CALIFORNIA BUILDING STANDARDS COMMISSION & DIVISION OF THE STATE ARCHITECT

September 22, 2022 CALGREEN EV WORKSHOP Agenda Items 2d, 2e, and 2f

DRAFT EXPRESS TERMS CALIFORNIA GREEN BUILDING STANDARDS CODE, (CALGreen), PART 11, CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, CALIFORNIA CODE OF REGULATIONS

If using assistive technology, please adjust your settings to recognize underline, strikeout and ellipsis.

LEGEND for EXPRESS TERMS

- Existing amendments appear upright
- Amendments appear <u>underlined</u>
- Repealed California language appears upright and in strikeout

Section 202- EV Capable Section 202-EV Ready

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CHAPTER 2 DEFINITIONS

SECTION 202, DEFINITIONS

[Defined Electric Vehicle Terms Shown for Context. No changes proposed]

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ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included.

ELECTRIC VEHICLE (EV) CAPABLE SPACE. A vehicle space with electrical panel space and load capacity to sup- port a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging.

ELECTRIC VEHICLE (EV) CHARGER. Off-board charging equipment used to charge an electric vehicle.

ELECTRIC VEHICLE (EV) READY SPACE. [HCD] A vehicle space which is provided with a branch circuit; any necessary raceways, both underground and/or surface mounted; to accommodate EV charging, terminating in a receptacle or a charger.

ELECTRIC VEHICLE CHARGING SPACE (EV SPACE). A space intended for future installation of EV charging equipment and charging of electric vehicles.

ELECTRIC VEHICLE CHARGING STATION (EVCS). One or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

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LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). [HCD] The 208/240 Volt 40-ampere branch circuit, and the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

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LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. [HCD] A 208/240-volt 20-ampere minimum branch circuit and a receptacle for use by an EV driver to charge their electric vehicle or hybrid electric vehicle.

AGENDA ITEM 2d

Rationale: BSC-CG and DSA are proposing to adopt and amend an existing definition for Electric Vehicle Charging Station (EVCS). The term EVCS was previously adopted by HCD in CALGreen. BSC and DSA also use this term in their nonresidential regulations and DSA defines EVCS in the California Building Code, Chapter 11B.The amendment to add the word receptacle(s) will more broadly include all types of EV charging equipment that can be installed in an electric vehicle charging station. This definition and amendment are needed since BSC, and DSA are proposing EV regulations in Items 2g and 2i that include the use of receptables for EV charging.

[Proposed new defined Electric Vehicle terms shown underlined below. Open for discussion]

ELECTRIC VEHICLE CHARGING STATION (EVCS). [BSC, DSA] One or more electric vehicle charging spaces served by electric vehicle charger(s), receptacle(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.

AGENDA ITEM 2e

Rationale: DSA is proposing to add a new definition for LEVEL 1 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. DSAs proposed amendment is needed since DSA is proposing EV regulations in agenda Item 2i to allow for the use of level 1 charging for the power allocation method proposed in Section 5.106.5.3.6.

BSC-CG and DSA is proposing to adopt and amend an existing definition for LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. This term was previously adopted by HCD in CALGreen. This definition is being amended to simplify it by removing superfluous information regarding the EV driver. The definition is needed since BSC is proposing EV regulations in agenda Item 2h and 2i that to allow for the use of low power level 2 charging for the power allocation method proposed in Section 5.106.5.3.6.

When installed, Level 1 and Low Power Level 2 provide supplemental EV charging for EV car owners that may not have adequate access to charging at home or at multi-family, apartments, and condos and for public schools and community students and staff.

[Proposed new defined Electric Vehicle terms shown underlined below. Open for discussion]

LEVEL 1 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE [DSA]. A 120 Volt 20ampere minimum branch circuit and a receptacle.

LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. [BSC-CG, DSA] A 208/240 Volt 20-ampere minimum branch circuit and a receptacle.

AGENDA ITEM 2f

Rationale: BSC-CG and DSA are proposing to adopt the definition for Level 2 electric vehicle supply equipment (EVSE). This amendment will align with HCDs definition already codified during the 2021 Triennial Code Adoption Cycle. This definition is needed since BSC, and DSA are proposing EV regulations in agenda item 2g that allow the use of level 2 charging to create EVCS as proposed in Section 5.106.5.3.2. This definition is also needed in item 2i that allows for the use of level 2 charging for the power allocation method proposed in Section 5.106.5.3.6. Adopting this definition maintains consistency and clarity for the code users and the regulated community.

[Proposed new defined Electric Vehicle terms shown underlined below. Open for discussion]

LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). [BSC-CG, DSA] The 208/240 Volt 40-ampere branch circuit, and the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.