

**CALIFORNIA BUILDING STANDARDS COMMISSION
GREEN BUILDING WORKSHOP
September 26, 2013 – Agenda Item 3c**

A5.106.5.3 Electric Vehicle (EV) Charging Standards (Voluntary)

- **Statement of specific purpose, problem, rationale and benefits:**
The proposed amendments are to continue the development of EV provisions in Title 24 for a transition to a mandatory standard in future rulemaking cycles. The proposed building standards regulations will implement Governor Brown's Executive Order B-16-2012. The Office of Planning and Research developed a Zero-emissions Vehicle Community Readiness Guidebook to further assist local jurisdictions with the planning and installation of EV charging stations. CALTrans updated their Manual on Uniform Traffic Control Devices to include signage for EV charging stations. *[Additional rationale language to be developed.]*
- **Proposed code language for the 2013 Intervening Cycle**

LEGEND FOR PROPOSED LANGUAGE

1. Proposed California language and modified language is underlined.
2. Repealed text: All such language appears in ~~strikeout~~.
3. *[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 only if accessible standards are developed by DSA-AC]* and Chapter 11B of the California Building Code, Article 625 of the California Electrical Code and as follows:

A5.106.5.3.1 Single charging space requirements. When only a single charging space is required, per Section A5.106.5.3.3, 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. *[Add clarity for 1 inch nominal]*

Exception: Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 electric vehicle supply equipment (EVSE).

A5.106.5.3.2 Multiple charging spaces required. When multiple charging spaces are required, per Section A5.106.5.3.3 or Section A5.106.5.3.4, 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 providers 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 charging space, shall be capable of supporting installation of future EVSE.

A5.106.5.3.4 Tier 2. At least 5 percent of the total parking spaces, but not less than two charging spaces, shall be capable of supporting installation of future EVSE. *[Edit Tier language for clarification with regards to minimum spaces]*

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.

Notes:

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01.
www.dot.ca.gov/hq/traffops/signtech/signdel/policy.htm

[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.]

2. The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr *add link when it is available.*

[Add pointer for the code user to Office of Planning and Research ZEV Readiness Guidebook. Link is not posted as of this date.]