

**DOCKETED**

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|-------------------------|--|
| <b>Docket Number:</b>   | 22-EVI-04  |
| <b>Project Title:</b>   | Electric Vehicle Charging Infrastructure Reliability   |
| <b>TN #:</b>            | 252526   |
| <b>Document Title:</b>  | Presentation - CEC Proposed Regulations for EV Charger Inventory, Utilization, and Reliability Reporting |
| <b>Description:</b>     | October 9th, 2023  |
| <b>Filer:</b>           | Spencer Kelley   |
| <b>Organization:</b>    | California Energy Commission   |
| <b>Submitter Role:</b>  | Commission Staff   |
| <b>Submission Date:</b> | 10/6/2023 11:23:32 AM  |
| <b>Docketed Date:</b>   | 10/6/2023  |



# California Energy Commission

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

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October 9<sup>th</sup>, 2023



# Agenda

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



# Housekeeping

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- 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

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## **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

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## **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



# Proposed Regulatory Framework



# Overview of Proposed Regulations

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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

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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:

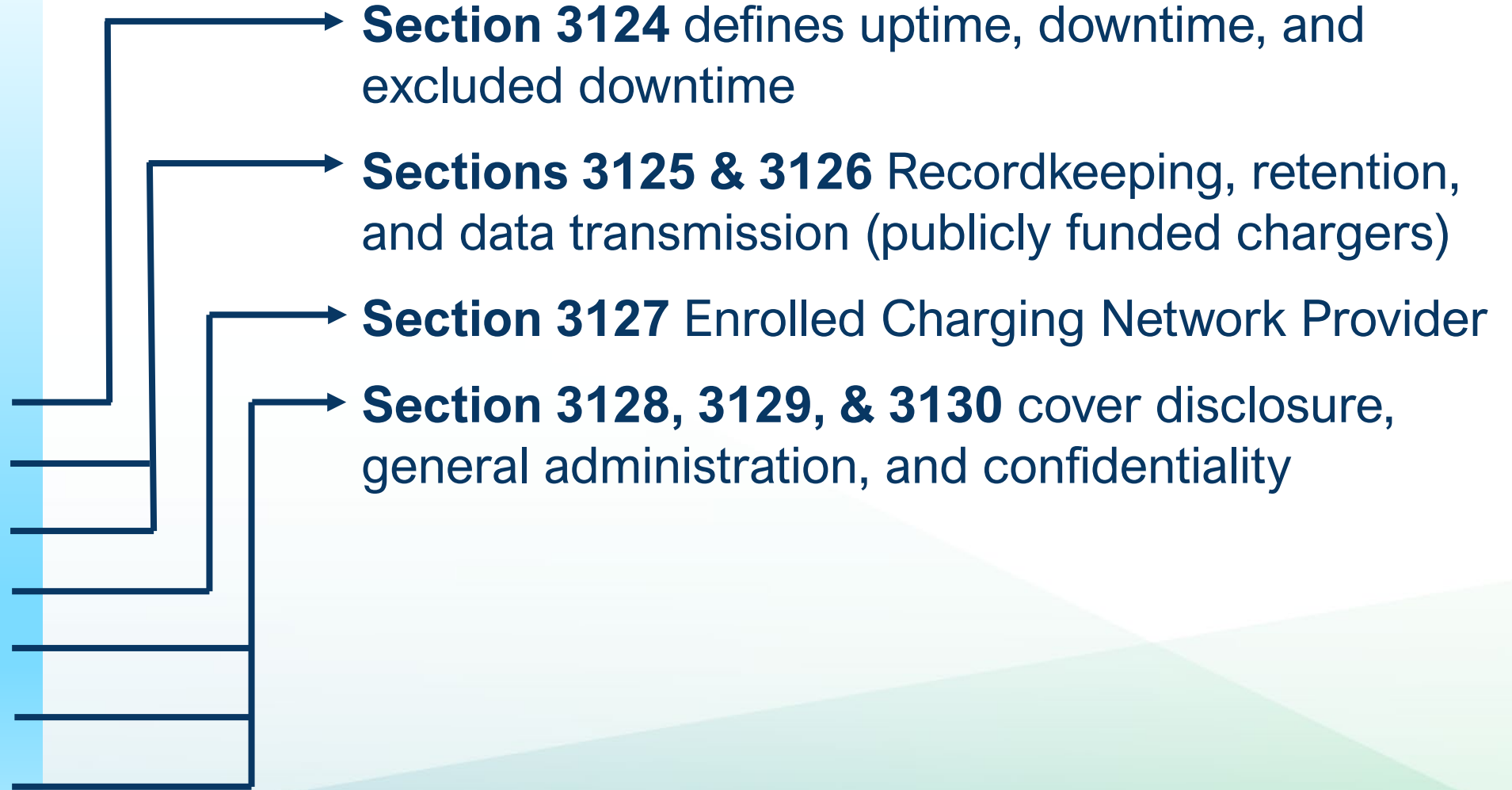
- Section 2505
  - Section 2507
  - Section 3120
  - Section 3121
  - Section 3122
  - Section 3123
  - Section 3124
  - Section 3125
  - Section 3126
  - Section 3127
  - Section 3128
  - Section 3129
  - Section 3130
- **Sections 2505 & 2507** designate utilization data as confidential
- **Section 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
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- Section 3129
- Section 3130





# Disclaimer

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- 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
- Section 3121
- Section 3122
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- Section 3130

## **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:

- Section 2505
- Section 2507
- **Section 3120**
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# Rules of Construction

## Appendix A:

- Section 2505
- Section 2507
- Section 3120
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- Section 3130

## 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

## Appendix A:

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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

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## 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

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- **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!**

