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The Coming Central Role of On-Site Storage

Additional submitted attachment is included below.

From: Avery Colter

To: <u>Energy - Docket Optical System</u>

Subject: 22-BSTD-01: The Coming Central Role of On-Site Storage

Date: Wednesday, August 9, 2023 2:50:05 PM

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Mr. Raymer of the CBIA writes much which chimes with my work in Title 24 modeling and in general, especially as regards code incentives for market penetration of on-site battery storage.

Oft is the "duck curve" mentioned in the daily sense, but as was indicated as we watched in dread at the Texas Winter, the real duck curve going forward will be the annual one, as even in many areas of California, until sufficient storage is online, the hot time for grid demand will be in the icy cold of night, with heat pumps running full-bore to clutch precious enthalpy from frigid air. We've reached the point in raw design terms where some might have a relatively easy time outproducing need with their modules in the summer, but even for many privileged owners, storage enough for the needs over the winter is still a very big ask.

I wonder to what degree the CEC has had any official consultations with organizations like Microgrid Knowledge, and whether consideration needs to be made among the commission, large developers and utilities about such things as DC-based microgrids in housing developments which might be a path around some of this transformer shortage Mr. Raymer mentions, whether such things have a place in the modeling and calculation methods for compliance. It may be that there is a place in housing's free market sector for constructs of "social storage" in substantial housing developments. We have seen all over, after all, how critical site resilience will certainly be going into our stormy future.

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