

Date of Hearing: March 20, 2023

ASSEMBLY COMMITTEE ON TRANSPORTATION

Laura Friedman, Chair

AB 673 (Bennett) – As Amended March 13, 2023

SUBJECT: Hydrogen-fueling stations: preference

SUMMARY: Requires the State Energy Resources Conservation Development Commission (also known as the California Energy Commission, CEC) when considering providing funding for medium- and heavy-duty hydrogen station to evaluate whether the project needs to also include access for light-duty vehicles. Specifically, **this bill:**

- 1) Requires CEC, in its evaluation, to consider safety, regional light-duty vehicle hydrogen fueling needs, and the station fueling capacity.
- 2) States that these provisions do not apply to the Clean Transportation Program (CTP) or to the \$20 million yearly set-aside for funding of hydrogen-fueling stations until the goal of 100 stations is met.

EXISTING LAW:

- 1) Establishes CTP, administered by CEC, with funding from vehicle and vessel registration, vehicle identification plates, and smog-abatement fees that provide up to \$100 million annually for grants, revolving loans, loan guarantees, and other financial assistance to accelerate the development and deployment of clean, efficient, low carbon alternative fuels and technologies. The fees that fund CTP sunset January 1, 2024. (Health and Safety Code (HSC) 44272)
- 2) Requires CEC to allocate \$20 million annually, not to exceed 20% of the money appropriated by the Legislature from the Alternative and Renewable Fuel and Vehicle Technology Fund, to fund hydrogen-fueling stations until there are at least 100 publicly available hydrogen-fueling stations in operation in California. This section is repealed January 1, 2024.
- 3) Requires California Air Resources Board (CARB) to aggregate and report the number of hydrogen-fueled vehicles that motor vehicle manufacturers project to be sold or leased over the next three years and the total number of hydrogen-fueled vehicles registered with the Department of Motor Vehicles (DMV). (HSC 43018.9)
- 4) Requires CEC to develop and adopt an investment plan, in consultation with an advisory body and through a public process, to determine priorities for investment of funds and technologies to achieve the goals of the CTP. (HSC 44272.5)
- 5) Requires CEC to submit to the Legislature a yearly update to the investment plan. (HSC 44272.7)

FISCAL EFFECT: Unknown

COMMENTS:

Since 2006, California has set several goals to reduce greenhouse gas (GHG) emissions, address climate change, and improve the public health of its residents. These goals require incremental progress that are intended to result in large emission reductions, including:

- 1) Reduce GHG emissions to 40% below 1990 levels by 2030, SB 32 (Pavley) Chapter 488, Statutes of 2016.
- 2) Reduce short-lived climate pollutant emissions, such as methane, to 40 to 50% below 2013 levels by 2030, SB 1383 (Lara) Chapter 395, Statutes of 2016.
- 3) Achieve a carbon-neutral economy by 2045, AB 1279 (Muratsuchi) Chapter 337, Statutes of 2022.

Additionally, California has led on the transition to zero-emission vehicles (ZEVs), setting specific goals to boost the supply of ZEVs as well as charging and fueling stations, including:

- a) By 2025:
 - i) 1.5 million ZEVs on the road (Executive Order (EO) B-16-12)
 - ii) Installation of 200 hydrogen-fueling stations and 250,000 battery-electric vehicle chargers, including 10,000 direct-current fast chargers, by 2025 (EO B-48-18)
- b) By 2030:
 - i) 5 million ZEVs on the road. (EO B-48-18)
 - ii) 8 million ZEVs on the road. (California Air Resources Board (CARB) estimate to meet EO N-79-20)
- c) By 2035:
 - i) Transition 100% of new sales of passenger vehicles and trucks to ZEVs (EO N-79-20)
 - ii) Transition 100% of drayage trucks to zero emission (EO N-79-20)
 - iii) Transition 100% of operating off-road vehicles and equipment to zero emission everywhere feasible (EO N-79-20)
- d) By 2045:
 - i) Transition 100% of operating medium- and heavy-duty trucks and buses to zero emission everywhere feasible (EO N-79-20)

The need for a greater amount of ZEV infrastructure is growing rapidly as the number of ZEVs in the state increases. In 2021, the state reached of a total of one million light-duty ZEVs sold in California. In Quarter (Q) Q1-Q3 of 2022, 17.7% of new vehicle sales were ZEVs. These numbers include both battery-electric vehicles and fuel-cell electric vehicles, with the vast majority being battery-electric. ZEV infrastructure is necessary to address range needs and to encourage the purchase of ZEVs. The state is investing heavily in the deployment of ZEV charging and fueling stations during this early transitional stage.

CARB's '2022 Annual Evaluation of Fuel Cell EV Deployment and Hydrogen Fuel Station Network Development' provides an analysis of the need for additional publicly available hydrogen-fueling stations for the subsequent three years in terms of quantity of fuel needed for the actual and projected number of light-duty hydrogen-fueled vehicles, geographic areas where fuel will be needed, and station coverage. Based on DMV vehicle registration data from April 1, 2022, CARB estimates that 11,314 light-duty hydrogen-fueled vehicles currently have a valid and active registration within the state. Sales in Q1 were slightly more than 1,000 vehicles.

According to the CEC's 2022-23 Investment Plan Update for the Clean Transportation Program, between public and private investments, CEC staff anticipates that California will meet the goal of 200 hydrogen refueling stations with sufficient capacity to serve 273,000 fuel cell vehicles. Automakers expect to have 65,000 light-duty fuel cell vehicles on the road in 2028, so station capacity should not be a near-term barrier to light-duty fuel cell vehicle deployment once these stations are operational.

Recent investments focus on the medium- and heavy-duty sector. According to the Alternative Fuels Data Center, "the rollout of heavy-duty hydrogen trucks, such as line-haul trucks, will necessitate very large stations compared to light-duty needs. The increase in production and distribution of hydrogen for these stations could improve efficiency and utilization of expensive capital equipment leading to lower fuel costs per kilogram, benefiting both heavy- and light-duty customers."

Historically, CTP has been the main program funding ZEV infrastructure, receiving \$100 million annually from various fees. However, recent budget surpluses allowed the Legislature to appropriate General Fund (GF) money for ZEV infrastructure. The 2023 Budget Act AB 179 (Committee on Budget) Chapter 45, Statutes of 2022 and accompanying legislation AB 211 (Committee on Budget) Chapter 574, Statutes of 2022 appropriated \$484 million GF to the CEC for projects consistent with CTP. Of that amount, \$96 million is for ZEV drayage infrastructure, \$215 million for ZEV light-duty charging infrastructure, and \$99 million for ZEV infrastructure for clean trucks, buses, and off-road equipment.

This bill aligns with the Legislature's direction in supporting medium- and heavy-duty ZEV infrastructure with recent GF appropriations, while also directing CEC to evaluate whether refueling stations can serve multiple vehicle classes in order to maximize state investments and broaden benefits for Californians.

According to the author, "In these early stages of California's transition from a carbon based transportation system to a carbonless system, we should keep both electric battery and hydrogen fuel cell technology competing with each other in as many areas as possible. We should not allow a lack of hydrogen fueling infrastructure to be an impediment to California's transition to clean energy."

In opposition, 350 Bay Area Action writes, "[This bill] calls for light, medium, and heavy duty vehicles to be served by the proposed hydrogen fueling stations. There is widespread consensus in the scientific and environmental community that a) publicly-accessible stations should only serve heavy-duty commercial vehicles, and b) that heavy-duty vehicles should be refueled at hubs or in industry-owned lots. The first choice of technology for light and medium-duty vehicles is battery-electric vehicles (BEV), which are powered solely by an electric battery, with

no gas engine parts. Most BEVs are capable of fast charging and Level 2 charging. BEVs have an efficiency that is 30 to 50% greater than the efficiency of hydrogen fuel cell vehicles.”

Double referral: This bill is double referred to the Assembly Natural Resources Committee and will be heard by that Committee as it relates to issues under its jurisdiction.

Related and previous legislation: AB 241 (Reyes) of this session states the intent of the Legislature to enact future legislation related to the CTP.

SB 84 (Gonzalez) of this session states the intent of the Legislature to enact future legislation related to the CTP.

AB 2562 (Bennett) of the 2021-22 Session would have required CEC to provide preference to certain hydrogen-fueling station projects, such as those 1) located at ports, 2) co-located at a fueling station serving medium- and heavy-duty trucks, and 3) located along a federally designated Trade Corridor of National and Regional Significance. AB 2562 was held in the Assembly Appropriations Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file

Opposition

Bay Area Action

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