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2022 Single Family Energy Code ESS Ready Provisions and ADU Impacts

Additional submitted attachment is included below.



September 21, 2022

California Energy Commission

RE: 2022 Single Family Energy Code for ADUs

Hello,

We are a cross-sector, statewide coalition of ADU and small housing industry professionals, housing policy leaders, and homeowners working to make it easier to build small infill homes to improve the inclusivity and sustainability of California communities.

We appreciate that the energy code has added provisions that support the creation of ADU homes, such as the PV exception for homes that would require systems less than 1.8 kW. We write to you today regarding the **Energy Storage System (ESS) Ready** provisions in Section 150.0(s) of the Mandatory Features and Devices chapter, reproduced below.

We support your general effort to make single-family homes ESS ready, but think the CEC's current interpretation creates unintended and costly consequences for the construction of ADUs. It will inhibit the building of cost-effective and practical ADUs in California. We have summarized our concerns below and have provided an alternative interpretation that will implement your primary intent while removing the unintended adverse impacts on ADU construction. We appreciate your thoughtful consideration of these issues.

Point 1: ESS not needed in ADUs:

If the ADU meets the PV exception (under 1.8 kW), then no ESS ready requirement should apply, as battery storage is a grid harmony measure only when combined with PV panels.

Point 2: ESS not practical in ADUs:

Even if the ADU does not meet the under 1.8 kW PV exception and PV is installed on the ADU, we note that certain aspects of ADUs should exempt them from the ESS ready provisions:

- Space is at such a premium in ADUs that reserving space for a future battery and wiring a Critical Loads Panel is not practical. The typical location in garages is not possible for almost all ADUs, since very few ADUs have a garage.
- Fire codes eliminate many possible locations for ESSs and there is no obvious location for them in many ADUs.
- Fire code (NFPA855 section 4.4.3.3) requires all outdoor ESSs be at least 10' from all lot lines, public ways, which may be almost impossible for an ADU. By state law, ADUs may be built within four feet of the side and rear property lines; homeowners may also convert existing garages to ADUs without moving them 4 feet from the property.

Point 3: ESS requirements exceed the power needs of ADUs:

The minimum main panel size of 225 amps should apply only to the main dwelling unit, not to a small dwelling unit that is accessory to the main dwelling. If a lot contains two full-sized single-family homes, then we can see how both of these units should be subject to the ESS requirement. But where the second unit is only accessory, then the ADU should be exempt. The current language, as interpreted in the most recent *Blueprint #139*, states that an ADU added to a lot must have its own 225 amp electric panel (in addition to whatever serves the main house on the lot). This is not appropriate for ADUs.

- ADUs have much lower total electric loads than full-size houses.
- ADUs are not required to add off-street parking and thus EV charging capacity should not be required for ADUs.
- If the main house is required to be built ESS-ready and a grid outage occurs, the ADU residents could shelter in the main house.
- Smart panels and circuit sharing devices make it possible for ADUs to be added to lots with existing homes with only typical panels at 100 amps. For context, Steven Dietz of United Dwelling, Inc. builds 2-bedroom ADUs with a peak electric load of 93 amps and a 100-amp installed panel.

Point 4: Alternative Interpretation requires ESS just for single-family homes.

The introductory paragraph in the CEC codes states the following:

(s) Energy Storage Systems (ESS) ready. All single-family residences **that include one or two dwelling units** shall meet the following. All electrical components shall be installed in accordance with the *California Electrical Code*,

This text determines what types of residential buildings are subject to this ESS requirement. It clearly applies to single-family homes, but only to those with one or two dwelling units. The phrase “single-family residence” we believe should apply only to main buildings, not to each unit that shares its property. This interpretation is a valid way to read the phrase “that include one or two dwelling units.” It restricts application of this requirement to just those residences with one or two dwelling units.

Accepting this interpretation allows the CEC (1) to continue requiring ESS for main dwellings, which use a significant portion of the energy consumed on each lot, and (2) to avoid the expensive, difficult, complicated, and for some ADUs, impossible requirements that will discourage construction of ADUs. In 2021 ADUs accounted for 15% of all new housing permits in California, and many local jurisdictions’ Housing Elements depend on continued ADU construction to meet their RHNA numbers. If CEC interprets the ESS requirement to apply to accessory dwelling units, then the assumption that ADU construction will continue apace will no longer be valid.

In general, we support CEC’s effort to make homes ESS ready, but the current interpretation will have devastating impacts on the construction of ADUs and on the Housing Element review process. The CEC has always been receptive to input from the building industry and those advocating for more housing construction. We trust that you will receive this submittal to the Docket in that spirit and notify Casita Coalition with direction for us to use with local governments officials that supervise ADU projects under the new 2022 single family energy code.

Respectfully,



Debbie Sanderson, Board Secretary



Denise Pinkston, Board President