

June 26, 2024

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Via Email: Kyle.Krause@hcd.ca.gov & Title24@hcd.ca.gov

CC: Mitchel.Baker@hcd.ca.gov, cbsc@dgs.ca.gov, others listed below

Re: EVAC comments on EV infrastructure items in HCD's 45-Day Statement of Reasons and Express Terms for Proposed Building Standards (CALGreen code), released on May 16, 2024

Dear Mr. Krause:

The undersigned organizations join the **EV Charging for All Coalition (EVAC)** in offering the following comments and recommendations to the Department of Housing and Community Development (HCD). Our comments refer directly to items presented in the 45-day comment period Express Terms and Initial Statement of Reasons for HCD. We further bring to your attention issues for consideration during the upcoming 2025 Intervening Code Adoption Cycle.

In our review of the amended terms, we first wish to commend HCD for providing pre-cycle public workshop opportunities for EVAC and other stakeholders to express strong support for improved access to convenient, inexpensive, safe and reliable charging at home — which will help to lower barriers to equitable EV adoption at scale. We applaud the overall progress that has been made towards ensuring universal EV Ready access to charging in newly-built apartments and condominiums in the 2024 Triennial Code cycle.

Summary Recommendations

We recommend the following clarifications to the 45-day Express Terms

Item 4:

In Section **4.106.4.3** (EV charging for additions and alterations of parking facilities serving existing multifamily buildings), revise the proposed level 1 exception from “Exception: Where work requiring a permit is being performed for the installation of 120-volt electrical receptacle(s) for level 1 EV charging.” to **“Exception: Where (A) work**

requiring a permit is being performed for the installation of level 1 EV charging receptacles or level 1 EVSE; or (B) the altered parking spaces have access to EV charging.”

Items 2, 3, and 7:

In Section **4.106.4.2.2** (Multifamily dwellings), remove the parking lift exception provisions in items 2, 3 and 7 which exempt from the EV charging requirements: “Areas of parking facilities served by parking lifts, including but not limited to, automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.”

Alternatively, if you decline to remove this exception, we reiterate our recommendation from the pre-cycle phase that the following underlined text be added to clarify the exception: “. . . or parking facilities otherwise incapable of supporting electric vehicle charging as determined by the project builder or designer and subject to the independent assessment and concurrence of the local enforcing agency.”

Item 2:

In Section **4.106.4.2.2(1)(c)**, the language describing charging receptacle requirements for mixed assigned and unassigned parking in multifamily housing should be clarified to prevent misinterpretation of the code. In the sentence “at either the assigned or unassigned parking space” the word “the” should be replaced with the word “an”; in addition, clarify “. . . either the assigned or unassigned parking space, but not both” by replacing “but not both” with “but not necessarily at both.”

Supporting rationale for these recommendations can be found in Appendix 1, below.

Additional Recommendations

Despite the progress made in the proposed amendments, significant barriers remain to convenient and equitable EV charging for residents in both single-family and multi-family dwellings. Therefore, we offer these recommendations for consideration in the upcoming 2025 Intervening Code Adoption Cycle:

- 1) Require, at minimum, 208V or 240V 40 A EV Ready circuitry for all new single family homes;
- 2) Clarify wording regarding mixed assigned and unassigned parking at multifamily dwellings, to address the case of direct wiring for sequentially assigned charging spaces. Further consider including specific requirements regarding the power source and payment options for unassigned parking.

Supporting materials for these recommendations are contained in Appendix 2, below.

We look forward to discussing these items with members of the California Building Standards Commission (CBSC), HCD, and DSA staff at the July 18 CBSC meeting.

Thank you for considering these recommendations and for your diligent work on the EV charging infrastructure codes. We genuinely appreciate the continued progress HCD has made to ensure equitable access to EV charging for all in California. We look forward to working with HCD, DSA, CBSC, as well as other state agencies and stakeholders to continue California's leadership in the electrification of our transportation systems and the development of equitable EV charging infrastructure building code provisions for residents of both single- and multi-family housing.

Sincerely,

The Electric Vehicle Charging for All Coalition Leadership Team:

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350 Conejo / San Fernando Valley

350 Contra Costa Action

350 Humboldt

350 Marin

350 Silicon Valley

Acterra: Action for a Healthy Planet

Act Now Bay Area

Adopt a Charger

Alliance of Nurses for Healthy Environments

BeniSolinHI, LLC
CALSTART
Carbon Free Palo Alto
Carbon Free Silicon Valley
Center for Community Energy
Citizens Environmental Council
Citizens' Climate Lobby
Clean Energy Works
Climate Action California
Cool The Earth
Environmental Defense Fund
Elders Climate Action (Northern California Chapter)
Elders Climate Action (Southern California Chapter)
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Mothers Out Front Silicon Valley
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Appendix 1. 45-Day Comments on Express Terms

1. Clarify the Proposed Exemption in Additions and Alterations, Section 4.106.4.3

Recommendation: In Section 4.106.4.3 (EV charging for additions and alterations of parking facilities serving existing multifamily buildings), the proposed wording states “When existing parking facilities are altered or new parking spaces are added to existing parking facilities, and the work requires a building permit, each parking space added or altered shall have access to either a low power Level 2 EV charging receptacle or Level 2 EV charger, unless determined as infeasible by the project builder or designer and subject to concurrence of the local enforcing agency.” Revise the proposed level 1 exception from “Exception: Where work requiring a permit is being performed for the installation of 120-volt electrical receptacle(s) for level 1 EV charging.” to **“Exception: Where (A) work requiring a permit is being performed for the installation of level 1 EV charging receptacles or level 1 EVSE; or (B) the altered parking spaces have access to EV charging.”**

Rationale:

- This clarification is needed to meet the requirements of H&SC§18930 Criterion 5 (“...the cost to the public is reasonable, based on the overall benefit to be derived from the building standards”) since inclusion of Level 1 charging will avoid unnecessary additional costs.
- EVCAC and other entities including CalETC are requesting this clarification to address both level 1 EVSE and level 1 receptacles and to ensure that existing EV-Ready charging infrastructure could remain and not required to be unnecessarily upgraded.

2. Eliminate the Exception for Areas of Parking Facilities Served by Parking Lifts.

In Section 4.106.4.2.2 (Multifamily dwellings), eliminate (or clarify) the parking lift exception provisions in Items 2, 3 and 7 which exempt from the EV charging requirements:

Areas of parking facilities served by parking lifts, including but not limited to, automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

Recommendation: We ask that you follow the recommendation of the GREEN Code Advisory Committee (CAC) and **remove each exception for parking lifts in Items 2, 3 and 7.**

Rationale:

- To meet the requirements of H&SC§18930 Criterion 4 (the proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part) EVCAC recommends that the exception for parking lifts be removed. Given advances in lift technology, this exception is obsolete. Parking lifts that provide EV charging are now widely available in the marketplace and have been installed in multiple California locations¹. In fact, all of the major lift vendors offer lifts with built-in charging capacity.² Scott Brafford, General Manager of leading vendor [Harding Autopark Systems](#), writes: *“all of our parking systems are 100% EV capable. Meaning that every space on every machine we offer can accommodate EV charging.”*
- Retaining this exception is inequitable. Tenants who live in new multifamily housing where parking is provided via mechanical lifts will, through no fault of their own, be the only new multifamily tenants in the state without at-home EV Ready charging at their parking space.
- Retaining this exception is not needed to ensure accessibility. Chapter 11B covers this topic well. By design, parking lifts are very compact and not large enough to meet ADA requirements. However, the required number of ADA parking spots at complexes that have automatic lifts can be met with conveniently-located surface parking. In that case, it's not necessary that the lift parking spaces themselves be ADA compliant.
- Parking lifts need to be exempted from the EVSE-specific parking stall width requirements of §4.106.4.2.2.1, which are inappropriate and unworkable given the variety and breadth of lifts. These stall size dimensions are a significant cost adder for California residents who live in multifamily housing with lifts and pose a barrier to EV adoption in the state.

Alternate recommendation: If you decline to remove this exception, we reiterate our recommendation during the pre-cycle phase that the following underlined text be added to clarify the exception:

“. . . or parking facilities otherwise incapable of supporting electric vehicle charging as determined by the project builder or designer and subject to the independent assessment and concurrence of the local enforcing agency.”

¹<https://www.hardingsteel.com/carparx-subterranean-residential>.

²https://docs.google.com/spreadsheets/d/1w0g2aQ-szFPIW4Gv9KmOJB6NUg_jQ8ySCBLtxxdfa5c/edit#gid=0

Rationale:

- The overly-broad exception language provides opportunities for project builders or designers seeking to avoid compliance to claim that their parking facilities are “otherwise incapable of supporting electric vehicle charging.” Such claims should be verified independently by the local enforcing agency.
3. Provide clarification on mixed assigned and unassigned parking in Item 2, Proposed subsection **4.106.4.2.2(1)(c)** (Multifamily Parking Facilities with Assigned and Unassigned Parking), which states: “. . . at least one low power Level 2 EV charging receptacle shall be provided for each dwelling unit at either the assigned or unassigned parking space, but not both.”

Recommendation: In the sentence “at either the assigned or unassigned parking space” the word “the” **should be replaced with the word “an”**;
Clarify “. . . either the assigned or unassigned parking space, but not both” by replacing “but not both” with “**but not necessarily at both.**”

Rationale: In order to meet the requirements of H&SC§18930 Criterion 6 that the “. . . proposed building standard is not unnecessarily ambiguous or vague, in whole or in part”, these clarifications are needed. While it is clear that each dwelling unit will have access to an EV charging receptacle, the meaning of the final term of “. . . **but not both**” is not clear because it could be interpreted to prohibit receptacles from being installed at both an assigned and unassigned space.

Appendix 2. Recommendations for 2025 Intervening Code Adoption Cycle

1. Replace EV-Capable with EV-Ready in the new single-family housing requirements

Over the next three-year code cycle, there are likely to be 100,000 new single-family homes built in California. To legally convert these homes to EV-Ready requires a building permit, electrical materials and an electrician. The EVCAC estimates these costs to be on the order of \$1,000 per home or \$100 million to convert all these homes to EV-Ready. In contrast, EV-Ready infrastructure can be installed at the time of construction for a fraction of the cost.

Given current and projected EV adoption rates, it does not make sense to continue to burden the new single-family/duplex homeowner or tenant with the expense and effort of pulling a permit and engaging an electrician to convert the existing 40 A EV-Capable charging circuit to a 40 A EV-Ready circuit.

Our recommendation, in keeping with our prior remarks made at the three CALGreen EV Charging Workgroup Workshops (October 19, 2023, November 28, 2023 and January 11, 2024) and at the GREEN CAC, is that **40A EV Ready charging should be installed in single-family and duplex housing at the time of initial construction**. EVCAC recommends that this issue be addressed in the upcoming Code Adoption Cycle.

This recommendation was also noted in correspondence to HCD from the EVCAC dated March 11, 2024, October 30, 2023, and October 17, 2023. Should the CBSC and/or HCD need copies of these letters, we are ready to provide them.

2. For multifamily dwellings, direct wiring represents a critical feature to help ensure affordable and equitable pricing for charging. Because direct wiring is only required at assigned parking spaces, residents with unassigned parking currently lack safeguards with respect to unregulated charging rates. This issue should be addressed in the upcoming Code Adoption Cycle.

EVCAC recommends:

In 4.106.4.2.2 (1)(a): Clarify that the direct wiring requirements apply not just to permanently assigned charging spaces but also to sequentially assigned charging spaces;

In 4.106.4.2.2 (1)(b): Consider specific requirements for the power source and payment options for unassigned parking in order to ensure equitable pricing. It may be appropriate to explore this with the Public Utilities Commission.

Rationale:

- Section 4.106.4.2.2 d, states that:
“EV charging receptacles in multifamily parking facilities at assigned parking spaces shall be provided with a dedicated branch circuit connected to the dwelling unit’s electrical panel...” This provides the residents of these dwelling units with access to the same regulated electricity rates for charging that single-family residents enjoy.

Note that while this clearly applies to **permanently assigned** parking spaces (that are permanently assigned to a specific dwelling unit), it is not clear whether or not it also applies to **sequentially assigned** parking (spaces that may be assigned to different dwelling units over time).

Proposed subsection **4.106.4.2.2 (1)(b) Multifamily Parking Facilities with Unassigned Parking** then sets forth the requirements for Unassigned Parking. Unlike assigned parking, the only requirement is that the number of spaces with receptacles be equal to the number of dwelling units when the number of parking spaces equals or exceeds the number of dwelling units. There is no guidance for power source or charging payment options, which could include a flat rate bundled with the monthly rent, usage charges through an EVSP or the facility itself.

In summary, EVCAC commends HCD for the proposed amendments addressing the distinction between assigned and unassigned parking and the implications for EV charging by multi-family housing residents. It is significant that after the adoption of the proposed changes, almost every newly constructed multi-family dwelling unit with access to parking will also have access to EV charging. However, EVCAC asks that further attention be paid to ensure affordable EV charging under different scenarios including sequentially assigned, and unassigned, parking.