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HEALTH AND SAFETY CODE - HSC

DIVISION 26. AIR RESOURCES [39000 - 44475.3] (*Division 26 repealed and added by Stats. 1975, Ch. 957.*)

PART 5. VEHICULAR AIR POLLUTION CONTROL [43000 - 44299.91] (*Part 5 added by Stats. 1975, Ch. 957.*)

CHAPTER 4. Miscellaneous [43800 - 43871] (*Chapter 4 added by Stats. 1975, Ch. 957.*)

ARTICLE 6.5. Alternative Fuels [43865 - 43871] (*Article 6.5 added by Stats. 2005, Ch. 371, Sec. 1.*)

43865. The Legislature finds and declares all of the following:

- (a) The production, marketing, and use of petroleum fuels in California causes significant degradation of public health and environmental quality due to releases of air and water pollutants.
- (b) Clean alternative fuels have the potential to considerably reduce these impacts and are important strategies for the state to attain its air and water quality goals.
- (c) Research, development, and commercialization of alternative fuels in California have the potential to strengthen California's economy by providing job growth and helping to reduce the state's vulnerability to petroleum price volatility.
- (d) The State Energy Resources Conservation and Development Commission and the State Air Resources Board have previously recommended in their report to the Legislature, "Reducing California's Petroleum Dependency" in August 2003, that the state adopt a goal of 20 percent nonpetroleum fuel use in the year 2020 and 30 percent in the year 2030.

(*Added by Stats. 2005, Ch. 371, Sec. 1. Effective January 1, 2006.*)

43866. Not later than June 30, 2007, the State Energy Resources Conservation and Development Commission, in partnership with the state board, and in consultation with the State Water Resources Control Board, the Department of Food and Agriculture, and other relevant state agencies, shall develop and adopt a state plan to increase the use of alternative transportation fuels.

- (a) The plan shall include an evaluation of alternative fuels on a full fuel-cycle assessment of emissions of criteria air pollutants, air toxics, greenhouse gases, water pollutants, and other substances that are known to damage human health, impacts on petroleum consumption, and other matters the state board deems necessary.
- (b) The plan shall set goals for the years 2012, 2017, and 2022 for increased alternative fuel use in the state that accomplishes all of the following:
 - (1) Optimizes the environmental and public health benefits of alternative fuels, including, but not limited to, reductions in criteria air pollutants, greenhouse gases, and water pollutants consistent with existing or future state board regulations in the most cost-effective manner possible.
 - (2) Ensures that there is no net material increase in air pollution, water pollution, or any other substances that are known to damage human health.
 - (3) Minimizes the economic costs to the state, if any.
 - (4) Maximizes the economic benefits of producing alternative fuels in the state.
 - (5) Considers issues related to consumer acceptance and costs and identifies methods to overcome any barriers to alternative fuel use.
- (c) The plan shall recommend policies to ensure alternative fuel goals are attained, including, but not limited to:
 - (1) Standards on transportation fuels and vehicles.

(2) Requirements, financial incentives, and other policy mechanisms to ensure that vehicles capable of operating on alternative fuels use those fuels to the maximum extent feasible.

(3) Requirements, financial incentives, and other policy mechanisms to ensure that alternative fuel fueling stations are available to drivers of alternative fuel vehicles.

(4) Incentives, requirements, programs, or other mechanisms to encourage the research, development, demonstration, commercialization, manufacturing, or production of vehicles that use alternative fuels.

(Added by Stats. 2005, Ch. 371, Sec. 1. Effective January 1, 2006.)

43867. For the purposes of this article, the following terms have the following meanings:

(a) "Alternative fuel" means a nonpetroleum fuel, including electricity, ethanol, biodiesel, hydrogen, methanol, or natural gas that, when used in vehicles, has been demonstrated, to the satisfaction of the state board, to have the ability to meet applicable vehicular emission standards. For the purpose of this section, alternative fuel may also include petroleum fuel blended with nonpetroleum constituents, such as E85 or B20.

(b) "Full fuel-cycle assessment" means evaluating and comparing the full environmental and health impacts of each step in the life cycle of a fuel, including, but not limited to, all of the following:

(1) Feedstock extraction, transport, and storage.

(2) Fuel production, distribution, transport, and storage.

(3) Vehicle operation, including refueling, combustion or conversion, and evaporation.

(Amended by Stats. 2006, Ch. 538, Sec. 404. Effective January 1, 2007.)

43868. (a) It is the intent of the Legislature that, when the California Hydrogen Highway Blueprint Plan is implemented, it be done in a clean and environmentally responsible and advantageous manner.

(b) It is further the intent of the Legislature that the state board work with other relevant state agencies on the production of hydrogen, with an emphasis on hydrogen produced from renewable resources, as part of a strategy to reduce the state's dependence on petroleum, achieve the state's greenhouse gas emission reduction targets, and improve air quality for the state's residents.

(c) It is further the intent of the Legislature that the California Environmental Protection Agency and the state board, as part of the implementation of the California Hydrogen Highway Blueprint Plan, include in their priorities the deployment of hydrogen or clean hydrogen blend fueled transit buses.

(d) It is further the intent of the Legislature that the state board consider including in a future revision of the California Hydrogen Highway Blueprint Plan a study to determine the necessary steps to maximize the production of hydrogen fuel made from eligible renewable resources.

(Added by Stats. 2006, Ch. 877, Sec. 2. Effective January 1, 2007.)

43869. (a) The state board shall, no later than July 1, 2008, develop and, after at least two public workshops, adopt hydrogen fuel regulations to ensure the following:

(1) That state funding for the production and use of hydrogen fuel, as described in the California Hydrogen Highway Blueprint Plan, contributes to the reduction of greenhouse gas emissions, criteria air pollutant emissions, and toxic air contaminant emissions. The regulations, at a minimum, shall do all of the following:

(A) Require that, on a statewide basis, well-to-wheel emissions of greenhouse gases for the average hydrogen-powered vehicle fueled by hydrogen from fueling stations that receive state funds are at least 30 percent lower than emissions for the average new gasoline vehicle in California when measured on a per-mile basis.

(B) (i) Require that, on a statewide basis, no less than 33.3 percent of the hydrogen produced for, or dispensed by, fueling stations that receive state funds be made from eligible renewable energy resources as defined in Section 399.12 of the Public Utilities Code.

(ii) If the state board determines that there is insufficient availability of hydrogen fuel from eligible renewable resources to meet the 33.3-percent requirement of this subparagraph, the state board may, after at least one public workshop and on a

one-time basis, reduce the requirement by an amount, not to exceed 10 percentage points, that the state board determines is necessary to result in a renewable percentage requirement for hydrogen fuel that is achievable.

(iii) If the executive officer of the state board determines that it is not feasible for a public transit operator to use hydrogen fuel made from eligible renewable resources, the executive officer may exempt the operator from the requirements of this subparagraph for a period of not more than five years and may extend the exemption for up to five additional years.

(C) Prohibit hydrogen fuel producers from counting as a renewable energy resource, pursuant to clause (i) of subparagraph (B), any electricity produced from sources previously procured by a retail seller and verifiably counted by the retail seller towards meeting the renewables portfolio standard obligation, as required by Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

(D) Require that all hydrogen fuel dispensed from fueling stations that receive state funds be generated in a manner so that local well-to-tank emissions of nitrogen oxides plus reactive organic gases are at least 50 percent lower than well-to-tank emissions of the average motor gasoline sold in California when measured on an energy equivalent basis.

(E) Require that well-to-tank emissions of relevant toxic air contaminants for hydrogen fuel dispensed from fueling stations that receive state funds be reduced to the maximum extent feasible at each site when compared to well-to-tank emissions of toxic air contaminants of the average motor gasoline fuel on an energy equivalent basis. In no case shall the toxic emissions be greater than the emissions from gasoline on an energy equivalent basis.

(F) Require that providers of hydrogen fuel for transportation in the state report to the state board the annual mass of hydrogen fuel dispensed and the method by which the dispensed hydrogen was produced and delivered.

(G) Authorize the state board, after at least one public workshop, to grant authority to the executive officer of the state board to exempt from this paragraph, for a period of no more than five years, hydrogen dispensing facilities constructed for small demonstration or temporary purposes. The exemption may be extended on a case-by-case basis upon a finding that the extension will not harm public health. The executive officer may limit the total number of exemptions by geographic region, including by air district, but the average annual mass of hydrogen dispensed from exempted facilities shall not exceed 10 percent of the total mass of hydrogen fuel dispensed for transportation purposes in the state.

(2) That, in any year immediately following a 12-month period in which the mass of hydrogen fuel dispensed for transportation purposes in California exceeds 3,500 metric tons, the production and direct use of hydrogen fuels for motor vehicles in the state, including, but not limited to, any hydrogen highway network that is developed pursuant to the California Hydrogen Highway Blueprint Plan, contributes to a reduced dependence on petroleum, as well as reductions in greenhouse gas emissions, criteria air pollutant emissions, and toxic air contaminant emissions. For the purpose of this paragraph, the regulations, at a minimum, shall do all of the following:

(A) Require that, on a statewide basis, well-to-wheel emissions of greenhouse gases for the average hydrogen-powered vehicle in California are at least 30 percent lower than emissions for the average new gasoline vehicle in California when measured on a per-mile basis.

(B) Require that, on a statewide basis, no less than 33.3 percent of the hydrogen produced or dispensed in California for motor vehicles be made from eligible renewable energy resources as defined in Section 399.12 of the Public Utilities Code.

(C) Prohibit hydrogen fuel producers from counting as a renewable energy resource, for purposes of subparagraph (B), any electricity produced from sources previously procured by a retail seller and verifiably counted by the retail seller towards meeting the requirements established by the California Renewables Portfolio Standard Program, as set forth in Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

(D) Require that all hydrogen fuel dispensed in California for motor vehicles be generated in a manner so that local well-to-tank emissions of nitrogen oxides plus reactive organic gases are at least 50 percent lower than well-to-tank emissions of the average motor gasoline sold in California when measured on an energy equivalent basis.

(E) Require that well-to-tank emissions of relevant toxic air contaminants from hydrogen fuel produced or dispensed in California be reduced to the maximum extent feasible at each site when compared to well-to-tank emissions of toxic air contaminants of the average motor gasoline fuel on an energy equivalent basis. In no case shall the toxic emissions from hydrogen fuel be greater than the toxic emissions from gasoline on an energy equivalent basis.

(F) Authorize the state board, after at least one public workshop, to grant authority to the executive officer of the state board to exempt from this paragraph, for a period of no more than five years, hydrogen dispensing facilities that dispense an average of no more than 100 kilograms of hydrogen fuel per month. The exemption may be extended on a case-by-case basis by the executive officer upon a finding that the extension will not harm public health. The executive officer may limit the total number

of exemptions by geographic region, including by air district, but the average annual mass of hydrogen dispensed statewide from exempted facilities shall not exceed 10 percent of the total mass of hydrogen fuel dispensed for transportation purposes in the state.

(G) Authorize the state board, if it determines that reporting is necessary to facilitate enforcement of the requirements of this paragraph, to require that providers of hydrogen fuel for transportation in the state report to the state board the annual mass of hydrogen fuel dispensed and the method by which the dispensed hydrogen was produced and delivered.

(b) Notwithstanding paragraph (2) of subdivision (a), the state board may increase the 3,500-metric-ton threshold in paragraph (2) of subdivision (a) by no more than 1,500 metric tons if at least one of the following requirements is met:

(1) The 3,500-metric-ton threshold is first met prior to January 1, 2011.

(2) The state board determines that the 3,500-metric-ton threshold has been met primarily due to hydrogen fuel consumed in heavy duty vehicles.

(3) The state board determines at a public hearing that increasing the threshold would accelerate the deployment of hydrogen fuel cell vehicles in the state.

(c) The state board, in consultation with other relevant agencies as appropriate, shall review the renewable resource requirements adopted pursuant to this section every four years and shall increase the renewable resource percentage requirements if it determines that it is technologically feasible to do so and will not substantially hinder the development of hydrogen as a transportation fuel in a manner that is consistent with this section.

(d) The state board shall review the emission requirements adopted pursuant to this section every four years and shall strengthen the requirements if it determines it is technologically feasible to do so and will not substantially hinder the development of hydrogen as a transportation fuel in a manner that otherwise is consistent with this section.

(e) The state board shall produce and periodically update a handbook to inform and educate motor vehicle manufacturers, hydrogen fuel producers, hydrogen service station operators, and other interested parties on how to comply with the requirements set forth in this section. This handbook shall be made available on the agency's Internet Web site on or before July 1, 2009.

(f) The Secretary for Environmental Protection shall convene the California Environmental Protection Agency's Environmental Justice Advisory Committee at least once annually to solicit the committee's comments on the production and distribution of hydrogen fuel in the state.

(g) The Secretary for Environmental Protection, in consultation with the state board, shall recommend to the Legislature and the Governor, on or before January 1, 2010, incentives that could be offered to businesses within the hydrogen fuel industry and consumers to spur the development of clean sources of hydrogen fuel.

(h) Unless the context requires otherwise, the definitions set forth in this subdivision govern the construction of this section:

(1) "Well-to-tank emissions" means emissions resulting from production of a fuel, including resource extraction, initial processing, transport, fuel production, distribution and marketing, and delivery into the fuel tank of a consumer vehicle.

(2) "Well-to-wheel emissions" means emissions resulting from production of a fuel, including resource extraction, initial processing, transport, fuel production, distribution and marketing, and delivery and use in a consumer vehicle.

(Amended by Stats. 2008, Ch. 179, Sec. 151. Effective January 1, 2009.)

43870. (a) Except as provided in subdivision (e), commencing January 1, 2017, at least 3 percent of the aggregate amount of bulk transportation fuel purchased by the state government shall be procured from very low carbon transportation fuel sources, and, commencing January 1, 2018, the amount of very low carbon transportation fuel purchased shall be increased every year, by 1 percent, until January 1, 2024.

(b) As used in this section, "very low carbon transportation fuel" means a liquid or gaseous transportation fuel having no greater than 40 percent of the carbon intensity of the closest comparable petroleum fuel for that year, as measured by the methodology in the low-carbon fuel standard regulation (Subarticle 7 (commencing with Section 95480) of Article 4 of Subchapter 10 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations). The carbon intensity for the transportation fuel shall include the indirect land use change emission if an agricultural commodity that is a food product is used as a feedstock for the production of the transportation fuel.

(c) This section does not replace or modify any existing fuel standards or requirements imposed under the low-carbon fuel standard regulation.

(d) The Department of General Services shall coordinate with state agencies that are buyers of transportation fuel and submit to the Legislature, consistent with Section 25722.8 of the Public Resources Code, an annual progress report on actions taken pursuant to this section.

(e) If the Department of General Services, in consultation with the chairperson of the state board, makes a determination that very low carbon transportation fuel does not perform adequately for its intended use or is not available at a reasonable price and in a reasonable period of time, the state shall procure very low carbon transportation fuel only to the extent feasible.

(Added by Stats. 2015, Ch. 588, Sec. 2. (AB 692) Effective January 1, 2016.)

43871. (a) The State Energy Resources Conservation and Development Commission, in consultation with the state board and the Public Utilities Commission, shall prepare a statewide assessment of the fuel cell electric vehicle fueling infrastructure and fuel production needed to support the adoption of zero-emission trucks, buses, and off-road vehicles at levels necessary for the state to meet the goals and requirements of Executive Order No. N-79-20 and any state board regulatory action that requires or allows zero-emission vehicles in the heavy-duty vehicle and off-road sectors. The assessment shall complement and not duplicate the Joint Agency Staff Report on Assembly Bill 8: Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations in California.

(b) The statewide assessment shall consider all necessary fuel production and distribution infrastructure, including, but not limited to, dispensing equipment, distribution equipment, production equipment, storage equipment, and supporting hardware and software, all heavy-duty and off-road vehicle categories, road, highway, and off-road electrification, port and airport electrification, and other programs to accelerate the adoption of fuel cell electric vehicles to meet the goals and requirements described in subdivision (a). The statewide assessment shall examine existing and future fuel production and distribution infrastructure needs throughout the state, including in low-income communities. The statewide assessment shall also list synergies and estimate the potential for hydrogen to contribute to emissions reductions across sectors, including, but not limited to, the truck, bus, off-road vehicle, locomotive, maritime, and aviation sectors. The statewide assessment shall take into consideration the process for creating hydrogen and include an evaluation of the ability of hydrogen to enable a more renewable grid, provide grid services, decarbonize hard-to-electrify industries and remote locations, contribute to microgrids, and improve energy resilience.

(c) The State Energy Resources Conservation and Development Commission shall regularly seek data and input relating to fuel cell electric vehicle fuel production and fueling infrastructure from the state board, the Public Utilities Commission, the Department of Food and Agriculture, the Governor's Office of Business and Economic Development, and interested stakeholders, including, but not limited to, electrical corporations, gas corporations, local publicly owned electric utilities, state and local transportation and transit agencies, fueling infrastructure developers, fuel producers, environmental groups, fuel cell manufacturers, and hydrogen fuel cell vehicle manufacturers.

(d) The State Energy Resources Conservation and Development Commission shall complete the statewide assessment by December 31, 2023, and shall post the statewide assessment on its internet website. The commission shall update the statewide assessment at least once every three years and shall post the updated statewide assessment on its internet website.

(e) The statewide assessment prepared pursuant to this section does not constitute a directive instituting a mandate on state funding.

(f) This section does not limit the ability of the State Energy Resources Conservation and Development Commission to award funds related to any of the following on a competitive basis:

(1) Alternative and renewable fuel development, production, demonstration, and deployment projects.

(2) Alternative and renewable fuel infrastructure projects, including, but not limited to, fueling stations and equipment.

(3) Projects to develop and improve light-, medium-, and heavy-duty vehicle technologies, including zero-emission and near-zero emission vehicles and vehicle technologies.

(g) This section shall remain in effect only until January 1, 2030, and as of that date is repealed.

(Added by Stats. 2021, Ch. 646, Sec. 1. (SB 643) Effective January 1, 2022. Repealed as of January 1, 2030, by its own provisions.)