

DOCKETED

Docket Number:	22-EVI-04
Project Title:	Electric Vehicle Charging Infrastructure Reliability
TN #:	252756
Document Title:	ChargePoint Comments on Data Reporting and Reliability
Description:	N/A
Filer:	System
Organization:	ChargePoint
Submitter Role:	Public
Submission Date:	10/25/2023 2:30:24 PM
Docketed Date:	10/25/2023

Comment Received From: ChargePoint
Submitted On: 10/25/2023
Docket Number: 22-EVI-04

ChargePoint Comments on Data Reporting and Reliability

Additional submitted attachment is included below.



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October 25, 2023

California Energy Commission
Docket Unit, MS-4
Docket No. 22-EVI-04
715 P Street
Sacramento, California 95814

Re: CEC Draft Staff Report on Regulations for Improved Inventory, Utilization, and Reliability Reporting

Dear California Energy Commissioners and Staff,

Thank you for the opportunity to comment on the California Energy Commission's (CEC) Draft Staff Report on Regulations for Improved Inventory, Utilization, and Reliability Reporting ("Staff Report" or "draft regulations"). ChargePoint shares the CEC's vision for a robust and reliable EV charging network in California. As a charging network provider, we recognize the valuable role that reliability recordkeeping and reporting will serve to support the improvement of the charging experience for EV drivers.

Our goal with these comments is to recommend improvements to the final regulations to maintain fair competition within the EV charging market, reduce compliance costs for responsible data reporting entities, and protect the privacy of both EV drivers and providers of EV charging services in California.

Please do not hesitate to reach out with any questions. We look forward to working with you to finalize and implement these rules in the coming months.

Sincerely,

A handwritten signature in black ink that reads "Mal Skowron".

Mal Skowron
Regulatory Coordinator
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Summary of Recommendations

- CEC should adopt standardized and scalable methods to report downtime outages.
- Chargers should not be required to default to a “free charge state” to claim network outages as excluded downtime.
- Regarding data transfer and reporting, the CEC should:
 - Provide industry the opportunity to review and provide input on the data reporting template before these regulations are finalized.
 - Allow at least six months of development time between the finalized regulations and the start of the first reporting period.
 - Establish a quarterly reporting period consistent with NEVI.
 - Implement automatic reporting via API pull requests.
 - Clarify that the requirement for OCPP 2.0.1 will apply to chargers installed after January 1, 2026, not chargers operating after January 1, 2026.
- CEC should not apply data reporting requirements retroactively to stations installed before these draft regulations are finalized.
- Utilization data should only be collected from publicly available, publicly funded chargers installed after January 1, 2024.
- CEC should strengthen data confidentiality provisions:
 - Confidential utilization data should not be publicly released or disclosed under any circumstances.
 - All reliability data metrics should be held as confidential on a per-port basis, including the percentage of successful charge attempts.
 - Confidential reliability data may be disclosed only if aggregated statewide, both for individual charging network providers and the sum of all providers.
 - Inventory data that may file a request for confidential designation under the Draft Regulations (including charger address, geographic coordinates, serial number, charger ID, and port ID) should be automatically designated as confidential for private chargers without a special request. This confidential inventory data should not be made publicly available or disclosed.

Reliability Data Collection

Assembly Bill (AB) 2061 directed the CEC to develop reliability recordkeeping and reporting regulations no later than January 1, 2024. ChargePoint broadly supports the CEC’s commitment to align these draft reliability regulations with uptime reporting requirements consistent with the National Electric Vehicle Infrastructure (NEVI) Program requirements.

We appreciate the CEC’s acknowledgement that additional analysis related to reliability is necessary to inform and establish appropriate benchmarks for uptime performance across all use cases. We believe the industry would benefit from data collection and benchmarking efforts consistent with ChargePoint’s recommendations below before punitive action is taken to enforce a minimum uptime percentage. As the Staff Report correctly observes, establishing

uptime requirements before the causes of poor reliability are well understood could be premature.¹

CEC should adopt a standardized and scalable method to report downtime outages.

ChargePoint has several concerns with the proposal for charging network providers to report excluded downtime itemized by category (grid power loss, vehicle fault, vandalism, natural disaster, etc.).

- 1) The downtime categories proposed by CEC are not mutually exclusive, so it is unclear how some events, such as a utility power outage caused by a natural disaster, would be classified. We recommend CEC provide specific guidance to responsible parties for how to deal with such events.
- 2) Charging network providers, as entities that remotely manage the charger communication network, do not have access to all the site-specific information needed to report itemized downtime events by category unless they also act as charging station operators or site hosts. While it may be possible through remote error code monitoring for a charging network provider to identify downtime caused by power loss, it would not be possible for the charging network provider to differentiate power loss caused by utility failure from power loss caused by purposeful de-energization. In other words, a charging station operator or site host would have to manually compile an itemized list of downtime events by category and share it with charging network provider for the purposes of reporting, a process that would be burdensome, time-consuming, and challenging to implement.

As an alternative, the CEC should adopt a standardized and scalable method for charging network providers to report downtime outages consistent with work underway to enable uptime reporting for NEVI. The Joint Office of Energy and Transportation is developing the Electric Vehicle Charging Analytics and Reporting Tool (EV-CHART) for NEVI, which provides a web-based and centralized hub for submitting uptime and downtime data. EV-CHART specifies standardized field names, definitions, and accepted values for uptime reporting, including total outage time, total excluded outage time, outage duration, and reported maintenance. EV-CHART also allows data submission by multiple parties. While ChargePoint prefers to minimize data reporting responsibilities assigned to site hosts, enabling data submission by multiple parties could be a good model for the CEC to collect site-specific information directly from site operators without the charging network provider acting as a middleman. This method would support data integrity and reduce the burden that falls on network providers to provide data outside of their scope.

While EV-CHART does not require identification of downtime event by category, other work currently in progress ideally would supplement the CEC's interest for more specific downtime information from charging network providers without directly increasing the burden of manual reporting for our customers. For example, the National Charging Experience Consortium (ChargeX) is facilitating a collaborative effort between national laboratories, charging industry experts, and consumer advocates to measure and improve reliability. ChargeX recently released

¹ Staff Report, pg. 31-32.

a report identifying standardized error codes to distinguish common causes of charge failures, including lack of internet connectivity, authorization failures, and cut cables (i.e., vandalism).² ChargePoint, along with many of our industry peers, contributed to the identification of standardized error codes to improve station reliability and reporting. It is important to recognize that the effort to standardize error code reporting is ongoing, and it will take time for charging network providers to integrate ChargeX recommendations into central management systems.

We urge CEC to amend the downtime reporting requirements for date and duration to align with EV-CHART, to develop a scalable method for station operators to supplement information on downtime events, to monitor industry efforts to standardize error codes, and to consider categorizing downtime events in the future based on error codes.

Chargers should not be required to default to a “free charge state” to claim network outages as excluded downtime.

The draft regulations propose that communication network outages may only be claimed as excluded downtime if the charger defaults to a free charge state. ChargePoint recommends that the CEC remove this qualification because:

- 1) It creates the opportunity for abuse. Bad actors could easily disrupt or jam a station’s network communication signal to receive charging services at no cost.
- 2) Network outages, like utility power outages, may be caused by external errors. It would be ineffective and unnecessarily punitive to require stations to dispense electricity for free for issues outside the direct control of charging network provider.
- 3) Network communication issues may be more likely to occur in rural or remote areas. If chargers must default to a free charge state to claim network outages as excluded downtime, site hosts may avoid deploying chargers in areas with spottier network connectivity, potentially driving inequity between rural and urban EV drivers.

Reliability Reporting

Data reporting template

New data collection and reporting obligations will increase administrative burden and soft costs for charging network providers. Beyond utilizing the EV-CHART tool as a template for data reporting, the CEC should give industry stakeholders an opportunity to review and submit input on the CEC’s data template as part of the rulemaking process to identify opportunities to utilize existing data fields based on communications protocols such as OCPP and OCPI.

Time to comply

Responsible reporting entities should be given adequate time to comply with the finalized reporting requirements, as some new fields (particularly data on number of attempts, successful attempts, failed attempts, and percent of successful attempts) may take time for charging network providers to track and report centrally as defined by the CEC. ChargePoint requests a

² ChargeX, Recommendations for Minimum Required Error Codes, September 2023, available at: https://inl.gov/content/uploads/2023/07/ChargeX_MREC_Rev5_09.12.23.pdf

minimum of six months' time between the release of finalized regulations and the start of the first reporting period.

Frequency of reporting

The CEC proposes reporting to occur on a semi-annual basis. While semi-annual data reporting would be sufficient to achieve the CEC's objectives, the NEVI Program requires reporting on a quarterly basis. Once established, modifying the reporting cadence would involve considerable data processing and re-development work for reporting entities. With this in mind, we encourage the CEC to require reliability reporting on a quarterly basis with the understanding that it would substantially increase costs to revise later.

API integration

ChargePoint appreciates the CEC's intent to minimize the burden of transferring data by supporting automatic transfer via API integration. ChargePoint prefers that the CEC send API pull requests to enrolled reporting entities.

OCPP 2.0.1

§ 3125(a) of the draft regulations specifies that publicly funded chargers installed on or after January 1, 2026, must utilize OCPP 2.0.1 or later for communications to a central management system. However, page 30 of the Staff Report implies that the requirement for OCPP 2.0.1 applies to all stations operating in California after January 1, 2026.³ ChargePoint supports the language in the draft regulations, and we request clarification from the CEC that the OCPP requirement is not intended to apply to legacy chargers installed for the first time before January 1, 2026.

Inventory and Utilization Data Collection

In addition to the uptime recordkeeping and reliability reporting standards authorized by AB2061, the Draft Staff Report proposes collection of inventory and utilization data from all private and public chargers in California. The draft regulations indicate that the CEC intends to utilize inventory and utilization data to inform its AB2127 EV Charging Infrastructure Needs Assessment (AB2127 Assessment) and to measure progress towards meeting state infrastructure needs.

While ChargePoint recognizes some value that improving the AB2127 assessment would provide, we are concerned about the scope of inventory and utilization data reporting activities in the Draft Staff Report. As proposed, reporting requirements would apply to both private and public chargers in California, regardless of whether chargers were deployed with state funding and when the chargers were placed into service. ChargePoint questions whether this broad data collection is necessary for the CEC to fulfill its obligations under AB2127.

As a foundational matter, CEC should not apply any requirements retroactively. EV charging site host have installed EV chargers for a variety of purposes and through a variety of funding mechanisms including some entirely through private capital. Placing a requirement on the

³ "Equipment operated by charging network providers after January 1, 2026, are required to comply with OCPP Version 2.0.1 or a subsequent version of OCPP."

network provider to supply this information on behalf of the site host could disclose information the site host would rather not be provided. Additionally, placing this burden on the networks modifies the relationship networks have with the site host and places compliance cost on the networks solely. Finally, there are some data fields that CEC is requesting that are not universally available on legacy equipment.

Utilization data should only be collected from publicly available, publicly funded chargers installed after January 1, 2024, or whenever the regulations are finalized.

A. Privacy concerns for commercial and fleet chargers

ChargePoint is concerned that the CEC's proposal to collect utilization data from all private and public chargers will have negative consequences for the EV charging industry in both the public and fleet segments.

In the market today, entities that offer public charging services (i.e., ChargePoint's customers) regard utilization data as competitively sensitive because it serves a central role to inform a business's infrastructure deployment strategies. For example, data that indicates a station is highly utilized may inform the operator's decision to add more ports to meet driver demand. If made public, that market intelligence may motivate a competitor to site a station nearby, propping up their business to the detriment of others and over-concentrating investment in a single area. This dynamic adds risk to EV charging investments because it would disrupt the level playing field that is needed to engender competition based on merit, where charging station operators earn and compete for EV drivers' business by selecting appropriate sites, keeping prices low, and maintaining a high quality of service. Broad requirements for utilization data reporting may increase the perception of risk associated with investments in EV charging infrastructure and have an unintended chilling effect on private investment.

Utilization data is also a helpful tool of market intelligence for private fleet operators in the process of transitioning their vehicles to EVs. Fleet operators are motivated to identify and install the appropriate number of EV chargers they need to serve their EV fleet and to conduct their business operations. It is not clear to ChargePoint how external reporting of their utilization data to the CEC would serve private fleets in their efforts. External reporting of utilization data increases the perception of business risk associated with transportation electrification for fleet operators because businesses are cautious of revealing sensitive and detailed insight on how they manage their private vehicle operations and use.

Considering these sensitivities for privately funded and privately used chargers, the CEC should focus the collection of utilization data to chargers that are both publicly available and publicly funded. We also encourage the CEC to focus the collection of utilization data on chargers that are installed after January 1, 2024, or when the CEC's draft regulations are final. Site hosts with existing chargers in the field should not be required to report sensitive data to comply with rules that were not in place at the time they put their chargers into service. ChargePoint believes this modification will not meaningfully affect the CEC's intentions to improve AB2127 reporting

because utilization data collected on a go-forward basis should suffice to improve the assumptions baked into AB2127 modeling.

B. Privacy concerns for multi-family housing residents

Chargers located on private property and not available for use by the public are likely to be utilized by the same individual(s) on a consistent basis. For this reason, ChargePoint appreciates the CEC's proposal to exempt chargers installed in single-family homes and in multi-family residential buildings with four or fewer units from the reporting requirements across the inventory, utilization, and reliability categories. We interpret this exemption as an effort to protect driver privacy because geographic coordinates, utilization, and other identifying information can be used to pinpoint individual driver habits and location with remarkable accuracy.

However, limiting the collection of utilization data collection to chargers serving residential buildings with five units or more is not sufficient to protect driver privacy:

- 1) Charging network providers (the reporting entities) may not necessarily have visibility into the number of units served by a shared private charger sited at a multi-family residential building. It would therefore be challenging for reporting entities to ensure data reports submitted to the CEC include only chargers serving buildings with greater than four units.
- 2) Private chargers at multi-family residential buildings may be assigned for use by a particular unit. In this case, data collected from that station would reveal personally identifying information for a single user.
- 3) Setting the reporting cutoff at four units is arbitrary and insufficient to ensure adequate privacy protection. A private shared charger installed at a five-unit multi-family residential building may only serve a single EV driver, so utilization data provided for that charger could offer direct insight into the individual's charging behavior.

ChargePoint is concerned that a requirement to report granular utilization data for residential chargers would be potentially revealing of personal identifying information for drivers living in multi-family buildings. Private-use chargers installed on private property to serve EV fleets or employees of a particular business induce similar privacy concerns, as these stations are likely to be operated by the same individuals on a consistent basis. In the interest of prioritizing driver privacy and security, the CEC should exclude all private ("behind the fence") chargers from utilization reporting requirements.

Confidentiality

CEC's definition of confidentiality must be strengthened.

ChargePoint appreciates the CEC's recognition that per-port inventory, utilization, and reliability data are commercially sensitive to the extent that confidentiality protections are needed. ChargePoint supports the CEC proposal to automatically designate the collection of certain per-port reliability and utilization data fields as confidential.

However, the conditions by which the CEC may publicly release confidential records are insufficient to prevent public dissemination of competitively sensitive and personally revealing information. For both individual charging network providers and the sum of all charging network providers, aggregation of data at the census tract level is granular enough to be identifying. This concern holds particularly true for reliability data reporting because aggregation would be limited to chargers installed after January 1, 2024, which in the immediate term, would be very few.

We urge the CEC to make the following changes:

- Confidential utilization data should not be publicly released or disclosed under any circumstances.
- All reliability data metrics should be held as confidential on a per-port basis, including the percentage of successful charge attempts.
- Confidential reliability data may be disclosed only if aggregated statewide, both for individual charging network providers and the sum of all providers.
- Inventory data that may file a request for confidential designation under the Draft Regulations (including charger address, geographic coordinates, serial number, charger ID, and port ID) should be automatically designated as confidential without a special request. This confidential inventory data should not be made publicly available or disclosed.

Specific data fields of concern

None withstanding the concerns of scope, confidentiality, and privacy ChargePoint has identified, we would like to highlight a few data fields that may present accuracy or technical challenges.

Serial number.

The most direct way to identify a unique station is the EVSE ID. It is unclear what value collecting serial number would provide for the purposes of inventory and reliability data collection, particularly because ChargePoint considers serial number as business-sensitive information. We request clarity from the CEC on the purpose of collecting serial numbers and whether the collection of charger model and EVSE ID data would suffice.

Statement of whether charger is a replacement of a former charger.

This field could require manual entry from operations and maintenance (O&M) partners and would be challenging to scale for the stations deployed today and as the number of chargers increases in the future. In addition, this data field would not recognize significant part replacements, such as head unit and cable swaps, which raises the question of how collecting this data would serve public understanding of inventory or reliability. ChargePoint recommends that the CEC eliminate the collection of this data field.

Primary use case.

This field may run into data accuracy issues because it is not standardized in OCPP, OCPI, or any other open-source communications protocol. As a result, every charging network may track this information differently and may not use the categories listed by the CEC (public light-duty, public



MDHD, private residential multi-family, etc.) In addition, charging network providers may receive this information from the site host/operator and have no way to validate accuracy.