SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS
Senator Steven Bradford, Chair
2023 - 2024 Regular

Bill No:	AB 2697	**Hearing Date:**	6/18/2024
Author:	Irwin		
Version:	4/9/2024 Amended		
Urgency:	No	**Fiscal:**	Yes
Consultant:	Sarah Smith		

SUBJECT: Transportation electrification: electric vehicle charging infrastructure

DIGEST: This bill requires the California Energy Commission (CEC) to adopt network roaming requirements for electric vehicle (EV) chargers, as specified. This bill also expands requirements for EV charger reliability standards, extends those standards to a wider range of chargers, and applies the standards retroactively to chargers that received ratepayer or state incentives and were installed between 2018 and 2024.

ANALYSIS:

Existing law:

1) Requires the CEC to conduct a statewide assessment every two years of EV charging infrastructure needed to support the levels of EV adoption required for the state to meet its goals of putting at least five million zero-emission vehicles (ZEVs) on California roads by 2030, and of reducing emissions of greenhouse gases (GHG) to 40 percent below 1990 levels by 2030. (Public Resources Code §25229)

2) Requires the CEC to define "uptime" for the purposes of calculating the time when an EV charger is functioning and available for use and requires the CEC to develop uptime recordkeeping and reporting standards for EV chargers and charging stations by January 1, 2024. These recordkeeping and reporting requirements may only apply to EV chargers and stations installed on or after January 1, 2024, and they must apply for a minimum of six years unless the CEC specifies a longer time span is necessary. (Public Resources Code §25231.5)

3) Specifies that individuals supplying recordkeeping and reporting data to the CEC may request that the CEC keep this data confidential. Existing law also sunsets the CEC's recordkeeping and reporting authority on January 1, 2035.

4) Excludes chargers at residential properties with four or fewer units from the recordkeeping and reporting requirements and authorizes the CEC to consider other reliability metrics. (Public Resources Code §25231.5)

5) Defines "network roaming" as the act of a member of one EV changing station billing network using a charging station that is outside of the member's billing network with the member's billing network account. (Health and Safety Code §44268)

6) Establishes payment and billing standards for EV chargers. Provides the CEC with the authority to implement and adopt EV charger payment and billing standards, starting on July 10, 2023. Existing law specifies that the California Air Resources Board (CARB) has the authority to enforce EV charger payment and billing standards until the CEC adopts new payment and billing standards. Existing law specifies that any standards adopted by the CEC will supersede any regulations adopted by CARB. (Health and Safety Code §44268.2)

7) Establishes the Clean Transportation Program (CTP), which is administered by the CEC to fund the development of ZEV technologies and fuels, including the deployment of EV chargers. (Health and Safety Code §44272 et. seq.)

8) Requires the CEC to assess the uptime of charging station infrastructure every two years, starting on January 1, 2025. (Public Resources Code §25231.5)

9) Requires the CEC to set standards by January 1, 2025, to establish requirements for how EV charging stations that receive CTP grants or ratepayer funds will notify customers about the availability and accessibility of publicly available charging infrastructure. Existing law specifies that this requirement does not impact the CEC's existing authority to include reporting or reliability requirements as a condition of obtaining grant funds. (Public Resources Code §25231.5)

This bill:

1) Defines a "charging network provider" as an electrical corporation, a local publicly owned electric utility, or a private EV charging infrastructure developer.

2) Requires the CEC to develop network roaming requirements for EV chargers and charging station networks by January 1, 2026. This bill requires these roaming agreements to do the following:

   a) Ensure drivers have access to a secure and standard set of data to locate and use publicly available EV chargers, regardless of the network they use.

b) Require network roaming agreements between charging network providers to create a more seamless and positive experience for consumers.

c) Only apply to the charging network of charging network providers that received an incentive from a state agency or through a charge on ratepayers.

3) Requires the CEC to do the following when developing roaming agreement requirements:

a) Consider federal regulations to ensure consistency between standards.

b) Prioritize addressing consumer needs to lower EV adoption barriers.

4) Expands the scope of chargers covered by the CEC's EV charger reliability rulemaking to include the following chargers:

a) Chargers installed pursuant to the consent decree that created Electrify America.

b) Chargers that received a state incentive or ratepayer funding and were installed between January 1, 2018, and January 1, 2024.

5) Requires the CEC to consider the following factors when developing new EV charger reliability standards:

a) The technological capability of the charging station.

b) The potential for the standards to result in charging station closure.

c) The likelihood of near-term charging station replacement.

d) Any other factor the CEC deems appropriate.

Background

Bill is one of several recent measures aimed at addressing EV charger reliability. Charger reliability concerns are a subset of larger consumer concerns about charger availability. EV drivers' range anxiety is exacerbated by the lack of ubiquitously available EV charging. While many EV homeowners charge at home, renters and EV owners in multifamily dwellings are more likely to lack opportunities to charge at home. Additionally, EV drivers with longer commutes may experience a scarcity of charging opportunities in certain areas, increasing their reliance on a small number of publicly available chargers.

Several reports show that publicly accessible chargers that have received state funds are not functioning as reported. A 2022 report by researchers at the University of California at Berkeley indicated that charger outages and malfunctions reduce charger

availability significantly. The report studied all publicly accessible direct current fast chargers (DCFCs) in the greater Bay Area and found that only 72.5 percent of the chargers had functional electric vehicle service equipment (EVSE).

To address these concerns, the Legislature passed AB 2061 (Ting, Chapter 345, Statutes of 2022), which required the CEC to define uptime for EV chargers, set uptime recordkeeping and reporting, and assess EV charger uptime every two years. In 2023, the Legislature passed AB 126 (Reyes, Chapter 319, Statutes of 2023), which extended the operation of the CTP and required the CEC to set standards for how stations receiving CTP grants and ratepayer funding will notify customers about the availability and accessibility of public chargers.

The CEC is in the process of adopting reliability requirements for EV chargers. AB 2061 required the CEC to adopt recordkeeping and reporting requirements by January 1, 2024. AB 126 did not necessarily modify those recordkeeping and reporting requirements; however, the bill required the CEC to adopt rules establishing standards for how EV charging networks should notify customers about the availability and accessibility of their chargers by January 1, 2025. Since the passage of AB 2061 and AB 126, the CEC has proposed extensive recordkeeping and reporting requirements for EV charger networks. The most recent staff proposal for these regulations indicates that these rules are aimed at allowing the CEC to do the following:

- Track the number and location of all chargers.
- Track the usage of all networked chargers.
- Require reliability recordkeeping and reporting for all state- and ratepayer funded chargers installed on or after January 1, 2024, for six years.
- Require all state- and ratepayer-funded chargers installed on or after January 1, 2024, to meet a 97 percent uptime standard for six years.
- Require all publicly available state- and ratepayer-funded chargers installed on or after January 1, 2024, to share real-time data on the availability and accessibility of the chargers.
- Require all state- and ratepayer-funded chargers installed on or after January 1, 2026, to meet a 90 percent successful charge attempt rate standard for six years.

While the CEC has issued a draft proposal for these regulations, the CEC has not yet adopted these requirements. This bill could further modify the scope of chargers covered by the CEC's standards, including the recordkeeping and reporting requirements; however, based on the CEC's proposed regulations, it is not clear that the CEC needs additional authority to collect data from existing chargers. Under existing law, the CEC is required adopt EV charger uptime requirements and standards

for notifying the public about the availability of chargers by January 1, 2025. To the extent that the CEC adopts reliability and notification standards by January 2025 and this bill requires changes to those standards, this bill may pose challenges for implementation by requiring the CEC to adopt revisions to those standards by January 1, 2026.

Bill retroactively applies the CEC's standards. The recordkeeping and reporting provisions of this bill expand the applicability of the CEC's EV reliability standards to chargers that were installed between 2018 and 2024. This bill would also expressly apply those standards to chargers installed by Electrify America under the consent decree between the California Air Resources Board (CARB), Volkswagen, and the federal Department of Justice. The scope of chargers covered by this expansion is unclear. However, chargers installed in 2018 may be nearly 7 years old by January 1, 2025, and some chargers may be nearing the end or middle of their useful lifespan by the time standards are adopted and implemented under this bill. Additionally, the consent decree establishing the process for approving Electrify America investments limits the extent to which any agency other than CARB can conduct oversight for Electrify America charger installations.

The scope of CEC's existing EV charger oversight authority appears unclear. An EV charger network operator may receive public monies for certain chargers; however, their networks may consist of many more chargers that were not funded using public monies or ratepayer monies. Not all chargers are networked and not all networked chargers are publicly available. While the CEC has indicated that it intends to track the location of all chargers and the usage of all networked chargers currently operating in the state, existing law cited by the CEC as the authority for its regulations specifies that the CEC's recordkeeping and reporting standards may only apply to those chargers that have received an incentive from a state agency or ratepayers. Despite this provision in existing law, the CEC's proposed regulations state that they intend to apply at least portions of their standards to chargers that are entirely privately funded. This application appears to stem from a portion of existing law that allows the CEC to consider whether a charger is networked when setting recordkeeping and reporting standards for different types of chargers. However, existing law does not clearly give the CEC authority over all chargers or all networked chargers. To the extent that the CEC has the authority to set regulatory requirements for all chargers or networked chargers, the need for additional legislation to expand the CEC's authority over already installed chargers is unclear.

Roam where you want to? In addition to expanding the application of the CEC's EV charger recordkeeping and reporting requirements, this bill also requires the CEC to develop network roaming requirements for EV chargers. This bill appears to establish requirements that are intended to specify how roaming agreements should enable

visibility of other EV charging networks on any EV charging network operator's web-based application. However, not all the entities defined as a charging network provider under the bill have widely available public chargers or a customer-facing web-based application for those chargers. Prior legislation, the Electric Vehicle Charging Stations Open Access Act, provided CARB with the authority to set standards for EV charger payment systems to ensure that EV customers did not need to enroll in a variety of club cards in order to use different networks' chargers. This Act also gave CARB the authority to set roaming standards to ensure that customers have open payment systems, if a federal standard was not adopted. As technology evolved, most modern chargers are installed with contactless payment systems that accept all major credit cards and web-based payment systems supported by tap-and-pay applications. However, recent legislation (SB 123, Committee on Budget and Fiscal Review, Chapter 52, Statutes of 2023) reassigned the authority to set EV payment systems and roaming standards from CARB to the CEC. While CARB continues to enforce existing standards, SB 123 specified that payment and roaming standards adopted by the CEC will supersede CARB's rules. As a result, existing law may provide the CEC with authority to set certain roaming standards. This bill does not address the CEC's existing roaming authority and instead establishes a different set of new duties to establish roaming requirements.

Need for Amendments. Under existing law, it is unclear that the CEC needs more authority to collect data regarding the status of EV chargers. Additionally, it is unclear how that data will be used to improve the experience of EV drivers if there is no mechanism to improve the performance of those chargers. This bill's roaming provisions do not address the CEC's existing authority over roaming standards and include requirements that are unclear, subjective, and may not be feasible for all EV charging network operators. *As a result, the author and committee may wish to amend this bill to do the following:*

- *Delete Section 2 of this bill.*
- *Recast roaming requirements to clarify that any prospective roaming requirements that the CEC adopts pursuant to its existing authority shall only apply to major EV charging network operators, which shall be defined as those networks that do both of the following:*
  - *Maintain a customer-facing web-based application.*
  - *Operate at least 100 publicly available chargers within California.*
- *Authorize the CEC to raise the threshold of publicly available chargers a network must operate before triggering roaming requirements.*

Dual Referral. Should this bill be approved by this committee, it will be re-referred to the Senate Committee on Transportation.

Prior/Related Legislation

AB 1349 (Irwin, 2023) requires EV charger owners and operators that accept state grants to provide certain data about their chargers and charging network to third-party software developers for free, as specified. The bill is currently in the Senate Committee on Energy, Utilities and Communications.

AB 126 (Reyes, Chapter 319, Statutes of 2023) modified and extended the operation of the CTP until January 1, 2035. The bill also required the CEC to set standards by January 1, 2025, regarding how EV charging stations receiving CTP or ratepayer funds will notify customers about the availability and accessibility of chargers.

SB 123 (Committee on Budget and Fiscal Review, Chapter 52, Statutes of 2023) made various changes to law regarding energy resources. The bill also reassigned duties to implement and enforce EV payment and billing standards from CARB to the CEC.

AB 2061 (Ting, Chapter 345, Statutes of 2022) required the CEC to define uptime for EV chargers, set uptime recordkeeping and reporting, and assess EV charger uptime every two years.

AB 2127 (Ting, Chapter 365, Statutes of 2018) required the CEC to conduct a statewide assessment every two years of EV charging infrastructure needed to support the levels of EV adoption required for the state to meet its goals of putting at least five million ZEVs on California roads by 2030, and of reducing emissions of GHG to 40 percent below 1990 levels by 2030.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

SUPPORT:

Center for Sustainable Energy
California Electric Transportation Coalition, if amended
Plug in America
Union of Concerned Scientists

OPPOSITION:

Blink Charging Company, unless amended
ChargePoint, unless amended
Electric Vehicle Charging Association, unless amended
Electrify America
EV Connect, unless amended

EVCS, unless amended
Flo EV Charging, unless amended
Noodoe, unless amended
PowerFlex, unless amended
Swtch Energy, unless amended

ARGUMENTS IN SUPPORT: According to the author:

> As driver dissatisfaction with EV charging increases, California jeopardizes its transition to electrification in the transportation sector. According to the CEC, 41 percent of our public EV chargers are installed with state grants, amounting to roughly 40,000 chargers across the state. California has spent nearly $1.7 billion on EV charging infrastructure but without transparency and accountability, the chargers installed are at risk of becoming stranded assets. AB 2697 would require chargers installed using public money be subject to the California Energy Commission's uptime standards, dating back to 2018, and more accessible to drivers via roaming agreements. This bill is aimed at measurably improving the EV driver experience as California transitions to an electrified transportation future.

ARGUMENTS IN OPPOSITION: Opponents have a variety of concerns regarding this bill, including the retroactive application of CEC's recordkeeping and reporting standards, the legality of potential conflicts between this bill and existing consent decrees, and the extent to which the roaming provisions of the bill may provide the CEC with regulatory powers over contractual arrangements that would otherwise be handled privately or through litigation. While some EV charging providers are supportive of establishing some roaming requirements, other providers oppose standards for roaming agreements. Certain opponents oppose the bill unless it is amended to add more clarity around the CEC's existing draft regulations. With an opposed unless amended position, the Electric Vehicle Charging Association (EVCA) states:

> EVCA appreciates the recent amendments for uptime recordkeeping and reporting standards to consider a variety of factors. However, EVCA remains concerned regarding the feasibility of retroactively altering the terms of existing funding agreements. Should Section 2 remain in the bill, we believe additional amendments are necessary to support the goals of the bill to improve the state's understanding of charger reliability while balancing the costs and feasibility of its implementation.

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