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Tesla Comments - Storage Equipment Lists

Additional submitted attachment is included below.

August 31, 2018

Commissioner David Hochschild and Jim Folkman
California Energy Commission
Dockets Office
Re: Docket No. 18-SOLAR-01
1516 Ninth Street
Sacramento, CA 95814

RE: 2018 Lead Commissioner Workshop on the Energy Commission's Lists of Solar Equipment

Dear Commissioner Hochschild and Mr. Folkman:

Tesla participated in the solar equipment lists workshop that was hosted by the California Energy Commission (CEC) on August 16, 2018 and appreciates the opportunity to submit these comments.

The discussion during the workshop spanned several different elements including the existing solar inverter list. These comments in response to the workshop focus specifically on the possibility of adding battery storage equipment lists.

As discussed during the workshop, Tesla generally supports the creation of an equipment list for battery storage as it can remove the need for individual utilities and Authorities Having Jurisdiction (AHJs) to review certifications. In addition, the list can provide confidence to installers, developers, utilities and AHJs that a device or system is safe and meets industry-accepted standards. To drive near term efficiency, Tesla recommends a staged approach to adding battery storage equipment lists. The first stage should focus on ensuring relevant certifications are met. The second stage, if necessary, could incorporate more detailed performance metrics based on a program's specific needs.

Stage 1 – Simple Certifications
To provide the benefits of having battery storage as part of the verified equipment list without creating an additional certification body, the CEC should verify that battery storage systems have applicable certifications from Nationally Recognized Testing Laboratories (NRTLs). The CEC should work with industry stakeholders to determine which certifications are appropriate to require from a safety perspective before establishing the list requirements.

Stage 2 – Metrics Based on Programs Needs
In the near term, the benefit compared to the cost of including specific performance requirements is unclear. Performance metrics requirements, such as roundtrip efficiency, should be based on specific program needs. Today, there are no clear standard testing conditions to evaluate performance data across different system components, technologies, and applications. For instance, in the context of the Self-Generation Incentive Program (SGIP), performance requirements are tailored specific to the program for participants to receive participation incentives. These same performance requirements may not be appropriate for other programs where battery storage is serving a different function. The selection of the metrics required should be carefully considered, as establishing a metrics requirement for the list may lead to favoring a certain use case or technology. Additionally, when individual components (inverter, battery storage, solar) are combined into a system, performance metrics for the combined system may not correlate to those of the individual

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components. Therefore, the benefit of having performance metrics requirements for individual components should be further explored with staff and stakeholders in the context of specific programs prior to any inclusion on the equipment lists.

Finally, while we acknowledge the potential benefits to incorporating battery storage on the equipment lists, doing so in a timely and efficient manner will likely also require additional resources at the CEC. Historically, adding equipment to the CEC list has been a lengthy process. CEC staff should clearly outline any additional resources needed to develop the certification lists and the timeline under which it expects to do so.

Tesla looks forward to working with staff to determine the appropriate certification requirements and timeline for incorporating battery storage.

Sincerely,

Francesca Wahl
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