DOCKETED	
Docket Number:	22-EVI-04
Project Title:	Electric Vehicle Charging Infrastructure Reliability
TN #:	256596
Document Title:	AMPECO's Public Comment on Second Draft Staff Report On Reliability Tracking
Description:	N/A
Filer:	System
Organization:	AMPECO
Submitter Role:	Public
Submission Date:	5/30/2024 4:44:33 AM
Docketed Date:	5/30/2024

Comment Received From: AMPECO
Submitted On: 5/30/2024
Docket Number: 22-EVI-04

AMPECO's Public Comment on Second Draft Staff Report On Reliability Tracking

Additional submitted attachment is included below.

Public Comment on Second Draft Staff Report "Tracking and Improving Reliability of California's Electric Vehicle Chargers"

Regulations for Improved Electric Vehicle Charger Recordkeeping and Reporting, Reliability, and Data Sharing

Date: May 30, 2024

Dear Commission Officers,

As a leading global charging network provider, AMPECO welcomes the initiative taken by the California Energy Commission to establish reliability standards for publicly and/or ratepayer-funded charging infrastructure. We believe these standards play a crucial role in ensuring that EV drivers have access to reliable, convenient, and affordable charging services, thereby accelerating the adoption of electric mobility across the state.

Globally, there is a critical need to address key challenges and opportunities in the electric vehicle environment. CEC identifies payment system faults as one of the

reasons for unnotified downtime of the charger when the charger is online but drivers are still unable to charge their vehicles successfully. As an active member of the ChargeX Consortium, facilitated by the Joint Office of Energy and Transportation, AMPECO recently collaborated for the preparation of a report on best practices for payment systems in public EV charging stations. The authors identified five areas of concern that might become drawbacks if not addressed on time and with effective solutions: network connectivity, integration, activation and installation issues, hardware robustness, customer experience, and maintenance issues.

AMPECO addresses payment reliability in EV charging by implementing robust solutions across key areas: enhancing network connectivity through interoperability and partnerships, ensuring seamless integration with a flexible API, improving hardware robustness with a hardware-agnostic platform and remote management, optimizing customer experience with hassle-free, multi-language payment options, and maintaining system reliability with real-time monitoring and automated fault-recovery. These approaches ensure dependable and efficient payment processing, fostering a better user experience and supporting the widespread adoption of electric vehicles.

The proposed by CEC reliability standards closely align with AMPECO's top priorities and functionality areas: **uptime management, data accessibility, and interoperability**. Based on our experience working with several large U.S. clients, here's our feedback on the benefits and relevance of EV charging uptime and data reporting that are derived from the priority areas above:

1. Uptime tracking

With advanced self-healing algorithms and predictive maintenance features, AMPECO supports network operators to meet the minimum requirement for 97% reliability. We have developed a reporting generator tool which can track uptime and downtime periods to support our customers across:

a. Australia, in compliance with the minimum reliability rate of 98%, in force as of January 1, 2024, according to Australia's minimum operating standards for state-funded public charge points.
b. The United Kingdom, in compliance with the reliability requirement of 99% as of October 24, 2024, according to the Public Charge Point Regulations.
c. Singapore's uptime requirement of minimum 90%, in force as of January 1, 2024, according to the Electric Vehicles Charging Act 2022.

According to *§ 3128 Performance Standards for Publicly and/or Ratepayer-Funded Chargers,* the proposed formula for uptime calculation considers total number of minutes for a year (525,600) and for a leap year (527,040). In parallel, the uptime calculation mandated by NEVI minimum rule does not explicitly differentiate between total minutes in a year and in a leap year (§ 680.116 (b) Minimum uptime). We would like to point out that Implementation of different calculations for uptime for a specific jurisdiction (the U.S.) represents a challenge for charging network providers. Aligning these varying data attributes in the backend might

lead to inconsistencies, complicating the process of maintaining accurate and standardized performance metrics.

Moreover, the CEC proposes a quarterly uptime tracking formula that includes the different number of minutes as per the total number of minutes in a quarter (Q1: 129,600 minutes, Q2: 131,040 minutes, Q3 and -Q4 reporting periods = 132,480 minutes). While this leverages precision in uptime tracking, it might create deviations from the total uptime percentage as mandated by NEVI, where uptime is calculated on a monthly basis for the previous twelve months. When a charging network operator applies for a NEVI formula RFP to the CEC, the prevailing rule for uptime calculation would depend on the specific requirements outlined in the RFP. Legal considerations may include ensuring compliance with both CEC and NEVI standards, which could necessitate dual reporting mechanisms or alignment with the more stringent standard to avoid discrepancies. Operators would need to carefully review the RFP details and consult legal counsel to navigate potential conflicts and ensure full regulatory compliance.

The newly introduced reliability metric, the Successful charge attempt rate (SCAR) is an important metric which provides valuable insights about charge points performance and may support businesses in leveraging cost optimization.

AMPECO supports Alternative 2, as proposed by the CEC staff, which suggests setting reliability standards for all EV chargers in California, regardless of their funding source. This approach promotes greater reliability benefits across the

board, ensuring a positive experience for EV drivers and protecting consumer interests.

2. Data provisioning. Data provisioning is crucial for optimizing the EV charging system. We support network operators in providing access to vital static and dynamic data on availability, location, and pricing. This enables real-time monitoring, issue resolution, and strategic pricing adjustments, ultimately enhancing reliability, accessibility, and affordability for EV drivers. Based on our regulatory experience to navigate diverse data sharing requirements across the global markets, we have supported our U.S. clients getting on the approved vendor lists of several utility providers, like the National Grid. We are committed to translate CEC's data provisioning rules and regulations into feasible reports which may serve as benchmarks for market players around the world. Additionally, we are currently working on responding to the data accessibility requirements, as outlined in the EU Alternative Fuels Infrastructure Regulation (AFIR) to ensure accurate data reporting the European Union (in force since April 13, 2024).

3. Interoperability. Interoperability ensures that EV drivers have seamless access to charging stations across different networks, regardless of their provider or location. By complying to industry standards like OCPP 2.0.1, AMPECO facilitates the smooth communication between charging network operators and EVs, enhancing the overall user experience. Additionally, our platform's certification and partnership with industry leaders like Hubject demonstrate our commitment to interoperability, fostering a cohesive and efficient EV charging infrastructure. AMPECO's cloud system has successfully passed OCPP 1.6 Full & Security Certification, issued by the Open Charge Alliance and we are listed as an

approved partner by Hubject for CPO and MO roles. We see great value in such third-party vendor validations.

We support the proposed regulations that promote detailed reporting requirements for both networked and non-networked chargers. By including metrics beyond uptime, such as the number of failed charging sessions and maintenance records, the regulations can offer a more comprehensive view of charger reliability. We believe that these regulations will enhance transparency and accountability within the industry, aligning with our mission to accelerate the adoption of electric vehicles worldwide. AMPECO is committed to assisting our clients in complying with these regulations and contributing to the continued growth and sustainability of the EV charging industry in California.

We appreciate the opportunity to provide feedback on these important reliability standards and look forward to continued collaboration with the California Energy Commission. We are committed to working with operators and stakeholders across the country to drive the widespread adoption of electric mobility and contribute to a cleaner, greener future.

Sincerely,

Petar Georgiev
Head of Strategic Alliances, Policy & Sustainability
AMPECO
Email: regulatory@ampeco.com
www.ampeco.com

About AMPECO

AMPECO enables large-scale EV charging providers to launch and scale their business operations under their own brand. The company offers a white-label and hardware-agnostic EV charging management platform to cover all business cases – public, private, and home charging.

Advanced energy management, flexible billing and subscription management, automatic maintenance algorithms, and inter-operator roaming are some of the platform's key components. With security and scalability at its core, the platform allows large-scale operators like energy companies, oil and gas, fleets, hardware manufacturers and installers to achieve quick go-to-market in a few months with a ready-made platform combined with unmatched flexibility and extensibility via APIs.

AMPECO supports more than 150 charging network operators that operate nearly 100,000 chargers in over 55 markets and has been globally recognized by Frost & Sullivan for its superior technological innovation and strategic development with the Global Product Leadership Award.