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Rivian Comments - EV Charging Infrastructure Reliability Workshop

Additional submitted attachment is included below.

November 11, 2022

Mr. Dustin Schell
Air Resources Engineer
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
Docket: 22–EVI–04

Re: Rivian Comments on Electric Vehicle Charging Infrastructure Reliability Workshop

Dear Mr. Schell,

Thank you for the opportunity to comment on the California Energy Commission's (CEC) 22-EVI-04 Docket regarding the recent Electric Vehicle Charging Infrastructure Reliability Workshop held on October 21, 2022. Rivian is an all-electric automaker of both consumer and commercial vehicles, a charger manufacturer and a network provider of two charging networks, the Rivian Adventure Network and the Rivian Waypoints Network. We therefore strongly support California's leadership on improving reliability and the overall charging experience for all EV drivers as it is a cornerstone to long-term success and scalability of the entire EV ecosystem.

We submit the following input for the CEC's consideration in response to the EV Charging Infrastructure Reliability Workshop and prior to the official rulemaking kicking off in early 2023:

I. Ensure consistency with the foundational aspects of the Federal Highway Administration's (FHWA) National EV Infrastructure Program (NEVI) reliability standard.

The Federal Highway Administration's National EV Infrastructure (NEVI) Program has proposed the following reliability requirements as part of its draft standards:

- A minimum uptime requirement of 97 percent uptime
- A standardized formula to calculate uptime
- Consistent reporting of each charger's uptime
- Allows upstream infrastructure failures (WiFi, cellular, and grid) to be excluded from the uptime calculation

We encourage the CEC to align its reliability requirements with the FHWA's standards, once finalized, to the extent allowed by AB 2061 (Ting). Alignment will streamline compliance and scalability across jurisdictions which is especially important considering other states will likely follow California's lead. Given California will administer $384M in FHWA funds to deploy charging stations over the next five years, this alignment will also create a more consistent charging experience for drivers within the state.

FHWA's NEVI Program also allows operations and maintenance to be an eligible expense. We strongly encourage the CEC allow operations and maintenance to be an eligible expense across state incentive programs as well. This allowance will help ensure funding recipients have the appropriate funds necessary to properly maintain chargers.

II. Clarify which charging use cases are subject to the uptime assessment process defined in AB 2061.

The uptime assessment process language in AB 2061 does not define which categories of charging infrastructure are included. Given this ambiguity, we encourage the CEC to be explicit about which categories of charging will be subject to the assessment process in order to best solicit feedback from stakeholders. If the intent is for the uptime assessment process to apply to ***all*** charging infrastructure in the state regardless of accepting incentives from a state agency or through a charge on rate payers, Rivian would have notable concerns about the applicable scope, scalability, cost and implementation.

We encourage the CEC to consider the following actions regarding the assessment requirements:

- Provide clarification to stakeholders whether the intended scope of the assessment includes all charging infrastructure in the state, regardless if the infrastructure leverages incentives from a state agency or through a charge on rate payers.
- Exclude residential charging from requirements (i.e., stations installed at a residential real property containing four or fewer dwelling units, per the AB 2061 definition applicable to uptime recordkeeping and reporting standards). By explicitly excluding residential chargers, the scope of assessment will be significantly reduced and make it more manageable from a cost and logistics perspective.
- Exclude private depot fleet charging infrastructure that does not leverage incentives from a state agency or through a charge on rate payers.
- At a minimum, consider and specifically seek out how proposed assessment requirements would be implemented under the fleet depot charging use case if it is to be included. The currently proposed requirements (specifically the consumer surveys and field inspections) have the potential to interrupt daily fleet operations in an unacceptable manner.

III. Maintain current excluded downtime categories in the Reliability Agreement Template and consider the addition of Site Access Restrictions.

We appreciate and support the CEC's specific inclusion of excluded downtime categories listed in the Reliability Agreement Template. The categories identified are all reasonable to exclude given they are outside of a network provider's control. To further improve the actual implementation of the currently listed categories, we encourage the CEC to reevaluate the requirements under the *Planned Outage for Maintenance or Upgrade* category based on feedback from current REV and REACH grant recipients. The current language indicates a recipient must submit a planned maintenance schedule as part of the funding application and then get CAM approval if the planned outage schedule needs to change. This current process could result in delays and even contribute to further port downtime by not allowing recipients to take quick action when needed by first requiring CAM approval. We encourage the CEC to combine a proactive approach, when possible, with a retroactive process where companies can take real-time action when needed and provide retroactive updates to the CAM along with updates to required reporting documentation.

In addition to maintaining the currently excluded downtime categories, we encourage the CEC to consider the addition of *Site Access Restrictions* as a sixth and final category. Site Access Restrictions are allowable and common via incentive agreements with funding recipients, most commonly for Level 2 stations. These stations may be deployed at sites that are not accessible to the public 24/7 (i.e. a

downtown parking garage that is closed 12-6 am or a state/local park that may have limited operational hours). Including hours where a site's access is restricted in an uptime calculation would not provide an accurate or appropriate understanding of a port's uptime as it relates to an EV driver's experience.

IV. Balance data reporting requirement intervals with the cost associated with pulling that data.

The CEC currently proposes to leverage 15-min intervals for port status and error code recordkeeping and reporting. We strongly encourage the CEC to maintain this proposed interval as it balances both the value of providing a clear picture of charger activity on a granular level and the costs associated with pulling the data at regular intervals from potentially hundreds/thousands of ports in the state. We also encourage the CEC to consider the costs of data pulling at sub-hour intervals to be an eligible expense under operational costs.

V. Consider adjusting the uptime requirements for sites of a certain size, where there is considerable redundancy.

AB 2061 (Ting) explicitly allows the CEC to adjust requirements based on several factors, including the number of chargers per site. As sites start to become larger and larger to meet demand, it may be reasonable for the CEC to adjust the uptime standard accordingly to account for site-level redundancy without diminishing or compromising the original intent of the proposed reliability standard.

VI. Provide greater detail on the field inspection concept proposed during CEC's EVSE reliability workshop.

We see value in the proposal to conduct field inspections of chargers as the data collected will help the CEC meet the assessment requirement under AB 2016 (Ting). However, because field testing methodologies for charger reliability are still nascent, we encourage the CEC to research this area more and present a proposed methodology for stakeholder feedback at a public workshop before implementing. We also encourage a detailed methodology to consider what is practical across a range of charging use cases, with specific attention paid towards the differences between L2 and DCFC applications as well as fleet depot charging (as noted above in Section III). Finally, if the CEC pursues field testing, a funding mechanism should be provided to cover the cost of field verification to enable scalability as this burden should not be placed on site hosts and charging providers.

Thank you again for your work on this critical topic and we look forward to continued discussions with the CEC.

Sincerely,

Kelsey G. Johnson
Senior Policy Advisor – Energy & Charging
Rivian Automotive, LLC