

Date of Hearing: April 25, 2012

ASSEMBLY COMMITTEE ON HOUSING AND COMMUNITY DEVELOPMENT

Norma Torres, Chair

AB 2644 (Butler) – As Introduced: February 24, 2012

SUBJECT: Building standards: electric vehicle charging stations

SUMMARY: Requires the California Building Standards Commission (BSC) to adopt building standards for the construction, installation, and alteration of electric vehicle (EV) charging stations for parking spaces in single-family residential properties. Specifically, this bill:

- 1) Requires the CBSC in adopting building standards for EV charging stations to do the following:
 - a) Ensure that the design of the single-family residential and real property assume that EV charging stations will be needed for some vehicles;
 - b) Consider the different types of charging infrastructure including the types and level of current that is accessible to the parking space;
 - c) Consider how to make electricity and physical space available to potential charging stations in parking areas.

EXISTING LAW: Authorizes the BSC to approve and adopt building standards. Every three years a building standards rulemaking is undertaken to revise and update the California Building Standards Code (Title 24 of the California Code of Regulations).

FISCAL EFFECT: Unknown.

COMMENTS:

The California Building Standards Law establishes the BSC and the process for adopting state building standards. Statewide building standards are intended to provide uniformity in building across the state. The purpose of the building standards process is to address any issues regarding the health and safety of the standards and that in some cases the technology required to implement the standards is available on the market. The Department of Housing and Community Development proposes building standards for residential buildings.

This bill would require BSC to adopt standards for the construction, installation and alteration of EV charging stations for parking spaces in single-family residential properties. If this bill were take effect, the building standards required by this bill, would be adopted as part of the 2016 building standards cycle.

As part of the last building standards adoption cycle, the Department of Housing and Community Development (HCD) proposed and the BSC adopted voluntary standards for EV charging stations in single family homes. As part of the process of establishing building standards, HCD reviews internationally approved codes and policy concerns for implementation of the standards. HCD recommended and the Commission approved voluntary standards for EV charging stations.

The standards are voluntary for several reasons. First, at the local level the street power lines may not be equipped to handle an increase volume of charging stations. Thus, rather than requiring utilities to upgrade their power lines which is costly they left it to locals to negotiate with utilities to make these upgrades if there was local decision to require EV charging stations in new homes. Second, given the amount of electric vehicles on the market and the newness of the technology it is unclear if the technology is perfect at this point and if the demand dictates requiring every new home built to have an EV charging stations.

The voluntary standards for EV charging stations will take effect July 1 of this year, the committee may wish to consider whether it is appropriate to allow those standards to be tested before requiring compulsory standards for all new single family homes.

Below are the voluntary standards adopted for EV charging stations that will become effective July 1, 2012:

A4.106.6. Electric vehicle (EV) charging. Dwellings shall comply with the following requirements for the future installation of electric vehicle supply equipment (EVSE).

A4.106.6.1 One-and two-family dwellings. Install a listed raceway to accommodate a dedicated branch circuit. The raceway shall not be less than trade size 1. 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. Raceways are required to be continuous at enclosed or concealed areas and spaces. A raceway may terminate in an attic or other approved location when it can be demonstrated that the area is accessible and no removal of materials is necessary to complete the final installation.

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

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.

A4.106.6.1.1 Labeling requirement. A label stating "EV CAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

A4.106.6.2 Multi-family dwellings. At least 3 percent of the total parking spaces, but not less than one, shall be capable of supporting future electric vehicle supply equipment (EVSE).

A4.106.6.2.1 Single charging space required. 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. 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.

A4.106.6.2.2. 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 simultaneously charge all the electrical vehicles 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. 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.

A4.106.6.2.3 Labeling requirement. A label stating "EV CAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and the EV charging space.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file.

Opposition

None on file.

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