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

**Senator Steven Bradford, Chair  
2023 - 2024 Regular**

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<b>Bill No:</b>	SB 507	<b>Hearing Date:</b>	3/21/2023
<b>Author:</b>	Gonzalez		
<b>Version:</b>	2/14/2023	Introduced	
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
<b>Consultant:</b>	Sarah Smith		

**SUBJECT:** Electric vehicle charging station infrastructure: assessments

**DIGEST:** This bill expands the scope of information the California Energy Commission (CEC) must consider when assessing the state's need for electric vehicle (EV) charging infrastructure.

**ANALYSIS:**

Existing law:

- 1) Requires the CEC to conduct a statewide assessment of the 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 (a))
- 2) Specifies that the CEC's statewide assessment of EV charging infrastructure must be updated every two years and must consider all needed charging infrastructure, including, but not limited to, chargers, make-ready electrical equipment, and supporting hardware and software, all vehicle categories, road, highway, and off-road electrification, port and airport electrification, and other programs to accelerate the adoption of EVs to meet the state's EV deployment goals. This assessment shall examine existing and future infrastructure needs throughout California, including in low-income communities. (Public Resources Code §25229 (b))
- 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. Existing law requires the CEC to use monies from the Clean Transportation Program (CTP) to address disproportionate EV infrastructure deployment upon making a specified finding. (Public Resources Code §25231)

- 4) Requires the California Public Utilities Commission (CPUC) and California Air Resources Board (CARB) to adopt and implement targets for GHG reductions from Transportation Network Companies (TNCs). Existing law requires TNCs to report specified data to the CPUC to support the development and implementation of these GHG emissions reduction targets. TNCs must also adopt GHG emissions reduction plans that include specified components, including proposals to increase the number of TNC drivers using ZEVs. (Public Utilities Code §5450)
- 5) Defines “low-income households” and “low-income communities” as those households and census tracts with incomes at or below 80 percent of the statewide median income or with household incomes below the threshold designated as low income by the Department of Housing and Community Development. (Health and Safety Code §39713)

This bill:

- 1) Expands the goals of state EV infrastructure deployment to include ensuring that all new cars and light trucks sold in California are ZEVs by 2035.
- 2) Expands the types of criteria the CEC must include when assessing the state’s ZEV infrastructure needs to require the CEC to assess the equitable distribution of EV infrastructure for the following:
  - a) Single-family homes, including electrical panel upgrades for EV charging.
  - b) Multifamily housing, including the potential of publicly accessible curbside EV charging infrastructure for residents.
  - c) Carshare, rideshare, and vanpool drivers.
  - d) Rural communities.
  - e) Parks and recreational areas.
  - f) Any other purposes the CEC determines appropriate.
- 3) Requires the assessments created pursuant to this bill to estimate EV infrastructure needs for low-income households and communities, as specified.
- 4) Requires the assessment created pursuant to this bill to recommend actions to address EV infrastructure deployment barriers if the CEC determines that the state is not on track to meet EV infrastructure goals.

- 5) Expands an existing assessment regarding the proportionality of EV charger deployment based on population characteristics to also require the CEC to determine the following:
- a) Whether Level 2 charging stations and direct current fast charging stations are disproportionately distributed and the degree to which those chargers are accessible.
  - b) Whether drivers whose homes are located in rural or urban communities, including single-family homes and multifamily housing, have disproportionate access to charging station infrastructure.
  - c) Whether homes have equal access to electrical panel capacity sufficient to support at-home charging.
  - d) Whether charging station infrastructure necessary to fulfill the requirements of the California Clean Miles Standard and Incentive Program for TNC drivers.

## Background

*Multiple state agencies oversee multiple EV infrastructure funding sources.* The CEC is one of several state agencies making investments in EV infrastructure; however, differing rules limit the degree to which these agencies can align their respective investments. Until recently, the largest investments in EV infrastructure came in the form of ratepayer-funded incentives through the electric investor-owned utilities (IOUs). However, these investments largely focused on rate design for EV owners to align charging with lower electric rates and make-ready infrastructure upgrades of electric infrastructure ahead of charger installations. CARB oversees the terms of EV investments mandated by a settlement between the State of California and Volkswagen regarding fraudulent emissions reporting. The requirements for these investments are largely set by the terms of the settlement.

*Assessments show lower EV infrastructure access for rural and low-income communities.* Existing law requires the CEC to assess the EV infrastructure needed to meet state EV deployment goals. Existing law also requires the CEC to assess the extent to which EV infrastructure is proportionately deployed to communities of different income levels. The CEC's assessments pursuant to these reports generally indicate that EV infrastructure deployment in California closely tracks population density and EV ownership density. Information from the CEC and the National Renewable Energy Laboratory (NREL) also indicates that lower

income communities and rural communities have less access to EV infrastructure than wealthier and urban communities. Disparities in EV infrastructure deployment partly reflect the disparities in EV ownership. Lower-income communities have lower EV ownership, which decreases market incentives to deploy EV infrastructure in those communities. Under existing law, the CEC must use CTP funding to address disparities in EV infrastructure deployment upon making a specified finding regarding these disparities.

*The chicken vs. egg paradox of EV infrastructure deployment.* EV infrastructure deployment incentives are generally aligned to EV ownership. However, the lack of EV infrastructure in communities can influence those communities' decisions to buy and use EVs. While lower rates of EV adoption can discourage companies from deploying charging infrastructure, the lack of charging infrastructure contributes to "range anxiety," which leads drivers to avoid using and buying EVs due to a fear of not having a reliable charging location. Range anxiety is particularly concerning for drivers who drive more miles. These drivers include supercommuters, taxi and rideshare drivers, and rural Californians. These drivers' lack of reliable EV infrastructure can limit EV adoption, which subsequently disincentivizes further EV infrastructure deployment and limits potential emissions reduction benefits from transitioning drivers with higher vehicle miles from petroleum to electric-fueled cars.

*How do assessments address low-income community barriers?* This bill requires the CEC to assess the extent to which EV infrastructure is proportionately deployed in a number of specific circumstances. This bill is one of several recent measures aimed at expanding the scope and detail of the CEC's EV infrastructure assessments. However, it is unclear how these assessments are informing public and private EV infrastructure investments. It is also unclear whether assessments solely addressing charging infrastructure will address the EV adoption barriers that have the greatest impact on low-income communities. Both the CEC and NREL have already identified the types of locations that would better encourage EV adoption by disadvantaged populations. Data from NREL indicates that charging at retail locations and curbside chargers would be most convenient for lower income households who may not own their home and rely on street parking at multifamily residential complexes.

Despite these findings, barriers beyond targeting EV infrastructure funds may impact low-income communities' use of EV infrastructure, including the cost of the vehicles. NREL's data also indicates that most low-income drivers do not intend to purchase an EV. According to information from Consumer Reports, most new EVs sold nationwide cost at least \$61,000. While California has expanded incentives for lower income Californians seeking to purchase EVs, these

incentives may not be sufficient to address the high prices at which EVs are selling. While this bill may help improve access to information about EV infrastructure needed in disadvantaged communities, these assessments may not address the most significant EV adoption barriers facing these communities.

*The CEC is already in the process of conducting some assessments included in this bill.* Existing law requires the CEC to assess the extent to which EV charging stations are disproportionately deployed. While this bill expands those assessments to include more specific analyses, the CEC is already in the process of exploring some of the assessments included in this bill. For example, the CEC is in the process of exploring an analysis for estimating electric panel capacity for EV charging infrastructure. The CEC's existing planning includes efforts to ensure that data is consistent since local governments do not have uniform information about the characteristics of properties, including the size of the parcel on which the property is located.

*Double Referral.* This bill is also referred to the Senate Committee on Transportation.

### **Prior/Related Legislation**

SB 493 (Min, 2023) would require the CEC to assess the energy resources needed to meet state goals to transition medium- and heavy-duty vehicles to ZEVs, and it requires CARB to use the CEC's assessment to create a strategic plan to achieve this transition. The bill is currently pending in this committee.

SB 1015 (Hueso, 2022) would have required the CEC to incorporate communities impacted by port operations into assessments about EV infrastructure needs. The bill also would have required the CEC to allocate federal funds to deploy ZEV infrastructure at commercial ports, including the state's busiest commercial land port of entry. The bill was held in the Senate Appropriations Committee.

SB 589 (Hueso, Chapter 732, Statutes of 2021) incorporated workforce needs into the CEC's regular assessment of ZEV resources needed to meet state goals. The bill also expanded the types of projects eligible for funding from the CEC's CTP.

SB 1014 (Skinner, Chapter 369, Statutes of 2018) established the California Clean Miles Standard and Incentive Program, which required CARB and the CPUC to develop and implement GHG emission reduction targets for TNCs.

SB 1000 (Lara, Chapter 368, Statutes of 2018) among several provisions, required the CEC to assess whether EV chargers, including DC fast chargers, are

disproportionately deployed by population density, geographical area, or population income level, including low, middle, and high income levels.

AB 2127 (Ting, Chapter 365, Statutes of 2017) required the CEC to conduct a statewide assessment of the 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:**

FLO EV Charging, Sponsor  
Blink Charging Company  
California Environmental Voters  
California New Car Dealers Association  
CALSTART  
Climate Reality Project, Los Angeles Chapter  
Climate Reality Project, San Fernando Valley  
Coalition for Clean Air  
Elders Climate Action, NorCal and SoCal Chapters  
Electric Vehicle Charging Association  
Flo  
Rural County Representatives of California  
Union of Concerned Scientists

**OPPOSITION:**

None received

**ARGUMENTS IN SUPPORT: According to the author:**

As California continues to work towards meeting its 2030 and 2035 Zero Emission Vehicle (ZEV) deployment goals, the state needs to ensure that the necessary infrastructure is ready and available to meet the increased electric vehicle charging demands of all drivers. California is currently investing billions of dollars to accelerate deployment of EVs, so it is essential that we are also dramatically ramping up the deployment of charging infrastructure across the state at the same levels. Recent analyses by the CEC and other state agencies have been critical to understanding statewide EV charging needs. However, these analyses do not quantify the infrastructure needs for

underserved communities, which is crucial to identifying how the state should direct investments that will increase equitable access to EV chargers. This data is essential to provide policymakers and researchers with a better understanding of whether policy gaps contribute to inequitable investment, and whether charging technology or product offerings are meeting the unique needs of communities. To ensure that EV charging is distributed equitably, the state must make smart, data-driven investment decisions in a more granular and community-targeted approach. SB 507 will address this problem by requiring the CEC to assess electric vehicle charging infrastructure needs for multiple underserved groups, including rural, low-income, and disadvantaged communities, and incorporate this information as part of their biennial statewide EV infrastructure assessments.

**-- END --**