

Chairman Robert Weisenmiller
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

February 8, 2018

Subject: IEPR Comments Submission and Renewable Hydrogen Cost Evaluation Integrity

Dear Chair Weisenmiller,

Attached are comments from The California Hydrogen Business Council (CHBC)ⁱ to the proposed final draft of the IEPR. Thank you for the opportunity to present our perspective. In submitting these comments, we would also like to emphasize the need for data accuracy and integrity for the IEPR as well as other CEC reports.

We appreciate the effort to include information about renewable hydrogen and to incorporate our comments reflected in this draft of the report. However, we also continue to be disappointed with inaccuracies and omissions that unfairly disadvantage renewable hydrogen, including electrolytic renewable hydrogen, in its IEPR review and in other important CEC efforts.

The draft IEPR does not do enough to lay out a comprehensive strategy to promote the development of renewable hydrogen in California, as was contemplated by the passage of SB 1383 (Lara, statutes of 2016). Instead, the IEPR includes both limited and misleading information that suggests renewable hydrogen is not a feasible future technology to be integrated into the energy systems.

Since the passage of SB 1383, CHBC has worked in good faith with the commission, its staff and external resources to provide accurate and constructive information to support a balanced IEPR that was expected to provide a robust renewable gas programmatic review. The CEC IEPR final product, however, appears to still be lacking meaningful policies and programs to promote increased production and deployment of renewable hydrogen.

Perhaps most disheartening is a recent rejection of updated cost information by the CEC's modeling team. Our members submitted data to E3, which was kindly willing to collaborate, and requested this data be included in the cost analysis of renewable hydrogen as an electric system grid storage and balancing solution. Not only was the information not included, but we were told E3 was given specific direction from your office to exclude it. Such an omission risks significantly and negatively impacting our industry and depriving California of valuable solutions to help reach State greenhouse gas reduction and electricity system transformation goals. It also risks engaging in state policymaking that inappropriately picks winners and losers, in lieu of upholding a long-standing tradition of remaining technology neutral.

The CHBC expressed this concern in our comments on the Draft IEPR. We respectfully request that the updated cost and efficiency data be included in the IEPR and all relevant modeling efforts going-forward. We also request a meeting with the IEPR team and E3 modeling team to better understand why updated cost data has been rejected, and request an open and transparent process to fairly review electrolyzer technology.

Hearing of this potential omission raises our previous concern of a possible pattern of bias against renewable (electrolytic) hydrogen by the leadership at the Energy Commission. The CHBC has followed the procedure of



providing comments and data throughout 2017 under the assumption of fair and unbiased treatment of all technologies; yet little of the economic data and reasoning we shared throughout the IEPR process ended up in the draft report, as we outlined in our 23-page comments.ⁱⁱ Again, it is our hope that our comments on the draft will be incorporated into the final version to present a more factual picture of the hydrogen industry and its potential value to California's energy strategy across sectors

Californians should not be deprived of any energy solutions that can keep them healthier and contribute to meeting state climate and emissions targets. We are counting on the Energy Commission to show unbiased leadership and to make sure that all clean energy technologies, including electrolytic and other hydrogen technologies, are presented fairly and accurately in the final IEPR.

Thank you for your consideration.

With regards,

A handwritten signature in blue ink that reads 'Jeffrey A. Serfass'.

Jeffrey A. Serfass
Executive Director
California Hydrogen Business Council

A handwritten signature in black ink that reads 'Lorraine A. Paskett'.

Lorraine A. Paskett
Advocacy Committee Chair
California Hydrogen Business Council

cc: Governor Jerry Brown

Assembly Speaker Anthony Rendon

Senate President Pro Tempore Kevin de León

Senator Ben Hueso, Chair, Energy, Utilities and Communications Committee

Senator Robert Hertzberg, Chair, Natural Resources and Water Committee

Assembly Member Chris Holden, Chair, Utilities and Energy Committee

Assembly Member Christina Garcia, Chair, Natural Resources Committee

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Commissioner David Hochschild

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Nancy McFadden, Office of Governor Brown

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Mary Nichols, CARB Chair

Michael Picker, CPUC President

Jay Dickenson, Chief Consultant, State Senate Energy, Utilities and Communications Committee

Bill Craven, Chief Consultant, State Senate Natural Resources and Water Committee

Kellie Smith, Chief Consultant, State Assembly Energy and Utilities Committee

Lawrence Lingbloom, Chief Consultant, State Assembly Natural Resources Committee

ⁱ The CHBC is a California industry trade association with a mission to advance the commercialization of hydrogen in transportation and stationary sources to reduce greenhouse gas, criteria pollutant 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 Advanced Emission Control Solutions, Air Liquide Advanced

Technologies U.S. LLC., Airthium, 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, Beijing SinoHytec, Black & Veatch, BMW of North America LLC, California Performance Engineering Inc., Cambridge LCF Group, Center for Transportation and the Environment (CTE), CNG Cylinders International, Community Environmental Services, CP Industries, DasH2energy, Eco Energy International, LLC, ElDorado National – California, Energy Independence Now (EIN), EPC - Engineering, Procurement & Construction, Ergostech Renewal Energy Solution, EWII Fuel Cells LLC, First Element Fuel Inc, FuelCell Energy, Inc., GenCell, General Motors, Geoffrey Budd G&SB Consulting Ltd, Giner ELX, Gladstein, Neandross & Associates, Greenlight Innovation, GTA, H2B2, H2Safe, LLC, H2SG Energy Pte Ltd, H2Tech Systems, Hitachi Zosen Inova ETOGAS GmbH, HODPros, Horizon Fuel Cells Americas, Inc., Hydrogenics, Hydrogenious Technologies, Hydrogen Law, HydrogenXT, HyET - Hydrogen Efficiency Technologies, Hyundai Motor Company, ITM Power Inc, Ivys Inc., Johnson Matthey Fuel Cells, Kontak, LLC, KORE Infrastructure, LLC, Life Cycle Associates, Linde North America Inc, Longitude 122 West, Inc., Loop Energy, Luxfer/GTM Technologies, LLC, McPhy Energy, Millennium Reign Energy ,Montreux Energy, MPL Consulting, Inc., National Renewable Energy Laboratory (NREL), Natural Gas Fueling Solutions – NGFS, Natural Hydrogen Energy Ltd., Nel Hydrogen, 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, Port of Long Beach, PowerHouse Energy, 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, Sumitomo Corporation of Americas, Sunline Transit Agency, T2M Global, Tatsuno North America Inc., The Leighty Foundation, TLM Petro Labor Force, Toyota Motor Sales, True Zero, United Hydrogen Group Inc, US Hybrid, Verde LLC, Volute, Inc., WireTough Cylinders, LLC, Zero Carbon Energy Solutions.

ⁱⁱ [http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-](http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-01/TN221729_20171113T152855_California_Hydrogen_Business_Council_CHBC_Comments_Comments_of.pdf)

[01/TN221729_20171113T152855_California_Hydrogen_Business_Council_CHBC_Comments_Comments_of.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-01/TN221729_20171113T152855_California_Hydrogen_Business_Council_CHBC_Comments_Comments_of.pdf)