

**COMMENTS FROM THE DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE CALIFORNIA ENERGY COMMISSION'S
ENERGY PROVISIONS OF THE CALIFORNIA GREEN BUILDING STANDARDS
CODE VERSION: October 22, 2014**

Schedule of CALGreen rulemaking and solicitation for comments

The proposed adoption date of CEC energy provisions in the 2016 CALGreen is May 2015. This date is significantly earlier than the California Building Standards Commission's (CBSC) proposed adoption date of mid-December 2015. CPUC approval and adoption of CEC CALGreen energy provisions will be complete prior to the BSC's CALGreen Code formal rulemaking process including the Code Advisory Committee meetings and public comment periods.

HCD is concerned with the finalizing of the energy-related portions of CALGreen well before the CBSC process. During the 2013 Triennial Code Adoption Cycle this resulted in logistical problems with the content, formatting and organizational structure of CALGreen. The CEC's concept/proposal in CALGreen for a Tier 3 requirement is one current example.

Many CALGreen stakeholders are not familiar with, nor do they participate in, the CPUC/CEC adoption processes making a parallel adoption of CALGreen with the CBSC more indispensable.

**APPENDIX A4
RESIDENTIAL VOLUNTARY MEASURES
DIVISION A4.2 – ENERGY EFFICIENCY**

California Energy Commission DOCKETED 14-BSTD-01
TN 74064 NOV 24 2014

Proposed Section A4.201. Scope.

CEC's amendment requires that local amendments adopting the CALGreen voluntary energy provisions submit them to the CEC for approval. CEC may want to also reference CALGreen Section 101.7 which outlines the process for submittal of local amendments, including energy-related amendments, to the California Building Standards Commission for approval.

Proposed Section A4.202 Definitions.

The format of CALGreen follows the other building standards codes with defined terms and their definitions in Chapter 2 and only a reference to defined terms and their locations in other chapters. Sample format:

**Section A4.202
DEFINITIONS**

A4.202 Definitions. The following terms are defined in Chapter 2.

ENERGY DESIGN RATING.

ENERGY BUDGET.

TIME DEPENDENT VALUATION (TDV) ENERGY.

General comment on Sections A4.203 and A4.204. Division A4.2 does not follow the format of the other voluntary A4 sections of CALGreen. CALGreen's voluntary divisions typically include specific prerequisite Tier measures, e.g., A4.408.1 65 percent

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construction waste reduction for Tier 1; plus a required number of electives. Since there are no electives proposed in Sections A4.203 or A4.204 it would seem that all the proposed provisions are prerequisites (versus electives) for either Tier 1, Tier 2, or Tier 3.

**Section A4.203
PERFORMANCE APPROACH FOR NEW CONSTRUCTED BUILDINGS**

Proposed Section A4.203.1.1.3 Lighting

- General comment: the provisions in this section seem to mirror the proposed 2016 CEC with minor differences. Specific comments follow.

Proposed Section A4.203.1.1.3 (1)

- The proposed 2016 CEC 150.0(k)(1) Interior Lighting Switching Devices and Controls Lighting requires at least one luminaire in bathrooms, garages, laundry rooms and utility rooms to be controlled by a vacancy sensor. This section also provides exceptions for closets less than 70 square feet and for hallways.
- Does proposed Section A4.203.1.1.2 (2) require all lighting in the specified areas to be controlled by vacancy sensors?

Proposed Section A4.203.1.1.3 (2)

- The proposed 2016 CEC 150.0(k)(3)(A) includes provisions for outdoor lighting for single family residences.

Proposed Section A4.203.1.1.3 (3)

- The proposed 2016 CEC 150.0(k)(3)(B) includes provisions for outdoor lighting for multifamily residential patios, etc.

Proposed Section A4.203.1.1.3 (4)

- The proposed 2016 CEC 150.0(k)(3)(D) includes provisions for outdoor lighting for residential parking lots.

Proposed Section A4.203.1.2.3 Tier 3 (Zero Net Energy)

- The proposed section includes a new Tier level not addressed in the introductory text in Appendix A4, Division A4.6 – Tier 1 and Tier 2.
- Existing Section A4.601.5 Tier 2 includes a note that the measures necessary to achieve Tier 2 are very stringent and that local adoption must consider the stringency of the measure and achievability. Similarly, the adoption of Tier 3, as proposed, should be considered for achievability on a jurisdiction-wide basis or whether it would only be applicable to certain projects.
- Are the proposed requirements for Zero Net Energy part of a statutory or regulatory definition for Zero Net Energy Building?
- Why does the building need to meet Tier 2 requirements which require an Energy Budget less than or equal to 70 percent when the goal is net zero?

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- Item 1 is not needed. All California Building Standards Codes, including CALGreen, require individual inspection. In addition, Section A4.203.1 already requires newly constructed low-rise residential buildings to comply with Section A4.203.1.1. There is no need for this requirement to be repeated.

**Section A4.204
PERFORMANCE APPROACH FOR ADDITIONS**

Proposed Section A4.204.1.1.1 Lighting

- General comment: the provisions in this section seem to mirror the proposed 2016 CEC with minor differences. Specific comments follow.

Proposed Section A4.204.1.1.1(1)

- Is this section requiring all lighting in the specified areas to be controlled by vacancy sensors?
- The term “*newly installed, permanently installed*” seems redundant, recommend using the term “*newly installed permanent interior lighting.*”

Proposed Section A4.204.1.1.1(2)

- The proposed 2016 CEC 150.0(k)(3)(A) includes provisions for outdoor lighting for single family residences.
- The term “*newly installed, permanently installed*” seems redundant, recommend using the term “*newly installed permanent outdoor lighting.*”

Proposed Section A4.204.1.1.1(3)

- The proposed 2016 CEC 150.0(k)(3)(B) includes provisions for outdoor lighting for multifamily residential patios, etc.
- The term “*newly installed, permanently installed*” seems redundant, recommend using the term “*newly installed permanent outdoor lighting.*”

Proposed Section A4.204.1.1.1(4)

- The proposed 2016 CEC 150.0(k)(3)(D) includes provisions for outdoor lighting for residential parking lots. Correct term “install” to “installed.”
- The term “*newly installed, permanently installed*” seems redundant, recommend using the term “*newly installed permanent outdoor lighting.*”

Proposed Section A4.204.1.2

- Recommend using “*indicated in Section A4.204.1.2.1 and A4.204.1.2.2*” rather than “*indicated below*”

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Proposed Sections A4.204.1.2.1 and A4.204.1.2.2 Exception

- Delete “a” before “Any”
- Complete citation for the California Home Energy Rating System Program by including reference to Division 2 and Section 1670 *et seq.*
- Is there a minimum HERS index to achieve to qualify for the exceptions?
- It is not clear whether the term “modification” refers to the modification of the mechanical system or to the low-rise residential dwelling.

**Section A4.6
RESIDENTIAL VOLUNTARY MEASURES**

**Division A4.6 – Tier 1 and Tier 2
Section A4.601 General**

Proposed Sections A4.601.4.2 and A4.601.5.2

- Delete “and alterations” in Section 2.2.
- If Tier 3 continues to be proposed it should be referenced in these sections.

**Division A4.6 – Tier 1 and Tier 2
Section A4.602
Residential Occupancies Application Checklist**

Proposed table heading

- Column 2 from the left cannot be altered since Columns 3 and 4 (Tier 1 and Tier 2), when checked, indicate that the measure is a prerequisite or elective for that tier. Footnote 2, when indicated, would identify the measure as a prerequisite for the tier.

Proposed table heading Performance Approach

- The title of the heading is “Performance Approach for Newly Constructed Buildings.” No strikeout is necessary for “Prerequisite Requirement.”
- Not necessary to include the term “residential” in the heading since the table is for residential structures.

Checkboxes in various columns

- The proposed location of checkboxes do not reflect the 2013 CALGreen publication. Is the intent to change the 2013 code to reflect the proposed checkboxes?

Sections A4.203.1.1.1, A4.203.1.1.2, A4.203.1.1.3

- Are these sections prerequisites? If so, the check box would be in both Columns 3 and 4 for Tier 1 and Tier 2, respectively. These checkboxes would have notations for Footnote 2 which identifies them as prerequisites for the indicated tier level.

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Proposed A4.203.1.2.1

- Parentheses not necessary for section title.
- Correct to read “Tier 1.” Not Roman numeral “I.”
- Checkbox in Column 3 would have a notation for Footnote 2 which identifies it as a prerequisite for the indicated tier level.

Proposed A4.203.1.2.2

- Parentheses not necessary for section title.
- Correct to read “Tier 2.” Not Roman numeral “II.”
- Checkbox in Column 4 would have a notation for Footnote 2 which identifies it as a prerequisite for the indicated tier level.

Proposed A4.203.1.2.3

- Parentheses not necessary for section title.
- Correct to read “Tier 3.” Not Roman numeral “III.”
- Checkbox in Column 4 would have a notation for Footnote 2 which identifies it as a prerequisite for the indicated tier level.
- Strikeouts not necessary since this is a proposed new section.

Section A4.204.1.1.1

- Is this a prerequisite? If so, check boxes would be in both Columns 3 and 4 for Tier 1 and Tier 2, respectively. These checkboxes would have notations for Footnote 2 which identifies them as prerequisites for the indicated tier level.

Proposed A4.204.1.2.1 and A4.04.1.2.2

- Identify A4.2041.2 as “Tier 1”; not Roman numeral “I.”
- Parentheses not necessary for section title for Tier 2. Correct to read “Tier 2.” Not Roman numeral “II.”
- Deletion of the “when” for two more systems does not read correctly. This section should read similarly to Section A4.204.1.2.2 in the table.
- Strikeouts not necessary in the “exception” since this is proposed new text.
- See comments regarding references to “modification” in the prior discussion for Section A4.204.1.2.1 exception.

Footnotes

- Correct footnotes to reflect current version of CALGreen (unless changed for 2016).

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**APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES
DIVISION A5.2 – ENERGY EFFICIENCY**

Proposed Section A5.201.1 Scope.
See comment for Section A4.201.

Proposed Section A5.202 Definitions.
See comment for Section A4.201. Also, it appears that references to other definitions for “geothermal,” “process,” and “solar access” are missing.

Proposed Section A5.203.1.1.1 Outdoor lighting.
“Allowed Outdoor Lighting Power” is not a defined term in Part 6, Section 140.7, however, there is a reference to how it is calculated.

Proposed Section A5.203.1.1.3 Interior lighting.
“Allowed Indoor Lighting Power Density” is not a defined term in Part 6, Section 140.6, however, there is a reference to how it is calculated in Subpart (b).

**Division A5.6 – Voluntary Tiers
Section A5.602
Nonresidential Occupancies Application Checklist**

Proposed table heading

- Column 2 from the left cannot be altered since Columns 3 and 4 (Tier 1 and Tier 2), when checked, indicate that the measure is a prerequisite or elective for that tier. Footnote 2, when indicated, would identify the measure as a prerequisite for the tier.

Proposed table heading Performance Approach

- Not necessary to include the term “nonresidential” in the heading since the table is for nonresidential structures.

Checkboxes in various columns

- The proposed location of checkboxes does not reflect the 2013 CALGreen publication. Is the intent to change the 2013 code to reflect the proposed checkboxes?

Section A5.203.1.1.3 Functional areas where compliance with residential lighting standards is required.

- This section needs to be re-titled and revised to reflect the current proposal in Section A5.203.1.1.3.

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Footnotes

Correct footnotes to reflect current version of CALGreen (unless changed for 2016).
Footnote 2 would actually apply to the prerequisites for the Tier provisions.