

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue the  
Development of Rates and Infrastructure  
for Vehicle Electrification.

Rulemaking 18-12-006  
(Filed December 13, 2018)

**REPLY COMMENTS OF THE CALIFORNIA HYDROGEN BUSINESS COUNCIL  
ON THE ORDER INSTITUTING RULEMAKING TO CONTINUE THE  
DEVELOPMENT OF RATES AND INFRASTRUCTURE FOR VEHICLE  
ELECTRIFICATION**

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### I. Introduction

The California Hydrogen Business Council (CHBC)<sup>1</sup> welcomes the opportunity to submit reply comments on the Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification.

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<sup>1</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.

**II. We agree with the California Transit Association, San Diego Association of Governments, and Joint Automakers that the proceeding ought to support electricity rates for hydrogen fueling.**

We support the California Transit Association's call for a technology neutral approach to the proceeding that includes hydrogen fueling, in order to support zero emissions vehicle goals in the transit sector.<sup>2</sup> We are in full agreement with their support of the "*Commission's direction to the IOUs that the joint proposal address electric rate options for hydrogen fueling stations,*" as well as their strong belief "*that improved economics for the use of hydrogen as a fuel could allow public transit agencies to benefit today from this technology's extended range relative to battery-electric technology.*"<sup>3</sup> Similarly, we join the San Diego Association of Governments in calling for guidance "*for investigating new rates and solutions to demand charges, both for EV charging and hydrogen fueling stations,*" along with agreeing with their assertion that both "*types of rates will affect local transit operators as they consider their investments and shift to zero emission buses.*"<sup>4</sup> We furthermore fully agree with the support from the Joint Automakers for "*the Commission's direction to the utilities to address electric rates for hydrogen fueling stations.*"<sup>5</sup>

**III. We agree with PG&E that there could be value in addressing rates for hydrogen production, in addition to hydrogen fueling.**

PG&E points out in their Opening Comments: "*The Rulemaking explicitly mentions rate options for hydrogen fueling stations. It may also be relevant to consider rate options for hydrogen fuel production.*"<sup>6</sup> We support this view. We continue to believe strongly, as stated in our Opening Comments, that in order to realize the full promise of zero emission vehicles and state policies such as SB 1505 and SB 1369, electricity rate design that supports both renewable hydrogen production and cost-effective distribution and dispensing is urgent. Addressing electricity rates for each stage of the green hydrogen fueling process, from electrolysis to distribution and fueling

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<sup>2</sup> See California Transit Association Opening Comments, p. 4.

<sup>3</sup> See California Transit Association Opening Comments, p. 7.

<sup>4</sup> See San Diego Association of Governments, Opening Comments, p. 12.

<sup>5</sup> See Joint Automakers Opening Comments, p. 12.

<sup>6</sup> See PG&E Opening Comments, p. 8-9.

stations, holds a major key to achieving fully scaled, cost-effective fuel cell electric vehicles that are zero emissions from well to wheel.

**IV. We urge adding hydrogen vehicles, hydrogen production and hydrogen refueling facilities to existing and future electric IOU transportation electrification programs.**

Battery electric vehicles and hydrogen vehicles are both zero emission vehicles that use electricity as a means of propulsion. The only difference is how the electricity is delivered within the vehicle. Battery electric vehicles use stored electricity from their batteries while hydrogen vehicles use electricity by converting onboard hydrogen in fuel cells. Both technologies represent transportation electrification. As such, both technologies should be included in existing and future electric IOU transportation electrification programs.

An example of how an existing electric IOU transportation electrification program should be modified can be found in the SCE “Medium- and Heavy-Duty Make-Ready Program” approved in CPUC Decision 18-05-040 on May 31, 2018. This electric IOU transportation electrification program authorizes SCE “...to install, own, and operate the electric infrastructure, up to and including the make-ready stub, to serve charging equipment for medium- and heavy-duty vehicles...”<sup>7</sup> However, this program only addresses battery electric vehicles. To create a more inclusive program that embraces all forms of transportation electrification, including hydrogen, this program should be modified to authorize similar electric IOU investments necessary to support the operation of hydrogen stations – both stations that create hydrogen on-site as well as those stations that use hydrogen produced and transported from central production facilities. Hydrogen stations require electric infrastructure (up to and past the electric meter) and include electrically powered refueling equipment (such as electrolyzers, storage tanks, compressors, dispensers, etc.) that could and should be covered under utility electric transportation programs.

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<sup>7</sup> CPUC Decision 18-05-040, page 82

**V. CONCLUSION**

The CHBC thanks the Commission for their consideration and continues to look forward to working together to support deployment of zero emissions vehicles in California.

**Respectfully submitted,**

**Dated: February 26, 2019**



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**California Hydrogen Business Council**