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CHBC Comments on IEPR 2019 Scoping Memo

Additional submitted attachment is included below.



Hydrogen Means Business in California!

February 28, 2019

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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 19-IEPR-01A
1516 Ninth Street
Sacramento, CA 95814-5512

CHBC Comments on Draft Scoping Order for the 2019 Integrated Energy Policy Report

The California Hydrogen Business Council (CHBC)¹ appreciates the opportunity to submit comments to the California Energy Commission on the Draft Scoping Order for the 2019 Integrated Energy Policy Report (IEPR). The CHBC supports the Draft Scoping Order and looks forward to working with the Commission on the report.

We particularly are likely to focus on the following issue areas:

1. Transportation

We wish to support state advancement of zero emissions vehicles, ensuring that broad definitions apply to this sector. We will want to allow for discussions to include both battery and hydrogen fuel cell technologies, as well as light, medium and heavy duty vehicles, and other applications like rail, shipping, aviation and off road.

The 2019 IEPR also ought to update both the charging **and** hydrogen fueling infrastructure when discussing zero-emission vehicles markets.

2. Electricity Sector

To integrate high penetrations of variable renewable electricity generation and manage increasing curtailment, we encourage the Commission to assess options and incentives for bulk and long duration seasonal energy storage, including hydrogen solutions.

3. Natural Gas Assessment

We encourage the Commission to include renewable and zero carbon gases, including hydrogen, in this assessment, in order to align with California’s deep decarbonization goals and to remain consistent with state laws such as SB 1383 and SB 1369.

4. Equity

We hope the Commission will include in this section a discussion of how hydrogen can help serve disadvantaged communities. For example:

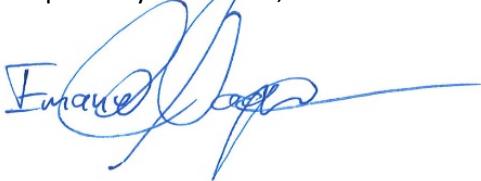
- Hydrogen fuel cell technology is the most capable zero emission solution for long range heavy duty vehicles that are a leading causes of pollution in areas where disadvantaged communities are especially vulnerable to negative health impacts.
- Pure hydrogen fuel cell electric vehicles (FCEVs) and plug-in hydrogen FCEVs enable zero emission vehicle (ZEV) access for multifamily, low-income dwellings where full reliance on battery plug-in technology is not viable.
- Hydrogen and fuel cell technologies can replace fossil fuels for local and backup generators to reduce pollution.
- Hydrogen and fuel cells can replace fossil fuel for port and warehouses equipment that impact low income communities.
- Renewable hydrogen is key to replacing fossil-fueled electricity generation, which disproportionately affects underserved communities, with renewables.
- Renewable hydrogen can decarbonize the natural gas system on which many disadvantaged Californians depend for reliable energy service in their homes.
- All these applications have the potential to create many new green jobs.
- Hydrogen and fuel cell technology is paid for by the users of the technology, and not by electric utility customers, which includes low-income households.

5. Climate Adaptation

The recent droughts, massive fires, and ensuing mud flow and flood events in California have sent clear signals that the disastrous consequences of climate change are no longer a future concern in California, but a current and major challenge. The weaknesses in the distribution electricity grid system that have been brought to light by several of the fires point to an urgent need to strengthen this system, as well as a need to diversify energy sources, if Californians are going to be safe in an increasingly perilous climate. Renewable gases like hydrogen can play critical roles. Green electrolytic hydrogen, for example, as put forth by SB 1369, can help integrate high amounts of variable renewables on the grid, helping to strengthen the distributed electricity system. Hydrogen can also help decarbonize the gas system on which people in many of the most climate prone areas of the state depend for essential services.

The CHBC looks forward to collaborating with the CEC as the IEPR process continues.

Respectfully submitted,



Emanuel Wagner
CHBC Deputy Director

ⁱ 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. LLC.;

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 LLC; California Air Resources Board (CARB); California Fuel Cell Partnership; CALSTART; Cambridge LCF Group; Center for Transportation and the Environment (CTE); Coalition for Clean Air; Community Environmental Services; CP Industries; Dash2energy; Eco Energy International, LLC; EcoNavitas; Eldorado National – California; Energy Independence Now (EIN); EPC - Engineering, Procurement & Construction; Ergostech Renewal Energy Solution; EWII Fuel Cells LLC; FIBA Technologies, Inc.; First Element Fuel Inc; FuelCell Energy, Inc.; GenCell; General Motors, Infrastructure Planning; Geoffrey Budd G&SB Consulting Ltd; Giner ELX; Gladstein, Neandross & Associates; Greenlight Innovation; GTA; GTM Technologies, LLC; H2B2 USA; H2Safe, LLC; H2SG Energy Pte Ltd; Hexagon Lincoln; Hitachi Zosen Inova ETOGAS GmbH; HODPros; Hydrogen Law; Hydrogenics; Hydrogenious Technologies; HydrogenXT; HyET - Hydrogen Efficiency Technologies; Hyundai Motor Company; ITM Power Inc; Ivys Inc.; Johnson Matthey Fuel Cells; KORE Infrastructure, LLC; Life Cycle Associates; Linde North America Inc; Longitude 122 West, Inc.; Loop Energy; Millennium Reign Energy; Mitsubishi Hitachi Power Systems Americas; Montreux Energy; Motive Energy; Natural Gas Fueling Solutions (NGFS); Natural Hydrogen Energy Ltd.; Nel Hydrogen; Neo-H2; Neuman & Esser USA, Inc; New Flyer of America Inc; Next Hydrogen; Noyes Law Corporation; Nuvera Fuel Cells; Pacific Gas and Electric Company - PG&E; PDC Machines; Planet Hydrogen Inc; Plug Power; Politecnico di Torino; Port of Long Beach; Powertech Labs, Inc.; Primidea Building Solutions; Proton OnSite; RG Associates; Rio Hondo College; Rix Industries; Sacramento Municipal Utility District (SMUD); SAFCell Inc; Schatz Energy Research Center (SERC); Sheldon Research and Consulting; Solar Wind Storage LLC; South Coast Air Quality Management District; Southern California Gas Company; Strategic Analysis Inc; Sumitomo Corporation of Americas; Sumitomo Electric; Sunline Transit Agency; T2M Global; Tatsuno North America Inc.; Terrella Energy Systems Ltd; 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 [Individual]; Verde LLC; Vinjamuri Innovations LLC; Winkelmann Flowform Technology; WireTough Cylinders, LLC; Zero Carbon Energy Solutions.