



**California Hydrogen Business Council Comments on
ARB Item # 17-12-1: Consider the 2017 Climate Change Scoping Plan
Update
12/14/17**

The California Hydrogen Business Council (CHBC) appreciates the opportunity to comment on the Scoping Plan. The CHBC represents a large cross section of members who produce, consume hydrogen, and support the expanded deployment of hydrogen in California. Our members include large car manufacturers to electrolytic hydrogen producers to gas system operators to regional air district to environmental stakeholders.

In 2016, the legislature passed SB 1383, an important short-lived climate pollutant set of policies and programs, including specific direction to agencies to develop renewable gas program and policies. The bill directed the Air Resources Board (ARB) to develop policies and programs that will reduce the short-lived climate pollutants, and promote:

- Job growth and local economic benefits in the state;
- Produce public health benefits; and
- Increase the potential for innovation in technology, energy, and resource management practices.

More specifically, under the new short-lived climate pollutant policy, the legislature gave ARB the authority to:

“establish energy infrastructure development and procurement policies” for dairy digesters, and arguable for other renewable gases that meet the three main criteria of economic benefits, health benefits and expanding new innovations in technology, energy, and resources management.

CHBC recommends that the ARB use this authority to begin a process to allow renewable gases to be procured by California entities who provide gas and electric service, and the policy considered should be broad enough to include a diversity of renewable gas, including renewable hydrogen.

Renewable hydrogen includes hydrogen that is produced through electrolysis, which separates the hydrogen and oxygen elements in a water molecule, through electrical force. As we see increasingly wind and solar produced in California at cost competitive pricing, this important new green electric grid can be harnessed to produce cheaper and more abundant electrolytic hydrogen.

Utilizing more and more wind and solar to electrify gas and fuels, promotes a broader green economy, and makes available more, lower cost, zero emissions gas and fuel that dramatically improves public health. Additionally, it taps into a new energy technology, now being rolled out in other progressive green energy jurisdictions, like China, Germany, Canada that bridges benefits between renewable electric grids and transportation fuels and gases.



Hydrogen Means Business in California!

By using ARB’s authority to pursue renewable gas programs to expand infrastructure and markets, you will support more aggressive SLCP reductions strategies and begin to work across multiple energy and economic sectors in the state to achieve deeper decarbonization. It is an important strategy for the 2030 and 2050 emission reduction goals.

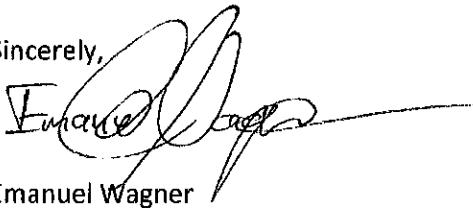
The California Hydrogen Business Council strongly supported SB 1383 in 2016 because the renewable gas section was included. It was a signal from the Legislature and Executive branch that meaningful policy to develop renewable gases infrastructure and production in state would follow. Unfortunately, in 2017 the broader renewable gas policy development was stalled, and we are hoping the ARB will begin a more meaningful dialogue in 2018.

We respectfully request that you include in your scoping plan an emphasis on renewable gas infrastructure development and in-state production, and give direction to staff to begin these efforts under the umbrella of the Scoping Plan.

More specifically ARB may,

- Allow gas utilities to set goals to purchase renewable gas;
- Allow electric service providers to pursue investments that leverage renewable electric resources and the grid to electrify the gas and fuels sectors;
- Expand the LCFS to existing in-state gas systems to create a carbon intensity (CI) for the fuels and gases within those systems;
- Consider hydrogen-only pipelines; and
- Expand the LCFS and/or the cap and trade program to include a CI for refinery on-site emission and encourage them to increase their renewable hydrogen use. *(California is one of the 2 largest hydrogen uses in the US, second the Texas.)*

We thank you for considering these new ideas, and hope to work with you in 2018 to pursue these and other policies to expand the deployment of all renewable gases.

Sincerely,


Emanuel Wagner
Assistant Director | California Hydrogen Business Council

¹ 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, Boutin Jones, 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, 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, United Hydrogen Group Inc, US Hybrid, Verde LLC, Volute, Inc., WireTough Cylinders, LLC, Zero Carbon Energy Solutions.