SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS

Senator Ben Hueso, Chair 2021 - 2022 Regular

Bill No: AB 2075 **Hearing Date:** 6/27/2022

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Version: 5/2/2022 Amended

Urgency: No Fiscal: Yes

Consultant: Sarah Smith

SUBJECT: Energy: electric vehicle charging standards

DIGEST: This bill requires the California Building Standards Commission (CBSC) to convene a workshop on electric vehicle (EV) charging infrastructure standards and adds the California Energy Commission (CEC) as a consulting agency for the development of EV charging infrastructure standards for multifamily buildings and nonresidential development.

ANALYSIS:

Existing law:

- 1) Establishes the CEC's authority to create regulations for building efficiency standards. Existing law requires the CEC to create regulations for lighting, insulation, climate control systems, and other building design and construction standards that increase energy and water efficiency for new residential and new nonresidential buildings. Local governments may not issue permits for construction and installation projects that fail to comply with the CEC's certified efficiency standards. (Public Resources Code §25402(a-b))
- 2) Requires the CEC's building energy efficiency standards to be cost-effective when taken in their entirety and amortized over the economic life of the structure compared with historic practice. When determining cost-effectiveness, the CEC must consider the value of the water or energy saved, impacts on product efficacy for the consumer, and the life-cycle cost of complying with the standard. Existing law requires the CEC to consider other relevant factors, including, but not limited to, impacts on housing costs, total statewide costs and benefits of the standard, economic impacts on California businesses, and any alternative approaches and their associated costs. (Public Resources Code §25402(a-b))
- 3) Requires the CEC to adopt standards for appliances to facilitate the deployment of flexible demand technologies. These regulations may include labeling

provisions to promote the use of appliances with flexible demand capabilities. (Public Resources Code §25402(f))

- 4) Requires the CEC to take certain steps to support the enforcement of its energy efficiency standards, including providing specified technical assistance to local governments, homebuilders, and other stakeholders. (Public Resources Code §25402.1)
- 5) Requires state agencies that develop building standards to submit the standards to the CBSC for approval before the standards can be codified. Building standards submitted to the CBSC for approval must be accompanied by an analysis written by the state agency proposing the building standards. Existing law specifies that state agencies' accompanying analyses must justify that the standards meet specified criteria that the CBSC must review when considering standards for approval. Existing law establishes a public process the CBSC must use to consider and approve state agencies' proposed building standards. (Health and Safety Code §18930 and 18935)
- 6) Requires the CBSC to work with the Department of Housing and Community Development (HCD) to adopt mandatory standards for the installation of EV charging infrastructure for parking spaces in multifamily dwellings and nonresidential development California Building Standards Code. Existing law designates HCD as the state agency responsible for proposing mandatory EV charging infrastructure standards for multifamily buildings. (Health and Safety Code §18941.10)
- 7) 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 zero-emission vehicles (ZEVs) on California roads by 2030, and reducing greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030. (Public Resources Code §25229)

This bill:

- 1) Adds the CEC as a stakeholder with whom HCD must consult when the HCD develops EV charging infrastructure standards for building codes governing multifamily residential and nonresidential property construction.
- 2) For each three-year building code cycle, requires the CBSC to convene a workshop on EV charging infrastructure standards with the HCD, CEC,

Division of the State Architect, California Air Resources Board (CARB), and other relevant stakeholders.

- 3) Requires the workshop to consider projected demand for EV charging infrastructure based on the state's goals.
- 4) Requires the CEC to incorporate relevant electric load forecasts, statewide transportation electrification goals, and the most recent update to its statewide assessment of EV infrastructure needed to meet ZEV deployment goals as part of the CEC's participation in the workshop.
- 5) Requires any EV charging standard proposed by the CEC in the workshop process to be cost effective when taken in its entirety and when amortized over the economic life of the infrastructure compared with historic practice. This bill specifies that the CEC must consider a proposed EV charging infrastructure standard's impact on housing costs, costs and benefits of the standard over its lifetime, economic impacts on California businesses, and any alternative approaches and their associated costs.
- 6) Expands the type of building decarbonization and electrification technical assistance the CEC must provide to local governments, homebuilders, and other stakerholders to include best practices and guidance regarding anticipated future voluntary and mandatory EV charging standards in the California Building Standards Code.

Background

The CEC's Building Energy Efficiency Standards. Existing law establishes the CEC's authority to adopt cost-effective building standards to promote the conservation of energy. Title 24 of the California Code of Regulations includes the CEC's Building Energy Efficiency Standards. The CEC develops and adopts the Building Energy Efficiency Standards every three years and submits adopted standards to the CBSC for review and approval before publication. While the CEC establishes the Building Energy Efficiency Standards, enforcement of these standards rests with local building officials.

Bill adds the CEC as a consulting agency in the development of EV charging infrastructure standards. Existing law broadly provides the CEC with the responsibility for developing energy efficiency standards for buildings, including standards for multifamily buildings. However, existing law also designates HCD as the state agency responsible for proposing mandatory building standards governing EV charging infrastructure in multifamily buildings. This bill requires

HCD to consult with the CEC when developing building codes for EV charging infrastructure. This bill also requires the CBSC to convene a workgroup that includes specified agencies, including the CEC, to discuss EV charging infrastructure standards for buildings. The CEC has significant experience in forecasting electricity demand and the impact that EV deployment will have on that demand. To the extent that agencies and stakeholders anticipate a need for standards to support a higher deployment of EV infrastructure at multifamily buildings, the CEC could provide HCD with greater insight on the impact of EV electrical load and charging needs for these buildings.

Bill requires consideration of accelerated transportation electrification goals. This bill includes several provisions aimed at ensuring that the EV charging infrastructure workgroup considers the potential for accelerated EV deployment. Under existing law, the CEC is required to develop a biennial assessment of the EV infrastructure needed to help meet the state's ZEV deployment goals. This bill requires the CEC to incorporate its biennial assessment into workgroup considerations, and this bill specifies that the workgroup must consider the future need for EV infrastructure based on the state's EV deployment goals.

California has ambitious EV deployment goals. In addition to establishing the requirement for a biennial assessment of the EV infrastructure needed to meet ZEV deployment goals, AB 2127 (Ting, Chapter 365, Statutes of 2018) codified the goal of putting at least five million ZEVs on state roads and reducing GHG emissions to 40 percent below 1990 levels by 2030. Executive Order B-48-18 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. Executive Order N-79-20 established a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035 and 100 percent of medium- and heavy-duty vehicles in the state will be zero-emission by 2045 where feasible. While in-state purchases of EVs have increased, a significant gap between state goals and actual EV deployment exists. Data from the CEC show that approximately 522,445 battery electric and hybrid plug-in vehicles were on California's roads by the end of 2021. This bill requires the CEC to incorporate state goals for transportation electrification into workgroup considerations regarding EV charging infrastructure standards; however, the utilization of EV charging infrastructure at multifamily dwellings will also depend upon the extent to which residents of those dwellings can purchase or rent EVs. To the extent that the inability to access EV chargers meeting multifamily dwelling residents' needs is a barrier to EV adoption, improvements in EV infrastructure standards made pursuant to this bill could improve EV adoption.

AB 2075 (Ting) Page **5** of **6**

Double Referral. This bill was heard by the Senate Committee on Housing on June 13, 2022 and passed 9-0.

Prior/Related Legislation

SB 1393 (Archuleta, 2022) expands the types of building electrification guidance the CEC must provide to local governments, and it establishes a process for local governments to obtain technical assistance from the CEC when considering this guidance for ordinances that require the replacement of fossil fuel appliances with electric appliances in building retrofits. The bill is currently pending in the Assembly Committee on Natural Resources.

SB 49 (Skinner, Chapter 697, Statutes of 2019) expanded the CEC's authority to create appliance efficiency standards to require the CEC to adopt standards to promote the deployment of appliances with flexible demand capabilities.

AB 2021 (Ting, Chapter, 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 GHG emissions to 40 percent below 1990 levels by 2030.

AB 1092 (Levine, Chapter 410, Statutes of 2013) required the CBSC to adopt mandatory standards for the installation of electric vehicle charging infrastructure for parking spaces in multifamily dwellings and nonresidential development California Building Standards Code.

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

SUPPORT:

350 Sacramento
California Electric Transportation Coalition
California Environmental Voters
California Solar & Storage Association
CALSTART
Electric Vehicle Charging Association

OPPOSITION:

None received

AB 2075 (Ting) Page **6** of **6**

ARGUMENTS IN SUPPORT: According to the author:

Although the CEC is the state's EV charging expert, it has no formal role in recommending EV charging standards for multifamily buildings, commercial buildings, or retrofits. The CEC already develops the building codes for energy efficiency considered for adoption by the Building Standards Commission, including electric vehicle charging for single-family homes. This bill empowers the CEC to use their expertise to develop necessary and cost-effective EV charging standards for all buildings prior to final CBSC adoption.