SENATE THIRD READING
SB 419 (Caballero)
As Amended September 02, 2025
Majority vote

SUMMARY

Exempts, under the sales tax law, the state General Fund portion (3.9375%) of the Sales and Use Tax (SUT) tax rate on the sale or purchase of "hydrogen fuel", as defined.

Major Provisions

1) Provides the partial sales tax exemption from July 1, 2026, until July 1, 2030.

2) Defines all of the following terms:

   a) "Hydrogen fuel" is a fuel composed of molecular hydrogen intended for consumption in a surface motor vehicle or electricity production device with an internal combustion engine or fuel cell that meets any of the following criteria:

      i) The fuel is sold by a hydrogen fuel station;

      ii) The fuel is sold for use in a hydrogen fuel cell electric vehicle; or,

      iii) The fuel is sold for use in a hydrogen internal combustion engine vehicle;

   b) "Hydrogen fuel cell" is an electrochemical energy conversion device in which molecular hydrogen and an oxidant react to generate electricity as intended by the manufacturer;

   c) "Hydrogen fuel cell electric vehicle" is a vehicle that uses a hydrogen fuel cell for a means of propulsion;

   d) "Hydrogen fuel station" is a business selling hydrogen fuel by dispensing the hydrogen fuel directly into a consumer's vehicle; and,

   e) "Hydrogen internal combustion engine vehicle" is a vehicle that is fueled exclusively by hydrogen by injecting hydrogen fuel into an engine which detonates the gaseous fuel for a means of propulsion.

3) Finds and declares the following for the purposes of satisfying the requirements of Revenue and Taxation Code (R&TC) Section 41:

   a) The specific goals, purposes, and objectives of this bill are to provide to create immediate parity in the rate of taxation for zero-emission vehicles until California adopts a new future-facing transportation funding mechanism that contemplates hydrogen as a fuel source for mobility applications.

   b) The detailed performance indicators to measure whether the expenditure meets the purposed outlined above are the estimated amount of hydrogen fuel sold at retail in the state each fiscal year and the estimated gross receipts from the sale of hydrogen fuel in the state each fiscal year.

COMMENTS

1) *A uniquely Californian experiment*: California is currently the only state that has any significant hydrogen refueling infrastructure and has been seen by the hydrogen industry as the critical test-case for this new economy. There have been numerous initiatives and programs in this state, including the Hydrogen Fuel Cell Partnership and the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES).

   Since 2015, three hydrogen-powered cars have been offered for sale from three different car companies: the Honda Clarity Fuel Cell, the Hyundai Nexo, and the Toyota Mirai. Chevrolet, Mercedes, and Audi have also introduced FCEVs in recent years and there are multiple passenger buses powered by hydrogen fuel cells. According to the Hydrogen Fuel Cell Partnership, as of June 18, 2025, 18,696 fuel cell cars have been sold and leased in the United States, which are almost entirely located in California. Additionally, there are 66 fuel cell buses in operation in California. Currently, there are 50 retail hydrogen stations available in California, 8 retail stations are currently unavailable, and there are a total of 106 retail hydrogen stations in various stages of development. Currently, there are four truck hydrogen stations in operation in California with nine additional truck hydrogen stations funded but not yet in development.[1]

   To encourage adoption of fuel cell electric vehicles (FCEVs), many sellers of these vehicles offered promotions that provided purchasers an allowance towards future purchases of hydrogen fuel. Toyota, for example, advertised that buyers of the Mirai would get $15,000 or three years of fuel as part of their purchase, whichever came first. These promotions were intended to help early adopters live with some of the challenges associated with owning a vehicle that could only be refueled at a few specific locations. Attracting new customers to the FCEV market was seen as essential to attracting investment so that more refueling stations could be built, which was hoped to then drive additional demand for FCEVs, ideally resulting in a positive feedback loop and growing the hydrogen industry.

2) *Challenges for FCEV adoption*: While there are less than 20,000 FCEVs on the road in California, over 1.7 million battery electric vehicles (BEVs) have been sold in this state and batteries have taken a clear lead over hydrogen as the preferred zero-emission vehicle technology for passenger vehicles. While there are many factors that may have contributed to this reality, it is worth highlighting several challenges faced by proponents of a hydrogen-powered future.

   a) *Where does the hydrogen come from*? Hydrogen is the most abundant element in the universe, but it is never found naturally in its pure state. Creating pure hydrogen for FCEVs requires a great deal of energy because it requires breaking down larger molecules; most hydrogen is currently derived from fossil fuels like natural gas (CH_4). Thus, while FCEVs do not produce GHG emissions themselves, some object to the classification of FCEVs as a zero-emission technology at all because of how the fuel is currently produced.

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[1] *By The Numbers – FCEV Sales, FCEB, & Hydrogen Station Data*, Hydrogen Fuel Cell Partnership (July 28, 2025). https://h2fcp.org/content/numbers.

A similar argument could be made regarding BEVs that are charged by the power grid, which can also rely on fossil fuels, but California has made significant progress in expanding renewable electricity generation through solar and wind. Still, BEVs that are charged overnight – the most common practice among BEV owners – are being charged when the power grid is at its dirtiest and renewables are at their lowest output. Proponents of hydrogen fuels argue that increased uptake of FCEVs will help encourage additional investment in producing hydrogen fuel that is not derived from fossil fuels (often called "green hydrogen").

b) *Why is refueling still so limited*? As described above, proponents hoped that enough buyers would purchase FCEVs to trigger additional investment into the refueling network, which would then encourage additional uptake. The rapid advancement of BEVs, however, has led to much less investment in hydrogen as a fuel than was previously hoped.

Additionally, the retail hydrogen refueling process in reality is not as similar to the familiar gas station experience that it was initially compared to. FCEV drivers have been frustrated by long lines at the limited number of hydrogen stations, which can become quickly overwhelmed if one or more stations in a region are taken offline for maintenance or upgrades. Compounding this problem, the hydrogen in the retail station tanks has to be compressed properly, which can make back-to-back refilling impossible and only contributing to long lines.

c) *Why did hydrogen fuel get so expensive*? A 2019 joint-agency report from the California Energy Commission (CEC), CARB, the Governor's Office of Business Development (GO-Biz), and the California Natural Resources Agency found that the average retail price of hydrogen was "relatively stable at around $16.50 per kilogram." This report also estimated that the price "should continue to decrease as hydrogen production costs fall" and that there would be roughly 48,000 FCEVs on the road by 2025.[2]

In March of 2025, the average price of hydrogen in the United States was $34 per kilogram, closing the year with a clear upward trend, having increased by more than 30% through 2024.[3] In California, the price for hydrogen fuel has roughly doubled from just a few years ago. Additionally, this price increase is particularly noticeable for FCEV owners who have exhausted the fuel allowance that was bundled with the purchase of the vehicle. While it cost roughly $80 to fill the tank of a Toyota Mirai in 2019, it can cost roughly $180 today.

3) *What does this bill do*? This bill seeks to make hydrogen fuel cheaper for consumers by providing a partial sales tax exemption for the state General Fund portion of the sales tax. Portions of the sales tax allocated to local governments would not be exempted by this bill.

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[2] *Joint Agency Staff Report on Assembly Bill 8: 2019 Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations* (December 2019). https://www.energy.ca.gov/sites/default/files/2021-05/CEC-600-2019-039.pdf.
[3] *Hydrogen Prices at USA Stations*, GLPAutoGas.info. https://www.glpautogas.info/en/hydrogen-sale-price-united-states.html.

Building on the example described above, this bill would result in a savings of approximately $7 for every $180 worth of hydrogen fuel purchased.

The author and proponents argue that exempting hydrogen fuel from the sales tax would provide parity with BEVs, which are not required to pay sales taxes on the electricity that is used to charge their vehicles. Existing law exempts gas and electricity that is sold through mains, lines, or pipes from the sales tax, so home-based chargers and public charging stations connected to the utility's power lines that sell electricity to BEV drivers would be exempt. Hydrogen fuel pumped through a retail station, however, does not qualify for this exemption, similar to how gas stations are not exempt for their sales of gasoline because it is not directly piped to the consumer.

According to the Author
The author has provided the following statement in support of this bill:

> This bill will create greater tax parity between fuel cell electric vehicles and traditional fuel and vehicle types including electricity and alternative fuels with the goal of ensuring all viable options are available to drivers. This bill will encourage the deployment and adoption of more hydrogen powered vehicles across all vehicle classes and drive the development of more hydrogen fuel stations. SB 419 will support California's goal to reduce carbon emissions in the transportations sector and help encourage the production, consumption and proliferation of hydrogen fuel markets across the state.

Arguments in Support
Writing in support of this bill, the California Hydrogen Coalition notes, in part:

> According to the Air Resources Board's most recent Mobile Source Strategy and 2022 Scoping Plan, approximately 20% of light-duty electric vehicles will be hydrogen powered because of the many drivers needing "fast and convenient" refueling. According to the State Transportation Agency in its SB 671 report, more than 2,000 hydrogen fueling stations will be needed to support the medium and heavy-duty vehicle classes in 2035. SB 419 (Caballero) will go a long way to encourage early deployment in this industry critical to achieving California's climate goals.
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> And unlike gasoline, diesel, alternative fuels and even electricity for battery electric vehicles, hydrogen, specifically zero carbon and renewable hydrogen, is a new entrant to the fuels market. California's first hydrogen production facilities are being built today and work building an adequate distribution network has not even begun. Nevertheless, there are +14,000 fuel cell vehicles on the road today paying more than $30 per kilogram for predominately renewable hydrogen fuel. SB 419 would provide an immediate but short-term boost to early adopters of this technology by reducing fuels costs at the pump.

Arguments in Opposition
Writing in opposition to this bill unless it is amended, Climate Action California notes, in part:

> Currently, most hydrogen not used in petroleum refining is used for ground transportation. Although we favor most policies that decrease costs of fueling zero-emission vehicles, our position is that incentives are best used to promote only the most efficient power technologies. Electric vehicles (EVs) have an overall efficiency of 77% (well to wheel), while hydrogen fuel cell vehicles (FCVs) have an overall electrical

efficiency between 7% and 29%. Hydrogen FCVs have lower lifecycle emissions if they use green hydrogen. We recommend that the minimum standards for green hydrogen match those determined by the US Treasury Department.

FISCAL COMMENTS

According to the Assembly Committee on Appropriations:

1) Annual GF revenue loss of approximately $3.8 million. By decreasing SUT revenue, this bill also likely decreases Proposition 98 GF spending by approximately 40% of the GF revenue loss (the exact amount depends on the specific amount of the annual Proposition 98 guarantee).

2) Absorbable costs to CDTFA to notify industry stakeholders, revise the SUT return and related publications, and answer public inquiries.

VOTES

SENATE FLOOR: 36-0-4
YES: Allen, Alvarado-Gil, Archuleta, Arreguín, Ashby, Blakespear, Cabaldon, Caballero, Cervantes, Choi, Cortese, Dahle, Durazo, Gonzalez, Grayson, Grove, Jones, Laird, Limón, McGuire, McNerney, Menjivar, Niello, Ochoa Bogh, Padilla, Pérez, Richardson, Rubio, Seyarto, Smallwood-Cuevas, Stern, Strickland, Umberg, Valladares, Weber Pierson, Wiener
ABS, ABST OR NV: Becker, Hurtado, Reyes, Wahab

ASM REVENUE AND TAXATION: 7-0-0
YES: Gipson, Ta, Bains, Carrillo, DeMaio, McKinnor, Quirk-Silva

ASM APPROPRIATIONS: 11-0-4
YES: Wicks, Arambula, Calderon, Caloza, Elhawary, Fong, Mark González, Ahrens, Pacheco, Pellerin, Solache
ABS, ABST OR NV: Sanchez, Dixon, Ta, Tangipa

UPDATED

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CONSULTANT: Wesley Whitaker / REV. & TAX. / (916) 319-2098 FN: 0001473