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## SENATE COMMITTEE ON TRANSPORTATION

Senator Lena Gonzalez, Chair

2021 - 2022 Regular

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**Bill No:** AB 2061

**Hearing Date:** 6/28/2022

**Author:** Ting

**Version:** 4/18/2022

**Urgency:** No

**Fiscal:** Yes

**Consultant:** Randy Chinn

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

**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 authorizes the CEC to adopt uptime requirements and incentives to encourage EV adoption.

### ANALYSIS:

*Existing state policy*, as expressed in Executive Order (EO) N-79-20, states the goal that 100% of new passenger vehicles sales in California will be ZEVs by 2035 and directs the California Air Resources Board (CARB) to propose regulations to meet that goal.

*Existing state law:*

- 1) Creates the Clean Transportation Program (CTP), administered by the California Energy Commission (CEC), to provide competitive grants, loans, or other funding to various entities to develop and deploy technologies that transform California's fuel and vehicle types to help attain the state's climate change policies.
- 2) Requires CEC, working with the California Air Resources Board (CARB) and CPUC, to prepare 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 EV deployment goals and to update that assessment every two years (PRC §25229).
- 3) Requires CEC, in consultation with CARB, to assess whether charging station infrastructure is disproportionately deployed by population density, geographical area, or population income level.

- 4) Requires CEC to collect the following data from recipients of zero-emission vehicle (ZEV) infrastructure funding provided by the Budget Act of 2021:
  - a) Number, type, date, and location of chargers or hydrogen refueling stations installed.
  - b) Nameplate capacity of the installed equipment, in kilo Watt for chargers and kilograms/day for hydrogen.
  - c) Number and type of outlets per charger.
  - d) Location type, such as street, parking lot, hotel, restaurant, or multi-unit housing
  - e) Total cost per charger or refueling station, the subsidy from CEC per charger or refueling station, federal subsidy per charger or refueling station, utility subsidy per charger or refueling station, and privately funded share per charger or refueling station.
  - f) Data on the chargers over a 12 month period including:
    - i) Number of charging or refueling sessions
    - ii) Average session duration
    - iii) Average kWh or kg dispensed
    - iv) Average charger or refueling station downtime

*This bill:*

- 1) 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.
- 2) Authorizes the CEC to develop different reporting requirements for certain types of charging stations, including non-networked charging stations, Level 1 charging stations, and mobile solar charging stations.
- 3) Exempts charging stations at residential properties with four or fewer dwelling units from the bill's reporting requirements.
- 4) Requires the CEC to work with the California Public Utilities Commission (CPUC) to develop a formula to calculate charger uptime and determine what events that take a charger offline can be excluded 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.
- 5) Requires the CEC, starting January 1, 2025, to include an evaluation about the uptime of public and ratepayer funded charging infrastructure in the biennial

charging infrastructure needs assessments and CTP investment plan assessments about the equitable distribution of EV infrastructure.

- 6) Requires the CEC to consider adopting uptime incentives or requirements if the CEC determines that charging stations' uptime is a barrier to ZEV adoption.

#### COMMENTS:

- 1) *Charge!* EV sales will not happen unless customers feel like they can recharge their vehicles conveniently. As those sales extend beyond customers who have their own garages with electric outlets, the need for publicly available chargers grows. EVs, as well as other ZEVs, can be expected to be adopted at an increasing rate as more auto manufacturers develop more models at increasingly competitive prices, adding more pressure for EV infrastructure growth.

The EV charging industry is still nascent dependent on substantial subsidies. California's Clean Transportation Program has provided most of its \$100 million in annual funding to ZEV infrastructure. More recently, last year's 2021-22 Budget approved \$500 million for the CTP to fund charging and hydrogen refueling infrastructure for light-duty and medium- and heavy-duty ZEVs vehicles. This year's 2022-23 Proposed Governor's Budget includes \$390 million General Fund investments to deploy infrastructure to support 1,000 drayage trucks and 1,600 transit buses and \$500 million General Fund for ZEV infrastructure across a range of vehicle classes. The federal government has also recognized the need, providing \$7.5 billion in EV infrastructure funding in the recently passed Infrastructure Investment and Jobs Act.

- 2) *EV Charger Outages Commonplace.* While California taxpayers and ratepayers have made significant investments in EV charging infrastructure, recent studies have indicated that publicly available chargers may experience frequent outages impacting consumers' ability to use this infrastructure. 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). (This analysis excludes Tesla chargers and other chargers which are not open to the public.) Inoperable charging stations can be much more than an annoyance as there may be few alternative places to charge, potentially stranding a driver, and contribute to driver hesitation to switch to an EV.

- 3) *Establishing a Standard.* The CEC, which is responsible for administering the EV charger programs, has recently required EVSE providers to commit to 97% availability during standard operating hours for the first five years of operation in some of its EV charging programs. And the CEC is looking more broadly at EV charging standards, having 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. Some stakeholders have recommended that the CEC develop reliability standards for EV chargers to ensure that fewer service outages occur.
- 4) *When Will We Be Done?* Policymakers often subsidize industries that help achieve important public policy goals. The rooftop solar industry enjoyed subsidies through the California Solar Initiative (CSI). Electric vehicles are eligible for a substantial federal tax credit as well as state rebates. Often, governmental support is intended to aid new industries, helping them get to sufficient size and scale, until they can stand and compete on their own. They aren't intended to be permanent. That's why the CSI sunset after 10 years and why the federal EV tax credit winds down when the manufacturer sells its 200,000<sup>th</sup> vehicle. But the end to subsidies for EV charging infrastructure is not in sight. Policymakers should be thinking about what the end game for governmental support of EV charging looks like.
- 5) *Clarification Needed.* The bill is unclear which EV charging stations the standards apply to. Is it existing stations or just new ones? If it is existing stations, is it fair to retroactively impose new standards? Why weren't availability standards included in the original specifications? ***The author may wish to clarify this.***
- 6) *Double Referral.* The bill was heard on June 21, 2022 in the Energy, Utilities and Communications Committee and passed 13-0.
- 7) *Related Legislation.* This committee will also hear AB 2703 (Muratsuchi) which establishes a low-income incentive program for using EV chargers and requires the CEC to adopt reliability standards for EV chargers. The policy in the two bills doesn't conflict though there is some overlap. ***The authors may wish to work with the committees*** to ensure consistency between the bills.

**RELATED LEGISLATION:**

**AB 2703 (Muratsuchi) of 2022** – Requires a person who receives state funding or other incentives to deploy ZEV infrastructure to agree, as a condition of receiving the incentive, to operate the station in compliance with reliability standards that would be developed by CEC. *This bill is pending in the Senate Transportation Committee.*

**SB 129 (Skinner), Chapter 65, Budget Act of 2021** – Required CEC to collect the specified data from recipients of ZEV infrastructure funding from that year's appropriation.

**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. *This bill was held in the Senate Appropriations Committee.*

**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

From the Assembly Appropriations Committee:

- 1) Costs to the CEC in the low hundreds of thousands of dollars annually (special fund) to collect, manage and analyze data and to provide information technology (IT) programming and support. The CEC anticipates it will need 2 additional permanent positions at an annual cost of approximately \$150,000. One permanent position will be required to collect, manage and analyze data. An additional permanent position will also be required for IT. The CEC may

need additional funding to procure server / cloud storage to store sizable amounts of data associated with this bill.

2) Minor, absorbable costs to CPUC to consult with the CEC.

**POSITIONS: (Communicated to the committee before noon on Wednesday, June 22, 2022.)**

**SUPPORT:**

350 Bay Area Action  
Advanced Energy Economy  
Amplify Power  
California Center for Sustainable Energy  
California Environmental Voters (formerly CLCV)  
Calstart INC.  
Coalition for Clean Air  
Cruise LLC  
Edison International and Affiliates, Including Southern California Edison  
Flo  
Plug in America

**OPPOSITION:**

None received.

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