allow DRPs adequate time to participate in solicitations and negotiate RA contracts for the year-ahead showing in October. Given this uncertainty, CESA is unsure whether the CEC proposal meets all the principles, particularly whether the methodology poses a barrier to participation in the RA program.

One aspect of the CEC proposal that CESA supports generally, regardless of the QC methodology adopted by the CPUC, is streamlined approval parameters. The CEC proposes streamlined approval for resources requesting QC values no greater than 25% above the ex-post delivered capacity from the previous year and that met at least 90% of their committed capacity in the previous year. CESA agrees with the CEC that this streamlining will likely significantly reduce the administrative burden associated with reviewing any ex-ante QC analysis, whether it is the CEC’s regression analysis, LIPs, or resource-specific models. At the same time, underperforming DRPs and large changes to QCs can be appropriately assessed by Energy Division.

### **B. California Large Energy Consumer Association (“CLECA”) Slice-of-Day LIP Methodology**

CLECA’s proposal is a modified LIP proposal, which would use the existing LIP analysis process extended to a 24-hour profile with one key exception – the removal of the availability assessment hours of 4-9pm. We agree that the removal of the 4-9pm availability requirement would allow LSEs to procure DR in different hours more suited to that LSE’s needs.

However, this proposal does not address the current drawbacks and barriers posed by the LIPs, including the extended timeline and costs. The LIP analysis process currently does not conform with the working group principle of not presenting a substantial barrier to RA

participation or allowing DRPs to quickly determine or update their QC values. Therefore, CESA does not support CLECA's proposal at this time.

### **C. Demand Side Analytics (“DSA”) and San Diego Gas and Electric (“SDG&E”) Modified LIP Methodology**

Like CLECA, DSA also proposes to keep the LIPs and modify them to fit the SOD framework, including planning solely for the worst day of each month instead of different weather and planning scenarios. DSA also seeks to better standardize outputs from DRPs in a SOD Load Impact Table. Additionally, for weather-sensitive resources, DSA proposes that DRPs create a time-temperature matrix to help compare ex-ante and ex-post performance, somewhat similarly to the weather normalization done in the existing LIP ex-post evaluation. Lastly, DSA proposes to create two new metrics for DR resources, a Performance Alignment Metric and Bid Alignment Metric. These metrics could help to evaluate DR performance, but DSA does not have a particular formal venue in which these metrics would be used.

CESA believes that the standardized format for the Load Impact Table is a useful visual and supports this type of standardization for QC outputs. CESA also supports the release of risk allocation (*e.g.*, loss of load probability) for the state so that DRPs can be better informed as to where their resources may be most needed. However, as stated by DSA, DRPs should not be forced to fit their resources into certain hours when SOD allows for flexibility. CESA also understands the desire to incorporate temperature into planning but cautions that the time-temperature matrix should not be required for resources not sensitive to weather. Lastly, unless the Performance Alignment and Bid Alignment Metrics will be used by the CPUC, CEC, or other parties in a formal venue (*e.g.*, DR evaluation report, RA docket, etc.), CESA cautions against requiring excessive analysis that is not used for planning.

Given that DSA's proposal does not address the current barriers in the LIPs and, like CLECA's proposal, does not conform to two of the working group principles, we do not support DSA's proposal at this time.

### **D. OhmConnect Streamlined LIP Methodology**

Like CLECA and DSA, OhmConnect also proposes the continuation of the LIPs, but with much more significant streamlining modifications compared to the other proposals. OhmConnect's proposal includes removing unnecessary evaluations for weather scenarios that are not used in planning, eliminating ex-post analysis metrics that are not used for ex-ante planning (*e.g.*, average event day performance), and ex-post performance evaluations for non-event-based DR. OhmConnect also recommends removing public review of LIPs

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unless this effort is standardized. All of these modifications should allow LIPs to be conducted on a more expedited basis, with QC values assigned by July 1 of a given year.

CESA sees OhmConnect's proposal as making improvements to the LIP process in order to reduce the burden the LIPs pose to DRPs and create a QC timeline that is reasonable for contract execution. Therefore, CESA sees OhmConnect's proposal as meeting all the working group principles. While we value the expedited timelines provided by OhmConnect, CESA does not prefer the Streamlined LIP proposal, except as a second choice to the Council's Incentive-Based Proposal.

V. **CONCLUSION.**

CESA appreciates the opportunity to provide these comments and feedback on the party proposals and looks forward to collaborating with the CEC and other stakeholders in this docket.

Respectfully submitted,



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