

September 6, 2017

Email to: [docket@energy.ca.gov](mailto:docket@energy.ca.gov)

Original Copy to:

California Energy Commission  
Docket Office, MS-4  
Re: Docket 17-DSTD-01  
Subject: 2019 Residential Standards  
1516 9<sup>th</sup> Street  
Sacramento, CA 95814-5512

**Re: Comments of the California Energy Storage Alliance (“CESA”)  
on the 2019 Building Efficiency Residential Standards  
Docket 17-BSTD-01**

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Dear Commissioners:

The California Energy Storage Alliance (“CESA”) applauds the California Energy Commission (CEC) and its staff for considering how best to direct and structure building efficiency standards.

In this code update cycle, the roles and applications of energy storage solutions are being more broadly discussed. Energy storage can help meet state and local targets for GHG reduction, grid efficiency, and home design ratings. Energy storage can also serve as a very flexible measure to meet the CEC Building Code Energy Design Rating (“EDR”) and reduce the home Time Dependent Value (“TDV”), considering its ability to offset electricity consumption from any home at any time of day. Since building efficiency standards should afford builders with as much flexibility as possible, the role of energy storage in providing many different solutions is especially intriguing, and rules should support this flexibility.

CESA offers the following comments:

**A. Batteries should be evaluated as their own category of credit or measure.**

Batteries should be fully valued for their ability to reduce the EDR and TDV. Primarily, storage can work by charging from inexpensive electricity to absorb and later use low GHG emission grid power, or even zero emission renewable power. Storage can also capture power from Solar PV that is sized beyond the prescriptive PV amount, or stand-alone storage can provide key values, not only to a home’s TDV value but also to the customer who may appreciate the flexibility, savings, and services provided by energy storage solutions.

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Batteries should be allowed to offset prescriptive energy efficiency measures and PV measures through the performance compliance approach.<sup>1</sup> The creation of a ‘battery credit’ will support the adoption of a newer yet valuable technology to compete on an equal playing field with all technologies. Storage often enables other building efficiency measures, yet storage can also offset the use of technologies. The EDR and TDV calculations should value these capabilities. By reducing the TDV and improving grid efficiency, it may be reasonable to count energy storage as its own ‘efficiency measure’.

**B. Energy storage in many different configurations should be valued by the EDR, including in stand-alone configurations or paired with solar.**

CESA recommends that EDR counts allow for an array of different energy storage configurations and uses. While basic deployment options such as stand-alone storage versus storage paired with solar should be accommodated, multiple use cases for storage should also be allowed. Key use-case options should include self-power, autonomous discharge, and grid responsive.

As CEC staff acknowledged during the August 22 workshop, the grid responsive option does not need to be controlled by the utility. This is important because not all utility-controlled programs will be fully operational in time for the Title 24 approval process prior to the construction phase. A requirement for utility controlled program participation is thus restrictive and should only be an option.

**C. EV-Ready set-ups should also be valued.**

EVs can and will play key roles in grid support, including in absorbing excess or low-GHG electricity. As such, EV-ready set-ups should be valued appropriately in building efficiency standards. At the time of construction, the marginal costs for installing EV infrastructure, such as a dedicated level 2 charging circuit, are much lower. CESA supports building efficiency codes that create flexibility to consider and value the inclusion of EV ready circuits, etc. and is interested in further exploring how the energy code efforts by the CEC can complement the CalGreen Code efforts being undertaken under part 11 of Title 24.

**CONCLUSION:**

CESA appreciates the consideration of energy storage solutions to support the State’s building efficiency standards. Storage will be key to the tool-kit of new buildings and of the grid in the future.

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<sup>1</sup> This approach is supported by other stakeholders based on comments during the workshop and written comments submitted in May 2017 including Tesla and CBIA’s. See comments of Tesla and of CBIA: [http://docketpublic.energy.ca.gov/PublicDocuments/17-BSTD-01/TN217469\\_20170508T093603\\_California\\_Building\\_Industry\\_Association\\_CBIA\\_Comments\\_2019\\_ZNE.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-BSTD-01/TN217469_20170508T093603_California_Building_Industry_Association_CBIA_Comments_2019_ZNE.pdf), p.4.

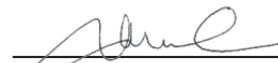
[http://docketpublic.energy.ca.gov/PublicDocuments/17-BSTD-01/TN217464\\_20170505T163804\\_Francesca\\_Wahl\\_Comments\\_Tesla\\_Comments\\_2019\\_ZNE\\_Residential\\_St.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-BSTD-01/TN217464_20170505T163804_Francesca_Wahl_Comments_Tesla_Comments_2019_ZNE_Residential_St.pdf)

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CESA members stand ready to support the Commission in its efforts to understand storage and develop smart and flexible building efficiency standards.

CESA is a California-based 501(c)-6 non-profit with over 65 energy storage member-companies who are the leaders in the energy storage industry. CESA's mission is make energy storage a mainstream resource that accelerates the adoption of renewable energy and promotes a cleaner, more efficient, reliable, affordable, and secure electric power system.

Sincerely,



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Janice Lin

Executive Director

**California Energy Storage Alliance**