

Date of Hearing: April 26, 2017

ASSEMBLY COMMITTEE ON COMMUNICATIONS AND CONVEYANCE

Miguel Santiago, Chair

AB 33 (Quirk) – As Amended March 23, 2017

SUBJECT: Transportation electrification: electric vehicle service equipment: electrical corporations: rates

SUMMARY: Requires the California Public Utilities Commission (CPUC), in consultation with the California Air Resources Board (CARB) and the California Energy Commission (CEC) to authorize electrical corporations to offer programs and investments in electric vehicle service equipment installed in residential garages. Specifically, **this bill:**

- 1) Requires the CPUC, in consultation with CARB and the CEC, to authorize electrical corporations to offer programs and investments in electric vehicle service equipment installed in residential garages of customers who purchase used electric vehicles, by March 30, 2018.
- 2) Requires the CPUC to approve, or modify and approve, each specified proposal filed by an electrical corporation within six months of the date of filing of the completed proposal.
- 3) Defines “electric vehicle” to mean both battery electric and plug-in hybrid electric vehicles.
- 4) Defines “electric vehicle service equipment” to mean an electrical device allowing persons to safely charge an electric vehicle at not less than Level 2, including any needed electrical panel, line, and transformer upgrades, and may include direct current fast chargers that convert alternating current to direct current, bypass an electric vehicle’s onboard charging unit, and provide direct current directly to the vehicle’s batteries using a charging port.
- 5) Defines “grid-integrated rate” to mean an electrical service rate design that reflects dynamic electrical grid conditions.
- 6) Defines “residential garage” to mean a garage or carport attached to or reserved for a single detached dwelling or a single attached dwelling in a two- to four-unit residential building.
- 7) Requires customers of an electrical corporation participating in a specified residential garage electric vehicle charging program to receive electrical service pursuant to a grid-integrated rate.
- 8) Requires an electrical corporation’s specified residential garage electric vehicle charging program authorized by the CPUC to include a reasonable mechanism for cost recovery by the electrical corporation.
- 9) Requires the CPUC to ensure that all the specified cost recovery by an electrical corporation is nonbypassable and recoverable from all ratepayers.

EXISTING LAW:

- 1) Requires CARB to adopt rules and regulations that would reduce the states greenhouse gas (GHG) emission levels to 1990 levels by 2020. (Health and Safety Code (HSC) Section 38500 et seq.)
- 2) Establishes the California Renewables Portfolio Standard Program which requires retail sellers of electricity to procure 33 percent of retails sales of electricity, by 2013, and 50 percent by 2030, from eligible renewable energy resources. (Public Utilities Code (PUC) Section 399.11, et seq.)
- 3) Requires each electrical corporation to propose a cost recovery plan to the CPUC for the recovery of the uneconomic costs of an electrical corporation’s generation-related assets and obligations, as specified. (PUC Section 368)
- 4) Requires the CPUC to establish rates using cost allocation principles that fairly and reasonably assign to different customer classes the costs of providing service to those customer classes, consistent with the policies of affordability and conservation. (PUC Section 739.6)
- 5) Provides CARB with primary responsibility for control of mobile source air pollution, including adoption of rules for reducing vehicle emissions and the specification of vehicular fuel composition. (HSC Section 39000, et seq., and Section 39500, et seq.)
- 6) Requires CARB to adopt and implement motor vehicle emission standards, in-use performance standards, and motor vehicle fuel specifications for the control of air contaminants and sources of air pollution which CARB has found to be necessary, cost effective, and technologically feasible, to carry out specified purposes. (HSC Section 43013, et seq.)
- 7) Requires CARB, in consultation with CPUC and with input from relevant state agencies and the public, to develop and publish a study on barriers for low-income customers to zero-emission and near-zero-emission transportation options, including those in disadvantaged communities, as well as recommendations on how to increase access to zero-emission and near-zero-emission transportation options to low-income customers, including those in disadvantaged communities, by January 1, 2017. (Public Resources Code Section 25327)

FISCAL EFFECT: Unknown. This bill is keyed fiscal by the Legislative Counsel.

COMMENTS:

- 1) **Authors Statement:** According to the author, “California has set a goal to have sufficient charging infrastructure available to support 1 million [Zero Emission Vehicles] (ZEVs) by 2020 [...] the secondary ZEV market can help increase the number of ZEVs on California roads. The secondary market could attract new drivers that are unable to afford the new car market. The cost of purchasing and installing a level 2 charger can be prohibitive when it is added to the initial purchase of a ZEV. Installation costs vary based on the age of the home, and the location, distance, proximity of the electric panel to the proposed electric vehicle supply equipment location as well as the size and load on the existing panel [...] AB 33

would require the [CPUC] to authorize [investor owned utilities] (IOUs) to offer level 2 electric vehicle chargers. The bill targets drivers who purchase their ZEV on the secondary market because encouragement of the growth of the secondary ZEV market will provide an opportunity to increase adoption in disadvantaged communities and low-income drivers.”

- 2) **Background:** ZEVs run on electricity stored in batteries instead of fossil fuels, such as pure battery plug-in electric vehicles, plug in hybrid vehicles and hydrogen fuel cell electric vehicles. In 2006, the Legislature enacted AB 32 (Nunez) Chaptered 488, Statutes of 2006, which required CARB to adopt rules and regulations that would reduce GHG emissions in the state to 1990 levels by 2020. In addition, in 2015, the Legislature enacted SB 350 (De Leon) Chapter 547, Statutes of 2015, which established new energy efficiency and renewable electricity targets to support the state’s climate goals. Transportation emissions represent approximately 37 percent of the states GHG emission, 83 percent of its NOx emissions, and 95 percent of its diesel emissions. In implementing AB 32, CARB found that efficient, ZEVs using low carbon fuels are a vital component of the state’s effort to reach its GHG emission reduction goals. CARB estimates that by mid-century, 87% of cars on the road will need to be full ZEVs, putting California on the path to reducing GHG emission by 80% by 2050.
- 3) **California’s ZEV Action Plan:** In 2012, Governor Brown signed Executive Order B-16-12 which directed the CPUC and other state agencies to help accelerate the market for ZEVs to support the adoption of 1.5 million ZEVs on California roads by 2025 and the integration of plug-in electric vehicle charging into the state’s electricity grid by 2020. As of the summer of 2016, Californians drive 47% of all ZEVs on the road in the United States with Los Angeles and Santa Clara County being the largest ZEV metropolitan adoption regions in the state. In October 2016, the Governor’s Interagency Working Group on ZEVs released its 2016 ZEV Action Plan, which provides an updated roadmap towards reaching the states ZEV goals. The plan highlighted certain priorities for ZEV development and adoption including, raising consumer awareness and education about ZEVs; ensuring ZEVs are accessible to a broad range of Californians, making ZEV technologies commercially viable in targeted sectors, and aiding ZEV market growth beyond California.
- 4) **Investments in ZEV Infrastructure:** Since 2012, California’s ZEV market has grown significantly through the expansion of rebates and incentives. California’s three IOUs provide rebates to plug-in electric vehicle drivers, including Pacific Gas & Electric’s Clean Fuel Rebate, San Diego Gas & Electric’s (SDG&E) Electric Vehicle Climate Credit, and Southern California Edison’s Clean Fuel Rewards. Customers who purchase electric vehicles may also be eligible for rebates through the states Clean Vehicle Rebate Project which has issued nearly \$350 million in rebates since 2009. In addition, the IOUs are currently implementing pilot programs to install 12,500 electric vehicle charging stations in multi-unit dwellings, workplaces, and public interest destinations at a cost of \$197 million, with a certain number of charging stations designated in disadvantaged communities.
- 5) **Barriers to ZEV Adoption:** The average California drives less than 40 miles per day, well within the range of available ZEV models. However, achieving the states climate goals requires multiple approaches toward transportation electrification. Because ZEVs require longer charge times, range anxiety caused by the lack of infrastructure impedes the adoption of ZEVs in rural areas or for drivers seeking to make longer trips.

But as battery and charging technology continue to advance, greater access to charging infrastructure will promote greater adoption of ZEVs. Locating ZEVs in areas where drivers park for long durations, such as resident garages, mitigates some concerns associated with ZEV adoption. The development of level 2 chargers can now allow drivers to charge ZEVs from 12 to 20 miles per hour. The continue development of faster chargers combined with grid-integrated rates, can provide drivers with more flexibility in determining when to charge their vehicles, and at times that best support conditions of the state's electricity grid throughout the day.

This bill requires the CPUC, in consultation with CARB and the CEC, to authorize the IOUs to offer programs and investments in electric vehicle service equipment installed in residential garages of customers who purchase used electric vehicles, as specified.

- 6) **Arguments in Support:** According to SDG&E, “The secondary EV market is growing as early EV adopters are rolling off leases or trading in their EVs for newer models. The secondary market increases availability to a broader consumer base, where costs still weight heavily on their purchasing decisions. A Level 2 charger costs roughly \$2,000 (including the unit price and installation) which is cost prohibitive to most drivers when purchasing a car, but even more for those purchasing on the secondary market. Multiple purchase incentives exist for new ZEVs in California, [...] but purchases incentives for used ZEVs are minimal [...] This bill would remove a barrier to EV adoption. Convenient access to Level 2 charging at a driver's home, where EVs are parked for the longest duration, offers important benefits and flexibility for both the driver and the electric grid.”
- 7) **Related Legislation:** AB 1082 (Burke) of 2017 requires an electrical corporation to file with, and the CPUC to approve, a program proposal for the installation of electric charging stations at school facilities. *Status: Pending in the Assembly Committee on Education.*

AB 1083 (Burke) of 2017 requires an electrical corporation to file with, and the CPUC to approve, a program proposal for the installation of electric charging stations at state parks and beaches. *Status: Pending in the Assembly Committee on Water, Parks and Wildlife.*

AB 1184 (Ting) of 2017 requires the CPUC to establish a California Electric Vehicle Initiative to incentivize the purchase of electric vehicles in the state. *Status: Pending in the Assembly Committee on Communications and Conveyance.*

REGISTERED SUPPORT / OPPOSITION:

Support

San Diego Gas & Electric

Opposition

None on file.

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