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Comment Received From: Matthew Nelson
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Comments on CALeVIP implementation

Please find our comments attached.

Additional submitted attachment is included below.

March 6, 2023

Hannon Rasool
California Energy Commission
715 P Street
Sacramento, California 95814

RE: Comments on CALeVIP 2.0 and the Golden State Priority Project Implementation

Dear Mr. Rasool:

Electrify America appreciates the opportunity to comment on design and implementation of CALeVIP 2.0 and the Golden State Priority Project. Electrify America is the nation's largest open DC fast charging network for electric vehicles, with nearly 3,400 ultra-fast chargers across 784 locations around the country, and over 1,000 chargers across 237 locations open to the public in California.

We have consistently advocated for a number of updates to the CALeVIP program to accelerate charging infrastructure deployment and support development of an effective, future-proofed network that can enable the State's transportation electrification goals:

1. Prioritize ultra-fast charging as the optimal future-proofed solution for public charging
2. Require investments in capabilities that enhance charger reliability and assess reliability across a wide array of metrics, including charging success rate and charging station uptime, rather than just uptime at the charger level
3. Require the use of non-proprietary technology so that any electric vehicle can charge at any station, consistent with the CCS Standard and compliant with ISO 15118
4. Improve the process for distributing funding by directing funding to projects where the applicant has demonstrated access to the station site via contract or deed, permits have been received, and new utility service has been designed and finalized
5. Align public investments with existing laws related to streamlined permitting by prioritizing investments in jurisdictions that comply with AB 1236 and AB 970

We appreciate that CALeVIP 2.0 and the Golden State Priority Project reflect many of these suggestions. The changes implemented will support more rapid infrastructure development, consistent with the State's goals. However, as the California Energy Commission (CEC) and the Center for Sustainable Energy (CSE) implement these programs, we encourage you to clarify and/or address a couple additional points:

- **ENERGY STAR requirements**: We ask that CEC and CSE clarify that ultra-fast chargers with a maximum power output above 350 kW are exempt from the ENERGY STAR

requirement in the CALeVIP 2.0 program, which would be similar to the U.S. EPA treatment of high powered charging under the ENERGY STAR specification itself. In the ENERGY STAR specification, the U.S. EPA explicitly states that the specification only applies to "DC-output EVSE with output power less than or equal to 350 kW" and excludes "DC-output EVSE with power greater than 350 kW," which it states is "not eligible for certification under this specification."[1] Chargers with a maximum power output above 350 kW cannot be certified even if they meet the standby power requirements in the ENERGY STAR standard; therefore, although Electrify America requires our manufacturers to design DCFC to meet the ENERGY STAR efficiency standards, the Electrify America Next Generation Charger, which has a maximum power output above 350 kW, cannot be certified, according to initial feedback from EPA. We urge CSE and CEC to explicitly exempt DC fast chargers with maximum power output above 350 kW from the ENERGY STAR certification requirement until EPA makes such equipment "eligible" for ENERGY STAR certification.

We also encourage CEC and CSE to assess the likely impact of an ENERGY STAR requirement. According to the ENERGY STAR Product Finder, there are currently no ENERGY STAR certified chargers with a maximum output power level above 200 kW. Only two CCS charger models with maximum output power above 150 kW are ENERGY STAR certified, and they are not manufactured by U.S.-based manufacturers with significant U.S. market share.[2] At a time of global supply chain shortages, we encourage CEC and CSE to evaluate potential unintended consequences on the pace of station deployment, station reliability, and charging speed.

- **OCPP certification requirements:** We ask for clarification that this requirement applies to hardware capabilities. Specifically, we support requiring that hardware funded by California be capable of using OCPP 1.6 or later, and we ask that CEC clarify that the requirement that "chargers must be … compliant with OCPP 1.6 or later, and requires certification by Open Charge Alliance," can be met by purchasing charging hardware models that have been certified by their manufacturer and are capable of operating certified software. Electrify America is a strong advocate of non-proprietary standards, including OCPP, and we agree that chargers funded with public resources should be capable of moving from network to network.

  Electrify America notes that a majority of charging providers in the DC fast charging space utilize OCPP 1.6 with various modifications to support monitoring and management functions. These charging providers embraced the non-proprietary OCPP 1.6 standard – which is primarily a means to collect payment – when it was first available. Some network providers developed add-ons to improve the customer

[1] https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20V1.1%20DC%20EVSE%20Final%20Specification_0.pdf

[2] Energy Star Product Finder, Search completed February 14, 2023; https://www.energystar.gov/productfinder/

experience – for example, Electrify America developed “Plug&Charge” capability under the ISO 15118 standard before OCPP was capable of accommodating “Plug&Charge”. Requiring *use of* OCPP software without add-ons would necessitate that industry members that first embraced the non-proprietary OCPP standard would need to reset their systems unnecessarily, or disable add-ons like Plug&Charge that are in the interest of customers. This would seem to offer no discernable benefit to the CALeVIP sites. We ask that CEC and CSE require OCPP 1.6 or later compliant hardware capable of operating OCPP 1.6 or later software, and clarify that the network operator may update, revise, and operate software on the OCPP-certified charger in order to facilitate constant improvement of customer service and reliability.

Facilitating network software updates would support key CEC goals, including accepting Plug&Charge and increasing station charging session monitoring.

- **Charger uptime:** Electrify America has found that a charging network provider's reliability-related capabilities are the key factor determining whether aggressive reliability targets and continuous reliability can be accomplished. For example, Electrify America can achieve our reliability targets only because we have established 24/7 network diagnostics and engineering support, a laboratory to conduct thousands of hours of vehicle interoperability testing annually, a fleet of roaming test drivers, a domestic parts inventory to rapidly respond to hardware issues, and because all of our stations support multiple payment options, including credit card readers and Plug&Charge. Each of these capabilities is critical to network operations and customer experience, and each helps to ensure that chargers don't just provide a network signal to the backend, indicating that they are "up" or online, but also that drivers using the station site can successfully receive a charge for their vehicles. Accordingly, as CEC moves forward implementing reliability standards for CALeVIP 2.0 and other programs, we strongly encourage these programs to:

    - Recognize and reward investment in reliability capabilities by either requiring CALeVIP 2.0 recipients to demonstrate reliability capabilities, or rewarding investment in reliability capabilities via application scoring metrics.
    - Require Operation and Maintenance (O&M) plans that demonstrate reliability capabilities. Through O&M plans and AB 2061 reliability oversight, CEC can ask state-funded network providers to demonstrate reliability capabilities.
    - Define and measure additional performance measures in addition to uptime that measure the customer charging experience, including for example customer satisfaction survey, time to repair, and standardized quality field testing.
    - Incorporate the benefits of charging system redundancy, at the site level, in uptime metrics, as required by AB 2061, by measuring uptime at the station level in addition to the charger level.

EV charging providers track different performance metrics applicable to their technology and operations goals, and from Electrify America’s perspective, reliability means that

customers are able to consistently charge, successfully at expected speeds, and with as little hassle as possible. Ensuring this outcome requires designing a charging network around more than station uptime.

Finally, given the scale of infrastructure that needs to be developed to support the state's transition to electric transportation, we encourage CEC to work with administrators of the EVITP program, community colleges, and others to accelerate throughput and certification of electricians under the EVITP program. Doing so will ensure development of the workforce sufficient to support, and benefit from, California's rapid transition to electric vehicles.

Thank you again for your consideration of our previous comments and the opportunity to share our perspective on the implementation of the CALeVIP 2.0 program. We look forward to continuing to collaborate with you to advance the State's transportation electrification goals.

Sincerely,

/s/

Matthew Nelson
Director of Government Affairs Strategy
Electrify America