

DOCKETED

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ChargePoint Comments on Future Equipment Requirements for CALeVIP

Additional submitted attachment is included below.



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December 13, 2019

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 17-EVI-01
1516 Ninth Street Sacramento, CA 95814-5512

Re: Docket number 17-EVI-01, Future Equipment Requirements for CALeVIP

ChargePoint appreciates the opportunity to provide comments on the California Energy Commission (CEC) Future Equipment Requirements for the California Electric Vehicle Infrastructure Project (CALeVIP).

ChargePoint is the world's largest and most open electric vehicle (EV) charging network with more than 105,000 Level 2 EV and direct current fast charging spots, including 39,000 public and semi-public ports in California. ChargePoint's customers include major employers, municipalities, universities, utilities, real estate developers and parking garage facility owners and operators that provide EV charging and related services to EV drivers.

The CALeVIP incentives for public EV charging infrastructure in California play a critical role in helping the state reach its ambitious goals to deploy 1.5 million zero-emission vehicles and 250,000 EV charging stations by 2025. We commend CEC staff for the extensive efforts taken to engage stakeholders in the process of updating future equipment requirements and hope the comments below help inform this process.

I. CALeVIP Pillar Requirements

ChargePoint strongly supports the CALeVIP pillar technology requirements for Level 2 chargers including a J-1772 connector, networking capabilities, ENERGY STAR certification, and the ability to receive multiple forms of payment. In particular, we believe that all charging should be networked to ensure that drivers are able to locate stations, view availability in real time, process payment for charging sessions, and enable critical grid communication in the future.

Similarly, we support the pillar technology requirements for DCFC including standard connectors, a minimum 50 kW power rating, networking capabilities, and ability to receive multiple forms of payment.

These pillar technology requirements have served the current CALeVIP program well to future proof charging investments and enable customer choice by allowing many different charging hardware, networks, and business models to qualify for funding. However, we do understand that some terms may require further definition and appreciate the CEC seeking to clarify these pillar requirements in this discussion.



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II. ISO 15118 and Vehicle Grid Integration

ChargePoint supports ISO 15118 but believes it is premature to mandate this standard, the capability of communicating with this standard, or the inclusion of HomePlug GreenPHY in CALeVIP-funded charging stations, particularly AC L2 stations. We agree that the greatest opportunity for energy management is in longer dwell time charging and hope to use ISO 15118 for this purpose in the future. However, further standard development is vital to address critical gaps in security and functionality. Mandating ISO 15118 now sends the wrong signal to the global auto and charging industries that the standard is complete and could threaten improvements from happening, including the development of ISO 15118-20 which is identified as a key checkpoint in this CEC proposal for review mid-year 2020.

There are currently no AC vehicles capable of using ISO 15118 as standard development has primarily focused on communications through Combined Charging System (CCS). Furthermore, there is currently no testing procedure for this standard and due to continued industry work on improving the standard to address security risks and other issues, it is unlikely that a testing procedure could be established by Q3 of 2020 as proposed in the CEC technology requirements presentation. If mandated, the CEC would have to rely on automakers and charging networks' assertions that they are implementing it, without a reliable means of assuring that is in fact the case. Until vehicles with ISO 15118 are being disseminated in the market at large, testing and certification may be limited to only a few large companies with relationships with automakers, which could threaten competition in the CALeVIP program.

ChargePoint would also like to gently push back on the proposed cost that staff noted in the November workshop. While staff believes this mandate would cost just \$5-\$10 per station, the actual costs are significantly higher. To put GreenPHY HomePlug into a charger requires additional circuitry, including memory, voltage regulation, and front end module/filters, all of which add to the cost. There is also only one manufacturer of GreenPHY HomePlug which will undoubtedly cause the price to be increased by the supplier due to demand if this mandate were to go into effect. This cost estimate also fails to incorporate engineering and manufacturing costs that go behind redesigning, testing, and manufacturing products to have ISO 15118. These costs will be passed on to station owners and operators, and eventually drivers, which will impact smaller companies and lower income drivers the most.

If the CEC chooses to mandate ISO 15118 despite these concerns, ChargePoint recommends an effective date of January 2023, rather than 2021, to allow two years for manufacturers to incorporate the HomePlug GreenPHY and associated technology into their station hardware, and to develop the appropriate software testing and communication to utilize it. This will ensure the best possible driver experience.

III. SB 454 – Credit Card Readers

We urge the CEC to align requirements for credit card readers with the final timeline to be issued by the California Air Resources Board (CARB) pursuant to Senate Bill 454, the EV Charging Stations Open Access Act. The CARB rulemaking has involved extensive discussion of this costly and controversial payment hardware requirement and CARB specifically pushed the timeline for compliance to 2022 for DCFC and 2023 for L2 in order to give industry time to modify their manufacturing plans and supply chain. To dismiss CARB's timeline and prematurely require this mandate would limit customer choice to only a few charging station providers that currently have credit card readers. Credit card reader requirements should be implemented consistently with the framework established by the CARB



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regulations, and subject to any applicable conditions (e.g. a rollout period or exceptions) that may be adopted to lessen cost impacts and provide time for compliance by industry participants.

IV. Open, Standards Based Communication

ChargePoint supports the CEC's current technology requirement for network interoperability to be based on the ability to revert to an open standard protocol. There was discussion at the November 25 workshop on further defining this requirement. As noted by many parties in the room, every network to hardware relationship is different and requires specific technical arrangements and added extensions to make everything work together. While we understand that other charging networks may not be providing optimal driver experiences, we urge the CEC to use minimum reliability and operational requirements to prevent stranded assets and ensure this investment is successful, rather than attempting to prescribe how charging hardware and network vendors communicate or develop their business models.

V. ENERGY STAR for DCFC

ChargePoint strongly supports ENERGY STAR and is proud to have had the first ENERGY STAR certified L2 charging station. We commend the CEC for putting this technology requirement for L2 stations into CALeVIP, which led to many more companies seeking certification, at the benefit of customers across the state. We are now actively engaged in the development of ENERGY STAR for DCFC and intend to ensure our future stations meet the specification when it is finalized next year. That said, ENERGY STAR for DCFC is very different than the L2 specification and will likely require changes to current station technology and testing procedures in order to get certification. Given the timeline presented by the EPA consultants at the November 25 workshop, we ask that the CEC wait to mandate this certification for DCFC until at least one year after the final Version 1.1 specification effective date.

Thank you for your consideration of our comments. Please do not hesitate to contact me at Anne Smart at anne.smart@chargepoint.com if you have any questions or if we can provide additional information to help inform the assessment.

Sincerely,

A handwritten signature in cursive script that reads "Anne Smart".

Anne Smart
Vice President, Public Policy
ChargePoint