



April 10, 2017

Mr. Mark Williams, Mailstop 3E
California Air Resources Board
P.O. Box 2815
Sacramento, California 95812

RE: Comments Regarding California ZEV Investment Plan

The Fuel Cell and Hydrogen Energy Association (FCHEA) appreciates the opportunity to provide comments to the California Air Resources Board (ARB) regarding Volkswagen Group of America's California Zero Emission Vehicles (ZEV) Investment Plan: Cycle 1 ("Plan")¹.

Executive Summary

FCHEA urges ARB to postpone approval of the submitted plan, and to work with Volkswagen to amend the Plan to include hydrogen fueling station (HFS) investment and to demonstrate a clear role for fuel cell vehicles (FCV) in Green Cities Initiatives, ZEV awareness, and access programs. Taking these common-sense actions will help grow consumer interest in all ZEV technologies and help improve HFS access and customer refueling experience.

Background

The Fuel Cell and Hydrogen Energy Association is the trade association dedicated to the commercialization of fuel cells and hydrogen energy technologies. FCHEA member organizations² represent the full global supply chain for hydrogen and fuel cells, including automakers; material, component, stack and system manufacturers; hydrogen producers and energy companies; government laboratories and agencies; trade associations; utilities; and end users.

¹ See https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/vwinvestplan1_031317.pdf

² Members include Air Liquide, Air Products, Altery Systems, American Honda Motor Company, Anglo American Marketing Limited, Applied Research Center, AREVA, Black & Veatch, Bloom Energy, BMW of North America, California Air Resources Board, California Fuel Cell Partnership, CERES Power, CHANGE, Connecticut Hydrogen-Fuel Cell Coalition, CSA Group, Daimler, Doosan Fuel Cell America, Edgewise Energy, Fuel Cell Energy, Fuel Cell Seminar & Energy Exposition, Fuji Electric, GE-Fuel Cells, General Motors, Gore Fuel Cell Technologies, Hydrogenics, Hyundai, Idaho National Laboratory, Intelligent Energy, ITM Power, Johnson Matthey Fuel Cells, LG Fuel Cell Systems, McPhy Energy, Methanol Institute, myFC, National Renewable Energy Laboratory, Nebraska Public Power District, Nel Hydrogen, Nissan North America, Nuvera Fuel Cells, Ohio Fuel Cell Coalition, Pajarito Powder, PDC Machines, Plug Power, Sandia National Laboratories, Savannah River National Laboratory, Shell Oil, South Coast Air Quality Management District, 3M, The Linde Group, Toyota Motor North America, TreadStone Technologies, and United Hydrogen

FCHEA supports ZEV adoption as a key pathway to advance energy independence and to reduce the carbon intensity of transportation fuels. Because FCV combine the emissions-free driving of battery electric vehicles (BEV) with the range and convenience of gasoline-powered vehicles, FCHEA urges building refueling station networks that support bringing these cars to market. Networks include hydrogen fueling stations (HFS) as well as the supply chain for producing, delivering, and storing hydrogen. Growing networks add incentive to “early adopters” to proliferate vehicle sales, leading to new jobs across the hydrogen industry, new strong, vibrant communities committed to the environment, and “cleaner, greener” vehicle-based transportation systems.

Submitted Plan Omits HRS Investment, Role for FCV in Green City Initiative and ZEV Awareness/Access Programs

The Plan anticipates spending an estimated \$120 million through June, 2019 to site, construct and initiate operations of as many as 3,000 electric vehicle service equipment (EVSE) unit(s) (“chargers”) across 400 or more community and high-volume highway corridor locations; an estimated \$44 million to develop foundational infrastructure for the launch of a Green Cities initiative; and an estimated \$20 million to conduct consumer education programs boosting the awareness of and access to ZEV.

However, while the Plan describes building infrastructure to charge BEV, it omits investment in HFS to re-fuel FCV. As such, the Plan fails to address a currently deployed ZEV technology that delivers significant emissions reduction and superior customer experience. Further, the Plan omits describing any role for FCV in Green Cities Initiatives and ZEV awareness and access programs.

The omissions are made more prominent because they come when other automakers are deploying all types of ZEV; when other automakers are investing in all types of ZEV infrastructure; and after ARB-approved Plan development guidelines specifically called for inclusion of HRS investment.

Postpone Approval of Submitted Plan

FCHEA urges ARB to postpone approval of the submitted Plan because it omits HFS investment and does not describe a role for FCV in ZEV awareness and access programs. Because ARB has successfully championed “fuel neutral” policies, the ZEV marketplace has grown. Accepting the submitted Plan sets aside “fuel neutrality” and establishes BEV as the favored ZEV.

Amend the Plan

FCHEA urges ARB to work with Volkswagen to amend the Plan to include HFS investment. An amended Plan that includes HFS investment will increase the pace of building the robust network needed to fuel to tens of thousands of FCV. Also, an amended Plan's HFS investment will help minimize or eliminate the hydrogen fueling capacity shortfall forecast in 2020.³

An amended plan should describe the investment, objectives and timetable for Volkswagen's business relationships with HFS network developer(s). As the development of California's existing HFS network shows, HFS network developers and allied hydrogen producers have the expertise to partner successfully with automakers. FCHEA is available to facilitate Volkswagen's understanding of the capabilities of HFS network developers and of the hydrogen supply chain.

To assure coordination with funding decisions made by the State of California, an amended Plan's HFS investment should use the selection process and scoring methodologies used by the California Energy Commission (CEC) and the ARB.

To enhance meeting consumer expectations for network reliability, an amended Plan's HFS investment should be used for HFS operations and maintenance and for HFS network support (e.g. equipment used in HFS commissioning and fuel quality/quantity testing services).

To help reach California's transportation electrification goals, public awareness programs (e.g. "Ride and Drive" events, outreach activities, social media, other) should expose consumers to the full range of available ZEV types. Because both FCV and BEV are commercially available in California, an amended Plan should describe how public awareness and access programs display and provide driving experiences and consumer information for both FCV and BEV.

An Amended Plan Benefits California and Volkswagen

An amended Plan that includes HFS investment protects California's existing and planned investment in HFS and builds on that investment to sustain and grow consumer interest in all ZEV technologies. Failing to include HFS investment curtails the momentum towards ZEV that ARB, automakers and other stakeholders have worked to build.

An amended Plan that includes HFS investment extends the existing HFS network, helping assure improved station access and positive customer refueling experiences await drivers of Volkswagen-branded FCV anticipated to market available within the next several years.

³ See https://www.arb.ca.gov/msprog/zevprog/ab8/ab8_report_2016.pdf, Page 11.

Conclusion

FCHEA urges ARB to postpone approval of the submitted plan, and to work with Volkswagen to amend the Plan to include HFS investment and to demonstrate a clear role for FCV in Green Cities Initiatives and ZEV awareness and access programs. Taking these common-sense actions will help grow consumer interest in all ZEV technologies and help improve HFS access and customer refueling experience.

FCHEA looks forward to cooperating with California policy-makers and stakeholders to further advance HFS network expansion, public awareness and consumer satisfaction.

Thank you for your consideration of these comments. If you have any questions, please contact me at the Fuel Cell and Hydrogen Energy Association, 1211 Connecticut Avenue NW, Suite 650, Washington, DC 20036; at (202) 261-1337; or at mmarkowitz@fchea.org.

Sincerely,

Morry Markowitz
President

cc: The Honorable Jim Beall, Chair, Senate Committee on Transportation and Housing
The Honorable Bob Wieckowski, Chair, Senate Committee on Environmental Quality