

DOCKETED

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CBIA Comments on 2019 Update of Residential Energy Standards

Additional submitted attachment is included below.



California Building Industry Association

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February 23, 2018

To: California Energy Commission – Docket 17-BSTD-02

RE: 2019 Energy Code

Introduction:

The California Building Industry Association (CBIA) is a statewide trade association representing over 3,000 member-companies involved in residential and light-commercial construction. CBIA member-companies are responsible for over 90% of the new homes constructed in California each year.

Position on the 2019 Energy Code Update:

Please be advised that the California Building Industry Association has taken a position of **SUPPORT** for the adoption of the CEC's 2019 Update to the Residential Building Energy Efficiency Standards. CBIA would like to extend our thanks to the enduring efforts of Commissioner Andrew McAllister, Mazi Shirakh, Payam Bozorgchami and the rest of the CEC Staff who have spent so much time on this collaborative effort.

Remaining Technical Issues/Suggestions

Battery Storage Compliance Credit:

CBIA strongly supports the Grid Harmonization Credit (GHC) which will allow a portion of the total battery compliance credit to be used toward the energy efficiency energy design rating (EDR). This will be an important tool to allow flexibility for builders who will need to adjust to increasingly stringent standards. Like the current "PV Compliance Credit", the Grid Harmonization Credit will also help to promote the voluntary installation of a technology that will be taking a more prominent role in the 2022 and 2025 updates. It should also be noted that, as time-of-use rates become the default rate structure for utility rate payers, the combination of "solar + battery" will become a very attractive feature for many homebuyers.

CBIA remains concerned that the Investor Owned Utilities (IOU) have expressed concern over the CEC proposal to allow compliance credit for oversized PV systems when they are coupled with a battery. As proposed, when a builder chooses to install a battery, the 2019 Standards and the related compliance program (CBECC) will allow a PV system to be oversized by 1.6 times the estimated electrical load of the home. CBIA supports this credit as it allows builders design flexibility in the move towards full Zero Net Energy construction practices.

However, the IOU's are authorized to disallow net-energy metering (NEM) interconnection for PV systems sized to offset more than the estimated electrical load of the home. In comments to the docket responding to the August 22, 2017 workshop, PG&E stated that *"allowing significant over-sizing with a 1.6 multiplier of PV systems may inadvertently encourage violation of NEM regulations. Without being able to participate in utility tariff structures bound by these specific rules, the benefit-to-cost ratio for the generation and storage system may be jeopardized."* In comments to the docket Southern California Edison (SCE) stated similarly in September of 2017 that *"allowing significant over-sizing of PV systems may inadvertently encourage violation of NEM-successor regulations. Without being able to participate in utility tariff structures bound by these specific rules, the benefit-to-cost ratio for the generation and storage system may be jeopardized."*

Both the 2019 Standards and 2019 CALGreen propose metrics to allow PV oversizing, but CEC staff has yet to address the fundamental oversizing issue presented by IOU representatives. CBIA looks forward to working with the CEC, IOU's and the PUC to address these issues in the near future.

Air Filtration:

CBIA agrees with the Statewide CASE team recommendation that the 45-Day Language be modified to eliminate the filter pressure drop and size requirements (as described in their comments submitted to the Docket on February 21, 2018).

Drain Water Heat Recovery (DWHR)

CEC staff included a newly adopted IAPMO test method for Drain Water Heat Recovery (DWHR) systems that are not vertical. Per Gary Klein's suggestion, CBIA would like to recommend that IGC 346-2017 can be used to rate the efficiency at any slope from horizontal to vertical. As worded, the paragraph states that vertical units must be tested and labelled in accordance with the CSA standards. However, the efficiency could also be tested in accordance with the IAPMO Guide Criteria (IGC). CBIA recommends the following change to section (a):

A HERS inspection is required to obtain this credit. All DWHR unit(s) shall be certified to the Energy Commission according to the following requirements:

- (a) Vertical DWHR unit(s) shall be compliant with CSA B55.2, and tested and labeled in accordance with CSA B55.1 or IAPMO IGC 346-2017. Sloped DWHR unit(s) shall be compliant with IAPMO PS 92, and tested and labeled with IAPMO IGC 346-2017.
- (b) The DWHR unit(s) shall have a minimum rated effectiveness of 42 percent.

Lighting Safety Concern

The exception to Section 130.1(a)1 allows public restrooms with two or more stalls, parking areas, stairwells, and corridors to use a manual control not accessible to unauthorized personnel. The excepted areas should include all areas for which proper lighting is important for safety purposes. CBIA recommends that CEC staff consult the appropriate health and safety code sections and with the Office of the State Fire Marshal and the Building Standards Commission to ensure that the proposed exception does not conflict with other parts of the building code and that the Standards do not inadvertently encourage unsafe practices.

Requirements for Ventilation and Indoor Air Quality

The language in Section 150.0(o)1C is unnecessarily technical for inclusion in the text of the Standards. The following language should be moved to the ACM Reference Manual:

The infiltration credit shall be calculated according to ASHRAE 62.2 Section 4.1.2.1 using a value for leakage rate in cubic feet per minute at 50 Pa (0.2 inch water) (Q50) based on the conditioned volume of the dwelling unit and a default value for dwelling unit envelope leakage of 2 air changes per hour at 50 PA (0.2 inch water) (2 ACH50) as described in the equation 150.0-A below.

$Q_{50} = [(\text{dwelling unit conditioned volume in ft}^3) \times (2 \text{ ACH50})] / (60 \text{ min})$ (Equation 150.0-A)

CBIA has discussed this issue with staff but has not received any explanation for why it is included in this section.

Sincerely,



Robert E. Raymer, PE
Senior Engineer/Technical Director