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THIRD READING

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Bill No: AB 2061  
Author: Ting (D) and Reyes (D), et al.  
Amended: 8/1/22 in Senate  
Vote: 21

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SENATE ENERGY, U. & C. COMMITTEE: 13-0, 6/21/22  
AYES: Hueso, Dahle, Becker, Borgeas, Bradford, Dodd, Gonzalez, Grove,  
Hertzberg, McGuire, Min, Rubio, Stern  
NO VOTE RECORDED: Eggman

SENATE TRANSPORTATION COMMITTEE: 17-0, 6/28/22  
AYES: Newman, Bates, Allen, Archuleta, Becker, Cortese, Dahle, Dodd,  
Hertzberg, Limón, McGuire, Melendez, Min, Rubio, Skinner, Wieckowski, Wilk

SENATE APPROPRIATIONS COMMITTEE: 7-0, 8/11/22  
AYES: Portantino, Bates, Bradford, Jones, Laird, McGuire, Wieckowski

ASSEMBLY FLOOR: 74-0, 5/26/22 - See last page for vote

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**SUBJECT:** Transportation electrification: electric vehicle charging infrastructure

**SOURCE:** ChargeHelp!  
FLO

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**DIGEST:** This bill requires entities receiving state or ratepayer funding for electric vehicle (EV) infrastructure to report specified information about that infrastructure's uptime to the California Energy Commission (CEC), and it requires the CEC to assess this data. This bill also authorizes the CEC to adopt certain charger reliability requirements and incentives to encourage EV adoption.

**ANALYSIS:**

Existing law:

- 1) Establishes the Clean Transportation Program (CTP), which is administered by the CEC to provide grants, loans, and other funding opportunities to projects that develop and deploy alternative and renewable fuels, zero-emission vehicle

(ZEV) infrastructure and technologies, programs that help commercialize ZEV and alternative fuel vehicles and workforce development projects that transition workers from fossil fuel industries to clean transportation jobs. (Health and Safety Code §44272 et. seq.)

- 2) Allocates a portion of smog abatement fees to fund the CTP and sunsets the fee on January 1, 2024. (Health and Safety Code §44060.5)
- 3) Requires the CEC to assess whether charging station infrastructure is disproportionately deployed by population density, geographical area, or population income level, including low-, middle-, and high-income levels. To the extent that the CEC finds that charging infrastructure is inequitably distributed, the CEC must target CTP funding opportunities to address identified disparities. (Public Resources Code §25231)
- 4) 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 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)
- 5) Authorizes the California Air Resources Board (CARB) 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 CARB adopts interoperability billing standards, all EV chargers requiring payment for use must meet those standards within a year. Any standards adopted by CARB must consider other governmental or industry-developed interoperability billing standards, and CARB may adopt standards developed by an outside authoritative body. (Health and Safety Code §44268.2)

This bill:

- 1) Defines excluded time and uptime for the purposes of calculating when an EV charger is operational and functioning.
- 2) Requires entities that receive state agency or ratepayer funding to install, own, or operate a charging station to report uptime information to the CEC starting July 1, 2023, for chargers installed after that date.
- 3) Requires entities that receive state or ratepayer funds for EV chargers to report specified uptime data annually, on a rolling 12-month basis, for at least five

years, unless the funding entity and CEC approve an alternate reporting duration.

- 4) Requires the CEC to consider developing different feasible and cost-effective reporting requirements for certain types of charging stations, including non-networked charging stations, Level 1 charging stations, and mobile solar charging stations. This bill enables the CEC to reduce reporting requirements until feasible and cost-effective reporting mechanisms are established.
- 5) Exempts charging stations at residential properties with four or fewer dwelling units from this bill's reporting requirements.
- 6) Requires the CEC to work with the California Public Utilities Commission (CPUC) to develop a formula to calculate charger uptime and determine what events make a charger inoperable, constituting excluded time that is exempt from the calculation of a charger's uptime. Under this bill, only those events that are beyond a software or hardware provider's control or events needed to ensure equitable infrastructure distribution can be considered exempt from uptime calculations.
- 7) Requires the CEC, starting January 1, 2025, to include specified evaluations about the uptime and excluded time of public- and ratepayer-funded charging infrastructure in biennial charging infrastructure needs assessments and regular CTP investment plan assessments about the equitable distribution of EV infrastructure.
- 8) Requires the CEC to protect companies' confidential business information to ensure that a company's uptime data is not identifiable.
- 9) Requires the CEC to consider adopting uptime incentives or requirements, including operations and maintenance standards and incentives.

## **Background**

*ZEV deployment goals have accelerated, emphasizing the need for infrastructure.* In recent years, California has accelerated its goals for ZEV adoption. Existing law establishes a goal of putting at least five million ZEVs on state roads and reducing GHG emissions to 40 percent below 1990 levels by 2030. In January 2018, Governor Brown issued Executive Order B-48-18, which established a goal of installing 200 hydrogen-fueling stations and 250,000 battery-electric vehicle chargers, including 10,000 direct-current fast chargers, by 2025. In September 2020, Governor Newsom issued Executive Order N-79-20, which established a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero

emission by 2035. The order also stated the goal that 100 percent of medium- and heavy-duty vehicles in the state be zero emission by 2045 for all operations where feasible.

ZEV adoption influences the availability of charging and refueling infrastructure, and infrastructure availability influences ZEV adoption. Generally, a higher ZEV adoption rate corresponds with greater investments in infrastructure for those ZEVs. The absence of needed infrastructure can discourage ZEV purchases and the decline in purchases further disincentives the deployment of infrastructure. To the extent that California intends to reach its ZEV adoption goals, the state will need to make a commensurate effort to deploy infrastructure to ensure that drivers are incentivized to use ZEV vehicles.

*Bill addresses lack of data about EV charger reliability.* As part of its duties to assess opportunities to encourage EV adoption and more equitable distribution of EV chargers, the CEC has opened a proceeding (Docket 21-TRAN-03) to assess zero emission vehicle infrastructure barriers and opportunities. In March 2022, the CEC held a workshop and solicited comments from stakeholders about barriers to EV adoption and issues the CEC should address in its Zero Emission Vehicle Infrastructure Plan. Stakeholders identified a variety of barriers to EV adoption and opportunities to incentivize adoption. Several of these stakeholders, including companies that provide software and hardware management services for EV charger providers, identified EV charger outages as a barrier to consumer confidence in EV charging. These stakeholders have recommended that the CEC to develop reliability standards for EV chargers to ensure that fewer service outages occur.

In April 2022, the CEC released its draft staff report for the Zero Emission Vehicle Infrastructure Plan. While the plan acknowledges that state agencies and private entities need to collaborate to address the reliability of EV infrastructure, the plan does not identify downtime barriers directly related to EV chargers. The CEC's report primarily identifies downtime and station reliability as a concern for hydrogen fuel cell electric vehicle (FCEV) adoption.

Anecdotally, EV charger outages may be a barrier for EV use; however little data has been collected to identify the extent to which these outages deter EV adoption. While some chargers may experience outages due to factors outside a provider's control (e.g. vandalism, electric power outages, accidents), other charger outages may be caused by a lack of maintenance. An April 2022 report by researchers at the University of California at Berkeley indicates 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). The report states that the following were causes of nonfunctional DCFCs in the study: “The cable was too short to reach the EV inlet for 4.9 percent of the EVSEs. Causes of 22.7 percent of EVSEs that were non-functioning were unresponsive or unavailable screens, payment system failures, charge initiation failures, network failures, or broken connectors.” Without more information about the reasons for outages, it is not clear how widespread these outages are and how they can be avoided. To the extent that this bill provides the CEC with sufficient data to identify outages that could be avoided, this bill may improve transparency about EV outages.

*Bill focuses on state and ratepayer EV charger investments.* This bill’s data reporting requirements apply only to entities that receive state or ratepayer funds to deploy chargers. State and ratepayer funded chargers comprise a significant number of publicly available chargers and chargers at certain workplaces and residential locations. This bill exempts chargers at residences with four or fewer units from the data reporting requirements. However, publicly-funded or ratepayer-funded chargers at private commercial properties and larger multifamily dwellings would report uptime data to the CEC under this bill. To the extent that this bill helps better enforce adequate maintenance and functionality of state and ratepayer-funded investments, this bill could help improve ratepayer and taxpayer benefits associated with transportation electrification investments.

### **Related/Prior Legislation**

AB 2703 (Muratsuchi, 2022) would have required the CEC to develop a program to provide financial assistance for EV charging by low-income drivers and those who reside in disadvantaged communities. The bill also would have authorized the CEC to establish reliability standards for EV chargers that receive state funds. The bill was held in the Senate Appropriations Committee.

AB 1424 (Berman, 2019) would have required CARB to modify its EV billing standards to allow a person to pay via a toll-free telephone number to process a credit card payment or via an onsite capacity for credit card payment by a contactless credit card, EMV chip, or magstripe card reader. The bill would have also delayed the adoption of specified interoperability standards for network roaming payment methods for EV charging stations until January 1, 2021. The bill was held in the Senate Appropriations Committee.

SB 1000 (Lara, Chapter 368, Statutes of 2018) required the CEC to assess whether charging station infrastructure is disproportionately deployed by population

density, geographical area, or population income level, including low-, middle-, and high-income levels. The bill also required the CEC to target CTP funds address inequities found by the CEC regarding equitable distribution of EV infrastructure.

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.

SB 454 (Corbett, Chapter 418, Statutes of 2013) established the Electric Vehicle Charging Stations Open Access Act, which prohibits EV charger owner-operators from requiring individuals to join clubs or pay subscription fees to use a charger. The bill also authorized the CARB 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

According to the Senate Appropriations Committee:

- CEC estimates ongoing costs of \$300,000 annually (Alternative and Renewable Fuel and Vehicle Technology Fund).
- CPUC anticipates no fiscal impact from this bill.

**SUPPORT:** (Verified 8/11/22)

ChargerHelp! (co-source)

FLO (co-source)

350 Bay Area Action

AAA Northern California, Nevada & Utah

Advanced Energy Economy

Amplify Power

Automobile Club of Southern California

California Environmental Voters

CALSTART

Center for Sustainable Energy

Coalition for Clean Air

Cruise

Plug in America

Southern California Edison  
Union of Concerned Scientists  
Valley Clean Air Now

**OPPOSITION:** (Verified 8/11/22)

None received

**ARGUMENTS IN SUPPORT:** According to the author, “Access to reliable charging stations is the driving force that will lead to greater EV adoption, which is key to meeting our climate goals. Consumers need to know they won’t be stranded and will be able to plug in wherever they travel in our state. California has been investing billions in charging infrastructure over the last decade and we need a holistic understanding of station reliability and if any steps are necessary to improve overall reliability. We need to understand the state of the charging infrastructure in order to address issues and better direct resources to fix them. This bill bolsters existing reporting requirements and expands data collected by the Energy Commission on all charging stations by July 1, 2023. AB 2061 creates a policy framework to track station reliability and assess if there are underlying equitable access issues beginning January 1, 2025.”

**ASSEMBLY FLOOR:** 74-0, 5/26/22

**AYES:** Aguiar-Curry, Arambula, Bauer-Kahan, Bennett, Bigelow, Bloom, Boerner Horvath, Mia Bonta, Bryan, Calderon, Carrillo, Cervantes, Chen, Choi, Cooley, Cooper, Cunningham, Megan Dahle, Daly, Davies, Flora, Mike Fong, Fong, Friedman, Gabriel, Gallagher, Cristina Garcia, Eduardo Garcia, Gipson, Gray, Grayson, Haney, Holden, Irwin, Jones-Sawyer, Kalra, Kiley, Lee, Levine, Low, Maienschein, Mathis, Mayes, McCarty, Medina, Mullin, Muratsuchi, Nazarian, Nguyen, Patterson, Petrie-Norris, Quirk, Quirk-Silva, Ramos, Reyes, Luz Rivas, Robert Rivas, Rodriguez, Blanca Rubio, Salas, Santiago, Seyarto, Stone, Ting, Valladares, Villapudua, Voepel, Waldron, Ward, Akilah Weber, Wicks, Wilson, Wood, Rendon

**NO VOTE RECORDED:** Berman, Lackey, O'Donnell, Smith

Prepared by: Sarah Smith / E., U. & C. / (916) 651-4107  
8/13/22 9:46:58

\*\*\*\* END \*\*\*\*