



California Building Industry Association

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In the matter of:)
)
Pre-Rulemaking -)
2016 California Green Building)
Standards (Part 11) Update:)
CCR Title 24, Part 11)

DOCKET No. 14-BSTD-01

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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 production-style homes built in California each year.

Green Building Standards (Part 11):

CBIA appreciates the CEC's desire and intent to update its Green Building Standards (Title 24, Part 11); however a couple of administrative and technical comments and concerns are in order.

Coordination with other agencies: CBIA strongly urges the commission to conduct the development and adoption of its Part 11 provisions in a rulemaking separate from the Part 6 update. At the present time, the CEC intends to adopt the updates to Part 6 and 11 in May of 2015, a full month before HCD will be forwarding their **DRAFT** updates to the BSC for processing. All of the other state agencies (HCD, BSC and DSA) are updating their Part 11 provisions in a consolidated administrative process that will see adoption by the BSC in January of 2016 while the CEC is seeking their initial adoption in May of 2015, a full 7-8 months ahead of all the other agencies.

If the CEC adopts its updates to Part 11 in May, there will be no opportunity for the BSC's Green Building Code Advisory Committee (CAC) to review and comment on the CEC's proposal and to insure there are no unintended technical or formatting conflicts with similar submittals by HCD, BSC and DSA.

Put differently, the CEC's adoption of Part 11 in May of 2015 will prevent the CEC from quickly addressing any needed changes in the event format or technical coordination problems arise with the portions of Part 11 the CEC shares with other agencies (HCD, BSC and DSA). Industry would strongly suggest the CEC discuss this issue with the BSC and HCD to avoid having to conduct a second "clean-up" rulemaking in late-2015 or early-2016.

Tier 3 (Zero Net Energy) Proposal:

As indicated by CBIA at the August 6th and November 3rd workshops, industry would prefer the CEC describe and/or define what a Zero-Net Energy home is without formatting it as a third "Tier" for the reasons stated at the workshop. Instead, we would prefer the Commission deal with the issue of Zero Net Energy in a **stand-alone section** which follows the Sections on "Tiers" in the CALGreen Appendix.

One of our primary concerns is that many jurisdictions will assume that the CEC has already performed the "cost-effectiveness" analysis, similar to that required of the local jurisdictions by Public Resources Code 25402.1(h)(2), which is not the case at all. Even though the installed price of residential rooftop solar has seen significant reductions in the past 2-3 years, it is still an expensive technology. More importantly, as the CEC noted during its June 2013 Workshop discussion on the Cost-Effectiveness of Rooftop Solar Energy Systems, there are still outstanding issues which could seriously impact the cost-effectiveness of small PV systems in the new residential home market.

For example, the issue of Net Energy Metering remains unresolved and will probably stay that way past the January 1, 2017 implementation date for the next Triennial Code Cycle update. In addition, the New Solar Home Partnership incentive funding program will have expired (or run out of funding) prior to January 1, 2017. Lastly, as industry indicated in our verbal and written testimony at that 2013 workshop, it is highly unlikely that the 20%-40% reduction in labor costs being assumed by the CEC's consultants will ever materialize for small, residential rooftop installations.

While well intended, the adoption of a ZNE mandate within a local jurisdiction could easily cripple housing affordability on entry level-homes, and will in most cases will not produce the zero or near-zero dollar energy bill that jurisdictions and consumers might expect. The high value placed on summer peak energy through the Commission's TDV-based ZNE definition incents builders to prioritize measures targeting those loads. However, with the exception of the very few customers on time-of-use rates that closely mirror TDV values, consumers will not reap financial benefits proportional to the cost of these measures. By creating an official "Tier" in CALGreen, the Commission would create an official regulatory definition for ZNE that puts State load-management goals ahead of consumer interests. Given the likelihood that the first official definition of ZNE will be carried over into future regulations, and how difficult it can be to re-write a regulatory definition, the CBIA believes the definition of ZNE should be given more thought and discussion before it is published as part of a regulation--even a voluntary one.

Once again, CBIA strongly urges the CEC to consider including a "NOTE" similar to that already in use by the Department of Housing & Community Development which explains to the code user that compliance with HCD's Tier 2 provisions are very costly and should be considered on a case by case basis. We would urge the CEC consider using similar language at the beginning of their Zero Net Energy section. The language used by HCD in the "NOTE" referred to above states:

NOTE: The measures necessary to achieve Tier 2 status are very stringent. Cities, counties, and cities and counties considering adoption of Tier 2 as mandatory should carefully consider the stringency of each measure and ensure that the measures are achievable in their location.

Technical Issues:

Section A4.201.1 Scope: As indicated in CBIA verbal testimony at the November 3rd Workshop, industry would strongly urge the Commission to enhance the scoping language with a specific reference to Public Resources Code 25402.1(h)(2) and indicate that part of the "required application" includes an analysis by the local jurisdiction confirming that the proposed local energy measures are cost-effective.

Section A4.202: Energy Design Rating: From a technical perspective, we have serious issue with the CEC's proposed use of the existing definition of "Energy Design Rating" as a key compliance basis for determining what will constitute field-compliance as "zero net energy" design. The existing definition for "energy design rating" is:

Energy Design Rating. *The sum of the annual TDV energy consumption for energy use components included in the performance compliance approach for the Standard Design Building (Energy Budget) and the annual TDV energy consumption for lighting and components not regulated by Title 24, Part 6 (such as domestic appliances and consumer electronics) and accounting for the annual TDV energy offset by an on-site renewable energy system. The Design Rating is calculated by Compliance Software certified by the Energy Commission.*

The portion of the definition highlighted in bold print (above) creates significant concern for industry for several reasons. First, it is an understatement to say that the **actual** unregulated “plug load” will vary substantially from home to home, and within the same home as it is largely dependent on occupant-load and occupant-usage patterns. Lacking information on occupant load and usage, it is highly likely that the CEC’s proposed building standard in this case would constitute a violation of at least two of the BSC’s nine-point criteria (Health & Safety Code 18930(a)(4) and (6).

In addition, the roll-out of the CEC’s compliance software for the 2013 efficiency standards has been “problematic” with more than nine updates to the program being certified by the CEC **after** the standards were adopted in April of 2012. Given this fact, how will designers, industry and the enforcement community have a clear understanding of what Zero Net Energy compliance actually means **prior** to adoption of the CEC’s Part 11 provisions or **prior** to approval of those standards by the BSC?

Section A4.203.1.2.3 Tier 3 (Zero Net Energy): Regarding Items #1 and #2; the stated requirement for inspections in these two instances seems to be repetitive as inspections are already required. In addition, the requirement in A4.203.1.2.3(#2) for an energy budget that is “less than or equal to 70 percent” seems to suggest that in order to get to ZNE, the CEC is requiring at least another 30% reduction in the energy efficiency budget (required by Part 6 minimum standards) with the rest to be accomplished by on-site renewables? What if it is cheaper or more marketable to get to an EDR of “0” via more renewable energy and less energy efficiency? Given the stringency of the current 2013 energy standards and looking at where the minimum energy standards for 2016 is headed, it is difficult to envision what designs (and their related costs) would be needed in order to get that additional 30% reduction in energy efficiency budget. Has the CEC done such an analysis?

Section A4.601.4.2 and A4.601.5.2: In sub-section 2.2 of each of these sections, the language still refers to “*additions and alterations*”. Given previous changes, shouldn’t “*and alterations*” be deleted from each of these subsections?

General Compliance Cost Questions:

1. What is the estimated compliance cost for the proposed Tier 1 & 2 prerequisites for a standard two-story home? Single-story? 16-plex apartment building?
2. What is the least expensive way (in terms of both cost and compliance measures) to meet the CEC’s Tier 1 requirement for a 15% reduction in the energy budget required by minimum compliance with CEC’s Part 6 Building Energy Efficiency Standards?
3. What is the least expensive way (in terms of both cost and compliance measures) to meet the CEC’s Tier 2 requirement for a 30% reduction in the energy budget required by minimum compliance with CEC’s Part 6 Building Energy Efficiency Standards?
4. Has the CEC determined rooftop solar to be cost-effective in all residential applications? If not, why would the CEC provide to local jurisdictions for adoption a “Tier 3” package that the local jurisdiction will be unable to show as cost-effective via the administrative requirements of PRC 25402.1(h)(2)?

5. Has the CEC performed the “cost of compliance” analysis required by Government Code Section 11346.2 and 11346.5? If so, could you please share your findings with industry? If not, why?
6. Has the CEC determined how a mandate for Tier 1, Tier 2 or (especially) Tier 3 within a local jurisdiction will significant economic impact on:
 - Low- and moderate income housing?
 - Small business (eg: a small home-building company)?
 - Housing affordability in general (eg: first-time homebuyer or entry-level homebuyer)?