

*Hydrogen Means Business in California!*

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**Jeffrey Serfass** | Executive Director  
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December 13, 2018

Mary Nichols  
 Chair  
 California Air Resources Board  
 1001 I ST  
 Sacramento, CA

**RE: Update to CHBC Comments to ARB Board on Electrify America Plan**

Dear Chair Nichols, Vice Chair Berg, and Members of the Board;

The California Hydrogen Business Council<sup>i</sup> has provided written comments to the Electrify America (EA) Cycle 2 Investment Plan, the ARB Staff report at the last board meeting, and today we like to provide you an update.

Since the last ARB Board meeting, **CHBC pursued a dialogue with EA** in an effort to better understand and receive clarification of EA’s investment decisions and criteria that they apply to hydrogen for our members, and to find out why EA has again not invested any funding in hydrogen in cycle 2. Many of our members have attended this call with EA and we hope that EA will find ways to work with our members to still create opportunities for hydrogen buildout in cycle 2, as EA has alluded to before.

With regard to their expressed desire to learn about the hydrogen industry, we had over 250 people in Sacramento for the last two days at our California Hydrogen and Fuel Cell Summit.<sup>ii</sup> We had business speakers from across the industry and **this Summit would have been a great time for EA to learn in detail about the business of our industry**, and able eventually to produce a balanced ZEV investment plan, not just a BEV investment plan.

We ask ARB to **review EA’s “financial feasibility” and “cost effectiveness” criteria**. Are they the same for charging stations as it is for hydrogen stations? Some automobile manufacturers have made billions of dollars of investments in FCEVs, and **it amazes us that EA has not found good investment options for hydrogen stations**, especially since both EV charging and hydrogen stations face challenges for financial feasibility and cost effectiveness at this early stage.

In cycle 1, the hydrogen industry was told that hydrogen investments would be addressed in the next EA plan. Now we are here in cycle 2 and **the investment plan continues to omit hydrogen infrastructure investments**.

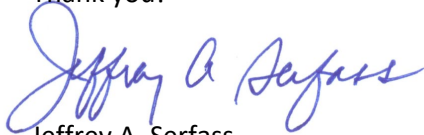
This approach **continues the unequal treatment of hydrogen** when ARB itself has identified FCEVs as critical to helping meet GHG goals. **ARB should question the fuel and brand neutrality of this ZEV investment plan.**

There is a need for heavy duty deployment and there is **important synergism** with light duty as light duty will drive down fuel cell costs through volume while heavy duty will drive down hydrogen cost through scale. Both are needed.

In California, we continue to see waves of funding for battery charging infrastructure. Fuel cell electric vehicles are at a much earlier stage at a time when investment and funding is even more critical.

We are also asking **ARB to find ways for the state to provide fuel neutrality** if EA continues to reject hydrogen investment. Infrastructure funding is one of the key impediments to an accelerated ZEV rollout, and **we ask ARB to please address this inequality issue.**

Thank you!



Jeffrey A. Serfass  
Executive Director  
CHBC

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<sup>i</sup> The California Hydrogen Business Council (CHBC) is a California industry trade association with a mission to advance the commercialization of hydrogen in the energy sector, including transportation, goods movement, and stationary power systems to reduce emissions and dependence on oil. The views expressed in these comments are those of the CHBC, and do not necessarily reflect the views of all of the individual CHBC member companies. Members of the CHBC include Air Liquide; Advanced Technologies U.S.; Alameda-Contra Costa Transit District (AC Transit); American Honda Motor Company; Anaerobe Systems; Arriba Energy; Ballard Power Systems, Inc.; Bay Area Air Quality Management District (BAAQMD); Beijing SinoHytec; Black & Veatch; BMW of North America; California Air Resources Board (CARB); California Fuel Cell Partnership (CaFCP); CALSTART; Cambridge LCF Group; Center for Transportation and the Environment (CTE); Chiyoda Corporation; Coalition for Clean Air; Community Environmental Services; CP Industries; Dash2Energy; Eco Energy International; EcoNavitas; Eldorado National – California; Energy Independence Now (EIN); EPC - Engineering, Procurement & Construction; Ergostech Renewal Energy Solution; EWII Fuel Cells LLC; FIBA Technologies; First Element Fuel; FuelCell Energy; GenCell; General Motors, Infrastructure Planning; Geoffrey Budd G&SB Consulting; Giner ELX; Gladstein, Neandross & Associates; Greenlight Innovation; GTA; GTM Technologies; H2B2 USA; H2Safe; H2SG Energy Pte; Hexagon Lincoln; Hitachi Zosen Inova ETOGAS; HODPros; Hydrogen Law; Hydrogenics; Hydrogenious Technologies; HydrogenXT; HyET - Hydrogen Efficiency Technologies; Hyundai Motor Company; ITM Power; Ivys; Johnson Matthey Fuel Cells; KORE Infrastructure; Kraft Powercon; Life Cycle Associates; Linde North America; Longitude 122 West; Loop Energy; Millennium Reign Energy; Mitsubishi Hitachi Power Systems Americas; Montreux Energy; Motive Energy; Natural Gas Fueling Solutions (NGFS); Natural Hydrogen Energy; Nel Hydrogen; Neo-H2; Neuman & Esser USA; New Flyer of America; Next Hydrogen; Noyes Law Corporation; Nuvera Fuel Cells; Pacific Gas and Electric Company (PG&E); Pacific Northwest National Laboratory (PNNL); PDC Machines; Planet Hydrogen; Plug Power; Politecnico di Torino; Port of Long Beach; Powertech Labs; Primidea Building Solutions; Proton OnSite; RG Associates; Rio Hondo College; Rix Industries; Sacramento Municipal Utility District (SMUD); SAFCell; Schatz Energy Research Center (SERC); Sheldon Research and Consulting; Solar Wind Storage; South Coast Air Quality Management District; Southern California Gas Company; Strategic Analysis; Sumitomo Corporation of Americas; Sumitomo Electric; Sunline Transit Agency; T2M Global; Tatsuno North America Inc.; Terrella Energy Systems; The Leighty Foundation; TLM Petro Labor Force; Toyota Motor Sales; Trillium - A Love's Company; University of California, Irvine; US Hybrid; Valley Environmental Associates; Vaughan Pratt; Verde; Vinjamuri Innovations; Winkelmann Flowform Technology; WireTough Cylinders; Yanli Design; Zero Carbon Energy Solutions.

<sup>ii</sup> <https://www.californiahydrogen.org/california-hydrogen-and-fuel-cell-summit-2018/>