July 25, 2024

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on Advanced Clean Cars II Amendments

California Air Resources Board ("ARB" or the "Board"),

The Electric Vehicle Charging Association (EVCA) appreciates the opportunity to submit comments in response to the California Air Resources Board's (CARB) Advanced Clean Cars (ACC) II Amendments.

EVCA is a not-for-profit trade organization of 24 leading EV charging industry member companies and a zero-emission autonomous fleet operator. The association was established in 2015 to comprehensively represent the entire EV charging value chain and provide a collective industry voice for decision-makers in California.

EVCA's membership is committed to supporting a convenient, reliable EV charging experience and recognizes that continued coordination between charging network providers, electric vehicle supply equipment (EVSE) manufacturers, automakers, government agencies, and other stakeholders is necessary to further enhance the EV charging experience. EVCA respectfully makes the following recommendations in regard to third party certification of Plug & Charge capability, the consideration of adapter safety requirements, and allowing EV drivers the flexibility to match their preferences for charging with the appropriate solution for their unique electrical system to be taken into consideration in the ACC II rulemaking process to improve interoperability between EVs and EVSE.

Plug & Charge

CARB's proposal to require the Plug & Charge capability for battery electric vehicles (BEVs) starting model year (MY) 2028 via ISO 15118-2 will enhance the driver experience and harmonize interoperability requirements for both vehicles and electric vehicle service equipment (EVSE). To ensure that the potential of ISO 15118-2 is fully realized, CARB should look to industry vetted conformance tests for certification, including CharIN CCS Extended.

EVCA strongly suggests that CARB hold a workshop dedicated to conformance testing. Should conformance certifications be adopted as a requirement in the future, CARB should ensure that industry has time to evaluate the test and availability of conformance certification labs. There should also be parity for both automakers and EVSE when it comes to testing requirements.

Third party certification of Plug & Charge capability can ensure confidence in EV's conformance to 15118-2 and their ability to fully implement Plug & Charge. While self-certification may make sense in the short term, third party testing will be essential once the standard has been finalized. Having consistent, uniform evaluation procedures across manufacturers can minimize inconsistencies and identify issues that could be overlooked in self-certification.

Adapters

Adapters will play an interim role in the charging experience amid the transition to SAE J3400, or the North American Charging Standard (NACS). Therefore, if adapters continue to be required alongside BEV purchases, CARB should consider the inclusion of adapter safety requirements as it seeks to improve interoperability and the charging experience. For example, adapter safety standard UL 2252 is currently under development and once finalized could play an important role during this transition time in enabling reliable access via adapters to the existing CCS fast chargers the State has invested in as well as a growing base of SAE J3400 fast chargers.

Convenience Cord Requirement

Automakers, new car dealers, charging providers, and local electrical contractors are in the best position to provide a wide range of charging solutions to meet the needs of EV drivers. In our experience designing and delivering these solutions to customers, there are a variety of driver needs and preferences related to Level 2 charging equipment.

This variability makes Level 2 charging equipment well-suited as an after-market or add-on product, where drivers may assess the trade-offs of price, function, and quality to select the right option for them, either while they purchase their vehicle or after the fact.

Allowing EV drivers to match their preferences for charging with the appropriate solution given their unique electrical system should be the primary goal to reduce total costs for drivers. There is no "one size fits all" for Level 2 equipment, and given drivers unique charging needs, convenience cords if provided standard with every ZEV, will go largely underutilized. Driver considerations when selecting their preferred equipment include:

- Amperage. Level 2 home charging equipment may deliver as much as 60 amps. Drivers with range anxiety, long commutes, or a desire to futureproof will opt to purchase charging equipment to maximize charging speed.
- Wall-mounting and cable management. Drivers may seek to purchase equipment with longer cables to reach their charge port based on their parking configuration or prefer equipment with built-in cable management systems to minimize cable wear-and-tear. These functions may be particularly valuable for homes with small garages, shared parking areas, and parking areas with space constraints.

- Hardwiring. Drivers who park their vehicles outdoors or in exposed areas may elect to install hardwired equipment because portable convenience cords are not fixed in place and therefore are an easy target for theft.
- Plug type. There are several receptacle types that can support Level 1 and 2 charging, most commonly NEMA 14-50 and NEMA 6-50. In the situation that a driver has existing access to such a receptacle, they would select equipment to match it. It would be impractical and highly costly for standard convenience cords to provide a cable to match every receptacle type to meet every possible combination. Drivers expect to purchase the equipment that matches their available receptacle.
- Data monitoring, remote charge management, and vehicle-grid integration. Drivers may purchase WiFi-enabled L2 chargers with advanced functionality to track home charging data, including cost, energy used, and distance traveled. Drivers may also use their charging equipment to schedule charging times, remotely override pre-set charging times, and remotely start or end sessions as needed, especially to respond to TOU rates or utility programs that lower the cost of refueling an EV. Advanced vehicle-grid integration (VGI) strategies, such as dynamic load ramping, would generally not be possible on receptacles using basic cables.

Thank you for the opportunity to submit this comment. We appreciate Staff's commitment to engage with stakeholders, and we look forward to participating in constructive dialogue throughout the amendment process after the scope of this rulemaking is established.

Sincerely,

Reed Addis
Governmental Affairs
Electric Vehicle Charging Association