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

**Senator Ben Hueso, Chair**

**2021 - 2022 Regular**

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<b>Bill No:</b>	SB 1329	<b>Hearing Date:</b>	4/18/2022
<b>Author:</b>	Newman		
<b>Version:</b>	3/10/2022 Amended		
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
<b>Consultant:</b>	Sarah Smith		

**SUBJECT:** Publicly available hydrogen-fueling stations

**DIGEST:** This bill doubles California’s goal for deploying hydrogen refueling stations and increases the amount of funding allocated to these stations through the California Energy Commission (CEC) Clean Transportation Program (CTP).

**ANALYSIS:**

Existing law:

- 1) Establishes the CTP, which is administered by the CEC to provide grants, loans, and other funding opportunities to develop and deploy innovative fuel and vehicle technologies to support California’s climate change policies. Existing law specifies the types of projects eligible for CTP funding and sets criteria the CEC must use to prioritize projects for funding from the CTP. (Health and Safety Code §44272 et. seq.)
- 2) Requires the CEC to allocate \$20 million from the CTP for the purpose of funding hydrogen refueling stations in the state. Existing law establishes a goal of building at least 100 hydrogen refueling stations and requires the CEC to annually assess the state’s progress towards meeting that goal. (Health and Safety Code §43018.9)
- 3) Allocates a portion of smog abatement fees to fund the CTP and sunsets the fee on January 1, 2024. (Health and Safety Code §44060.5)
- 4) Allows California Air Resources Board (CARB) to require certain motor vehicle fuel suppliers to construct, fund, and operate publicly available hydrogen refueling infrastructure. Existing law also requires CARB to annually assess the amount of hydrogen refueling stations needed in the state to meet demand based on the amount of hydrogen vehicles in the state and the geographic distribution of those vehicles. (Health and Safety Code §43018.9)

This bill:

- 1) Prohibits CARB from requiring a motor vehicle fuel supplier to construct, fund or operate a publicly accessible hydrogen station.
- 2) Eliminates CARB's annual assessment of hydrogen refueling station needs, and instead requires CARB to complete an assessment of hydrogen refueling infrastructure needs by June 30, 2023. This bill requires CARB to base this assessment on California zero-emissions vehicle (ZEV) and climate goals instead of in-state hydrogen vehicle purchasing trends.
- 3) Increases the amount of CTP funding that the CEC must annually allocate for hydrogen refueling stations from \$20 million to the greater of \$30 million or 30 percent of the CTP.
- 4) Specifies that the allocation of CTP funds for hydrogen refueling stations must also include the following allocations:
  - a) An allocation of \$150,000 to increase driver awareness about publicly available hydrogen refueling stations.
  - b) At least 60 percent of the CTP funds for hydrogen refueling stations must fund infrastructure that completely or partially benefits disadvantaged communities, as identified by the California Environmental Protection Agency (CalEPA).
- 5) Requires recipients of CTP awards for hydrogen refueling infrastructure to use a skilled and trained workforce for all construction and maintenance work.

## Background

*California's ZEV goals.* California has ambitious goals for reducing greenhouse gas emissions (GHGs), including emissions from the transportation sector. Existing law establishes a goal of putting at least five million ZEVs on state roads and reducing GHG emissions to 40 percent below 1990 levels by 2030. In January 2018, Governor Brown issued Executive Order B-48-18, which 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. In September 2020, Governor Newsom issued Executive Order N-79-20, which established a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. The order also stated the goal that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations

where feasible. To meet these goals, the state would need to significantly accelerate investments in ZEV infrastructure.

*CTP investments in hydrogen refueling infrastructure.* The CTP is administered by the CEC to provide funding for infrastructure and technologies that help the state transition to cleaner fuels and transportation. The CTP is one of several programs funding infrastructure aimed at helping the state reach its clean transportation goals. CARB also administers funding for ZEV infrastructure and vehicles, and the California Public Utilities Commission (CPUC) oversees ratepayer investments in electric vehicle (EV) infrastructure deployed through the electric investor-owned utilities (IOUs). Under existing law, the CTP provides up to \$100 million annually for clean transportation infrastructure and technology projects. The CEC identifies priorities for CTP funding through a regular investment plan and updates. According to the CTP's 2021-2023 investment plan update, California has 23 privately-funded hydrogen stations, the CTP funded 83 new and upgraded hydrogen refueling stations as of August 2021. The CEC has also allocated funding for an additional 73 hydrogen stations. Once the stations that have received funding are completed, California will have 179 hydrogen stations – 21 stations short of the 200 station goal required by this bill. The CEC's investment plan update implies that pending private investments in hydrogen refueling stations may close the gap in planned stations to help California reach the 200 station goal.

*Recent legislation has accelerated ZEV funding, but time is limited.* Under existing law, the CTP is funded by a portion of smog abatement fees. Existing law sunsets the funding for the CTP on January 1, 2024. While the longstanding funding source for the CTP is scheduled to sunset by 2024, the Legislature approved \$1.165 billion in additional funding for the CTP over three years. According to the most recent CTP investment plan, the CEC has allocated over \$840 million in funding for the CTP in the 2021-2022 Fiscal Year. These investments will help accelerate the CTP's investments in ZEV infrastructure and technologies for the program's remaining years.

*Bill would allocate a greater amount of CTP's remaining funds to hydrogen.* Under existing law, the CEC in this bill increases the statutory allocation of CTP funds for hydrogen refueling infrastructure by \$10 million annually, or up to 30 percent of the CTP's annual funding, depending on which amount is greater. Since the CEC received a finite amount of funding for the CTP, an increasing the allocation for hydrogen refueling infrastructure may impact funding availability for other clean transportation infrastructure and technology, including EV infrastructure. Under the most recent CTP investment plan update, the CEC has established a three-year schedule for allocating CTP investments. This plan

doubles the amount of CTP funding allocated for hydrogen stations in the 2021-2022 fiscal year; however, the 2021-2022 fiscal year provides the greatest amount of funding opportunities for the next three years based on existing funds. This bill would require the CEC to revise its investment plans for the 2022-2023 and 2023-2024 fiscal years to increase the amount of CTP funding for hydrogen stations.

*How many hydrogen stations are enough hydrogen stations?* This bill codifies the goal of creating 200 hydrogen stations in California as stated in Executive Order B-48-18. This order also called for putting five million hydrogen vehicles (also known as fuel cell electric vehicles or FCEVs) on the state's roads. Existing law requires CARB to annually assess amount of hydrogen stations needed to provide a refueling network for the hydrogen vehicles on California's roads. Since the distribution of hydrogen refueling stations vary across different regions in the state, the 200 station goal codified under this bill may not result in the creation of a network of stations that meet all hydrogen vehicle drivers' needs. CARB's 2018 assessment noted, "...between 1,000 and 1,200 hydrogen fueling stations would need to be developed by 2030 in order to provide sufficient hydrogen fueling capacity for one million FCEVs." However, CARB's analysis of vehicle registration data indicates that the number of hydrogen vehicles in California is significantly below state goals. According to CARB's 2021 assessment, approximately 9,263 hydrogen vehicles are in the state, and approximately 7,993 of those vehicles are operational. This bill's allocation of the greater of \$30 million or 30 percent of CTP funding implies that funding would be allotted to build a greater number of stations than the 200-station goal.

*Lack of hydrogen stations can discourage purchases and vice versa.* While the CEC has funded or allocated funding for a total of 156 hydrogen stations, only 52 hydrogen stations are open for retail in California. The large amount of funding needed to open these stations, permitting requirements, and construction times for these stations create long lead times between the proposal of a hydrogen station and the opening of the station. As a result, many hydrogen vehicle drivers have limited options for refueling. While the lack of hydrogen refueling stations can discourage consumers from purchasing hydrogen vehicles, the lack of hydrogen vehicle purchases can lower market incentives for building additional hydrogen refueling stations.

Existing law requires CARB to estimate the number of hydrogen stations needed in the state based on the amount of hydrogen vehicles in the state and the geographic distribution of those vehicles. This bill modifies the criteria that CARB must use to assess the number of hydrogen stations needed by instead requiring CARB to base these assessments on the state's climate and ZEV deployment goals. The bill also replaces CARB's annual assessment with a one-time assessment. By

decoupling CARB's assessments of the number of hydrogen stations needed from in-state ownership of hydrogen vehicles and driver behavior, this bill may encourage investment in hydrogen stations for which there is limited market demand. Additionally, without a regular accounting of the number of stations needed to meet demand, it is unclear if hydrogen station investments under this bill will keep pace with trends in the hydrogen vehicle marketplace.

*Need for amendments.* As currently drafted, this bill replaces CARB's annual assessment with a one-time report. The elimination of a regular assessment by CARB appears inadvertent. *As a result, the author and committee may wish to amend this bill to reinstate CARB's annual assessment of hydrogen station needs.* Additionally, this bill requires the CEC to allocate the greater of \$30 million or 30 percent of CTP funding to hydrogen refueling stations; however, this funding may not be aligned with the needs identified by CARB in its annual assessment. *To the extent that the author and committee wish to ensure that the annual CTP funding aligns with the needs identified by CARB, the author and committee may wish to amend this bill to require CEC to allocate CTP funds for hydrogen refueling stations based on CARB's assessment of the amount of stations needed to build a statewide refueling network.*

*Double referred.* This bill has been double-referred to the Senate Committee on Transportation.

### **Prior/Related Legislation**

SB 1015 (Hueso, 2022) would require the CEC to allocate federal monies and funds from the CTP to fund EV infrastructure at ports. The bill also requires the CEC to incorporate communities impacted by port operations into assessments about EV infrastructure needs. The bill is currently pending consideration in the Senate Committee on Energy, Utilities and Communications.

SB 1258 (Allen, 2022) would expand the types of projects eligible for funding from the CTP to include EV infrastructure for certain autonomous vehicle fleets. The bill is currently pending consideration in the Senate Committee on Energy, Utilities and Communications.

AB 2562 (Bennett, 2022) would require the CEC to prioritize hydrogen refueling station projects that meet certain criteria when ranking projects for CTP funding. The bill is currently in the Assembly Committee on Appropriations.

SB 726 (Gonzalez, 2021) and AB 1389 (Reyes, 2021) would revise the CTP by eliminating specified prioritization and eligibility criteria and instead focus the

program on projects that support certain equity and environmental goals. The bills are currently on the Assembly and Senate Inactive Files, respectively.

SB 589 (Hueso, Chapter 732, Statutes of 2021) expanded the types of projects eligible for funding from the CTP to include projects that develop in-state supply chains and the workforce for raw materials and components needed for zero-emission vehicle (ZEV) manufacturing.

AB 2127 (Ting, Chapter 365, Statutes of 2017) required the CEC to conduct a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHG to 40 percent below 1990 levels by 2030.

AB 1697 (Bonilla, Chapter 446, Statutes of 2016) expanded the CTP's prioritization criteria to require the prioritization of projects that transition workers to the alternative and renewable fuel and vehicle technology sector.

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

**SUPPORT:**

California Hydrogen Coalition, Sponsor  
Air Products and Chemicals, Inc.  
California Hydrogen Business Council  
Fuel Cell & Hydrogen Energy Association  
Hyundai Motor Company  
Linde  
Nel Hydrogen  
PDC Machines  
Shell New Energies US  
68 Individuals

**OPPOSITION:**

California Electric Transportation Coalition  
Los Angeles Cleantech Incubator  
Sierra Club California

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

Without support for and appropriate investments in hydrogen, California will fail to meet its zero-emission vehicle goals. SB 1329 aligns with the Air Resources Board's 2021 peer-reviewed analysis showing an additional \$300M will bring the light and medium-duty fueling network to a point of self-sufficiency while supporting the development of 1,000 strategically-located hydrogen fueling stations in 94% of the geographic state and 97% of disadvantaged communities.

Hydrogen offers immense potential contributions to the creation of a resilient, renewables-powered grid and in the decarbonization of heavy trucking, rail, marine, and even aviation – but that important progress will only be built on an initial foundation of meeting the needs of today's fleet of fuel cell vehicles. By supporting the needs of hydrogen fuel cell vehicles on the road today, we can deliberately and efficiently prepare for the hydrogen ecosystem needed tomorrow. SB 1329 will do exactly that.

**ARGUMENTS IN OPPOSITION:** Opponents argue this bill's funding carve out could limit CEC's flexibility to allocate CTP funds through its investment plan process and could restrict funding for other clean transportation projects and goals. In opposition, the California Electric Transportation Coalition (CalETC) states:

We fully agree with the author's intent to ensure California meets its zero-emission vehicle goals. However, we do not agree that it should be done by taking away limited funds of other low-carbon transportation technologies and projects which are funded through the Clean Transportation Program. Let us not forget that funding for the Clean Transportation Program expires at the end of 2023. Instead of carving up these limited dollars, we should be focused on reauthorizing funding for the Clean Transportation Program to ensure long-term, reliable funding is available for all low carbon transportation technologies.

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