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**CALSSA 10 28 2022 Workshop Comments**

*Additional submitted attachment is included below.*



November 10, 2022

California Energy Commission  
Docket Unit, MS-4  
715 P Street  
Sacramento, CA 95814

Re: Docket No. 21-ESR-01—Comments on Lead Commissioner Workshop on Clean Energy Alternatives for Reliability

California Energy Commissioners and Staff:

The California Solar & Storage Association (CALSSA) appreciates the opportunity to submit comments on the workshop held on October 28, 2022, by the California Energy Commission (CEC), discussing clean energy resources to support reliability of the California electric grid.

CALSSA represents approximately 700 clean energy businesses serving over three million California energy users, and advocates for policies to expand the benefits of clean energy to all Californians. CALSSA supports and pursues policies that increase the ability of distributed energy resources, particularly behind-the-meter (BTM) storage and solar-plus-storage systems, to have greater value to California's grid.

## I. Introduction

In the October 28 workshop, CEC staff highlighted the compounding risks of recent years, in which a combination of extreme heat, extreme drought, wildfires, supply chain and tariff issues, and inflation have all contributed to demand-spike events and reliability challenges. In the 2021-2022 session, the California Legislature passed several measures related to improving reliability of the California grid through clean energy resources, providing various directives and resources for the CEC to take action to shore up the reliability of our grid.

With these compounding risks, it is essential that policymakers bring all resources to bear quickly. A crucial element of the reliability solution is BTM storage devices to respond to emergency and market signals. A key area of policy development is to better enable, and thus fully unlock, the potential of these resources to serve reliability needs. These comments focus on that aspect of the challenges set forth in the October 28 workshop.

## II. Comments

As set out in section 12 of SB 846, the Clean Energy Reliability Investment Plan (CERIP) is intended to support “programs and projects that

- accelerate the deployment of clean energy resources,
- support demand response,
- assist ratepayers, and
- increase energy reliability.”

Behind-the-meter storage addresses all of these goals:

- Distribution-interconnected batteries can be deployed more quickly than large-scale transmission-interconnected resources, and can store clean energy for use during times of peak demand.
- BTM batteries can respond to and shape customer demand, and can deliver energy to the grid as well, as long as policy support exists for that.
- BTM systems provide bill savings to customers, as well as reducing market price spikes, saving money for all ratepayers.
- BTM batteries are highly dispatchable and responsive to grid needs, and offer substantial reliability benefits.

For these reasons, distributed storage, particularly batteries installed at customer sites, should be central to the CEC’s development of the CERIP plan and other program and planning work being undertaken in response to SB 846, AB 205, and AB 209.

Installation of BTM storage in the California investor-owned utility (IOU) territories will surpass 1 GW this month. Based on existing installation trends, our initial estimates of deployment potential indicate that more than 2 GW of new capacity can be added between 2023 and 2026. This is an important resource to meet near-term reliability needs.

That said, a large portion of existing BTM battery capacity isn’t sufficiently supported by policy frameworks in place now, leaving substantial capacity stranded rather than being valued for providing reliability services. Battery storage is currently treated much like demand response, although there are substantial differences between battery storage and traditional demand response. The primary distinctions between BTM batteries and traditional demand response are that BTM battery systems can export to alleviate local supply constraints, and customers with BTM storage are far more likely to respond consistently over time, with less risk of effects like consumer fatigue. Programs and valuation for storage should be designed with those differences in mind.

Therefore, important program design elements to enable storage to perform to its potential include:

- compensating exported energy,
- measuring performance at the device level, and
- avoiding baseline methodologies that undervalue performance during emergency events.

As one example, some of our members dispatched BTM batteries during the September 2022 heat storm. These batteries could have delivered substantially more energy during the time of peak need if exported energy were counted and compensated. CALSSA members' battery resources stand ready to contribute more during grid reliability events. Our members also found that customer response did not degrade over the multi-day heat event.

Limitations on exports and performance measurement also lead to systems being sized small and less capacity being committed to programs, based on conservative assumptions about customer load, which can be hard to predict. This not only limits dispatch during events, but it reduces the capacity that aggregators can commit to a program due to this need to predict onsite load. At a time when we need more capacity for reliability, this is a costly counterincentive. Discharge from a battery storage device is more certain and predictable than traditional demand response, and can be relied on to perform at a higher committed level when not restricted to onsite load reductions or hampered by an overly conservative baseline methodology.

The primary source of limitations on exports is contained within CAISO market design and its rules. The CEC should be mindful that including a requirement for CAISO market integration in its program design will create a de facto export limitation even if its program otherwise would allow exports to be counted. Reliability programs can follow market signals without requiring market integration. A market-following signal would boost reliability in real time, reduce energy purchases during high-price intervals, and shape the need for future reliability procurement. We look forward to working with the CEC and CAISO to develop pathways for market-following signals, including identifying appropriate triggers and validation methods.

With respect to the Distributed Electricity Backup Assets (DEBA) program, the Legislature designed the program to dovetail with the Demand Side Grid Support (DSGS) program. DEBA is meant to provide deployment incentives for new resources that are eligible to participate in DSGS, meaning demand-side resources that provide dispatchable load reduction or generation.<sup>1</sup> As the CEC designs the DEBA program, the DSGS program should be revised to best

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<sup>1</sup> See Public Resources Code § 25792(a), (c).

complement it. In combination, these programs can provide incentives both to get more capacity deployed, and then to incentivize those assets to perform in the service of grid reliability.

To fulfill our near-term reliability needs, DEBA incentives should focus significant attention on getting clean capacity installed and ready to serve as grid resources by summer 2023. BTM batteries can be deployed quickly and should be central to the DEBA program.

With 13 GW of rooftop solar currently installed in California, there is great potential for deploying BTM batteries to store and dispatch that abundant clean energy, as well as to build new paired BTM solar-and-storage systems, supporting state climate goals.

Finally, in developing plans and programs to enhance reliability and continue the transition to clean energy, the CEC should aim to complement existing program offerings, to broaden opportunities for different kinds of customers to adopt clean energy technologies and contribute to meeting reliability needs.

### **III. Conclusion**

California currently faces great energy reliability challenges, and state energy policy makers are focusing substantial attention on ways to bolster reliability and avoid power outages. California needs to address these serious reliability concerns as climate change impacts accelerate, while also moving as quickly as possible toward a clean energy electric system. Behind-the-meter resources including battery energy storage can provide significant reliability benefits, and must be part of these efforts to ensure the grid is both green and reliable, in both the near term and long term.

We appreciate the CEC's energy leadership and look forward to continuing to provide input as this important work continues.

Sincerely,

/s/ Kate Unger

Kate Unger  
Senior Policy Advisor  
California Solar & Storage Association