



## Climate Change Statutes

### STATE OF CALIFORNIA

*This project was undertaken in partnership with the USDA Office of the Chief Economist, The Office of Energy Policy and New Uses. For information on the full project, visit [Climate Change Statutes](#).*

*Current through the 2009 Legislative Session of the California State Assembly.*

#### **§ 43869. Adoption of hydrogen fuel regulations**

(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.