

DOCKETED

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Greenlots Comments on Proposed Future Technical Requirements

Additional submitted attachment is included below.



July 10, 2018

Docket No. 17-EVI-01
-Via e-file-

Brian Fauble
California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Comments of Greenlots on Future Technical Requirements of the California Energy Commission's (CEC) Electric Vehicle Infrastructure Project (CALeVIP)

Dear Mr. Fauble,

Greenlots submits these comments following the California Energy Commission's (CEC) June 28, 2018 webinar regarding future requirements of the California Electric Vehicle Infrastructure Project (CALeVIP). Greenlots strongly supports initiatives to proliferate open standards, access, and interoperability. As such, we support the CEC's efforts to move the California market towards global interoperability, and generally support the proposed electric vehicle supply equipment (EVSE) technical requirements as presented in the June 28 webinar.

Greenlots is a leading provider of electric vehicle (EV) charging software and services. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and is increasingly supporting programs in the workplace, retail, and residential Level 2 space. 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 electric vehicle 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 and deploying at least five million zero-emission vehicles (ZEVs) by 2030, as well as deploying 250,000 charging stations, including 10,000 Direct Current (DC) fast charging stations by 2025. Vehicle-grid integration (VGI), such as smart/managed charging, will play a critical role in achieving these goals. It is widely recognized that managed charging can increase operational cost savings relative to fossil-fueled vehicles and offer a range of grid services, in addition to promoting overall electric system efficiency.

A key barrier for leveraging VGI in publicly accessible charging locations is interoperability for EV drivers to multiple smart charging networks. In the nearest term, driver roaming or network interoperability across different EVSE providers can help enable smart charging technologies, and facilitate open payment and driver access to charging infrastructure. Setting a communication standard between the EV and EVSE can help normalize smart charging and lower a component of investment risk. Greenlots supports CEC's effort to promote interoperability as

part of the CALeVIP program and therefore supports the inclusion of ISO/IEC 15118 and an intellectual property and royalty-free OCPI as potential requirements, and recommends creating a pathway for these communication methodologies for both AC and DC charging.

ISO/IEC 15118 supports “plug and charge” capabilities and a relatively seamless EV driver charging experience. Moreover, the standard is being deployed and supported internationally, with a set of automakers committed to equipping millions of EVs with 15118 capability over the next several years. Inaction in California while much of the market coalesces around this standard for EV-EVSE communication may prove detrimental to the growth of the EV market, and would be out of line with the State’s longstanding leadership role in clean mobility. As such, Greenlots supports CEC’s proposal to require newly installed EVSEs to be 15118 ready starting January 1, 2020. Greenlots believes setting standards for communication protocols will both accelerate EV adoption and help future-proof an element of EVSE deployment.

While 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, there is benefit in utilizing communication methodologies such as OCPI to provide additional mechanisms to ensure payment interoperability and ease of driver experience across different networks. As long as OCPI remains open source, IP neutral and royalty-free, Greenlots supports CEC’s adoption of the standard for future EVSE deployments.

CEC’s proposed actions are in growing alignment with the international market and international communication methodologies largely adopted first in Europe. However, as Greenlots articulated at the April 17 Staff Workshop on the Southern California Incentive Project under CALeVIP and in April 27 written comments, we strongly encourage CEC to take similar action in requiring OCPP (1.6 or 2.0+) for hardware-software interoperability. Further, consideration of OpenADR 2.0b/SEP 2.0 as standards for communication upstream of the EVSE/network is also appropriate. Hardware-software interoperability is one of the most critical considerations for protecting investment in infrastructure (in this case the State’s) and is also a critical aspect of VGI.

Greenlots is cognizant that the California Public Utilities Commission will soon be releasing the final report of the Vehicle-Grid Integration Communications Protocol Working Group that is relevant to some of the above issues. However, due to limitations in the process and expected outcomes, Greenlots believes it incumbent upon CEC to not tie its actions to that process and instead lead with appropriate action of its own.

Finally, given the sufficient timeline and flexibility afforded by the proposed Energy Star Commitment Process, Greenlots is supportive of this program requirement and especially its underlying goal of efficient energy use and delivery for EVSE.

The adoption of 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, integrate with the electricity system, and lower the cost of ownership of both EVs and EV charging infrastructure. The proliferation of open standards and

communication methodologies provides a platform and ecosystem for innovation and customer choice that is critical to guarding against stranded assets and protecting the prudence of taxpayer investments.

Greenlots looks forward to continued progress in these areas and will continue engagement in CEC's ongoing efforts to support transportation electrification and advanced mobility.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas Ashley', with a stylized, cursive script.

Thomas Ashley
VP Policy, Greenlots
tom@greenlots.com

CC:

Matthew Fung
Noel Crisostomo