

DOCKETED

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Comments on BUILD Program Implementation Plan -- DOCKET 20-DECARB-01

Additional submitted attachment is included below.



August 7, 2020

California Energy Commission
1516 9th Street
Sacramento, CA 95814

Subject: Docket 20-DECARB-01 – Comments on Building Initiative for Low-Emissions Development Program Implementation Plan

Dear California Energy Commission,

Thank you for the opportunity to submit comments on the Building Initiative for Low-Emissions Development (BUILD) Program Implementation Plan (“Implementation Plan”) docketed on July 24, 2020. The California Solar & Storage Association’s comments are below.

General comments

According to the Implementation Plan, “the BUILD Program has mutual goals of GHG emission reduction and bill savings.” (See page 15 of Implementation Plan.) Customer-sited PV solar, energy storage systems, and solar water heaters are key ways to simultaneously allow for GHG emission reductions and bill savings. As stated in CALSSA’s public comments to the Energy Commission on the June 15, 2020 BUILD workshop, incentives for these technologies through the BUILD program would encourage their adoption for the following reasons:

- The building energy efficiency standards do not require onsite PV solar for multifamily homes higher than three stories, some of which are low income. Incentives for PV solar would encourage builders to add solar to those homes.
- The building standards require builders to install onsite PV solar to meet traditional electric loads on single family homes and low-rise multifamily homes. This is calculated as the expected usage from efficient new homes that are dual-fuel, with natural gas as the fuel source of water heating, space heating, and cooking. Many builders are unlikely to install additional solar and storage to power electrical heating and cooking appliances without incentives for this specific purpose. Incentives for PV solar to meet the additional electric load would encourage builders to add additional solar to homes, enabling homes to meet the state’s goals of net zero energy.
- Through compliance credit, the building standards encourage, but do not mandate, energy storage. Incentives would encourage builders to add batteries.
- Through compliance credit, the building standards encourage, but do not mandate, solar water heaters. Incentives would encourage builders to add solar water heaters.



The Energy Commission included PV solar and solar water heaters in the list of eligible technologies in the presentation for the Joint Agency Workshop on the BUILD program on June 15, 2020. (The presentation was added to the 20-DECARB-01 docket on June 12, 2020. See slide 30.) However, despite inclusion in the initial presentation, and that PV solar and solar water heaters create GHG emission reductions and bill savings, the Energy Commission removed these technologies from the eligible equipment list in the Implementation Plan. (See page 38 of the Implementation Plan). We request the Energy Commission add PV solar and solar water heaters to the eligible equipment list and design the program accordingly.

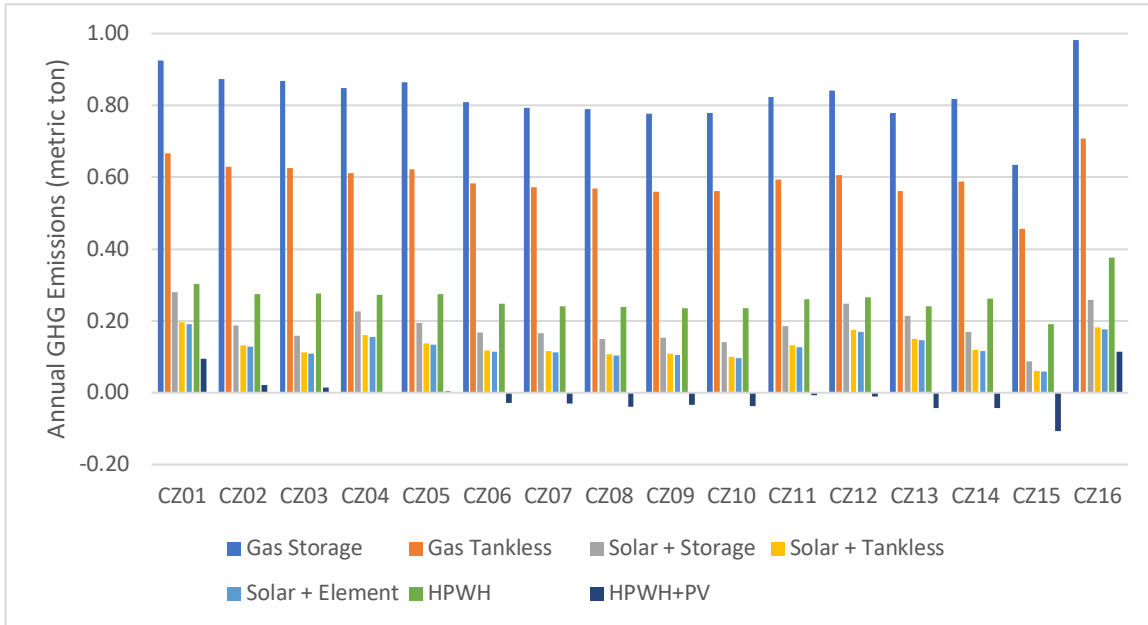
Additional comments on incentives for solar water heating

As stated above, the Implementation Plan’s list of eligible technologies fails to include solar water heating systems. (See pages 19 and 38 of the Implementation Plan.) The statute that directed the Energy Commission and the California Public Utilities Commission to create the BUILD Program, SB 1477 of 2018, explicitly included solar thermal systems in the list of eligible technologies.¹

Modeling of solar water heating and heat pump water heating across all 16 California climate zones shows that the use of solar with electric element backup results in lower emissions than heat pump water heaters. Solar water heaters and heat pumps both show high potential for GHG reduction in every climate zone compared to traditional gas-fired water storage tanks. Installing solar thermal while fuel switching from gas to electric backup results in an 84% reduction in GHG emissions.

¹ Public Utilities Code Section 921.1 (a)(1) and 921 (e)(2).

Table 1. Annual GHG Emissions Associated with Residential Water Heating Configurations²



For these reasons, we request the Energy Commission recognize solar water heating as an important component of electrification and include the technology in the BUILD program. To be eligible for an incentive, the BUILD program should require solar water heating systems to be certified to the ICC 900/SRCC 300 standard, which is referenced in California Building Code.³ This has been required for eligibility in the CSI-Thermal program.⁴

Additional comments on incentives for energy storage

The Implementation Plan states:

“CEC staff currently propose that if a project uses a technology or a portion of installed technology for compliance credit under the Energy Code, the technology will not be eligible for BUILD kicker incentives. However, staff also recognizes that in some cases, such as energy storage, limiting eligibility could be contrary to the other policies supporting adoption of beneficial technologies. CEC staff will continue to

² Modeling by Flagstaff Research for forthcoming publication.

³ This certification is available from both the Solar Rating and Certification Corporation (SRCC) and the International Association of Plumbing and Mechanical Officials (IAPMO).

⁴ CSI-Thermal Program Handbook, p. 13.



explore these considerations and will provide final guidance on eligibility in the proposed program guidelines.” (See pages 17 and 18.)

We appreciate the Energy Commission continuing to explore this issue. Residential energy storage that is grid-connected is a nascent technology, and multiple incentives – compliance credit under the Energy Code and a BUILD subsidy – are appropriate to spur adoption of the technology. Additionally, since energy storage systems in new construction are not eligible for the Self-Generation Incentive Program (SGIP) subsidies, an incentive for energy storage in the BUILD program would have a significant impact on lowering the cost.

Additional comments on the participation process

Regarding the process for providing incentive funding to builders and developers, we request the Energy Commission ensure funding can be reserved for 36 months, similar to how the National Solar Home Partnership (NSHP) program provided assurance of rebates for the life of a development. (See pages 32-33, item 5, of the Implementation Plan.) This provision in the BUILD program would ensure builders and developers receive the incentive funding if they make the electrification investments.

Additional comments on tables in the Implementation Plan

While we recognize the tables in the Implementation Plan are marked as samples, we would like to highlight two issues as the Energy Commission finalizes the tables:

- Under Table 3.1 (titled “Sample BUILD Program Incentive Structure”), the second column is titled “1-story Single Family.” (See page 13.) In the final version, we suggest the Energy Commission incorporate single family multistory homes into the incentive structure.
- Under Table 3.3 (titled “Sample BUILD Kicker Incentive Levels”), one of the possible incentive structures for on-site energy storage is \$X/MWh. (See page 18.) In the final version, we suggest the Energy Commission list incentives for energy storage as \$/kWh.

Thank you for the opportunity to submit comments.

Sincerely,

A handwritten signature in black ink that reads "Benjamin Davis".

Benjamin Davis
Policy Associate