



July 29, 2019

Ms. Ida Clair  
Principal Architect  
Division of the State Architect  
1102 Q Street  
Sacramento, CA 95811

**Re: Comments on Proposed EVCS Code Change Proposals for EV Charging Accessibility Standards**

Dear Ms. Clair,

The California Electric Transportation Coalition (CalETC), the Electric Vehicle Charging Association (EVCA), and Tesla respectfully submit the following comments regarding the Division of State Architect's (DSA) proposed building code changes for electric vehicle charging station (EVCS) accessibility standards. We sincerely appreciate DSA holding a workshop July 9, 2019 to provide background and answer questions regarding the various proposals.

CalETC is a non-profit association committed to the successful introduction and large-scale deployment of all forms of electric transportation. CalETC supports and advocates for the transition to a zero-emission transportation future as a means to spur economic growth, fuel diversity and energy independence, ensure clean air, and combat climate change. CalETC's board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Membership also includes manufacturers of zero-emission vehicles in all weight classes, electric vehicle charging station providers, and other industry leaders supporting transportation electrification.

EVCA is a non-profit trade association representing nine electric vehicle service providers (EVSPs), software and equipment manufacturers, and installation and maintenance providers. EVCA's mission is to advance the goal of a clean transportation system in which the market forces of innovation, competition, and consumer choice drive the adoption of electric vehicles (EVs) and deployment of charging infrastructure.

Tesla is an American manufacturer of advanced electric vehicles and battery energy storage systems with the mission to accelerate the world's transition to sustainable energy. Today, Tesla is one of the largest manufacturing employers in California with nearly 20,000 employees in the state, including more than 10,000 at Fremont where all

Tesla vehicles are assembled, including Model 3, which is designed and built as the world's first mass-market electric vehicle. As a manufacturer of EVs, Tesla has a direct interest in transportation electrification and associated EV charging infrastructure issues. As of July 2019, Tesla has deployed 1,683 supercharger charging stalls at 120 locations in California and 14,081 supercharger charging stalls at 1,604 locations globally. Tesla has also deployed 2,300 Level 2 wall connectors at 900 destination charging locations in California.

California has goals to deploy 1.5 million zero-emission vehicles (ZEVs) and 250,000 EV charging stations, including 10,000 DC fast chargers by 2025. California also has a goal of deploying 5 million zero-emission vehicles by 2030, which will require even further scale-up of the charging infrastructure for electric vehicles. The state currently has 4,764 public L2 charging stations and 685 public direct current fast charging stations. We have a long way to go to meet California's zero-emission vehicle and fueling goals, as well as the air-quality and climate-change targets underpinning these goals. In order to drive adoption of plug-in electric vehicles and meet these targets, we need to drastically increase the amount of publicly accessible, easy-to-use charging stations. In this spirit, we offer the following comments for your consideration on the draft code amendments that were released on June 24, 2019.

### **1. Definition of “primary function” (page 5)**

We support adding the definition of primary function to the code. Many EVCS are installed in parking garages and lots that serve commercial centers, such as shopping malls and retail centers. In these instances, charging your electric vehicle at the EVCS is not the primary function of the facility. Including this definition will help ensure alterations to the facility due to installing EVCS do not inappropriately include additional path of travel requirements.

In our experience, however, local jurisdictions interpret the building code differently, leading to conflicting installation requirements from city to city and county to county. Local officials often conflate accessible route and path of travel requirements. These varying interpretations can create significant permitting approval delays, add unexpected costs to projects, and sometimes even lead to losing projects.

DSA has been helpful by developing supplemental materials that provide clarifications to common questions on how to interpret the code. Given this, we respectfully request that DSA build on that background material to provide examples of what is and is not a primary function of a facility as it relates to EVCS, and clearly specify when path of travel requirements do and do not apply.

### **2. Scoping for parking spaces and electric vehicle chargers (page 17)**

We support the addition of this exception to the code for public housing facilities. Once again, this does raise potential implementation questions, specifically, how this impacts the number of required accessible charging spaces for new construction as specified by the California Green Building Standards Code (CALGreen). Given this, we respectfully

request DSA confer with the Building Standards Commission and include in its supplemental materials examples of how this exception could affect overall accessible charging space requirements as guidance to local jurisdictions.

### **3. EVCS – distinct facilities for different charging levels (page 33)**

While we appreciate the intent of this proposed code change, we believe it raises several implementation questions and challenges, outlined below. The most critical question to address is how to meet accessibility requirements when co-locating Level 2 and DC fast chargers.

**DC Fast Chargers.** The EV charging industry is still nascent; technology continues to rapidly evolve. Connector types for DC fast chargers are also not standardized. DC fast chargers offer three connector types for different types of EVs – known as a combined charging system (CCS) plug, CHAdeMO plug and the Tesla connector; these were developed in response to automakers manufacturing EVs that accept different connectors which gained prominence in the market. Under this new proposed code change, for instance, two different connectors that serve EVs accepting two different kinds of connectors count as two separate facilities, even though they are attached to the same charger. We do not believe they should, especially given that it is still one charging station that is providing the charging service.

Additionally, EVSPs are developing new types of DC faster chargers that provide even greater levels of power for charging (sometimes even as high as 350 kW). These types of chargers are sometimes referred to as “ultra-fast” chargers to indicate the higher level of power compared to traditional DC fast chargers seen today (which operate anywhere from 25 kW to 150 kW). Furthermore, EVSPs and site hosts can adjust an EVCS’ power level as needed; A particular site may deploy both lower and higher kW configurations of DC fast chargers. Under this code change proposal, these ultra-fast chargers may be considered a facility that is distinct from DC fast chargers that provide a lower level of power. If this is the case, how would this impact fast chargers that can have their power levels adjusted or changed throughout the day?

We do not believe the regulations should apply in this way; defining different kinds of fast chargers as separate facilities would create confusing interpretation and implementation issues for local jurisdictions and EVSPs because there is not a clear delineation between the different types of fast chargers and how they are used. From the industry’s perspective, fast chargers, whether they are “ultra-fast” or not, are still in the same class of charger. Therefore, we recommend referring to DC fast chargers as Level 3 chargers throughout this section to ensure it encompasses the different power levels within this category of fast charger types.

**Co-Locating Level 2 and DC Fast Chargers.** Even when taking into consideration the potential to co-locate level 2 and DC fast chargers (Level 3) at a parking garage or lot, we still believe this proposal will have unintended consequences of hindering charging station deployment and will not provide accessibility benefits. Because this would mandate a distinct set of accessibility requirements for each level of charging

station, it creates a disincentive for site hosts to co-locate different levels of charging stations. Site hosts may install fewer chargers than they would otherwise because it is infeasible or too costly to comply with an additional set of accessibility requirements. As a result, this undercuts the state's EV and EV charging station deployment goals; availability of public charging stations is key to increasing consumer confidence in EVs.

In order to address the co-location challenge, we recommend a hybrid approach that enables both levels of charging on a particular site to meet the accessibility requirements. The following language should be inserted to modify the current draft text:

***11B-228.3.2 Minimum number.*** *EVCS complying with Section 11B-812 shall be provided in accordance with Section 11B-228.3.2 ~~for each charging level (e.g. Level 1, Level 2, DC Fast Charge, etc.). Different charging levels (e.g. Level 1, Level 2, Level 3 etc.) may be considered as part of the same facility so long as the accessible parking spots include at least one EVCS of each type of charging level that is on the site. Each charging level provided shall be considered as a facility.~~ Where EVCS are provided in more than one facility on a site, the number of EVCS complying with Section 11B-228.3.2 provided on the site shall be calculated such that each level of charging can be used to meet the total number of accessible parking spots according to the number required for each facility. Where an EV charger can simultaneously charge more than one vehicle, the number of EV chargers provided shall be considered equivalent to the number of electric vehicles that can be simultaneously charged. When table 11b-228.3.2.1 requires more accessible EVCS than type of charging level, the larger quantity of charging type must be accessible.*

#### **4. Access aisle – shared use between accessible parking and accessible EVCS (page 51)**

We support this clarification to the code; this provides a balanced approach that ensures accessibility while providing flexibility to EVSPs and site hosts.

Thank you for the opportunity to provide comments. We look forward to continuing to work with DSA as the proposed building code changes for EVCS accessibility standards moves forward.

Sincerely,

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California Electric Transportation Coalition

Francesca Wahl  
Tesla

Abdellah Cherkaoui  
Electric Vehicle Charging Association