

**CALIFORNIA BUILDING STANDARDS COMMISSION  
GREEN BUILDING FOCUS GROUP  
August 20, 2013**

**Agenda Item 4a**

**Cool Roof for reduction of heat island effect  
SRI values**

- **History:**  
During the 2013 triennial code adoption cycle, the Energy Commission increased their cool roof SRI values for the prescriptive calculation and so SRI values need to be adjusted according.
- **Rationale for proposed code change:**  
As a result of the CEC's increase, we are proposing to increase our SRI values found on the voluntary measure table A5.106.11.2.1 for tier 1 to match the CEC SRI values in their prescriptive calculation and for tier 2 we are proposing the appropriate increase from the tier1 values. The proposed numbers for tier 2 will align with the City Los Angeles amended SRI values of their tier1.
- **Proposed language for intervening cycle**

LEGEND FOR PROPOSED LANGUAGE	
1.	Proposed California language and modified language is <u>underlined</u> .
2.	Repealed text: All such language appears in <del>strikeout</del> .
3.	<i>[Information for the reader is bracketed and in red italics]</i>

**Table A5.106.11.2.1**

**TIER 1 to align with CEC 140.3 (a) 1A (i)**

Roof Slope	Climate Zone	Minimum <del>3-year</del> Aged Solar Reflectance	Thermal Emittance	SRI
< 2 : 12	1 – 16	<del>0.55</del> <u>0.63</u>	0.75	<del>64</del> <u>75</u>
>2 : 12	1 – 16	0.20	0.75	16

**TIER 2**

Roof Slope	Climate Zone	Minimum Aged Solar Reflectance	Thermal Emittance	SRI
< 2 : 12	1 – 16	<del>0.65</del> <u>0.68</u>	0.85	<del>78</del> <u>82</u>
>2 : 12	1 – 16	<del>0.30</del> <u>0.28</u>	0.85	<del>30</del> <u>27</u>

## Agenda Item 4b

### Zero Emissions Vehicle Guidelines Electric Vehicle (EV) Charging Regulations

- **History:**  
The 2010 EV Non-residential voluntary provisions were modified for the 2013 CALGreen code to reflect language previously developed by the Department of Housing and Community Development (HCD). HCD had done considerable research on EV infrastructures and cost of construction. CBSC in coordination with California Air Resources Board (CARB) proposed two voluntary tiers for compliance for the 2013 CALGreen Code.
- **Rational:**  
Executive Order B-16-2012, CBSC is to address weather EV voluntary measures should be moved to mandatory during the intervening cycle or next triennial cycle. AB 1092 (Levine, 2013, not chaptered to date) CBSC is preparing for its approval. Office of Planning and Research Zero-emissions Vehicle Community Readiness Guidebook  
Department of Transportation Traffic Operations Policy Directive  
The Division of the State Architect- Access Compliance  
Coordinate language with HCD post research  
Edit Tier language for clarification with regards to minimum spaces
- **Proposed language for intervening cycle**

#### LEGEND FOR PROPOSED LANGUAGE

4. Proposed California language and modified language is underlined.
5. Repealed text: All such language appears in ~~strikeout~~.
6. *[Information for the reader is bracketed and in red italics]*

**A5.106.5.3 Electric vehicle (EV) charging.** Provide facilities meeting Section 406.9 (Electric Vehicle) *[Add pointer to 11B once accessible standards are developed]* and Chapter 11B of the California Building Code and as follows:

**A5.106.5.3.1 Single charging space requirements.** When only a single charging space is required, install a listed raceway capable of accommodating a dedicated branch circuit. The raceway shall not be less than trade size 1- (nominal 1-inch inside diameter). The raceway shall be securely fastened at the main service or subpanel and shall terminate in close proximity to the proposed location of the charging system into a listed cabinet, box or enclosure.

**Exception:** Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 EVSE.

**A5.106.5.3.2 Multiple charging spaces required.** When multiple charging spaces are required, plans shall include the location(s) and type of the EVSE, raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to charge simultaneously all the electrical vehicles (EV) at all designated EV charging spaces at their full rated amperage. Plan design shall be based upon Level 2 EVSE at its maximum operating ampacity. Provide raceways from the electrical service panel to the designated parking areas which are required to be installed at the time of construction. *[Coordinate with HCD. HCD's language reads as follows: Only underground raceways and related underground equipment are required to be installed at the time of construction.]*

**Note:** Utilities and local enforcing agencies may have additional requirements for metering and EVSE installation, and should be consulted during the project design and installation.

**A5.106.5.3.3 Tier 1.** At least 3 percent of the total parking spaces, but not less than one **space**, shall be capable of supporting installation of future electric vehicle supply equipment (EVSE).

**A5.106.5.3.4 Tier 2.** At least 5 percent of the total parking spaces, but not less than two **spaces**, shall be capable of supporting installation of future EVSE.

**A5.106.5.3.5 Labeling requirement.** A label stating “EV CHARGE CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and the EV charging space.

*[Add pointer to CALTrans signage standards issued and effective March 14, 2013: CALTrans signage standards were updated due to the Governor’s Executive Order B-16-2012, dated March 23, 2012. CALTrans amended the California Manual on Uniform Traffic Control Devices (CA MUTCD). Changes include six new signs, one new header plaque, two new optional pavement markings, deleting two existing signs, and updating content in various sections, figures and tables of the CA MUTCD. These policy and specification updates provide regulatory and general information signs and pavement markings to guide and regulate road users who operate ZEV’s. The purpose of this directive is to implement Governor’s Executive Order B-16-2012, update existing administrative law, and to provide detailed specifications for uniform use by State and local government agencies, as well as use by private entities at facilities open to public travel.]*

## Agenda Item 4c

### CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

- **History:**  
During the 2013 triennial code adoption cycle BSC did not propose a more restrictive standard for construction and demolition debris.
- **Rationale for proposed code change:**  
CBCS is considering increasing the standard from 50% to 65% which is basically moving the tier 1 voluntary measure of 65% to mandatory. This code provision has gone un-amended for three years and the market has now had an opportunity implement the requirement and it appears that 50% is a very achievable number. We will be working with CALRecycle and other stakeholder regarding this proposed code change.
- **Proposed language for intervening cycle**

<b>LEGEND FOR PROPOSED LANGUAGE</b>
7. Proposed California language and modified language is <u>underlined</u> .
8. Repealed text: All such language appears in <del>strikeout</del> .
9. <i>[Information for the reader is bracketed and in red italics]</i>

#### SECTION 5.408

#### CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

**5.408.1 Construction waste management.** Recycle and/or salvage for reuse a minimum of ~~50~~ 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

**5.408.1.1 Construction waste management plan.** Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plans that

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

## Agenda Item 4d

### Geothermal Energy – Ground Source Heat Pumps

- **History:**  
The California Energy Commission (CEC) and California Air Resources Board (CARB) are actively involved in a number of activities supporting implementation of the California Global Warming Solutions Act of 2006 (AB 32). The CEC has run several workgroups comprising of subject experts from the geothermal industries, the California Utilities Commission, CARB, and cities and counties. The goal of the workgroups is to recommend policies which may aid to overcome the barriers facing the permitting & installation of ground source heat pumps.
- Currently CBSC does not have proposed language for the intervening cycle; however CBSC will continue to research this item for future rule making.

## Agenda Item 4e

### Fireplaces

- **History:**  
During the 2013 triennial code adoption cycle 45-day comment period, BSC withdrew proposed code changes to the fireplace provisions.

**SECTION 5.503 FIREPLACES** CBSC withdrew the proposed language in order to align with HCD's withdrawal of a similar code change proposal to Section 4.503 and to ensure that no confusion would occur in the application of appropriate standards. The proposed language contained a new provision making the wood burning factory-built fireplace requirement more restrictive than the existing 2010 CALGreen Code. It was not CBSC's intent to advance or impose more restrictive standards on wood burning factory-built fireplaces. In the future, CBCS may consider revisiting the withdrawn code change proposal for rulemaking, which would include vetting the matter amongst appropriate stakeholders.

- **Rationale:**  
BSC is considering adding an explanatory note in the CALGreen Guide to explain that the use wood burning fireplaces are not prohibited in the code> This note will align with the Department of Housing and Community Development's explanatory note in their Residential guide.

- **Existing language**

#### **SECTION 5.503 FIREPLACES**

**5.503.1 General.** Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

**5.503.1.1 Woodstoves.** Woodstoves and pellet stove shall comply with U.S. EPA Phase II emission limits

- **Proposed CALGreen code Guide note:**