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Additional submitted attachment is included below.



California Building Industry Association

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September 12, 2017

To: California Energy Commission – Docket No. 17-BSTD-01

Re: 2019 CalGREEN Voluntary Standards

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 built in California each year.

CBIA would like to make the following comments relative to the CEC's proposed changes to the CalGreen Voluntary Standards contained in Part 11, Title 24, Division A4.2.

1. The need for utility companies to be involved in local reach code adoptions

As indicated at the August 30th Workshop, CBIA would urge the CEC to add an informational "NOTE" to Part 11, Section A4.201.1 Scope which advises the local jurisdiction to engage the local utility company as a stakeholder in the event the jurisdiction is considering the adoption of a reach code. This is especially important in the event the jurisdiction is considering an EDR = 0 (equivalent to Zero Net Energy design). An EDR of zero will involve the installation of an amount of PV solar in excess of that needed to offset the annual electrical demand. The local utility needs to be aware of this in order to avoid implementation issues in the field when the builder seeks to have the home connected to the utility grid.

2. Formatting of the Tier Packages

CBIA supports the CEC proposal to move towards the use of **two** "tier" packages in the energy efficiency portion of the CalGreen Voluntary Standards.

The CEC is on a trajectory to have all new homes Zero Net Energy at some point in the near future. The 2019 Update of the Residential Building Energy Efficiency Standards (BEES) will include a significant increase in the stringency of the energy efficiency provisions and for the first time will include a solar energy component for all new homes. The 2019 BEES will bring new homes very close to the goal of being full-ZNE. Staff has indicated that minimum compliance with the 2019 BEES will produce an Energy Design Rating (EDR) score in the mid-20's. As such, the available range of EDR scores between minimum compliance with the mandatory residential BEES and the ZNE Tier (EDR = 0) will significantly "shrink" as we make the transition from the 2016 BEES to the 2019 BEES. With regards to the CalGreen Voluntary Standards, it now seems appropriate to have a "ZNE" Tier where the EDR = 0 and then another tier at (roughly) the halfway point between minimum compliance with the Part 6 Residential BEES and the Tier which has an EDR = 0 (Tier 2).

3. Moving from a “percentage” designation to the Energy Design Rating (EDR)

CBIA supports the CEC proposal to eliminate “percentage” designations and instead use the EDR as the method of designating compliance with the two proposed Tiers. Since the CEC is moving forward with the use of the EDR as the method of designating minimum compliance with the Part 6 energy efficiency building standards, for consistency purposes, it makes sense to use the same method of designation for the two proposed Tiers.

4. Adding more prerequisites to the Tiers

As indicated at the August 30th workshop, **CBIA must oppose the staff proposal to add four additional prerequisites to each of the Tiers.**

At the present time, the 2016 California Green Building Standards (Chapter A4, Division A4.2 Energy Efficiency) specifies compliance with Quality Insulation Installation (A4.203.1.1.2) as a prerequisite to the CEC Tiers. The CEC proposal for the 2019 CalGreen standards would add the following four additional prerequisites to the Tier proposals:

- High Performance Walls (HPW)
- High Performance Attics (HPA)
- HERS-Verified Compact Hot Water Distribution System
- HERS-Verified Drain Water Heat Recovery

While CBIA can support maintaining Quality Insulation Installation (QII) as a prerequisite to the 2019 CEC CalGreen Tier proposals, we must oppose the inclusion of any additional prerequisites for the following reasons:

First, as staff and industry have indicated on numerous occasions, compliance with the minimum provisions of the 2016 Residential BEES will be very challenging. As more items are moved from the “compliance option” category and into the “prescriptive compliance” category, the building industry is rapidly losing design flexibility with the minimum standards. Effectively specifying the four additional prerequisites listed above will significantly and unreasonably restrict the remaining design options available to builders. Second, industry is admittedly unfamiliar with the field application with most of these measures in the production housing market, which would further disrupt a smooth transition to the new codes in the event a local jurisdiction adopts one of these reach codes. For example, we are unaware of any production builder in California ever using the Drain Water Heat Recovery system as a standards feature. Lastly, there seems to be serious question regarding the cost of compliance with both the 2016 and 2019 HPW measures. As such, it is at least possible that the cost effectiveness of these wall insulation measures could be in question.

5. Using a common PV kilowatt rating for simplicity purposes

As staff was showing the estimated “minimum kW” levels of PV that would be needed for compliance with Tier 1 and Tier 2 in each climate zone, the question was asked if code-users would prefer to see a separate kW value for each climate zone or a common value for either all of the zones or at least a common value for a group of climate zones for which the kW levels were very close to each other.

For the sake of simplicity, CBIA would support the use of a common value for those climate zones having PV kW levels which are very close to each other.

6. How to handle Climate Zone 16 anomaly

We share staff's frustration with the various issues encountered with Climate Zone 16 and the difficulties of reaching ZNE in that zone. Since this is a voluntary code and since there is extremely little production housing going on in Climate Zone 16, **CBIA would suggest the CEC simply indicate N/A for the ZNE Tier in CZ 16 with an informative "NOTE" explaining the inherent problems associated with getting to ZNE in that climate zone, at least for the short term.**