June 24, 2019

Dr. Richard Corey
Executive Officer
California Air Resources Board
1001 I Street, Sacramento, CA 95814

RE: Greenlots Comments Regarding Proposed SB 454 Electric Vehicle Supply Equipment Standards Regulation

Greenlots submits these comments to the California Air Resources Board ("CARB" or "the Board") in response to the proposed Electric Vehicle Supply Equipment ("EVSE") Standards Regulation, in response to and under authority of SB 454 (Corbett)[1], the Electric Vehicle Charging Stations Open Access Act.

Greenlots is a leading provider of electric vehicle ("EV") charging software and services based in Los Angeles and a wholly owned subsidiary of Shell New Energies. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and an increasing percentage of the Level 2 infrastructure. Greenlots' smart charging solutions are built around an open standards-based focus on future-proofing while helping site hosts, utilities, and grid operators manage dynamic EV charging loads and respond to local and system conditions. Greenlots is a strong advocate for open standards, and is a founding member of the Open Charge Alliance.

California has set pivotal goals for reducing emissions with 50% renewable energy generation by 2025, on a track to 100% zero carbon energy by 2045. This is in parallel to deploying at least five million zero-emission vehicles by 2030, as well as deploying 250,000 charging stations, including 10,000 direct current fast charging ("DCFC") stations by 2025. These EVSE goals represent a critical first step for the buildout of the infrastructure needed for meeting these and deeper electrification goals, recognizing that much more will need to be done. CARB's proposed regulations are a reflection of this impending buildout. Overall, Greenlots is encouraged that CARB has taken steps to implement the requirements of SB 454, which will likely be critical as the EV and the EV charging industry becomes more mainstream. Indeed, this progress should be seen to all as a positive indicator of the development of this market.

Interoperable Billing Standards

A key barrier for publicly accessible charging locations is interoperability for EV drivers to multiple charging networks. In the nearest term, driver roaming or network interoperability across different EVSE providers can help facilitate open payment and driver access to charging infrastructure. With further development and leveraging of other elements of interoperability, it

[1] Chapter 418, Statutes of 2013

can also help enable smart charging technologies. Greenlots supports CARB and other agencies' efforts to promote interoperability, and therefore supports the proposed interoperable billing standards, as incorporated in "California Open Charge Point Interface ("OCPI") Interim Test Procedures for Networked Electric Vehicle Service Equipment for Level 2 and Direct Current Fast Charge Classes". There is significant benefit in utilizing communication methodologies such as OCPI to provide additional mechanisms to ensure payment interoperability and ease of driver experience across different networks. Greenlots supports CARB's adoption of OCPI at this stage, including the critical current characteristics of open source, IP neutrality and royalty-free.

Credit Card and Mobile Payment Requirements

In addition to network interoperability through standards-based solutions to promote and support driver roaming and payment interoperability, credit card-based payment systems have traditionally been the backbone used to support payment interoperability and driver roaming in the U.S. across publicly-accessible EVSE. It is also the familiar payment method known to drivers for "roaming" across different gas stations, and provides a foundational guarantee of being able to use a station in the absence of a mobile phone or existing network membership. For these reasons, Greenlots supports drivers' abilities to utilize credit card functionality as an element of the transition to electrification.

To enhance these provisions, Greenlots reiterates additional proposed refinements to this component of the proposed regulations, as articulated in the April 5, 2019 "Coalition Proposed Amendments to the Proposed Regulation, 'Electric Vehicle Supply Equipment Standard'" sent to the Board by Siemens, Plug In America, Electric Auto Association, Electrify America, Tritium and Greenlots:[2]

- Retain the retrofit requirement for credit/debit/prepaid EMV card readers on publicly available Level 2 and DCFC chargers for Disadvantaged Communities (DAC).
- Eliminate the retrofit requirement for card readers on publicly available Level 2 chargers installed prior to some effective date for the new regulations, perhaps January 1, 2022.
- For Level 2 chargers that are not retrofitted, add a requirement that a toll-free number be available, prominently posted or displayed on the chargers, to allow for payment over the phone via a toll-free number using a credit, debit or pre-paid card. Such requirement could take effect on January 1, 2020.

Definition of "Publicly Available"

As also articulated in the coalition letter noted above, we reiterate that the definition of "publicly available" in the regulation should more closely align with the statutory language. It should clarify that workplace and multi-unit dwelling charging stations that are operated for employees, visitors, and MUD residents at least a majority of the time are not "publicly available," unless

[2] Also submitted on June 11, 2019 in response to this comment solicitation.

they have been "designated by a property owner or lessee to be available to, and accessible by, the public."

Data Collection and Reporting Requirements

The proposed regulations require a significant amount of burdensome reporting requirements that on the whole may ultimately be of limited use to CARB and stakeholders. This includes a variety of data points that as drafted in the regulations must be reported at the charger level, including model certifications, photos of units, types of payment devices installed, numbers of charging sessions initiated using different payment methods, multiple uptime/downtime statistics, and a detailed schedule of fees, amongst other data points. While the regulatory impact analysis asserts that these reporting requirements are the same as what information is currently provided to NREL, Greenlots notes that many EV charging providers do not currently report all of this information, and such a requirement would represent a new cost and burden. For these reasons, Greenlots requests that this requirement be changed to reporting this data in aggregate, such as in sum for each payment type for example, rather than data for each individual EVSE. Additionally, the regulations should clarify that the collection and reporting of utilization data does not apply to non-networked EVSE

Conclusion

Greenlots recognizes that the legislature's and CARB's involvement in the EVSE market is representative of the rapid growth and anticipated future growth of this industry. Ensuring effective and reasonable consumer protections is a goal Greenlots shares. The adoption of consumer protections and open protocols and standards is essential to support transportation electrification, grow the market for EVs and EV charging products and services, enhance the driver/customer experience, and lower the cost of ownership of both EVs and EV charging infrastructure. For these reasons, and with the comments provided, Greenlots supports and is appreciative of CARB's efforts in implementing the requirements of SB 454.

Greenlots appreciates the opportunity to provide these comments, and looks forward to continued participation in this process, and engagement in efforts to support and accelerate transportation electrification and advanced mobility in California.

Sincerely,

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