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Concerns regarding proposed reliability regulations

Additional submitted attachment is included below.

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Cool the Earth Comments on CEC Proposed Regulations for EV Charger Inventory, Utilization, and Reliability Reporting
October 25, 2023

Cool the Earth appreciates the opportunity to provide comments on the California Energy Commission's Proposed Regulations for EV Charger Inventory, Utilization, and Reliability Reporting. We appreciate the efforts of the staff; however, we believe that the current proposal is not sufficient to address the significant reliability issues in public EV charging infrastructure.

Cool the Earth, a nonprofit organization, has worked for over 8 years to educate consumers about clean electric driving and currently leads a national non-profit collaborative effort, Ride and Drive Clean. Cool the Earth has extensive driver-focused experience with public charging including DC Fast (DCFC), working with thousands of members of the public as well as with cities, agencies, NGOs, utilities, and CCAs. Unfortunately, our constituents frequently have encountered unresponsive kiosks, broken equipment, payment systems that do not work, and other issues that prevent successful charging.

In 2021, Cool the Earth collaborated with a UC Berkeley Professor Emeritus from the School of Engineering to design and perform a systematic field study[1] of every open-system DCFC plug in the Bay Area. Of the 657 plugs tested 27 percent were not functional.

According to the J.D. Power 2023, "Owner satisfaction with charging is declining, even as the number of charging stations grows.[2] JD Power also reports, "Public charging issues may short-circuit EV growth.The reliability of public chargers continues to be a problem…one of every five visits ends without charging, the majority of which are due to station outages."[3]

The issue of non-functional charging stations has been widely reported upon by most major news outlets including the New York Times and the Wall Street Journal, regional newspapers including the Los Angeles Times and the San Francisco Chronicle, and in numerous consumer forums.

Despite the abundance of compelling evidence pointing to substantial problems with public EV charging infrastructure, it is disheartening to note the absence of performance requirements, third-party verification, and effective enforcement measures in the proposed regulations. Given that California boasts the highest number of public charging stations in the nation, it has a unique opportunity to take the lead in setting forth regulations that meet consumers' expectations for seamless and reliable charging experiences on every occasion.

The presence of non-functional charging stations raises a pressing equity concern, particularly for residents of multifamily housing, many of whom are renters residing in economically disadvantaged communities. These individuals rely heavily on public charging infrastructure, making it imperative that the state takes proactive steps to ensure equitable access and dependable service, aligning with the principles of accessibility and fairness in its pursuit of sustainable transportation solutions.

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[1] [2203.16372] Reliability of Open Public Electric Vehicle Direct Current Fast Chargers
[2] https://www.jdpower.com/cars/shopping-guides/owner-satisfaction-with-ev-charging-on-the-decline#:~:text=According%20to%20the%20J.D.%20Power.available%20charger%20on%20the%20road.
[3] https://www.jdpower.com/business/press-releases/2023-us-electric-vehicle-experience-evx-public-charging-study

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The CEC DRAFT STAFF REPORT: Tracking California's Electric Vehicle Chargers (Sept 2023) indicated it considered setting charger reliability standards in addition to reliability reporting requirements (Alternative 2, page 31), but chose not to do so at this time. We strongly encourage the CEC to reconsider. We are gravely concerned that the proposed regulations do not include an uptime requirement nor requirement of third-party verification of many aspects of Charging Network Provider performance reporting. Without independent third-party verification of reported data, the proposed regulations lack authority. We also urge the final regulations to include enforceable consequences for noncompliance.

Uptime Requirement

Cool the Earth strongly recommends including a minimum uptime requirement of 97% in the regulations. This would align with the federal NEVI requirements and the CEC grant funding requirements and provide consistency in performance expectations for EVSE manufacturers and for drivers. It is inconsistent for CEC to require 97% in its REACH and REV grant funding requirements as it has since January 2022[4], and not to require it in these proposed regulations.

Third-party Uptime Verification

Third-party verification of Charging Network Provider or Charging Station Operator-reported uptime should involve the review and verification of the raw data and calculations provided by these parties, including reported uptime, outage time, and excluded time. The verification analysis should be made available to the public.

Third-party Field Testing

Not all system failures are included in uptime/downtime calculations because some system failures might not be currently detected by the network provider. Some examples of possible undetected failures are severed charging cords, payment system problems, broken screens, etc. Therefore, field-based testing is essential to complement uptime reporting. Field testing of each EVSE port should be a standardized and validated process, performed by a third-party and include testing to confirm charging at the intended rate. This testing should be required at the time of initial operation and at periodic intervals thereafter with results reported by the network provider, the funding agency, and the public.

Enforceable Consequence for Noncompliance

To ensure the effectiveness of the regulations outlined, it is crucial to establish enforceable consequences for non-compliance. We propose a two-pronged approach to address this concern. First, in contracts for grant funding, we recommend dividing the grant payment into multiple installments. The final payment should only be disbursed after all performance, maintenance, and reporting requirements have been consistently met for a minimum period of 12 months following the initial operation date. Additionally, we suggest exploring the option of imposing fines for non-compliance as an additional measure to incentivize adherence to the regulations.

Establishing uptime, third-party verification, enforcement and penalties will help uphold the integrity of the regulations and guarantee accountability among recipients of public funds for EV charging stations.

Thank you,

Carleen Cullen

Carleen Cullen

[4] https://www.energy.ca.gov/solicitations/2021-11/gfo-21-603-reliable-equitable-and-accessible-charging-multi-family-housing
https://www.energy.ca.gov/solicitations/2021-12/gfo-21-604-clean-transportation-program-rural-electric-vehicle-rev-charging

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