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SunPower Comments 45-Day Language, 24-BSTD-01

Additional submitted attachment is included below.



May 10, 2024

Commissioner Andrew McAllister
California Energy Commission
715 P Street
Sacramento, California 95814

RE: Docket

Dear Commissioner McAllister,

Thank you for the opportunity to provide comments on Docket No. 24-BSTD-01. SunPower is one of the nation's leading providers of residential and multifamily solar, battery storage, and energy services. SunPower currently serves more than 550,000 residential customers in the U.S. We provide solar and battery storage directly to customers and work with home builders and multifamily developers to install solar and storage in new construction projects.

We appreciate the work and collaboration from CEC staff on the 45-day language for the 2025 Building Energy Efficiency Standards. We support the change put forward by CEC staff to update the low-rise multifamily solar Exception 2 to Section 170.2(f), which will provide an exception if the minimum required PV system size is less than 4 kWdc.

JA12 Proposed Changes

CEC staff have proposed a set of changes to Appendix JA12 to help ensure that batteries are cycling regularly to help benefit the grid and reduce greenhouse gas emissions. We support the proposed change to automatically reset the cycling capacity of the battery back to compliance capacity level after 72 hours, with the exceptions of during severe weather or Public Safety Power Shutoff (PSPS) events. We also support the minimum usable battery capacity for JA12 eligibility remaining at 5 kWh. We recommend a set of edits to JA12 language to ensure that the control strategy requirements are not unnecessarily restrictive and unintentionally prevent customer's from enrolling their batteries in a grid services program.

This version of the Building Energy Efficiency Standards will be in place through 2028, so it is critical that the JA12 language remain flexible enough to allow installed batteries to participate in grid services programs which are evolving to help bring greater benefits to the grid. As one example, the CEC recently approved the Demand Side Grid Support (DSGS) program to help reduce net-energy load. Between now and the end of 2028, more grid services programs may be available, or the structure of programs may be updated to support the electric grid in various ways. Grid services program may encourage or require batteries to charge from the grid under certain conditions. JA12 language shouldn't prevent batteries from being able to charge from the grid when it can benefit customers and the grid overall. We believe that changes to the proposed JA12 language to ensure that JA12 batteries are able to participate fully in grid services programs aligns with the intent of the battery compliance credit – which is to ensure that batteries are helping to reduce greenhouse gas emissions and support the reliability of the electric grid. We offer the following revisions to the JA12 language:

Proposed Language

The following proposed redlines match those put forward by the California Solar and Storage Association (CALSSA).

JA12.3.3 General Control Requirements

The requirements below are applicable to all control strategies.

(a) The BESS shall have the capability of being remotely programmed to change the charge and discharge periods.

(b) ~~During discharge,~~ The BESS shall be programmed to ~~first meet~~ discharge in amounts that follow the electrical load of the property. If during the discharge period the electrical load of the property is less than the maximum discharge rate, the BESS shall have the capability to discharge electricity into the grid upon receipt of a demand flexibility signal from an entity managing the system for a demand flexibility program or tariff.

(c) At the time of enforcement agency inspection, the BESS shall be installed and commissioned to meet one of the control strategies in JA12.4 below. The BESS also shall have the capability to remotely switch to the other control strategies.

JA12.4.1 Basic Control

When combined with an on-site solar photovoltaic system, to qualify for the Basic Control, the BESS shall be installed in the default operation mode to allow charging only from an on-site photovoltaic system when the photovoltaic system production is greater than the on-site electrical load. The BESS shall discharge whenever the photovoltaic system production is less than the on-site electrical load. In advance of a severe weather advisory, Public Safety Power Shutoff event, or demand response event, the BESS may depart from the default operation mode to charge from the electric grid and reserve the full charge for a potential interruption of service.

JA12.4.2 Time-of-Use (TOU) Control

When combined with an on-site solar photovoltaic system, to qualify for the TOU Control, the BESS shall ~~be installed in the default operation mode to allow charging only~~ charge from an on-site photovoltaic system when the photovoltaic system production is greater than the on-site electrical load. The BESS shall begin discharging during the highest priced TOU hours of the day. The operation schedule shall be preprogrammed from the factory, updated remotely, or programmed during the installation/commissioning of the system. At a minimum, the system shall be capable of programming three separate seasonal TOU schedules, such as spring, summer, and winter.

JA12.4.3 Advanced Demand Flexibility Control

When combined with an on-site solar photovoltaic system, to qualify for the Advanced Demand Flexibility Control, the BESS shall be programmed by default as Basic Control as described in JA12.4.1 or TOU control as described in JA12.4.2. The BESS shall ~~meet the demand flexibility control requirements specified in Section 110.12(a).~~ Additionally, the BESS shall have the capability to change the charging and discharging periods in response to signals from ~~the local utility, or a third party aggregator~~ an entity managing the system for a demand flexibility program or tariff.

JA12.4.4 Controls for Separate Battery Energy Storage Systems

When installed separate from (not in combination with) an on-site solar photovoltaic system, including when the building is served by a community solar PV system, to qualify for the compliance credit, the BESS shall be programmed ~~by default~~ to:

1. ~~Start Charging Charge~~ from the grid ~~at the onset of~~ during the lowest priced TOU hours of the day and start discharging at the onset of highest priced TOU hours of the day, or
2. ~~Meet the demand flexibility control requirements specified in Section 110.12(a), and shall~~ Have the capability to change the charging and discharging periods in response to signals from an entity managing the system for a demand flexibility program or tariff ~~the local utility or a third-party aggregator.~~

California Flexible Installation (CFI) Proposed Changes

We are proposing that the CEC create a CFI3 for the 2025 Building Energy Efficiency Standards. The CFI3 should allow for PV installed in the azimuth range between 90 to 300 degrees from true north and with all modules at the same tilt as the roof for pitches up to 8:12. Creating a CFI3 to account for this azimuth range and roof pitch can help streamline compliance, reducing the cost of compliance to the home builder.

We appreciate the opportunity to provide these comments on the 45-day language.

Respectfully,

Bronte Payne
Senior Policy Manager, SunPower