
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

Senator Ben Hueso, Chair

2019 - 2020 Regular

Bill No:	AB 1424	Hearing Date:	7/10/2019
Author:	Berman		
Version:	6/27/2019 As Amended		
Urgency:	No	Fiscal:	Yes
Consultant:	Sarah Smith		

SUBJECT: Electric Vehicle Charging Stations Open Access Act

DIGEST: This bill prohibits a state agency from requiring electric vehicle (EV) charger owner-operators to install a credit card reader on EV charging equipment.

ANALYSIS:

Existing law:

- 1) Prohibits an EV charger owner-operator from requiring consumers to pay a subscription fee or obtain membership in a club, association, or organization as a condition of using the station. (Health and Safety Code §44268.2(a))
- 2) Requires public disclosure of the total actual charges for using an EV charging station at the point of sale, including any additional network roaming charges for non-members. (Health and Safety Code §44268.2(a))
- 3) Requires chargers that require a fee for use to allow consumers to pay via a credit card, mobile technology, or both. (Health and Safety Code §44268.2(a))
- 4) Allows EV charger owner-operators to offer services on a subscription or membership-only basis if the owner-operators also allow nonsubscribers and nonmembers the ability to use their chargers through a credit card or mobile payment. (Health and Safety Code §44268.2 (a))
- 5) Authorizes the State Air Resources Board (ARB) to adopt interoperability billing standards for EV charging stations' network roaming payment methods if a national standards organization has not adopted similar standards by January 1, 2015. If the ARB adopts interoperability billing standards, all EV chargers requiring payment for use must meet those standards within a year. Any standards adopted by the ARB must consider other governmental or industry-developed interoperability billing standards, and the ARB may adopt

standards developed by an outside authoritative body. (Health and Safety Code §44268.2(d))

This bill:

- 1) Deletes existing law requiring EV chargers to allow a customer to pay for charging with a credit card, mobile technology, or both a credit card and mobile technology. This bill replaces this deletion with a requirement that EV chargers allow a customer to pay with a credit card through a toll-free telephone number and at least two of the following:
 - a) Radio frequency identification (RFID) card;
 - b) Near field communication or mobile payment technology;
 - c) Vehicle telematics payment; or
 - d) Onsite capacity for credit card payment, which may include contactless, magnetic strip, or chip card payment systems.
- 2) Eliminates the ARB's authority over EV charger payment systems by replacing references the term "billing" with the term "roaming" in existing law. This bill deletes the ARB's authority to establish interoperable billing standards if a national authority fails to adopt standards by 2015. This bill instead authorizes the ARB to adopt interoperable roaming standards if no international authority has adopted such standards by 2021.
- 3) Prohibits a state agency from requiring EV charger owner-operators to install a credit card reader on EV charging equipment.

Background

EV infrastructure goals and obstacles. In 2018, the governor signed Executive Order B-48-18, which called for deploying five million zero-emission vehicles (ZEVs) in California by 2030. The order also increased ZEV infrastructure targets by establishing a goal of installing 200 hydrogen fueling stations and 250,000 EV chargers, including 10,000 direct current fast chargers, by 2025. The Legislature passed AB 2127 (Ting, Chapter 365, Statutes of 2018), which codified the executive order goals by requiring the California Energy Commission (CEC) to assess the EV charging infrastructure needed to put at least five million ZEVs on the roads and reduce greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030. Under existing law, this assessment must consider all charging infrastructure, including supporting hardware and software, necessary to accelerate the adoption of EVs.

Even if the state meets the EV infrastructure deployment goals in Executive Order B-48-18, accelerated EV adoption faces a number of barriers, including growing the market for EVs, increasing consumer confidence in EV adoption, and decreasing consumers' range anxiety stemming from concerns about car battery capacities and the lack of consistent charging opportunities. Physical access to public chargers is not the only factor in ensuring adequate public access to EV chargers; payment barriers at chargers also limit the accessibility of public EV infrastructure.

The majority of companies that own and operate EV charger networks allow EV owners to pay for charging through a club card system. In a club card system, EV owners must obtain a membership and use a club card or app to pay at a charging station. If an EV owner wants to obtain access to all publicly available EV chargers owned and operated by these companies, the EV owner would need to join all their respective club memberships. The lack of open access and proprietary nature of these charging networks limited the degree to which investments in EV charging infrastructure were meaningfully encouraging EV adoption because consumers still faced obstacles paying for electricity as fuel with the same ease permitted at petroleum stations.

ARB's interoperability rulemaking. To address the degree to which proprietary club card charging networks limit public EV charger accessibility, the Legislature passed SB 454 (Corbett, Chapter 418, Statutes of 2013). SB 454 prohibited EV charger owner-operators from requiring club memberships to pay for EV charging. The bill also authorized the ARB to adopt requirements for billing interoperability if a national organization did not adopt standards for interoperable billing by 2015. Under the bill, owner-operators must comply with any interoperable billing standard adopted by the ARB within one year.

The ARB held a series of stakeholder meetings in 2018 to develop its interoperability rules, and released the initial proposed regulations in March 2019. Included in the regulations is the requirement that all publicly available EV chargers to install a Euro Mastercard Visa (EMV) chip reader to facilitate credit card payments. Initially the ARB proposed applying the interoperable billing requirements to all existing infrastructure in addition to new installations. The initial regulations established a July 1, 2020, implementation deadline for new fast chargers and provided a five-year extension for retrofitting fast chargers installed before that date. The initial regulations established a July 1, 2023, implementation deadline for Level 2 chargers and provided a five-year extension for retrofitting chargers installed before that date.

Due to the nature of EMV chip-reader installations, a number of stakeholders indicated that the application of ARB's requirements to existing Level 2 chargers would require removal of the chargers and re-installation with compliant chargers. EV charger owner-operators argued that the five-year retrofit extension was half the length of the useful life of an EV charger and would result in premature replacement and potential loss of public chargers. The cost and disruption associated with the potential removal of these chargers led ARB to consider amendments to the regulations.

On June 27, 2019, the ARB revised its proposed regulations to ensure that the interoperable billing requirements are only applied to fast chargers installed after July 1, 2022, and Level 2 chargers installed after July 1, 2023. Any infrastructure installed prior to those dates will not be required to comply until 10 years after the deadlines. These changes to the regulations effectively grandfathered existing infrastructure and infrastructure installed for the next four years into compliance. This bill would prohibit the ARB from implementing these regulations by prohibiting any state agency from requiring EV charger to include a credit card reader.

Roaming agreements and standards. This bill replaces references to the ARB's authority to promulgate billing standards in existing law with the term "roaming standards." This bill's supporters claim that SB 454 was never intended to enable the ARB to establish payment system requirements. Replacement of the term "billing" with the term "roaming" effectively eliminates the ARB's authority to establish payment system requirements pursuant to SB 454 because roaming standards are largely confined to standards regarding the agreements between owner-operators that allow them to transact payments between networks.

A number of EV charger owner-operators have entered into agreements with each other to transact payments between different networks that allow a member of one network's club to use the chargers of a different network. While these agreements may limit the degree to which an EV owner needs to join multiple clubs, roaming agreements still incentivize club membership as a condition to charge an EV. Even if the ARB can establish roaming agreement standards, it is unclear how those standards would be enforced because it may not be able to compel owner-operators to enter into the agreements and the agreements are contracts to which the ARB is not a party.

EMV chip readers are currently a ubiquitous form of payment, but contactless payment may be rising. The ARB adopted rules requiring public chargers to include an EMV chip reader because EMV chip cards are a ubiquitous form of payment and are included in prepaid cards. Adoption of widely used payment mechanisms

could reduce barriers to EV charger use to the extent that limited payment mechanisms are an obstacle for consumers. However, EMV chip readers have drawbacks for EV charger site hosts that are responsible for the operation and maintenance of the charger. EMV chip readers must be inspected on a regular basis to ensure that the reader has not been tampered with in a way that enables credit card fraud. While EMV chip readers have significantly reduced the prospect of “skimming” a credit card for fraudulent purposes, scammers can still install tools to skim a card when it is inserted for an EMV chip transaction.

Several banks are now formatting cards with both chips and contactless payment mechanisms that include RFID and near field communication functions that allow consumers to “tap and pay” for goods and services. While all payment systems are vulnerable to scams and some form of fraud, tap and pay systems can reduce the likelihood of skimmers stealing information while the card is inserted. It is possible that contactless payment through RFID cards and near field communications in phones will become nearly as ubiquitous as chip card payment. However, many banks are still issuing chip cards for the first time to some customers. Additionally, unbanked individuals using prepaid cards may be limited to using prepaid contactless systems through a smartphone. It is unclear what portion of potential EV drivers would find the limitations on payment systems a barrier to EV adoption.

Need for amendments. Since the ARB revised its regulations on June 27th, the agency is no longer applying the interoperable billing requirements to existing infrastructure and has provided a 10-year extension for retrofitting or replacing EV charger infrastructure installed by July 1, 2022, (fast chargers) and July 1, 2023, (Level 2 chargers). As a result, this bill is now focused on prohibiting the ARB from requiring owner-operators to install credit card payment systems on public fast chargers installed after 2022 and public Level 2 chargers installed after 2023. The provisions of this bill outlining the payment systems that may be required on EV chargers would allow an owner-operator to select a combination of payment systems that still effectively incentivize club membership as a condition to pay for charging because they would allow owner-operators to only accept credit card payment through a toll free number. These incentives contradict SB 454’s goal of prohibiting the requirement of club membership as a condition of payment. *As a result, this committee and the author may wish to consider amending this bill to ensure that state agencies have the authority to require EV chargers to have a least one method for paying with a credit card and ensure revisions to interoperable billing requirements in the event that contactless cards become as ubiquitous as EMV chip cards.*

Dual referral. This bill passed out of the Senate Committee on Transportation June 25th on a 13-0 vote.

Prior/Related Legislation

AB 2127 (Ting, Chapter 365, Statutes of 2018) codified the goals of putting at least five million ZEVs on the roads and reducing GHG emissions to 40 percent below 1990 levels by 2030. The bill also required the CEC to conduct an assessment of the charging infrastructure needed to reach these goals.

SB 454 (Corbett, Chapter 418, Statutes of 2013) prohibited EV charger owner-operators from requiring individuals to join clubs or pay subscription fees to use a charger. The bill also authorized the ARB to establish interoperable billing standards for EV chargers if a national organization has not adopted such standards by 2015.

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

SUPPORT:

Electric Vehicle Charging Association (Sponsor)
Charge Harbor LLC
ClipperCreek, Inc.
Coalition of California Utility Employees
Computing Technology Industry Association
Design Energy Chargepoint
Lighting Technology Services, Inc.
Marin Clean Energy
National Association of Convenience Stores
National Association of Truck Stop Operators
National Car Charging, LLC
Peninsula Clean Energy Authority
Phil Haupt Electric
Retail Industry Leaders Association
Silicon Valley Leadership Group
Solar Optimum
Sun Light & Power

OPPOSITION:

Coalition for Clean Air
Communities for a Better Environment

Electric Auto Association
Environment California
Greenlots
Natural Resources Defense Council
Plug In America
Siemens Digital Grid
Sierra Club California
The Greenlining Institute
Tritium
Union of Concerned Scientists

ARGUMENTS IN SUPPORT: According to the author:

California has ambitious climate and air quality goals to deploy 1.5 million zero-emissions vehicles on the road by 2025 and 5 million zero-emissions vehicles on the road by 2030. Meeting these goals will require 250,000 public electric vehicle charging stations, of which the state currently has just under 20,000. The California Air Resources Board has recently proposed a regulation that would mandate all existing and future publicly available charging stations to be outfitted with credit card readers. This regulation would result in unintended consequences that are detrimental to the state's electric vehicle infrastructure goals. Specifically, the regulation would require the nearly 20,000 existing public charging stations to be retrofitted and replaced, and add costs to future charging stations. This means millions of dollars invested in public electric vehicle charging infrastructure by agencies such as the California Energy Commission will have been in vain, and future investments by entities including investor-owned utilities will have limited reach. AB 1424 proposes an alternative that would preserve uniform access to all electric vehicle charging stations and provide consumers with multiple payment options including RFID card payment, mobile technology payment, and credit card payment, among others.

ARGUMENTS IN OPPOSITION: Opponents argue that this bill would negatively impact efforts to incentivize EV adoption by undermining efforts to ensure that consumers' have a guaranteed universal form of payment that does not require membership in a proprietary club. Opponents also claim that the bill's primary motivation of preventing expensive mass retrofitting and infrastructure removal is no longer applicable because the ARB has amended its regulations to grandfather all infrastructure installed before 2024 into compliance. In opposition, a coalition including the Charge Ahead California, Coalition for Clean Air,

Communities for a Better Environment, Environment California, Greening Institute, and Natural Resources Defense Council states:

The final proposed regulations incorporated compromises, which have already addressed many of the concerns that this bill and the previous legislative hearings have centered around, including eliminating the retrofit requirement for existing stations. In voting to approve those standards, several Board Members highlighted the need to adopt payment standards, which protect equitable access to charging for underserved communities – specifically referring to EMV chip readers. By prohibiting any state agency from requiring EMV chip readers and allowing EVSPs to adopt alternative payment methods in lieu of EMV chip readers, AB 1424 would make charging less accessible and less equitable, countering the goals of the Charge Ahead California Initiative.

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