Date of Hearing: April 23, 2018

ASSEMBLY COMMITTEE ON TRANSPORTATION
Jim Frazier, Chair
AB 2127 (Ting) – As Amended April 16, 2018

SUBJECT: Electric vehicle charging infrastructure: assessment

SUMMARY: Requires the California Energy Commission (CEC), in consultation with the Air Resources Board (ARB), and the California Public Utilities Commission (CPUC), to prepare a statewide assessment of electric vehicle (EV) charging infrastructure needs. Specifically, **this bill**:

1) Requires CEC, working with ARB and CPUC, to prepare a statewide assessment of EV charging infrastructure needs to support the levels of EV adoption required for the state to meet its goals of deploying five million zero-emission vehicles (ZEVs) by 2030 and to reduce emissions of greenhouse gases (GHG) to 40% below 1990 levels by 2030.

2) Requires the statewide assessment to expand on CEC's electric vehicle infrastructure projections to consider all necessary charging infrastructure, including, but not limited to, the 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.

3) Requires the statewide assessment to examine existing and future infrastructure needs throughout California, including in low-income communities.

4) Requires CEC to regularly seek data and input relating to EV charging infrastructure from stakeholders, including, but not limited to, PUC, ARB, electrical corporations, local publicly owned electric utilities, state and local transportation and transit agencies, charging infrastructure companies, environmental groups, and automobile manufacturers.

5) Requires CEC to update the statewide assessment at least once every two years.

EXISTING LAW:

1) Establishes CPUC with regulatory authority over public utilities, including every common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, and heat corporation, where the service is performed for, or the commodity is delivered to, the public or any portion thereof.

2) Requires CPUC, in consultation with ARB and CEC, to direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative, as specified, and reduce emissions of GHG to 40% below 1990 levels by 2030, and to 80% below 1990 levels by 2050.

3) Provides ARB 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.

4) Requires ARB, pursuant to California Global Warming Solutions Act of 2006 [AB 32 (Núñez), Chapter 488, Statutes of 2006], to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and to use market-based mechanisms (cap-and-trade) to achieve compliance with these regulations.

5) Requires, pursuant to SB 32 (Pavley), Chapter 249, Statutes of 2016, that ARB ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by 2030.

6) Establishes the Greenhouse Gas Reduction Fund (GGRF) in the State Treasury, requires all moneys, except for fines and penalties, collected pursuant to a market-based mechanism be deposited in the fund and requires the Department of Finance, in consultation with ARB and any other relevant state agency, to develop, as specified, an investment plan for the moneys deposited in the GGRF.

5) Establishes the Charge Ahead California Initiative pursuant to SB 1275 (de León), Chapter 530, Statutes of 2014, that, among other things, includes the goal of placing at least one million (ZEVs) and near-zero emission vehicles (NZEVs) into service by January 1, 2023, and increasing access to these vehicles for disadvantaged, low-income, and moderate-income communities and consumers.

6) Establishes the Air Quality Improvement Program (AQIP), administered by ARB, to fund programs that support the production, distribution, and sale of alternative fuels and vehicle technologies, as well as air emissions reduction efforts. The two primary programs adopted by ARB pursuant to AQIP are the Clean Vehicle Rebate Project (CVRP) and the Hybrid and Zero Emissions Truck and Bus Voucher Incentive Program (HVIP).

7) Establishes the Clean Truck Program, administered by ARB in conjunction with CEC, to use GGRF funds for development, demonstration, pre-commercial pilot, and early commercial deployment of zero- and near zero-emission truck, bus, and off-road vehicle and equipment technologies.

8) Establishes the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP), administered by CEC, to provide grants and other financial incentives to accelerate the development and deployment of clean, efficient, low carbon alternative fuels and technologies.

FISCAL EFFECT: Unknown

COMMENTS: Air pollution from the transportation sector has profound impacts to our environment and health. In California, state law assigns ARB with the primary responsibly for controlling mobile source air pollution, including adopting rules for reducing vehicle emissions, creating fuel specifications, regulating emission control devices, and establishing engine standards. In addition to addressing air pollution, ARB has also been tasked with meeting GHG

emissions reduction targets set forth by the Legislature first in AB 32, and later in SB 32. In California, the transportation sector accounts for approximately 40% of GHG emissions.

To reduce mobile source pollution and meet our climate goals, the state is reducing its reliance on fossil fuels and promoting efforts to electrify our transportation sector through the advancement of plug-in EVs, plug in hybrid EVs, and hydrogen fuel cell EVs. Plug-in EVs that run solely on batteries and hydrogen fuel cell EVs are considered ZEV because they result in zero tailpipe emissions. It is estimated that by the end of 2017, more than 360,000 EVs have been sold in California, with the number of EVs in the state increasing by approximately 34 %. However, ARB estimates that by mid-century, 87% of cars on the road will need to be full ZEVs, in order for the state to meet its long-term climate goals.

California has looked to expand the sale and use of ZEVs by setting specific goals through legislation and executive orders. In 2012, Governor Brown issued EO B-16-2012 which established the milestone of placing 1.5 million ZEVs on California roadways by 2025. The EO also established ZEV purchase targets for state agencies and required the integration of plug-in electric vehicle charging into the state's electricity grid by 2020. To continue the momentum initiated by the 2012 EO, the Governor's Office convened an interagency working group, led by ARB and others, that culminated in the release of the 2012 ZEV Action Plan. The ZEV Action Plan, which was updated in 2016, established goals for the advancement of ZEVs and outlined strategies to achieve those goals. Recognizing the need to accelerate the market for ZEVs beyond the 2012 EO, this year, Governor Brown announced a new goal and issued B-48-2018 which orders the deployment of 5 million ZEVs on California roads by 2030. The 2018 EO also directed all state entities to spur the construction and installation of ZEV charging and fueling infrastructure, find ways to streamline ZEV infrastructure installation processes, and carry out additional programs and actions to reach the goal.

To complement our goals, legislation along with regulations promulgated by ARB have led to the establishment of a number of EV-related programs at ARB, including the ZEV Mandate (that set the requirement that manufactures make and sell a certain number of ZEVs based on a specified credit requirement). ARB has created a number of incentive programs to encourage consumers to purchase and use these vehicles. Examples of these incentive programs include the Clean Vehicle Rebate Program (CVRP) that provides rebates (ranging from $1,500-$7,000, depending on the purchasers' income status) on the purchase of new ZEVs. There is also a component of CVRP that includes a set aside program to provide rebates for public fleets purchasing ZEVs. In addition, programs such as the Enhanced Fleet Modernization Program (EFMP) and EFMP-Plus Up, while not exclusively a ZEV program, offers incentives for individuals to retire their old, high-polluting vehicles with additional incentives for those individuals who replace their vehicles with ZEVs. There are also other ZEV-related incentive programs at ARB that encourage the use of ZEVs and NZEVs in the light-duty and heavy-duty transportation sector such as the Car Sharing and Mobility Options Pilot Project, Financing Assistance Pilot, the Clean Truck Program, and HVIP. Through the ARFVTP, CEC has also awarded approximately $753.2 million in funding that promotes accelerated development and deployment of advanced transportation and fuel technologies. A large portion of CEC efforts and funding have focused on the deployment of alternative fuel charging infrastructure, fuel production, and vehicles.

In order to electrify our transportation sector and increase consumer confidence to buy EVs, the state through various state agencies has funded and overseen various EV infrastructure efforts as

well. Administered largely by ARB, the 2016 Volkswagen settlement requires $800 million to be spent in mostly EV fueling infrastructure in California for the coming decade. As part of the ARFVTP, CEC spends roughly $40 million annually for EV infrastructure and has funded about 7,000 charging and fueling stations to date. In addition to other EV market acceleration investment programs throughout California state agencies, in 2015 the Legislature passed SB 350 (de León), Chapter 547, Statutes of 2015, which set 2030 GHG reduction targets to be achieved through a variety of measures, including widespread transportation electrification. In 2015, CPUC directed California's three investor owned utilities (IOUs) to submit applications proposing projects aimed at achieving the transportation electrification goals in SB 350. CPUC has since proposed two decisions authorizing utility investments in transportation electrification, including in November 2017, authorizing the three IOUS to spend up to $42.8 million on 15 pilot projects aimed at accelerating EV adoption, improving air quality and reducing GHG emissions; and in March 2018 approving four IOU projects, totaling approximately $589 million, aimed at installing EV charging infrastructure.

According to the author, while planning is occurring throughout multiple state agencies, in addition to private sector and local governments planning, there is no single roadmap or assessment for identifying and meeting the states EV charging infrastructure needs. This bill requires the CEC, working with the ARB and CPUC, to prepare a statewide assessment of EV charging infrastructure needs.

According to Advanced Energy Economy, the sponsor of the bill, "By development of a comprehensive, statewide assessment, AB 2127 gives state policymakers and regulators the information they need for managing and directing the investment of public dollars into EV charging infrastructure. It will increase transparency and information on where infrastructure development is lagging and what gaps must be addressed in order to achieve the state's 2030 goals. This is a common sense step that should be taken in order to maximize benefits to the public."

Double Referral: This bill passed out of the Assembly Communications and Conveyance Committee on April 11, 2018, with a 13-0 vote.

Previous legislation: SB 32 (Pavley), Chapter 249, Statutes of 2016, required ARB to ensure that statewide GHG emissions are reduced at least 40% below 1990 levels by 2030.

SB 350 (de León), Chapter 547, Statutes of 2015, set GHG reduction targets to be achieved by 2030 through a variety of measures, including supporting electrification of the transportation system and established requirements of CPUC in adopting EV charging proposals from the IOUs.

SB 1275 (de León), Chapter 530, Statutes of 2014, established the Charge Ahead California Initiative, administered by ARB, in consultation with CEC, air pollution control and air quality management districts, and the public. Specifies that the goals of the initiative is to, among other things, place in service at least one million ZEVs by January 1, 2023, and to increase access for disadvantaged, low-income, and moderate-income communities and consumers.

SB 1204 (Lara), Chapter 524, Statutes of 2014, created the Clean Truck Program to fund development, demonstration, pre-commercial pilot, and early commercial deployment of zero- and near-zero-emission truck, bus, and off-road vehicle and equipment technologies.

AB 8 (Perea), Chapter 401, Statutes of 2013, extended until January 1, 2024, the fees that support AQIP and AFRVTP.

AB 118 (Núñez), Chapter 750, Statutes of 2007, created the ARFVTP and AQIP to provide funding measures to specified entities to develop and deploy technologies and alternative and renewable fuels in the marketplace to help attain the state's climate change policies.

AB 32 (Núñez), Chapter 488, Statutes of 2006, required ARB to develop a plan of how to reduce emissions to 1990 levels by the year 2020.

REGISTERED SUPPORT / OPPOSITION:

Support

Advanced Energy Economy (Sponsor)
American Wind Energy Association California Caucus
California State Association of Electrical Workers
California State Pipe Trades Council
California Trucking Association
Electric Vehicle Charging Association
Environment California
International Union of Elevator Contractors
Office of Ratepayer Advocates - CPUC
Western States Council of Sheet Metal Workers

Opposition

None on file

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