



February 24, 2022

Stephanie Palmer
Air Resources Engineer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Electric Vehicle Supply Equipment (EVSE) Standards Technology Review

Dear Stephanie:

Thank you for the opportunity to comment on the Electric Vehicle Supply Equipment Standards (EVSE) Technology Review. Electrify America shares the long-term goal that EV charging stations should become commonplace infrastructure. We believe that customers should be able to use EV charging stations conveniently and with confidence in their transactions.

Electrify America operates the largest open network of DC fast chargers (DCFC) in the nation, and recently reached a milestone of 200 public ultra-fast electric vehicle (EV) charging stations and over 830 individual chargers in California. Electrify America's public charging stations currently support several payment methods, including credit/debit card chip readers, mobile app activation, and the Plug & Charge standard. The credit/debit card chip readers installed on every public Electrify America charger meet the credit card reader requirement adopted by CARB in 2019, and they are intended to provide easy access to customers.

We wish to highlight three primary points related to the Technology Review:

1. Contrary to the findings in the Review, Electrify America *is* investing in chip readers

CARB's review states "although multiple payment methods exist on chargers today, network providers center on contactless payments." Electrify America operates the largest public network of DCFC in the country, and each of our chargers has a credit/debit card reader with both chip and swipe capability. Accordingly, while the review may have found other network providers do not include this capability, this statement mischaracterizes the Electrify America charging network in the State. We request CARB reconsider the statement asserting that EV charging stations today do not have chip readers.

2. "Plug&Charge" is an important payment method to highlight in the Technology Review

CARB's review of payment capabilities makes no mention of Plug&Charge Technology using the ISO 15118 standard. Plug&Charge allows drivers to pay for a charging session on their credit card automatically, by simply plugging in their EV. The charger communicates with the vehicle to identify, authenticate, authorize and bill the customer's credit card for the charging session. The entire process allows for a seamless charging experience for the customer.

Electrify America has Plug&Charge capability on every public ultra-fast charger in California today, and there is strong basis to expect that EV consumers will pay via Plug&Charge most of the time within a few years. This



capability is available on multiple different EV models today, and could be nearly universal within a few model years. Plug&Charge is the most consumer-friendly payment option, the fastest emerging new payment method in the market, and the one that saves consumers the most time. We recommend CARB add information on Plug&Charge to its Technical Assessment of the current state of payment method technology and evaluate the emergence of Plug&Charge payment methods in its future technical reviews of payment capabilities.

3. CARB Reporting should be Voluntary

CARB staff have recommended that CARB begin collecting additional data from charging network operators, including real time status on up-time, for the purpose of further technology reviews. These reporting obligations would create an undue burden, and we respectfully request that CARB clarify that this potentially onerous and costly reporting of proprietary data would be voluntary.

Electrify America is pleased to meet the credit card reader requirements adopted in 2019, and appreciated that CARB adopted the 2019 requirements with reasonable reporting obligations. New data reporting requirements prompted by reconsideration of the 2019 regulations would add soft costs to charging providers at a time when California is focusing heavily on how to reduce costs in the EV infrastructure space. California stations are 39% more expensive to build than stations in other states, and operating costs are also higher. This reporting, if mandatory, would exacerbate California's current cost disadvantage further, and would serve as a disincentive to additional investment in the state.

We also wish to express our appreciation that CARB staff have recommended "working with industry to develop metrics that communicate a charging network's reliability," and we caution against a focus on up-time metrics exclusively. Up-time measures if the charger is on, not whether the charger succeeds when plugged in, nor whether it delivers the promised charging speed or satisfies the customer's needs. In our experience, establishing reliability capabilities are a far better indicator of future network reliability than mandating specific network performance indicators. We encourage CARB to focus its attention on the capacity to address credit card reader issues and meet consumer expectations.

Finally, Electrify America strongly discourages CARB from building a new mapping application for EV drivers, in addition to the mapping apps already available to consumers. Electrify America currently reports information on its charging network to the National Renewable Energy Laboratory's Alternative Fuels Data Center, which includes a complete charger inventory, contact information for the network, and other information. User-friendly mapping applications require extremely specialized capabilities, and an extraordinary ability to integrate real-time, proprietary data from companies in direct competition with each other. Electrify America cautions that such a consumer tool is extremely expensive to build, and even more expensive to maintain.

We appreciate your consideration of this input and look forward to working with you. Please don't hesitate to reach out to me with any questions or to discuss any of these comments further.

Sincerely yours,

Matthew Nelson
Director of Government Affairs
Electrify America