DOCKETED	
Docket Number:	21-ESR-01
Project Title:	Energy System Reliability
TN #:	249994
Document Title:	California Solar Storage Assoc Comments on Load Shift Goal Workshop
Description:	N/A
Filer:	System
Organization:	California Solar Storage Association
Submitter Role:	Public
Submission Date:	5/3/2023 4:58:48 PM
Docketed Date:	5/3/2023

Comment Received From: CALSSA
Submitted On: 5/3/2023
Docket Number: 21-ESR-01

CALSSA Comments on Load Shift Goal Workshop

Additional submitted attachment is included below.

CALIFORNIA SOLAR + STORAGE ASSOCIATION
smart local energy

May 3, 2023

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 SB 846 Preliminary Load Shift Goal, April 19, 2023

California Energy Commissioners and Staff:

Re: Docket No. 21-ESR-01—SB 846 Reliability Assessment and Clean Energy Reliability Investment Plan, Comments on January 20, 2023, Workshop

California Energy Commissioners and Staff:

The California Solar & Storage Association (CALSSA) appreciates the opportunity to submit comments on the California Energy Commission (CEC) workshop held on April 19, 2023, discussing the preliminary work toward developing a load shift goal pursuant to Senate Bill 846 (2022).

CALSSA supports the CEC's work, together with the California Public Utilities Commission (CPUC) and the California Independent System Operator (CAISO), to set goals that can facilitate both understanding of what is possible through load flexibility and smart policy development to achieve ambitious goals.

CALSSA believes that demand-side resources, including behind-the-meter (BTM) storage and solar-plus-storage systems, merit special attention in the effort to set and attain these goals, as these resources straddle the line between demand and supply and can provide great flexibility and responsiveness as a part of a reliable, sustainable energy future.

General Comments

SB 846 requires the CEC—consulting with the CPUC and CAISO—to adopt a goal for load shifting to reduce net peak electrical demand, to adjust that target goal every two years in future integrated energy policy reports, and to recommend policies to increase demand response and load shifting without increasing greenhouse gas emissions or electric rates.

Adopting a load shift goal, as directed by SB 846, is an important initial step. That step gains meaning in the following step: developing policies to maximize the use and usefulness of demand flexibility. The current work should be directed toward policy implementation and economic transformation. There is a consensus that California's climate change strategy

requires transforming our economy, including the energy sector. CALSSA supports the goals that will enable this transformation, and we are eager to play a role in making this transformation happen smoothly, affordably, equitably, and most importantly of all, quickly.

Contemporary energy planning must focus on matching supply and demand to each other in a way that is much more dynamic and flexible than the traditional approach of developing supply to follow load, which has in the past been relatively rigid. The approach of beginning planning with forecasting load has its genesis in that traditional approach. The current moment calls for a fundamental shift in the approach to planning, where supply and demand resources are equally considered as candidate resources for a holistic energy plan that optimizes non-emitting, clean resources.

At the workshop, some agency leaders and staff expressed concern that demand-side resources and demand flexibility need to become more predictable so that they can be relied on in energy planning and can take the place of more expensive or emitting resources. Smart program design and nimbleness in modifying program elements based on experience can serve us well in ameliorating these concerns.

More importantly, third-party providers of demand flexibility and distribution-connected resources can play a key role in ensuring that demand-side resources show up reliably and are a basic building block of our clean energy future. Aggregators have expertise in building portfolio-level resources that account for variability at the individual level, including buffers as needed, and maximizing the responsiveness of each resource. Providing room for innovation in aggregation technologies and business models will help unlock the potential of these resources. Policy and planning frameworks should evolve so that such portfolios can compete fairly with traditional supply resources while being held to the same performance and reliability standards.

Comments on Goal Setting Framework Analysis and Proposed Load Shift Goal

It is not entirely clear how BTM energy storage is incorporated into the analysis. Greater clarity would be useful. CALSSA recommends that BTM storage be included in a way that allows for it to vary and be studied, not only treated as an input assumption modifying the demand forecast to which the scenario analysis is applied.

In considering the impacts of dynamic pricing and enabling technology, the analysis draws on research showing that demand response is significantly higher with enabling automation technology than without it (16% versus 9%). The advantage of using technology to automate response is clear. While the preliminary analysis assumed that in the ambitious DR case only 50% of customers would adopt enabling technology, the goal should be to increase adoption of automation technology. The recommendations presented at the workshop include providing incentives for customers to adopt load-shifting technologies and participate in dynamic rates and other programs compliant with the Load Management Standards. With that approach, it

would be appropriate to reconsider the assumption that only 50% of customers would adopt technology allowing greater levels of demand flexibility.

The goal-setting framework categorizes demand flexibility into three broad categories: Load modifying, resource adequacy, and emergency and incremental resources. The division between categories is not clearcut, and while the categories are useful for analysis and goal-setting exercises, policy and program development should focus foremost on achieving the greatest level of demand-side flexibility to reduce net peak demand and address other grid needs while minimizing costly investments in generation capacity and infrastructure. Given the urgency of addressing reliability challenges while transitioning to a zero-carbon energy system, concerns about precisely how the resources are categorized and whether they are incremental to planning practices may call for less emphasis.

We agree with the CEC's approach of expressing the goal for load shift in terms of ranges. This approach communicates the potential effectively and sets lower and upper bounds to focus policy efforts—which can be conceived of as "floor" and "reach" goals, as discussed in the workshop. The higher end of the range is achievable with appropriate policy and funding support. Given the importance of demand flexibility in achieving clean energy and climate goals, and the potential for demand-side solutions to substantially reduce costs of the supply and infrastructure investments over the long term, we advocate for robust state policy and funding support, including but not limited to rate structures, to achieve these goals.

Comments on Policy Recommendations

CALSSA supports many of the recommendations presented in the workshop. In particular, there is great value in developing pathways for BTM energy storage to support grid decarbonization and reliability. BTM energy storage should be a focal point for demand flexibility. As noted before, drawing on aggregation technology and software to automate load shift using batteries is among the most promising ways to ensure that the load shift is predictable and can be relied on.

We appreciate the CEC's effort in developing one such pathway through the Demand Side Grid Support (DSGS) program's new Incentive Option 3, and we look forward to working with the CEC to make that pathway a successful means of unlocking the potential for BTM storage. We agree with the CEC that existing participation models have not fully unlocked the value of BTM storage as a reliability asset, and for that reason, we believe it is appropriate to pursue a dedicated pathway for BTM storage. We will provide further input on this pathway in Docket No. 22-RENEW-01.

Other pathways can and should also be developed to enable BTM energy storage to serve as resources in all categories envisioned by the CEC's framework.

The workshop presentation noted that BTM storage and PV are already considered as load modifiers in the current demand forecasting approach. Opportunities for expanded demand

flexibility in the load modifying category can also focus attention on BTM storage, not only through rate design but also through programs that target load-serving entities' peak demand and thus their resource adequacy obligations. We also support the proposal mentioned previously, to develop an incentive program for customers adopting load flexibility technology, including BTM storage, paired with opting into Load Management Standards-compliant programs and rates.

The current Resource Adequacy (RA) framework allows BTM batteries to participate as capacity resources through demand response (DR) pathways. While BTM batteries can perform as demand response, they have capabilities that go beyond modifying onsite load, and frameworks can and should be modified to better enable BTM batteries to participate in Resource Adequacy. Fundamentally, limiting the capacity available to offer into the program to the level of onsite load results in far less capacity being brought to bear than the storage resource could otherwise provide, and reduces the predictability and reliability value of the resource compared with what storage can deliver when not constrained by load.

We also support the proposal to explore an adder on wholesale market revenue for supply-side DR, and believe that it would also be appropriate for BTM batteries participating in RA, whether through the DR frameworks or through a related framework that addresses batteries' specific capabilities.

Conclusion

CALSSA applauds the CEC for embracing the multiple initiatives tasked to it through SB 846 and other legislation in the most recent legislative session, and appreciates the efforts of the CEC, CPUC, and CAISO to develop ambitious goals and policy pathways to achieve them. This is a time of urgent challenge for California, and it presents an opportunity for transformation to meet our broader climate and clean energy goals. We look forward to continuing to participate in these efforts and to offering resources that can be valuable tools to reach our collective goals.

Sincerely,

/s/ Kate Unger
Kate Unger
Senior Policy Advisor
California Solar & Storage Association