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SunPower CEC 2022 Rulemaking Comments

Additional submitted attachment is included below.

SUNPOWER®

March 9, 2021

California Energy Commission
1516 9th Street
Sacramento, CA 95814

Docket Number: 19-BSTSD-03

Subject: SUNPOWER COMMENTS ON THE 2022 BUILDING ENERGY EFFICIENCY STANDARDS DRAFT RELEASED ON FEBRUARY 22, 2021

Dear California Energy Commissioners and staff:

Thank you for the opportunity to submit comments on the 2022 Building Energy Efficiency Standards (BEES) draft released on February 22, 2021. SunPower is a 35-year old leading solar energy technology and services provider. We have more than 13 gigawatts of solar deployed around the world and are a leader in the U.S. residential and commercial market. We have more than 1,000 global patents and 1,300 dealers that sell our products to customers around the world. In California alone, SunPower products have been installed in over 84,000 residential units and 2,900 commercial enterprises – public entities and businesses alike. We also work with over 370 statewide dealers with more than 11,000 employees across the state. Through our work with the Energy Commission over several code cycles with thousands of units under the 2019 code, we are poised to deliver valuable and relevant insight into the areas that work and those that need improvement.

In general, we are supportive of the 2022 BEES draft language. We applaud the Energy Commission's leadership and drive to require solar and storage in commercial buildings, ensure energy storage systems can be easily added to homes in the future, and encourage buildings to include solar hot water systems and other electrification technologies. We do however have concerns that some of the proposed language could have unintended consequences or would benefit from greater explanation.

Section 140-10 (a): Exception 5 of Section 140-10(a) applies to multi-tenant buildings in areas where a load serving entity does not provide either a Virtual Net Metering (VNEM) or community solar program. However, we assert that this exception is unnecessary and would allow for missed opportunities within the market as it could impact a substantial percentage of the multi-family projects outside of the IOU territory. Installing solar in non-VNEM areas is still very feasible and cost-effective to residents, which SunPower would gladly demonstrate through our internal data and cost analyses. We recommend this exception be removed from the draft language.

Section JA11.5.1: The language in this sections states that "The PV system shall have a web-based portal and a mobile device application that at a minimum provide the *dwelling occupants* access to the following information." However, the language is unclear whether the requirement also applies to all units that participate in Virtual Net Metering (VNEM). If so, the requested information can be found in the participant's utility bill as part of the PV system's overall infrastructure. Providing access to the global monitoring platform may be possible, but it could be problematic to companies and builders to provide login access to every VNEM customer.

Also, under this section, the system monitoring requirements seem overly restrictive for non-residential units. We recommend loosening the standards for commercial units, but leave the requirements for residential units.

Section 10-115 (a)(6): We support the addition of a location requirement to the community solar compliance option, but we ask that the language, through a more concise reference to the term “distribution system”, call for Community Solar installations to be closer to the communities they serve. The section currently states: “The community shared solar electric generation system and/or community shared battery storage system shall be located on a distribution system of the load serving entity providing service to the participating buildings.” We ask the Commission to amend the language in the section to read, “The community shared solar electric generation system and/or community shared battery storage system shall be located on the distribution system of the participating buildings.” The change in the language would ensure a greater and more supportive representation of the interests for the communities they serve.

Section 140-10 (a)(1): We support the Commission’s language defining the Solar Access Roof Area (SARA) to include “roof space capable of structurally supporting a PV system”, but find that the language stops short of requiring the roof space to be organically structurally supportive of a PV system. We request an addition to the general code or in Section 110.10(b)(1)(B) to include the following: “...all otherwise qualifying SARA to include up to 12psf capacity for a solar system”.

Section 140-10(b): Exception 3 of Section 140-10(b) states “No battery storage system is required in buildings with 5,000 square feet of floor area or less in either tenant spaces in multi-tenant buildings or in single-tenant buildings.” Our reading of the draft language removes the battery requirement from properties that have any tenant spaces of 5,000 square feet or less, even if some of the tenant spaces are larger than 5,000 square feet. For example, the exclusion could include strip malls located in big box stores. We recommend the language be replaced with the following: “For multi-tenant buildings, the energy capacity and power capacity of the battery storage system shall be based on the tenant spaces with more than 5,000 square feet of conditioned floor area. For single-tenant buildings with less than 5,000 square feet of conditioned floor area, no battery storage system is required.”

Sections 140.10(a) and 150.1(c)14: Exception 4 of Section 140.10(a) and Exception 3 of Section 150.1(c)14 apply to snow loads with respect to “Buildings with enforcement-authority approved roof designs, where the enforcement authority determines it is not possible for the PV system, including panels, modules and components and supports and attachments to the roof structure, to meet the requirements of the American Society of Civil Engineers (ASCE)”. We request that the enforcement authority be mandated to seek our specifications from companies within the industry to determine whether the said components can meet the requirements of the ASCE. Therefore, we request the language read as follows: “Buildings with enforcement-authority approved roof designs, where the enforcement authority, after reviewing component specifications from key representatives and companies within the industry, determines it is not possible for the PV system, including panels, modules and components and supports and attachments to the roof structure, to meet the requirements of the American Society of Civil Engineers (ASCE)”

Section JA11.1: It is our understanding that the scope of Joint Appendix JA11 provides the qualification requirements for photovoltaic systems to meet the prescriptive or performance standards for single-family residential buildings as well as nonresidential buildings. However, the “Purpose and Scope” paragraph for JA11 only refers to Sections 150.1(b) and 150.1(c). We recommend incorporating language to broaden the purpose and scope to include Sections 140.10, 160.8(a) and 170.2(f)(g) and (h).

Section 170.2(f)(g): Given the fact that the formulas used to determine the kW for PV are different between residential vs non-residential, the threshold of three habitable stories may be considered arbitrary and could cause confusion for builders with respect to the PV requirements. We recommend greater clarity to why multifamily buildings with “three habitable story or less” was placed under the *residential* section of the code and why multifamily buildings with “more than three habitable stories” was placed under the *non-residential* section of the code.

Thank you for your consideration of our comments.

Respectfully submitted,

Jim Purekal
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SunPower Corporation