September 19, 2019

Ms. Elise Keddie
Ms. Stephanie Palmer
Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on Modified Text (15-Day Notice) Electric Vehicle Supply Equipment Standards Regulation

Dear Ms. Keddie and Ms. Palmer,

The Electric Vehicle Charging Association (EVCA), ABB Inc., and FreeWire Technologies respectfully submit the following comments regarding the Air Resources Board's (ARB) proposed modified text for the Electric Vehicle Supply Equipment Standards (SB 454).

EVCA is a non-profit trade association representing twelve electric vehicle service providers (EVSPs), software and equipment manufacturers, and installation and maintenance providers. Our members include American Building Management, Blink Charging, BTCPower, ChargePoint, Clean Fuel Connection, Envision Solar, EVBox, EV Connect, EVgo, Flo, Noodoe, and Volta. 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 EVs and deployment of charging infrastructure.

ABB Inc. is an electrification and automation technology leader with over 12,000 DC fast and high-power EV chargers deployed around the world.

FreeWire Technologies merges beautiful design with convenient services to electrify industries formerly dependent on fossil fuels. With scalable clean power that moves to meet demand, FreeWire customers can tackle new applications and deploy new business models without the complexity of upgrading traditional energy infrastructure.

1. EVSPs should be allowed to Choose Between EVSE ID, Serial Number, or Another Surrogate

Page 3 of the proposed regulatory language defines the word "replaced" to mean when there is a "change in the serial number, EVSE ID, or the model name of the EVSE", and states on page 4 that when an EVSE is "replaced", it must come into compliance with the payment method requirement. In effect, this means that whenever the serial number, EVSE ID, or model name of the EVSE changes, the charger must be retrofitted to comply with the payment method requirements.

However, the EVSE ID and serial number can change for any number of reasons, mainly as a result of minor repair, maintenance, or software changes. This routine kind of work does not occur as part of a substantial modification or substitution of the charging unit but would nonetheless trigger the wholesale replacement of the EV charging station long before the end of its useful life.

The EV charging industry is diverse in its business models; the usage of these IDs and numbers for the technology and its components – both software and hardware – is not uniform. This is largely due to how companies developed their technology supply chains and source and assemble their chargers' components. For example, for some companies, the serial number changes any time they conduct minor repairs, such as replacing a charging cable, connector, or screen. For other companies, whenever they conduct software updates, the EVSE ID or serial number changes. These are not major retrofits that involve substantially replacing the charger; however, under the current definition of "replaced", this would become case.

If site hosts must bring their charging station into compliance with the payment requirements as a result of the EVSE ID or serial number changing, this will be a disincentive for them to conduct routine maintenance on their chargers and keep them operational and reliable for consumer use. This undermines California's EV and EV charging deployment goals.

Recommendation: Given that the industry is not uniform in its usage of EVSE ID or serial, we recommend that EVSPs be allowed flexibility to choose which indicator is more appropriate to identify replacement or substantial modification of a charger. If neither of these are appropriate, they should be able to work with ARB on developing or identifying another surrogate that is appropriate. Therefore, we suggest the following changes to the definition of "replaced":

"Replaced" means that the EVSE has been substantially modified or substituted with another unit, as indicated by a change in only one of the following: the serial number, EVSE ID, or the model name of the EVSE. EVSPs shall select one of these indicators as the appropriate measure and notify the Executive Officer of its selection upon submission of its first annual report. If none of these indicators is appropriate, the EVSP may request for use of another indicator that is subject to approval from the Executive Officer.

Given this, we also recommend the reporting requirements listed in (C) on page 8 should be changed to mirror this flexibility, and thus allowing EVSPs to report which

indicator – the EVSE ID, serial number, or something else – as the unique identifier for each charging station in the field.

2. Reporting Requirements

Pages 10 of the proposed regulation order require EVSPs to report annually the following EVSE payment usage information:

- Total number of charging sessions started with a credit card;
- Total number of charging stations started with an NFC;
- Total number of charging sessions started with a toll-free number;
- Total number of charging sessions started with membership RFID card;
- Total number of charging sessions started with service provider application, and;
- Total number of other methods of payment, including sessions that did not require payment.

These requirements as written would impose extreme administrative burdens and costs on EVSPs to collect and process their data to provide it to ARB in a useable format. Many EVSPs software does not track or process this kind of data. Such a requirement would force EVSPs to redesign their software to attempt to track all of this information, which would not be easily achievable. Furthermore, there are millions of transactions happening annually at charging stations through various forms of payment. To create, sort, and organize new data fields, as well as store expanded data sets, in the form requested is operationally complex, requiring significant staffing and new costs to handle. Most EVSPs are in start-up phase trying to serve this new and important market; such costs will greatly impact their ability to deploy new charging infrastructure in support of the state's climate goals. As a result, EVSPs would have to pass these costs on to customers, which would make it more expensive and difficult for EV drivers to charge their vehicles and slow down the industry's deployment of charging stations.

Recommendation: EVCA respectfully requests that ARB simplify these reporting requirements as follows:

- Total number of charging sessions started with a credit card;
- Total number of charging stations started with an NFC;
- ~~Total number of charging sessions started with a toll-free number;~~
- Total number of charging sessions started with membership RFID card;
- ~~Total number of charging sessions started with service provider application, and;~~
- ~~Total number of other methods of payment, including sessions that did not require payment.~~

3. Specify a Process for the Technology Review in the Regulation

At the June 27 board hearing when the board voted to adopt these proposed regulations, they also discussed their desire for a "technology review" (the "Berg" amendment) of the payment technologies. We strongly support a review of various payment technologies' ubiquity among consumers prior to the 2022 and 2023 compliance dates for new EVSE.

The payment industry is rapidly evolving, and as we have already seen, other payment types are becoming more and more common among consumers. By the time the regulation comes into effect for new EVSE, payment technologies will have increasingly shifted to contactless cards, mobile payment, or even plug and charge.

Recommendation: We respectfully request that the ARB initiate this technology review by January 2021 and conclude it by mid-year to allow for plenty of time to discuss and assess the state of payment technologies. It will be critical to develop appropriate indicators to determine whether other payment technologies have become "ubiquitous" among consumers, which will take significant time to identify, research, and then appropriately measure. Additionally, metrics to measure developments in the payment industry should be based on external data such as number or percentage of credit cards issued that have contactless capability or percent of drivers with smartphones, not simply on reporting from EVSPs, to capture a comprehensive picture of the larger market.

Conclusion

We sincerely appreciate ARB's efforts to help electrify the transportation sector, as it is paramount to achieving California's long-term climate goals. EV charging stations continue to be a critical piece to this overall vision. Please let us know if you have any questions about our comments; we would be happy to discuss our perspectives with you further to help inform this process.

Thank you for your consideration,

Abdellah Cherkaoui
Electric Vehicle Charging Association

Asaf Nagler
ABB Inc.

Rajiv Shah
FreeWire Technologies