

DOCKETED	
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California Energy Commission

Proposed Regulations for EV Charger Inventory, Utilization, and Reliability Reporting

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October 9th, 2023



Agenda

1. Introduction, Background Information & Statutory Authority
2. Proposed Regulatory Framework
3. Questions & Answers & Public Comment
4. Close and Next Steps



Housekeeping

- Workshop is being recorded on Zoom

- Written comments to docket 22-EVI-04

<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-EVI-04>

Deadline for Written Comments: October 25, 2023

Workshop event page: <https://www.energy.ca.gov/event/workshop/2023-10/workshop-proposed-regulations-electric-vehicle-charger-inventory-utilization>



Commitment to Diversity

The CEC adopted a resolution strengthening its commitment to diversity in our funding programs. The CEC continues to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this commitment, CEC staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state
- Notify potential new applicants about the CEC's funding opportunities
- Assist applicants in understanding how to apply for funding from the CEC's programs
- Survey participants to measure progress in diversity outreach efforts



Diversity Survey



Scan the code on a phone or tablet with a QR reader to access the survey.

One Minute Survey

The information supplied will be used for public reporting purposes to display anonymous overall attendance demographics.

Zoom Participants, please use the link in the chat to access the survey or scan the QR code on the left of the screen with a phone or tablet to access the survey.

Survey will be closed at the end of the day.

Survey Link:

<https://forms.office.com/Pages/ResponsePage.aspx?id=RBI6rPQT9k6NG7qicUgZTtQ-G7GrbGJFmZJPv38ckjJUMFVBOVVIQURHT0JESUdJWTFJQUINS0tNNS4u>



Background



CEC Lacks Data On Charger Locations & Reliability

- All new passenger vehicle sales must be zero-emission by 2035
- Fleet and medium/heavy-duty vehicles are increasingly electrifying
- CEC requires a detailed understanding of existing charging infrastructure
- EV charging stations must be reliable



Estimating the Charging Gap

- State law tasks the CEC with assessing EV charging infrastructure
- The number of chargers needed will vary depending on average utilization
- CEC lacks sufficient information on charger inventory and utilization





Reliability Appears To Be A Barrier

Nov 24, 2021

Forbes

**Unreliable Chargers Could Kill
The EV Industry**

Feb 13, 2023



Kelley Blue Book
THE TRUSTED RESOURCE

**J.D. Power: Electric Car
Charging Getting Worse**

Aug 16, 2022

The New York Times

*A Frustrating Hassle Holding Electric
Cars Back: Broken Chargers*



Proposed Regulations

In the draft staff report [Tracking California's EV Charging Infrastructure](#), CEC staff propose new regulations requiring:

1. Reporting the number of EV chargers in operation in California
2. Reporting the utilization of networked chargers
3. Reliability reporting standards for chargers that receive a state agency incentive or ratepayer funding that are installed on or after January 1, 2024



Statutory Authority



Statutory Authority

AB 2127 (Ting, Chapter 365, Statutes of 2018):

- CEC must estimate EV charging infrastructure gap required to meet state goals

SB 1000 (Lara, Chapter 368, Statutes of 2018):

- CEC must assess whether charging infrastructure is equitably deployed



Statutory Authority

Integrated Energy Policy Report (IEPR) Statutes:

- CEC may gather data to assess state energy system

AB 2061 (Ting, Chapter 345, Statutes of 2022):

- CEC must develop uptime recordkeeping and reporting standards
- CEC must assess the uptime of EV charging stations



Impacts of Assembly Bill 126

AB 126 (Reyes, Enrolled, Statutes of 2023)

- AB 126 was signed into law October 7, 2023
- The CEC shall adopt tools to increasing charging station uptime, including but not limited to uptime requirements



Proposed Regulatory Framework



Overview of Proposed Regulations

The proposed regulations require:

1. Semiannual reporting to the CEC on charger:
 - Inventory
 - Utilization (predesignated confidential)
 - Reliability
2. Publicly funded chargers keep certain records
3. Publicly funded chargers transmit data to the CEC



Overview of Proposed Regulations

The proposed regulations define:

- The Recordkeeping and Reporting Agent is responsible for compliance
- Enrolled Charging Network Providers are responsible for transmitting reliability data to the CEC

Regulations are proposed in **Appendix A**



Appendix A Framework

Appendix A:

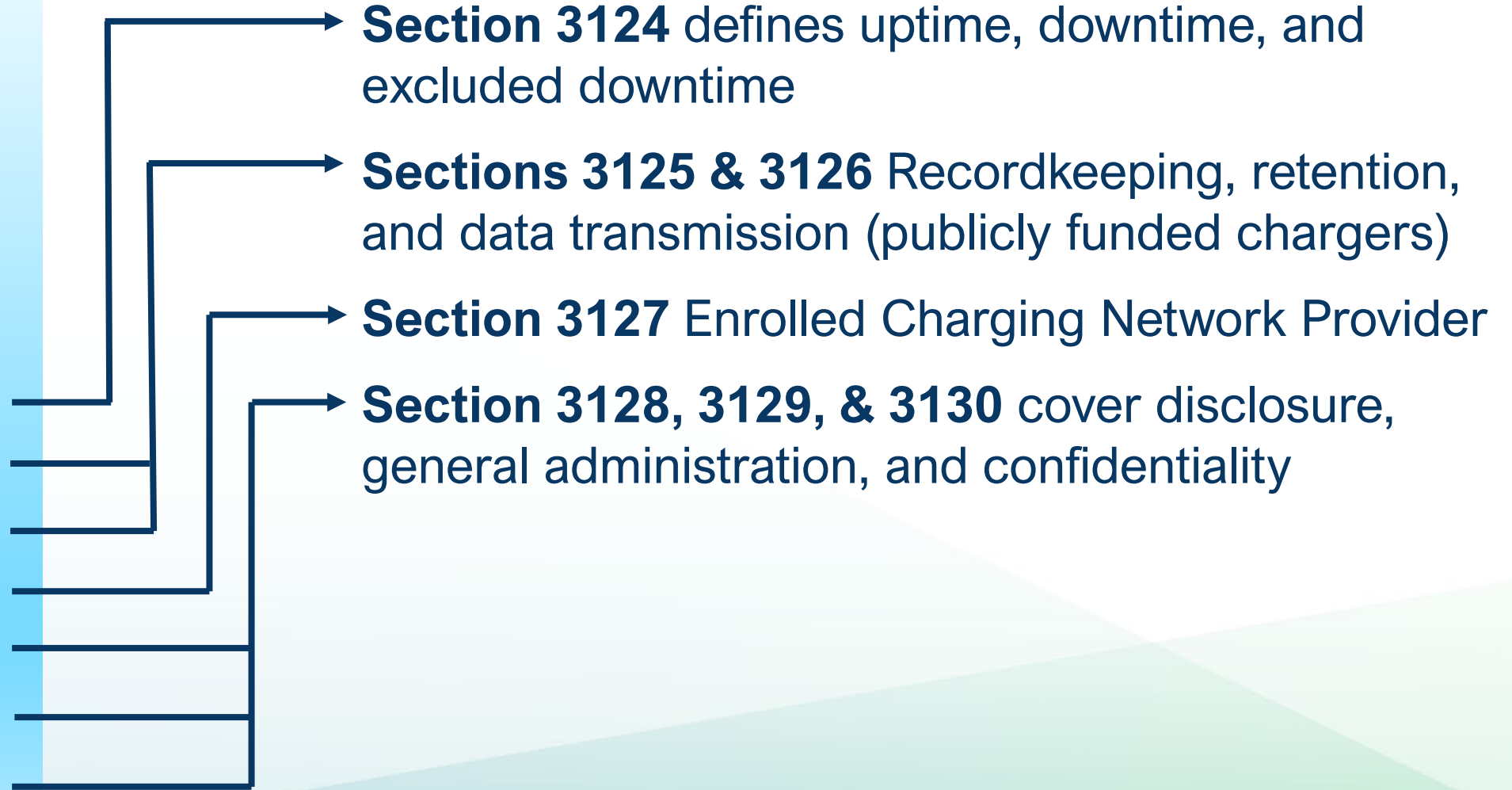
- Section 2505
 - Section 2507
 - Section 3120
 - Section 3121
 - Section 3122
 - Section 3123
 - Section 3124
 - Section 3125
 - Section 3126
 - Section 3127
 - Section 3128
 - Section 3129
 - Section 3130
- **Sections 2505 & 2507** designate utilization data as confidential
- **Section 3120** sets the scope (regulated parties)
- **Section 3121** Sets definitions
- **Section 3122** defines Recordkeeping and Reporting Agents (responsible for compliance)
- **Section 3123** Requires semiannual reporting on:
- Inventory
 - Utilization
 - Reliability



Appendix A Framework

Appendix A:

- Section 2505
- Section 2507
- Section 3120
- Section 3121
- Section 3122
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- Section 3130





Disclaimer

- This presentation is intended to be an overview
- Nothing in this presentation supersedes the proposed regulation in Appendix A
- Staff strongly encourage stakeholders to read Appendix A



Confidentiality

Appendix A:

- **Section 2505**
- **Section 2507**
- Section 3120
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Section 2505 – Designation of Confidential Records

- Utilization data is automatically designated confidential
- Data must be marked as confidential

Section 2507 – Disclosure of Confidential Records

- Aggregated utilization data may be reported



Scope

Section 3120 – Scope

- Entities operating chargers in CA, **excluding**:
 - Temporary chargers
 - Off-grid chargers
 - Chargers at residential dwellings with 4 or fewer units
- Reliability reporting regulations apply to:
 - Chargers that receive a state agency incentive or ratepayer funding
 - Are installed on or after Jan. 1, 2024

Appendix A:

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Rules of Construction

Appendix A:

- Section 2505
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Section 3121 – Rules of Construction

- Clarifies uses of language
- Definitions



Useful Definitions

“**Charging network provider**” means the entity that operates the digital communication network that remotely manages the chargers...

“**Charging station operator**” means the entity that owns the chargers and supporting equipment and facilities at one or more charging stations...

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Useful Definitions

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- Section 3130

“Enrolled charging network provider” means a charging network provider that meets the technical and administrative criteria of section 3127... and is granted the status of an enrolled charging network provider by the Commission...

Technical requirements include:

- Maintaining an API with the Commission
- Certification in OCPP 2.0.1 or later



Useful Definitions

“Public and / or ratepayer funded charger” means a charger or charging station installed on or after Jan. 1, 2024, except at a residential real property containing four or fewer dwelling units, for which an incentive was received from a state agency or a charge on ratepayers to install or operate the charger or charging station...

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Useful Definitions

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“Recordkeeping and reporting agent” means the entity responsible to ensure timely compliance with the recordkeeping and reporting requirements...

“Site host” means the electric utility customer of record for electric service to the charger...



Recordkeeping and Reporting Agent

3122(a) – Recordkeeping & Reporting Agent

- Entity responsible for timely compliance
- May designate others but remains responsible

3122(b) – Non-publicly funded chargers

- If networked, **charging network provider** is the recordkeeping and reporting agent
- If nonnetworked, **charging station operator** is the recordkeeping and reporting agent

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Recordkeeping and Reporting Agent

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3122(c) – Publicly funded chargers

- If networked and installed Jan. 1, 2024 – Dec. 31, 2025, the **charging network provider** is the recordkeeping & reporting agent
- If networked and installed on or after Jan. 1, 2026, an **enrolled charging network provider** must be retained as the recordkeeping & reporting agent
- If nonnetworked, the **site host** is the recordkeeping & reporting agent



Semiannual Reporting Requirements

Section 3123(a) – Report Periods and Reporting Deadlines

- Q1-Q2 Reporting Period due September 1
- Q3-Q4 Reporting Period due March 1

Section 3123(b) – Reporting requirements

- Contact Information – Required from **all** chargers
- Inventory Report – Required from **all** chargers
 - Location, charger info, charger primary use

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Semiannual Reporting Requirements

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Section 3123(b) – Reporting requirements – Continued

- Utilization Report – **All networked** chargers
 - Hours charger drew power, daily average
 - Hours charger connected to EV, daily average
 - kWh dispensed, daily average
- Uptime Report – **Publicly and / or ratepayer funded chargers**
 - Uptime
 - Successful charge data

Section 3123(c) – Title 23 funded chargers

- May optionally report NEVI data



Uptime Reporting Requirements

3124(a) – General requirements

- Uptime and excluded downtime
- Uptime calculated per charging port
- Itemized summary of excluded downtime claimed

3124(b) – Uptime calculation

$$U = \frac{T - D + E}{T} * 100\%$$

U = Charging port uptime percentage

T = Total time in reporting period

D = Total downtime for reporting period

E = Total excluded downtime for reporting period

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Uptime Reporting Requirements

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3124(c) – Downtime

- Determined per charging port
- **Networked** chargers, the longest of these periods:
 - If not using OCPP, based on operative statuses
 - If using OCPP, based on messages defined in protocol
 - Time between earliest record charger is inoperative until available to charge again
- **Nonnetworked** charger, time between earliest record charger is inoperative until available to charge again



Uptime Reporting Requirements

3124(d) – Excluded downtime

- Before Initial Installation
- Grid Power Loss
- Vehicle Fault
- Preventive Maintenance / Upgrade
- Vandalism or Theft
- Natural Disasters
- Communication Network Outages
- Operating Hours

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Recordkeeping: Publicly Funded, Networked Chargers

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3125(a) – OCPP requirements

- Publicly funded chargers installed **on or after Jan. 1, 2026**
- Must connect to central system using OCPP 2.0.1 or later
- Must transmit messages as specified in OCPP

3125(b) – Data transmission requirements

- Publicly funded chargers installed **on or after Jan. 1, 2026**
- Automatically transmit OCPP messages to CEC
- Must retain data for two years in accordance with 3129(c)



Recordkeeping: Publicly Funded, Networked Chargers

3125(c) – Record retention requirements

- Publicly funded chargers installed between **Jan. 1, 2024 – Dec. 31, 2025**
- May optionally comply with 3125(a) and (b)
- If not complying with 3125(a) and (b)
 - Collect operative status on fifteen-minute interval.
 - Retain data for six years.
 - Provide data to CEC upon request

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Recordkeeping: Publicly Funded, Nonnetworked Chargers

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3126(a) – Maintenance records

- Create and retain records for six years
- Maintenance records shall include:
 - Date and time
 - Corrective or preventive
 - Whether and for how long charger was inoperative
 - Whether charger was operative following maintenance

3126(b) – Records of inoperative chargers

- Retain any record indicating charger is inoperative



Enrolled Charging Network Provider

3127(a) – Application

- Charging network providers may apply to be an **enrolled charging network provider**
- **Administrative** criteria:
 - Agree to the duties of recordkeeping and reporting agent
- **Technical** criteria:
 - Establish an API with the CEC
 - Certification in OCPP 2.0.1 or later for these functionalities:
 - Core
 - Advanced Security
 - ISO 15118 Support

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Disclosure, General Administration, & Confidentiality

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3128 – Disclosure Statement

- Disclosure required by AB 2061

3129 – General Administration

3130 – Confidentiality



Recap

Recordkeeping and Reporting Agent

Charger Details

- Networked
- Non-publicly funded
- Nonnetworked
- Non-publicly funded
- Networked
- Publicly funded
- Installed Jan. 1, 2024 – Dec. 31, 2025
- Networked
- Publicly funded
- Installed on / after Jan. 1, 2026
- Nonnetworked
- Publicly funded

Recordkeeping and Reporting Agent

- Charging Network Provider
- Charging Station Operator
- Charging Network Provider
- Enrolled Charging Network Provider
- Site Host



Recap

Reporting Requirements

Charger Details

Semiannual Reporting Requirements

- Networked
- Non-publicly funded
- Nonnetworked
- Non-publicly funded

- Inventory
- Utilization
- Inventory

- Networked
- Publicly funded
- Installed Jan. 1, 2024 – Dec. 31, 2025

- Inventory
- Utilization
- Uptime

- Networked
- Publicly funded
- Installed on / after Jan. 1, 2026

- Inventory
- Utilization
- Uptime

- Nonnetworked
- Publicly funded

- Inventory
- Uptime



Recap

Recordkeeping Requirements

Charger Details

Recordkeeping Requirements

- Networked
- Non-publicly funded

➤ None

- Nonnetworked
- Non-publicly funded

➤ None

- Networked
- Publicly funded
- Installed Jan. 1, 2024 – Dec. 31, 2025

➤ 15-minute operative status (6-yr retention)

OR

➤ OCPP messages with automatic data transmission to CEC (2-yr retention)

- Networked
- Publicly funded
- Installed on / after Jan. 1, 2026

➤ OCPP messages with automatic data transmission to CEC (2-yr retention)

- Nonnetworked
- Publicly funded

➤ Maintenance Records (6-yr retention)



Question and Answer

Public Comment



Public Comments / Question & Answers

Zoom Participants

- Use “raise hand” feature to make verbal comments
- Use the “Q&A” feature to type your questions
- The chat feature has been disabled

Telephone Participants

- Dial *9 to raise your hand
- Dial *6 to mute / unmute you phone line

Three minute limit for spoken comments.



Next Steps



Next Steps

- **Written Comments – Due October 25, 2023**
- Docket: 22-EVI-04
- [E-Comment Submission](#)
- <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=22-EVI-04>

CEC staff will incorporate workshop feedback and written comments into a Final Staff Report. Revised proposed regulations may be adopted by the California Energy Commission.



Thank You!

