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Subject Comments - Block Grant for Electric Vehicle Charger Incentive Projects – CAlLeVIP Future Equipment Technology Workshop

Additional submitted attachment is included below.



December 13, 2019

California Energy Commission
Docket 17-EVI-01
1516 Ninth Street
Sacramento, CA 95814

Re: Block Grant for Electric Vehicle Charger Incentive Projects – CALeVIP Future Equipment Technology Workshop

Dear California Energy Commissioners and Staff,

We appreciate the opportunity to provide comments on the Block Grant for Electric Vehicle Charger Incentive Projects and specifically on the CALeVIP Future Equipment Technology Workshop on November 18, 2019. We are excited to help drive electric vehicle (EV) adoption and increase EV charging access in California. This goal directly aligns with HUBJECT's vision of "easy EV charging for everyone, everywhere." We strongly believe standardizing EV charging communication will accelerate EV deployment to help the State reach its goal of five million EVs by 2030.

HUBJECT, founded in 2012, is focused on increasing EV adoption through simplifying electric vehicle charging; one of the primary barriers to EV purchase. First in Europe through its eRoaming platform enabling cross network charging and now by leading in the development and implementation of Plug&Charge using ISO 15118. This technology not only streamlines charging with faster charging session authentication and authorization but also enables smart and bi-directional charging, as well as wireless or inductive charging.

HUBJECT is actively supporting and contributing to ISO 15118, a Global Intelligent Standard to secure communication between an EV and electric vehicle supply equipment (EVSE), through its involvement in CharIN, an EV trade organization developing and establishing Combined Charging System (CCS) connector and ISO 15118 as the global standards. CharIN has over 180 members, representing a cross section of EV stakeholders, including; automakers, utilities, hardware manufacturers, charging networks and technology companies.

With many of the largest global OEMs focused on providing the best user experience with Plug&Charge and actively incorporating the ISO 15118 standard into their vehicles, HUBJECT strongly encourages CALeVIP to include implementation of ISO 15118 within the CALeVIP program to enable wide EV adoption. ISO 15118 provides standardized, secure communication between the EV and EVSE. ISO 15118 is also a future-proof technology as it addresses the use cases critical to scalability and grid resiliency needed with growing numbers of EVs on the road: smart, bi-directional and wireless charging.

ISO 15118 will help support the California Energy Commission's goals, including: (1) Interoperability, (2) Competition and Customer Choice, (3) Cost Control, and (4) Convenience.

1. *Interoperability*: ISO 15118 will standardize communication between EVSEs and EVs to enable interoperability and the ability to function with each other, without special effort by the end-



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user. The development of ISO 15118 is being actively coordinated by CharIN's members, who represent a cross section of EV stakeholders including automakers, utilities, hardware manufacturers, charging networks and technology companies and are committed to creating an industry-wide standard. ISO 15118 is also adding to interoperability by using already established and adopted technologies, such as a OCPP, the "de facto" communication standard between chargers and backend systems.

2. *Competition and Consumer Choice:* ISO 15118 provides open standards to allow for portability between suppliers and increases choice to ensure easy access by all in a competitive, and highly innovative market.
3. *Cost Control:* ISO 15118 includes communication for smart charging which will help utilize existing grid infrastructure by shifting demand, reduce peak demand charges, and maximize the use of renewable energy. The focus on a single standard will help increase deployment and scalability of easy seamless charging for drivers and charging operators, as well as reduce the cost for manufacturing and implementation.
4. *Convenience:* ISO 15118 provides the ultimate convenience by enabling Plug&Charge, which makes easy seamless charging possible by eliminating the need for multiple accounts or the use of an RFID card, credit card, or app on a cell phone.

We greatly appreciate the opportunity to provide comments and feedback on the future equipment requirements for CALeVIP. Below are our key comments:

- We strongly support the implementation of ISO 15118-2 + TLS Security as soon as possible, which will provide convenient Plug&Charge capabilities for drivers with greater security, as well as mitigating peak demand charges for EV service providers and maximized utilization of renewable energy.
- We respectfully request including a soft requirement to install a Hardware Security Module (HSM) or softHSM (keyStore) into the charging stations as soon as possible to allow the charging station to manage the secure connection required by ISO 15118. We strongly support requiring HSM or softHSM by January 2021.
- We respectfully request the implementation of ISO 15118-20 two years after publication.
- We strongly support dedicating funds for a California Testing Lab providing a location where all stakeholders, hardware manufacturers, automakers, charging networks, utilities and technology developers can come to test their ISO 15118 implementations enabling Plug&Charge, managed Smart Charging, bi-directional charging and wireless and inductive charging before wide deployment.
- We request that to ensure interoperability and security that the CharIN third-party certification and testing program be named as the official approval needed to qualify for funding. This Certification process will include a thorough testing process with defined conformance tests and procedures and is expected to be complete during Q1 2020.

We greatly appreciate the opportunity to work with Energy Commission on the future equipment requirements for CALeVIP. We know that by providing definition and clear direction the Energy Commission will facilitate EV adoption by ensuring convenient and interoperable charging that



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maximizes investment and scalability of charging. We are glad to provide any additional information and respond to follow up questions.

Sincerely,

Paul M. Glenney

CEO, HUBJECT Inc.