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Tesla Comments - Draft Residential Compliance Manual

Additional submitted attachment is included below.



August 3, 2018

Payam Bozorgchami and Energy Commission Staff
California Energy Commission
Dockets Office
Re: Docket No. 18-BSTD-02
1516 Ninth Street
Sacramento, CA 95814

RE: Draft Residential Compliance Manual Title 24 Part 6 2019 Building Energy Efficiency Standards

Dear Mr. Bozorgchami and Energy Commission Staff:

I am writing on behalf of Tesla to share our initial feedback on the draft residential compliance manual for the 2019 Building Energy Efficiency Standards, also known as the Energy Code.

Our comments focus on clarification of the shading verification requirements and product certification requirements, and suggestions regarding the structure for Chapter 7, Solar-Ready. Tesla will provide additional technical feedback on elements of the compliance manual pertaining to solar and energy storage capabilities as revised manual content is provided by Energy Commission staff.

Verification Requirements

As currently written, Chapter 7 references back to Joint Appendix (JA)11 to list the additional requirements a solar photovoltaic (PV) system must meet. Generally, this is somewhat confusing as the majority of Chapter 7 currently discusses the solar ready zone requirements and does not provide much additional detail as to the actual requirements for the inclusion of the PV system, except for referencing the exceptions to PV system inclusion and sizing several times.

Within JA 11, there are additional requirements for the PV system including solar access verification and minimal shading criterion. For the solar access verification, JA11.4 states that the installer should provide documentation that the shading condition has been met; however, it does not specify who is responsible for the actual measurements outlined in the section. It would be helpful to provide additional clarification in Chapter 7 on the options for who could be obtaining the measurements, such as the roofer or the installer, for ensuring the solar access verification criteria has been met. Additionally, for JA11.3.1, the minimal shading criterion, the architect and landscape architect will have a majority of the information necessary to submit to an Authority Having Jurisdiction (AHJ) regarding minimal shading verification. Chapter 7 should provide additional clarification on the interaction between these various stakeholders when submitting verification documentation via the Question and Answer (Q&A) format.

Throughout the draft manual, including in Chapter 7 and Appendix H, there are references to products being listed on the Energy Commission website. For instance, section 7.5 for battery storage states that storage “be certified to the CEC as a qualified product.” Appendix H when referencing Option B for compliance also notes that a demand response (DR) control system can be installed that has been certified to the Energy Commission. While both documents include a link to the listing page¹ there is no additional detail as to the process requirements to be a listed product and which certification documents must be submitted. The revised versions of the compliance manual should provide additional guidance on the listing requirements for various products utilized for compliance under the code and the intent of these listings verifications.

¹ http://www.energy.ca.gov/title24/equipment_cert/

Chapter 7 Structure

Tesla is not providing specific feedback on the technical content of Chapter 7 within these comments, but there is a need to include more detail on the compliance specifications for both solar and storage throughout the Chapter. This includes providing further context for how to meet the different battery storage control strategies. Recognizing that Energy Commission staff may still be considering additional clarifications to the details provided within the current draft for incorporating solar and storage, our comments focus on some minor structural modifications that could help increase the effectiveness of the manual as a guidance document.

First, incorporating solar ready, PV and storage requirements into one chapter is confusing from a compliance perspective. To maximize clarity, we recommend combining the solar ready and PV sections into one chapter and providing a separate chapter on battery storage compliance. Alternatively, Energy Commission staff could also provide a chapter on demand flexibility strategies that includes a section on battery storage system requirements and could be expanded upon in the future to include other compliance options.

For the solar ready and PV chapter, it would be helpful to organize the chapter such that it is easy to follow the distinction between the prescriptive PV requirements, the exceptions, the solar ready zone, and the community solar option. One way to do this would be to move up the solar ready, covered occupancies and solar zone sections, 7.6-7.8, to after section 7.2.3, which lists the exceptions and additional requirements. Section 7.3, the performance approach, can then follow after section 7.8.

Additionally, further clarification on the distinction between the regular on-site PV requirement and the community solar compliance option is needed. As currently written, it is unclear how the community solar option can be utilized and how this relates to currently available tariff options for community solar. The community solar section also references the opportunity for community storage systems but provides limited detail on what this option might look like and whether aggregating several smaller on-site (at the home) battery storage systems could be considered as a community storage compliance option when paired with community solar.

Tesla appreciates the opportunity to submit these initial comments on the draft residential compliance manual for the 2019 standards. We intend to provide additional input on the technical requirements outlined in Chapter 7 once staff provides further details as to potential revisions.

Sincerely,



Francesca Wahl
Sr. Policy Associate, Business Development and Policy