

# SB 454 Electric Vehicle Charging Stations Open Access Public Workshop

November 7, 2018



## Welcome to the California EPA Building

- Meeting Room – 2<sup>nd</sup> floor

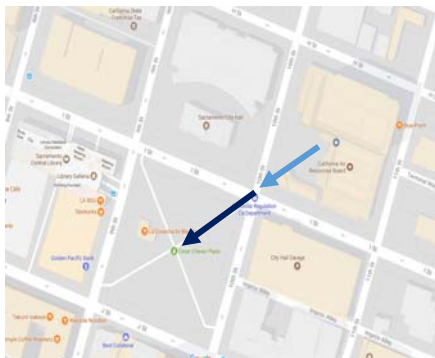


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## California EPA Building Evacuation Procedures



- During a Fire Drill you may hear
  - Loud alarm
  - Flashing lights
  - Notifications over speaker
- Evacuate to Cesar Chavez Park
  - Exit left out of the room; take the stairs next to the restrooms
  - Exit doors on 11<sup>th</sup> street
  - Cross I Street
  - Visitor meeting place at the fountain

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## Agenda

- Charging Station Open Access considerations
- Draft regulatory language by section

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## Electric Vehicle Charging Stations Open Access Act

- SB 454 (Statutes of 2013)
- California Health and Safety Code § 44268, 44268.2
- No membership requirement to use publically available Electric Vehicle Service Equipment (EVSE)
- Fees to use EVSE must be disclosed at point of sale
- Credit card/mobile technology for payment
- Location and payment info must be provided to National Renewable Energy Laboratory (NREL)
- State may adopt interoperability billing standards

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## Charging Station Open Access Considerations

- Standardize starting a charging session experience for consumers
- Facilitate non-member access to networked electric vehicle charging stations
  - Ubiquitous methods of payment
  - Ease of customer use
  - Not locking out any consumer base
- Provide a singular source of station location information

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## Applicability

Unless otherwise noted, this section applies to all electric vehicle service providers providing one or more publicly accessible EVSEs in the State of California.

- (a) Exemptions. This section does not apply to:
- (1) A provider of electric vehicles as a service.
  - (2) An electric vehicle service provider providing only privately available EVSE in the State of California.

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## Definitions (1 of 12)

“Direct Current Fast Charger (DCFC)” means an EVSE that provides energy from an appropriate off-board charger to the vehicle.

“Alternating Current (AC) Level 2 Charger” means an EVSE that is a single-phase input voltage range from 208 to 240 volts ac and maximum output current less than or equal to 80 amperes AC.

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## Definitions (2 of 12)

“Application Programming Interface (API)” means a system of tools and resources in an operating system, enabling developers to create software applications that transfer information from the EVSP to NREL.

“Charging session” means a period in time in which a vehicle is plugged into an EVSE for the purposes of having electricity supplied to the vehicle through the EVSE.

“Common interest development” means a condominium, timeshare, or other residential planned development.

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## Definitions (3 of 12)

“Credit card reader” means either a magnetic strip card reader or a euro mastercard visa (EMV) chip and pin reader in accordance with federal law.

“Down time” means the state in which an EVSE would not be able to supply electricity to the vehicle for a charging session. Down time does not occur when a vehicle is charging at an EVSE that prevents another vehicle from charging at the EVSE.

“Electric Vehicle Service Provider (EVSP)” means, for a networked EVSE, the Network Services Provider. For a non-networked EVSE, an EVSP is the entity responsible for operating the EVSE. An EVSP may designate another entity to act as EVSP for purposes of this section.

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## Definitions (4 of 12)

“Electric Vehicle Supply Equipment (EVSE)” means the unit that controls the power supply to a single vehicle in a single charging session. An EVSE may provide multiple connectors, but only one of these may be active at the same time.

“Executive Officer” means the Executive Officer of the California Air Resources Board or the Executive Officer’s designee.

“Existing stations” means electric vehicle service equipment that is installed and ready for consumer use before [inset effective date of rulemaking].

“Interoperable billing standard” means the standard electric vehicle service providers use to enable consumer roaming.

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## Definitions (5 of 12)

“Kiosk” means a standalone physical unit that allows consumers to pay for and start a charging session on one or more EVSEs, this unit may serve one or more EVSEs at the EVSPs design.

“Member” means an individual belonging to an electric vehicle service provider network.

“Membership RFID card” means card given to drivers upon signing up for access to an electric vehicle service provider network.

“Mobile applications” means a piece of software that a consumer will download, typically on a smart cell phone, in order to receive information from a specific source.

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## Definitions (6 of 12)

“Mobile payment” means money rendered for a charging session via near field communication (NFC) technology.

“Near Field Communication (NFC) reader” means a device capable of accepting a mobile payment for a charging session.

“Network of EVSEs” means one or more EVSEs receiving and sending commands or messages from a singular Network Service Provider.

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## Definitions (7 of 12)

“Network Service Provider (NSP)” means the entity responsible for operating a grouping of EVSEs, the EVSEs may or may not be located on the same site. Operating the network includes, but is not limited to, sending commands or messages to the EVSE or receiving commands or messages from the EVSE. An NSP may provide billing, maintenance, reservations, and/or other services to EVSEs.

“New EVSE” means electric vehicle service equipment that is installed and ready for consumer use after [insert effective date of rulemaking].

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## Definitions (8 of 12)

“Nonmember” means a consumer whom has not given an EVSP personal information such as an email address, credit card number or vehicle information for which in return the consumer would receive an RFID card or an app that uses this identifiable information to help start or stop a charging session.

“Privately available EVSE” is any EVSE and its associated parking space that is not a Publicly Available EVSE.

“Provider of electric vehicles as a service” means an automotive manufacturer providing EVSEs for the exclusive use of vehicles it manufactures.

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## Definitions (9 of 12)

“Radio Frequency Identifier (RFID) card” means automatic identification technology which uses radio-frequency electromagnetic fields to identify objects carry tags when they come close to a reader.

“Service provider application” means a mobile phone downloadable software package that connects drivers to individual service provider network.

“Subscription” means the action of agreeing to make an advanced payment in order to receive or participate in a fueling session for vehicles.

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## Definitions (10 of 12)

“Publicly available EVSE” means an EVSE and associated parking spaces that have been designated by a property owner or lessee to be available to, and accessible by, the public for any period of time.

If an EVSE and associated parking space is made available to the public for only limited time periods, that EVSE and associated parking space is considered a publicly available EVSE during those limited time periods only, and must comply with this section during those limited time periods.

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## Definitions (11 of 12)

(“Publicly available EVSE” continued)

EVSEs and parking spaces located in parking garages or gated facilities are considered available to the public if a member of the public can obtain access to the facility for free or through payment of a fee.

The fact that an otherwise publicly available EVSE has been designated by a property owner or lessee to be available only to customers and visitors of a business does not affect its status as a publicly available EVSE.

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## Definitions (12 of 12)

("Publicly available EVSE" continued)

A publicly available EVSE does not include:

- I. A workplace EVSE and its associated parking space if it is clearly marked and operated as available only to employees, regardless of its physical accessibility to the public;
- II. An EVSE and associated parking spaces reserved exclusively to residents, tenants, visitors, or employees of a private residence or common interest development; or a residential building adjacent to private residence.
- III. An EVSE and associated parking spaces offered by a provider of electric vehicles as a service.

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## Requirements for Electric Vehicle Supply Equipment (1 of 5)

### Compliance deadlines for DCFC

(a) All new publicly available DCFCs shall be compliant with the requirements of this section by January 1, 2020. All existing publicly available DCFCs shall have five years from the date of installation, or January 1, 2020, whichever is later, to comply with the requirements of this section.

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## Requirements for Electric Vehicle Supply Equipment (2 of 5)

### Compliance deadlines for Level 2

(a) All new publicly available Level 2 chargers shall be compliant with the requirements of this section by January 1, 2023. All existing publicly available Level 2 chargers shall have five years from the date of installation, or January 1, 2023, whichever is later, to comply with the requirements of this section.

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## Requirements for Electric Vehicle Supply Equipment (3 of 5)

### Credit card and mobile payment requirement

(b) A publicly available EVSE shall have a credit card reader on the EVSE or Kiosk that services the EVSE. The credit card reader shall comply with all the following requirements:

- (1) The credit card reader shall accept at least one of Visa, MasterCard and/or American Express, credit and debit cards.
- (2) The credit card reader shall be non-locking and shall always permit customers to remove credit cards without damage to the card, including during a fault situation or power failure.
- (3) The credit card reader shall be operable 99% of days in a given calendar year.
- (4) The credit card reader device shall be PCI – DSS Level 1 compliant.

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## Requirements for Electric Vehicle Supply Equipment (4 of 5)

(c) A publicly available EVSE shall have an NFC reader on the EVSE or kiosk that services the EVSE. The NFC reader shall be operable 99% of days in a given calendar year.

(d) The credit card reader and the NFC reader may be installed as one unit on an EVSE or kiosk.

(e) A publicly available EVSE or kiosk servicing that EVSE shall provide the consumer with the option to call a toll-free number to initiate a charging session.

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## Requirements for Electric Vehicle Supply Equipment (5 of 5)

### **Pricing / notification of all fees.**

(1) Payment by credit card, debit card, or mobile payment shall not require a subscription fee or membership to a service provider in order to use the station.

(2) The EVSP shall disclose, at the point of sale, total charges for use of the EVSE, including any additional charges for nonmembers.

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## Requirements for Electric Vehicle Supply Equipment (5 of 5)

### Pricing / notification of all fees. (cont'd)

(3) The EVSP shall install and maintain a display of all fees associated with a charging session, including but not limited to, a fee for use of the parking space, a fee to plug in by network if a consumer is not a member of said network, and the cost to charge. The EVSP shall disclose at the point of sale the cost to charge per minute or per hour, in U.S. Dollars per kilowatt-hour. The EVSP shall also disclose at the point of sale any changes in the cost to charge, in U.S. Dollars per kilowatt-hour, due to variable pricing, if any.

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## Requirements for Electric Vehicle Service Providers (1 of 1)

### Interoperable Billing Standard

By January 1, 2020, the EVSP shall install at a minimum, and maintain the "California Open Charge Point Interface Interim Test Procedures for Networked Electric Vehicle Service Equipment for Level 2 and Direct Current Fast Charge Classes" for each new or existing EVSE. This does not preclude the additional use of other communication protocols.

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## Reporting for all Electric Vehicle Service Providers (1 of 4)

(a) **Reporting Period.** The reporting period, unless otherwise stated, is January 1 to December 31, of each prior year. Unless otherwise stated, the first reporting year is 2020, for data in the 2019 reporting period.

(b) **Initial Statement of Compliance.** On or before March 1 of each year, the EVSP shall provide to the Executive Officer , for each EVSE model deployed by the EVSP in the State of California for the reporting period, an initial statement of compliance as set forth in in “California Initial Statement of Compliance for Electric Vehicle Supply Equipment” adopted XX/XX/XXXX, which is incorporated herein by reference.

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## Reporting for all Electric Vehicle Service Providers (2 of 4)

(c) On or before March 1 of each year , the EVSP shall report all publicly available EVSE for the reporting period to the NREL using the standard fields listed \*\*\*\*, to be published on the Alternative Fuels Data Center. If an Application Programming Interface (API) is used, the data shall be transferred in JSON or XML.

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## Reporting for all Electric Vehicle Service Providers (3 of 4)

**(d) Annual EVSE usage information.** The EVSP shall report to the Executive Officer the following information per EVSE in service for the reporting period:

- (1) Electric Vehicle Service Provider website
- (2) Electric Vehicle Service Provider contact information
- (3) Listing of all new EVSE installations in the State of California in the reporting year
- (4) Total number of charging sessions started with a credit card per EVSE
- (5) Total number of charging sessions started with a toll free number per EVSE

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## Reporting for all Electric Vehicle Service Providers (4 of 4)

**(d) Annual EVSE usage information. (cont'd)**

- (6) Total number of charging sessions started with membership RFID card per EVSE
- (7) Total number of charging sessions started with service provider application per EVSE
- (8) Total number of hours by EVSE the EVSE is ready and able to successfully start at charging session for a consumer
- (9) Period of downtime for EVSE throughout the reporting period and reason for downtime

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## Civil Penalty Schedule (1 of 3)

An EVSP cited for violation of section [add credit card/NFC section/subsection citations] is subject to the following penalty schedule.

- 1) An EVSP cited for the first time is subject to a \$600 penalty if the EVSP submits a demonstration of correction and pays the assessed penalty within 45 days from personal or certified mail receipt of the Citation.
- 2) Continued failure to correct the cited violation is subject to an additional penalty of \$600 for each 45-day period for which the cited violation is not corrected, to a maximum of \$37,500

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## Civil Penalty Schedule (2 of 3)

An EVSP cited for violation of section [add pricing/notification of fees section/subsection citations] is subject to the following penalty schedule.

- 1) An EVSP cited for the first time is subject to a \$300 penalty if the EVSP submits a demonstration of correction and pays the assessed penalty within 45 days from personal or certified mail receipt of the Citation.
- 2) Continued failure to correct the cited violation is subject to an additional penalty of \$600 for each 45-day period for which the cited violation is not corrected, to a maximum of \$37,500.

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## Civil Penalty Schedule (3 of 3)

An EVSP cited for violation of section [add Interoperable Billing Standard section/subsection citations] is subject to the following penalty schedule.

- 1) An EVSP cited for the first time is subject to a \$1000 penalty if the EVSP submits a demonstration of correction and pays the assessed penalty within 45 days from personal or certified mail receipt of the Citation.
- 2) Continued failure to correct the cited violation is subject to an additional penalty of \$1000 for each 45-day period for which the cited violation is not corrected, to a maximum of \$37,500.

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## Timeline

- Staff report release March 2019
- April 2019 Board Hearing
- [https://public.govdelivery.com/accounts/CARB/subscriber/new?topic\\_id=listserv](https://public.govdelivery.com/accounts/CARB/subscriber/new?topic_id=listserv)

### “Electric Vehicle Charging Stations Open Access”

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The California Air Resources Board is considering adoption of a new regulation to implement the “Electric Vehicle Charging Stations Open Access Act” (Senate Bill 454; Statutes of 2013).

[MORE ABOUT THIS PROGRAM >](#)

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