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December 24, 2020

California Energy Commission Docket Unit, MS-4 Re: Docket 19-BSTD-03 1516 Ninth Street Sacramento, CA 95814-5512

Re: Docket No. 19-BSTD-03 – Center for Sustainable Energy® comments on Proposed 2022 Energy Code - Solar PV, Storage, and Heat Pump Baseline

Dear Commissioners and Staff:

The Center for Sustainable Energy® (CSE) appreciates the opportunity to comment on the California Energy Commission's (Energy Commission) 2022 Building Energy Efficiency Standards (Energy Code) and the proposals presented during the December 8, 2020 workshop. As a 24-year-old national nonprofit driven by our mission to decarbonize, CSE strongly supports the Energy Commission's focus on code proposals that will help drive the building sector toward a zero-carbon future.

California has long understood the important role of solar photovoltaics (PV) and energy storage for achieving a decarbonized and resilient energy system. As the industry continues to mature, incorporating these technologies into the energy code ensures that the future building stock will continue to make progress towards the State's greenhouse gas (GHG) emissions reductions goal in an equitable and resilient fashion. As such, CSE is encouraged by several of the proposed code updates that support greater adoption of solar PV and storage technologies.

Specifically, CSE strongly supports the proposed battery storage ready requirements for new residential construction. California's successes in deploying solar PV will deliver significantly more value when paired with energy storage systems by continuing to reduce load on the grid, enable load management, and provide resiliency benefits. Mandating new residential single-family homes to be battery storage ready is a significant step in ensuring Californians will have the opportunity to take advantage of the many benefits of energy storage by reducing technical barriers and installation costs. CSE also supports the continued integration of building and energy codes with other decarbonization strategies to maximize their impact. As such, we support the proposed battery storage ready requirements inclusion of panel requirements that accommodate electric vehicle (EV) charging and compatibility with bidirectional EVs. Preparing homes for future EV charging capabilities is essential for ensuring a successful transition to an

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electric transportation sector, while vehicle-to-grid technology can provide additional load management and resiliency benefits.

Moreover, CSE is pleased with the Energy Commission's treatment of solar and storage as a package within its proposal for multifamily and select nonresidential occupancies with access to Virtual Net Energy Metering (VNEM). While unlocking the potential of VNEM among multitenant properties has faced challenges in the past,<sup>1</sup> CSE commends the Energy Commission for its work on this proposal. We are specifically encouraged by Staff's acknowledgement during the workshop of a need to further coordinate with stakeholders regarding topics such as split incentive and leasing issues. In addition, we recommend that the Energy Commission accompany any future solar PV mandates with requirements for configuring rooftop equipment, such as HVAC systems, in a fashion that ensures the maximization of usable roof space for the purposes of the solar installation.

As noted in our previous comments, CSE supports electrification as a cost-effective and feasible strategy in many use cases to significantly reduce GHG emissions.<sup>2</sup> As such, we support the Energy Commission's proposal to establish a heat pump baseline for space heating in building types where it is feasible and cost-effective. This proposal marks a significant step in reducing GHG emissions associated with energy use in buildings as well as improving indoor and local air quality by reducing pollutants that have been linked to public health concerns such as higher asthma rates. We recommend the Energy Commission continue seeking ways to encourage all-electric new construction by expanding the scope of building stock covered under the current proposal or exploring additional incentives through the code.

In general, CSE commends the Energy Commission's dedication to decarbonization and continued efforts to move the needle on California's Energy Code. We look forward to continued engagement with the Energy Commission and stakeholders to identify cost-effective measures and strategies to reduce energy use and GHG emissions from the building sector.

Sincerely,

Stephen Gunther

<sup>&</sup>lt;sup>1</sup> VNEM Full Market Potential, Center for Sustainable Energy, September 30, 2016, available at <a href="https://energycenter.org/sites/default/files/docs/nav/programs/solar-pathways/VNEM-Full-Market-Potential-Report.pdf">https://energycenter.org/sites/default/files/docs/nav/programs/solar-pathways/VNEM-Full-Market-Potential-Report.pdf</a>

<sup>&</sup>lt;sup>2</sup> Center for Sustainable Energy support for 2022 Energy Code promoting all-electric construction Comments, September 1, 2020, available at

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