California Building Standards Commission
Attention: Public Comments Triennial Code Update Cycle
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Via email to: Title24@hcd.ca.gov, cbsc@dgs.ca.gov

May 22nd 2024

Dear CSBC:

Thank you for making updates to the proposed CalGreen standards so far, and for the extensive pre-cycle workshops on EVSE.

Attention to the following items could make the code even stronger and cost effective for California residents:

1) "§44.106.4.3 *Exception: Where work requiring a permit is being performed for the installation of 120-volt electrical receptacle(s) for level 1 EV charging."*

   Is not broad enough to encompass various valid current and future charging schemes. This exception should not be limited to just receptacles. There's no need to limit this to L1, as L1 is already the floor. Better wording might be:

   "§44.106.4.3 *Exception: Electrical permits specifically for addition of EV charging, with no parking capacity increase, are considered voluntary and may use any available EV charging voltage or power management scheme."*

2) This code cycle has untapped opportunities to speed up the micromobility revolution, by at least requiring pre-wiring of modest electrical capacity for e-Bike and e-Scooter charging. Without such charging in bike rooms, that charging will take place exclusively in residences, creating inherent and unresolvable additional fire risk. See §4.106.4.4 and SB712 which restricts owners from proh

   You have a mandate to work in this code cycle with EV charging: that should readily extend to light duty EVs such as e-Bikes and e-Scooters.

3) There is no good reason to exempt any form of parking style from EV charging minimums. There's no reason for a Californian to rent an apartment, and later discover they can't conveniently charge an EV just because their building uses mechanical access parking lifts. See §4.106.4.2.2 exceptions.

4) §4.106.4.1 for "New one- and two-family dwellings and townhouses with attached private garages." should be expanded to detached garages, carports and other dedicated vehicle storage. Nobody builds a detached garage without electricity these days! And no parking spot should be left out.

5) For CEC Item 4 Chapter 2, drawn from NEC 210.8:
   The department has chosen to extend the exemption of HVAC from the GFCI requirement. However another class of device has the exact same issues: the high frequency AC/DC converters in faster charging vehicles false trip GFCIs. I urge the commission to extend the exemption to hardwired

EVSE on cost and reliability grounds, pending further action at the national and international standards front. Doing so will reduce the cost of the EV transition, reduce vampire power usage, and prevent reputational issues associated with failed charging sessions due to dumb upstream GFCI.

6) The chapter 4 provisions for Automatic Load Management Systems (ALMS) misstate the purpose of such devices. An ALMS should deliver a little as 0 kW to chargers, and need not have a 40 or 30 amp minimum. Suggested code language is:

An automatic load management system (ALMS) may be used to reduce the maximum peak electrical capacity required. The system must be capable of delivering a minimum amount of power over the expected dwell time of the parking facility:

a) For hotel/model occupancies: 26 kWH over an eight hour dwell time.
b) For residential occupancies: 13 kWH over a ten hour dwell time.
c) For commercial occupancies: 13 kWH over an 8.5 hour dwell time.

No minimum amperage capacity is required. The above capacity may be reduced by a utilization factor of 10% for 10 chargers rising to 30% at 100 chargers. Beyond 100 chargers the utilization factor will remain constant at 30%.

For hotel/motel occupancies if the system is enrolled in a demand management program, a clearly readable label must be affixed to the charger:
"During peak electric usage times, this charger may deliver power more slowly, or pause charging. The device will automatically resume after the peak period".

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