Date of Hearing: April 21, 2025

ASSEMBLY COMMITTEE ON TRANSPORTATION
Lori D. Wilson, Chair
AB 1423 (Irwin) – As Amended April 10, 2025

SUBJECT: Transportation electrification: charging station uptime: regulations: violations

SUMMARY: Requires the California Energy Commission (CEC) in consultation with the Public Utilities Commission (PUC) to develop uptime recordkeeping and reporting standards for electric vehicle (EV) chargers installed between January 1, 2018 and January 1, 2024 and allows CEC to establish an administrative enforcement process for violations of the standards. Specifically, **this bill**:

1) Applies uptime recordkeeping and reporting standards applicable to EV chargers and charging stations installed after January 1, 2024 with moneys from the consent decrees among the State Air Resources Board (CARB), Volkswagen AG et al. (VW), and the United States Department of Justice (DOJ) in the United States of America v. Volkswagen AG et al., Case No. 16-cv-295 (N.D. Cal.) (VW Settlement Consent Decrees).

2) Requires the CEC, in consultation with the PUC, to develop additional uptime recordkeeping and reporting standards for EV chargers and charging stations by January 1, 2027, and applies the additional standards to EV chargers and charging stations installed between January 1, 2018, and January 1, 2024, that (i) received an incentive from a state agency or through a charge on ratepayers or (ii) were installed with moneys from VW Settlement Consent Decrees, for a minimum of six years.

3) Requires the CEC, in developing the additional uptime recordkeeping and reporting standards, to consider the technological capability of stations, the potential of the standards to result in station closure if unable to report required information, the likelihood of near-term station replacement, and other factors the commission considers appropriate.

4) Specifies the regulations adopted pursuant to this bill shall not apply to charging stations installed at residential real property containing four or fewer dwelling units.

5) Allows the CEC to adopt regulations that establish an administrative enforcement process for violations of the recordkeeping and reporting standards adopted pursuant to this bill.

6) Prohibits the administrative civil penalty from exceeding $2,500 for each violation.

7) Requires the CEC to consider the following inn assessing the amount of an administrative penalty:

    a) The nature and seriousness of the violation;
    b) The number of violations;
    c) The persistence of the violation;
    d) The length of time over which the violation occurred;
    e) The willfulness of the violation;
    f) The violator's assets, liabilities, and net worth; and,
    g) The harm to consumers and to the state that resulted from the severity of the violation.

8) Allows the CEC, in addition to assessing an administrative penalty, refer the matter to the Attorney General to petition a court to enjoin the violation.

9) Prohibits the CEC from initiating an enforcement process pursuant to the regulations adopted pursuant to this bill until both of the following occur:

   a) No fewer than 60 days have elapsed since the effective date of the regulations; and,
   b) No fewer than 30 days have elapsed since the date when the commission provided notice to the violator of the alleged violation, either by mail or other means reasonably calculated to provide actual notice.

10) Provides that penalties and costs collected pursuant to the adopted regulations shall be deposited into the General Fund.

11) Allows the executive director of the CEC to adjust the maximum penalties specified for inflation based on the California Consumer Price Index and provides that the adjustment is exempt from the Administrative Procedure Act.

EXISTING LAW:

1) Defines, under the Electric Vehicle Charging Stations Open Access Act, the following:

   a) "Electric vehicle charging station" means one or more publicly available parking spaces served by electric vehicle service equipment; and,
   b) "Electric vehicle service equipment" means an electric component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles by permitting the transfer of electric energy to a battery or other storage device in an electric vehicle.

2) Requires CEC, in consultation with CARB, as part of the development of the Clean Transportation (CTP) investment plan, to assess whether charging station infrastructure is disproportionately deployed, and, to use CTP funding to more proportionately deploy new charging station infrastructure, unless CEC makes a finding that the disproportionate deployment is reasonable and furthers state energy or environmental policy. (Public Resources Code (PRC) Section 25231)

3) Requires the CEC, in consultation with the PUC, to develop uptime recordkeeping and reporting standards for EV chargers and charging stations by January 1, 2024, applicable only to EV chargers and charging stations that were installed on or after January 1, 2024, that received an incentive from a state agency or through a charge on ratepayers, for a minimum of six years. (PRC 25231.5)

FISCAL EFFECT: Unknown

COMMENTS: In 2020, Gov. Gavin Newsom issued Executive Order (EO) N-79-20, mandating that 100% of cars sold in California by 2035 be zero-emission vehicles (ZEVs) to reduce greenhouse gas emissions. To help meet its ambitious climate goals and encourage the adoption of ZEVs, the state provides incentives to develop a robust network of EV charging stations.

With an expected 15.2 million EVs on the road by 2035, the CEC projects that over 2 million additional EV chargers will need to be built in the next decade. To date, the CEC reports that over 170,000 total public and shared private EV chargers are available to charge the over 1 million light-duty passenger ZEVS (including plug-in hybrids) currently on the road. Despite the fact that one in four cars sold in the state in 2023 were ZEVs, the majority of consumers have real concerns about whether they will be able to find a nearby, working EV charging station if they buy an EV. As the state continues to push for more and more ZEVs, ensuring that the supporting EV charging infrastructure is accessible and reliable remains a critical hurdle.

Charging an electric car is unlike refilling a gasoline car. In contrast to the average 10-minute stop at a gas station, the length of time required to fully charge an EV can range from 30 minutes to several hours overnight depending on the type of charger. Although 100,000 charging stations have been built, many of these stations are difficult to find, scarce in rural areas, and frequently non-operational. If a working charging station can be found, the station may not have the proper connector to charge the ZEV in question, and the cost of the charging session and the speed at which the station will dispense electricity may not be clear.

There are a number of dedicated electric vehicle charging smartphone apps that provide information such as station locations, charger types at a given location, and real-time usage status (available or in use). Most charging provider companies have proprietary apps designed to help users locate a charging station within the charging provider's network. Some smartphone apps aggregate all charging networks, allowing users to search through all the different charging stations in an area, regardless of the charging network, and utilize crowdsourced input on real-time availability and station conditions.

However, news reports continue to reveal driver frustration with current app solutions, with drivers stating that, "there isn't a good software tool that helps electric vehicle owners plan their trips," forcing drivers to download multiple applications on their phone to find a charging station. Additionally, there are instances of drivers "download[ing] at least eight apps on [their] phone from companies like EVgo, Electrify America, ChargePoint and Shell Recharge," not only cluttering a driver's phone, but certain applications also require an account and outstanding balance to use.

Aside from the inconvenience of downloading various applications in order to locate chargers, the New York Times reported that despite drivers checking online prior to arriving at a charging station, "about a quarter of the public charging outlets in the San Francisco Bay Area, where electric cars are commonplace, were not working."

In order to address reliability issues going forward, the Legislature passed AB 2061 (Ting), Chapter 345, Statutes of 2022, which requires the CEC and PUC to impose certain performance standards (*e.g.*, uptime requirements) on state-funded charging stations installed after January 1, 2024. As of early 2025, the performance standards are still in development. In parallel, the EV charging industry is moving towards requisite service contracts after installation, establishing minimum operational and maintenance requirements for charging stations and designating responsibility to station owners, operators or charging network providers. According to the CEC's draft staff report, "Tracking California's Electric Vehicle Chargers" (April 9, 2024), "[t]he CEC has included reliability requirements in EV charging grants since 2021, which set 97% uptime standards, recordkeeping and reporting requirements, and maintenance requirements for recipients of CEC grants." The report further notes that "[t]he requirement that networked

chargers regulated by AB 2061 report the status of the chargers using OCPP 1.6 or later is technically feasible."

The CEC has recently coalesced around the use of Open Charge Point Protocol (OCPP), an application protocol for EV charging stations to communicate station information with a charge network provider. In 2018, a CEC-funded project at the Santa Clara EV Charging Center demonstrated successful charge operation and management of a charge station network using OCPP version 1.6 (OCPP 1.6). Starting January 1, 2024, the CEC is requiring all funded chargers to be certified for OCPP 1.6 or later, and OCPP 2.0.1 or later by the OCA beginning 2025. OCPP 1.6 was published in 2015 and OCPP 2.0.1 in 2021, with compliance testing tools released in 2016 and in 2023, respectively.

Reliability standards. This bill requires the CEC and PUC to develop uptime recordkeeping and reporting standards, and apply those standards to state-funded EV chargers that were installed after January 1, 2018 but before January 1, 2024.

Broken and unreliable charging stations are one of the main talking points driving the conversation around ZEVs and a major reason for consumer reluctance to buy ZEVs. Requiring existing chargers to meet certain performance and reporting standards may help to alleviate the public's concerns about driving ZEVs. Additionally, knowing how many legacy chargers are broken and why could be useful as California continues to build out EV charging infrastructure.

However, the retroactive application of uptime recordkeeping and reporting standards to charging stations installed prior to January 1, 2024 faces many technical challenges. Depending on the regulations CEC adopts, the charging stations that would be impacted could range in age from few years to eight year old or more. Many legacy chargers are not only technologically obsolete in their hardware, software, and networking capabilities as compared to state-of-the-art chargers, but also extremely dissimilar to one another in their capabilities. For example, in 2022, termination of cellular network support for 3G rendered many chargers inoperable.

The bill distinguishes the proposed "additional" uptime recordkeeping and reporting standards applicable to chargers installed from 2018-2023 as separate from those being applied to EV charging stations installed after January 2024. In that sense, the CEC and PUC can tailor reliability requirements to older chargers because it is not clear how many would be able to comply with those requirements without extensive equipment upgrades to measure, record and transmit the needed information. Moreover, warranties and service agreements on many older chargers have lapsed. Without clear designation of who would be responsible for meeting uptime requirements or held accountable if they were not met, application and enforcement of performance standards on legacy chargers may end up being overly complex to achieve. This bill provides the CEC with flexibility to develop these standards such that they are not overly burdensome and are practicable to implement.

This bill further applies uptime recordkeeping and reporting standards to chargers installed from 2018 onwards using moneys from the consent decrees signed under the VW "Dieselgate" settlement, through VW subsidiary Electrify America. CARB has overseen the expenditure of $800 million in California over four investment cycles, starting in 2017, and the opening of Electrify America's first EV charging station in 2018.

The CEC plans to build one million chargers by 2030, and two million chargers by 2035, all of which will be subject to uptime recordkeeping and reporting standards after January 1, 2024.

Based on estimates of 20-30% of chargers being non-operational today, broken EV chargers from before 2024 will make up less than 2% of the state's total EV charging network in 2035. Recognizing that the broken EV chargers affect EV drivers today, performance requirements for chargers that can comply with uptime recordkeeping and reporting standards would alleviate EV drivers' frustration and improve the EV charging experience until more EV chargers are installed.

Committee comments. The consent decrees between CARB and Electrify America govern the expenditures of VW settlement funds. As such, the author should consider exempting chargers that were installed with monies from the VW settlement from this bill so as not to interfere with or override the legally binding agreements between CARB and Electrify America.

This bill additionally requires the CEC to adopt regulations that establish an administrative enforcement process for violations of the recordkeeping and reporting standards adopted pursuant to this bill. According to data from CEC's California Electric Vehicle Infrastructure Project (CALeVIP), the average cost per rated kilowatt to install a Level 2 charger is $1,347. For a typical Level 2 charger rated at 6 kilowatts, the installation project would cost an average of $8,082.

This bill authorizes the CEC to assess administrative violations for noncompliance of the regulations authorized by this bill, not to exceed $2,500/charger for a violation each day. This means that after four days of violations, a charger could be assessed penalties that exceed the initial cost of the charger installation, which does not include operation and maintenance costs. While California needs reliable chargers to provide energy to the ever growing fleet of zero emission vehicles, the administrative violations authorized in this bill may discourage businesses from installing additional EV chargers. Moreover, as this bill applies uptime standards retroactively to chargers that were installed after 2018, it may have the unintended consequence of encouraging businesses to disconnect or remove chargers, further compounding the problem of EV owners' lacking access to functioning chargers.

The administrative violations this bill authorizes may be assessed on chargers that do not meet uptime requirements. The committee is not aware of similar regulations with associated violations that are currently in force. The CEC has regulations on recordkeeping and reporting standards such as the Quarterly Fuel and Energy Report, the Building Energy Benchmarking Program, and the Petroleum Industry Information Reporting Act. Some of these standards have associated administrative violations for noncompliance. However, they differ from the violations proposed in this bill as they only relate to recordkeeping and reporting of data rather than requiring equipment or technology to meet specific performance standard after being deployed. The committee is concerned about the precedent this would set and the possible unintended consequences discussed above.

According to the author. "California has set ambitious climate and greenhouse gas reduction goals for the transportation sector. Governor Newsom's Executive Order N-79-20 establishes a goal to transition California away from gas-powered vehicles by 2035. This massive undertaking is lagging behind and will require a rapid and large-scale transition to electric vehicles and a significant investment in charging infrastructure. California has spent over $1.7 billion on electric vehicle charging infrastructure. To date, only 178,000 of the estimated 2.1 million chargers needed have been deployed. Of publicly available chargers, J.D. Power has found that they are not functioning 20 to 30 percent of the time. Without consumer confidence in public

charging infrastructure, California jeopardizes its investment and commitment to transition away from gas-powered vehicles. The California Energy Committee is finalizing regulations to improve charger uptime and the driver experience for chargers installed with state grants after 2024. AB 1423 applies these standards to all public chargers so that drivers can feel confident in their choice to switch to an electric vehicle."

Arguments in support. "The Union of Concerned Scientists (UCS) is pleased to support AB 1423 (Irwin), which tasks the CEC with developing uptime recordkeeping and reporting standards for electric vehicle chargers and charging stations, as well as require those standards to apply for a minimum of six years…This bill would also allow the CEC to include enforcement provisions for said standards, including penalties for violations among other options, to better assure charger reliability and ultimately, ease of access for drivers…These provisions will go a long way toward improving the ZEV-driver experience and potentially lessen the uncertainty of drivers looking to switch to an electric vehicle."

Arguments in opposition. California Electric Transportation Coalition (CalETC), taking a position of oppose unless amended, write "CalETC fully supports ensuring California's EV chargers are more reliable, and actions by the CEC over the past couple of years are making that a reality. However, we object to the provision in AB 1423 that retrospectively puts uptime, record keeping, and reporting requirements on chargers that previously received public and ratepayer dollars. The receipt of those funds was agreed to on certain terms and conditions at the time of entering into a grant agreement, and new retrospective requirements are inappropriate and would set a bad precedent.

Additionally, the CEC has nearly completed the rulemaking for the new uptime, recording keeping, and reporting requirement package, which has been through a robust public process. CalETC believes these regulations need to be put in place as expected this year and given time to be implemented. Data will be collected and assessed, and any further changes or expansion of the regulation may be warranted based on this assessment."

Double referral: This bill is double referred to the Assembly Utilities and Energy Committee and will be heard by that Committee as it relates to issues under its jurisdiction.

Previous and related legislation: AB 2697 (Irwin), Chapter 735, statutes of 2024 was heard in this committee with a number of provisions that are currently in AB 1423. AB 2697 was significantly amended in the Senate, removing all of the provisions that are in AB 1423 and instead dealing with the issue of roaming.

AB 1349 (Irwin) of 2023 would have required, on and after June 1, 2024, owners, operators, and infrastructure developers of EV charging stations, except for charging stations located at residential dwellings, as defined, for which those parties are awarded a state grant to support the EV charging stations, including related infrastructure, on or after January 1, 2024, to ensure that specified data fields for the owner's or operator's entire network of EV charging stations in California are made available, free of charge, to third-party software developers through an application programming interface, as specified. Held in Senate Committee on Energy, Utilities, and Communications.

SB 123 (Committee on Budget and Fiscal Review), Chapter 52, Statutes of 2023 requires an EV charging station that is newly installed or made publicly available to offer specified payment

methods, authorizes the CEC, by regulation that is effective no earlier than January 1, 2028, to add or subtract from the payment methods required by the bill, as appropriate in light of changing technologies, and vests the CEC with authority to implement and enforce those requirements on EV charging stations and would specify that CARB has the authority to enforce the requirements on EV charging stations until the commission adopts regulations implementing those requirements.

AB 126 (Reyes), Chapter 319, Statutes of 2023 requires the CEC, by January 1, 2025, to set standards for how EV charging stations notify customers about the availability and accessibility of publicly available charging infrastructure, and requires rather than authorizes the CEC to adopt tools to increase charging station uptime.

AB 2061 (Ting), Chapter 345, Statutes of 2022 requires the CEC, in consultation with the PUC, to develop uptime recordkeeping and reporting standards for EV chargers and charging stations by January 1, 2024, applicable only to EV chargers and charging stations that were installed on or after January 1, 2024, that received an incentive from a state agency or through a charge on ratepayers, for a minimum of 6 years. AB 2061 further authorizes the CEC and PUC to adopt tools to increase charging station uptime.

AB 2127 (Ting), Chapter 365, Statutes of 2018 requires the CEC, CARB and the PUC to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of greenhouse gases to 40% below 1990 levels by 2030.

SB 454 (Corbett), Chapter 418, Statutes of 2013 creates the Electric Vehicle Charging Stations Open Access Act which prohibits charging a subscription fee on persons desiring to use an electric vehicle charging station and requires the total actual charges for the use of an electric vehicle charging station to be disclosed to the public at the point of sale.

REGISTERED SUPPORT / OPPOSITION:

Support

AAA Northern California, Nevada & Utah
American Automobile Association of Northern California, Nevada & Utah
Automobile Club of Southern California
California Center for Sustainable Energy
Union of Concerned Scientists

Support If Amended

Plug in America

Opposition

Electric Vehicle Charging Association
Electrify America

Oppose Unless Amended

California Electric Transportation Coalition
Tesla INC.

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