



Hydrogen Means Business in California!

April 22, 2019

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STAFF

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The Honorable Governor Gavin Newsom
State Capitol
1303 10th Street, Suite 1173
Sacramento, CA 95814

RE: SUPPORT for Commissioner Rechtschaffen’s Proposed Decision CPUC issued on January 22, 2019 to keep open Rulemaking 13-02-008 - Order Instituting Rulemaking to Adopt Biomethane Standards and Requirements, Pipeline Open Access Rules, and Related Enforcement Provisions (OIR)

Dear Governor Newsom:

The California Hydrogen Business Council (CHBC)ⁱ writes to inform you of our strong support for CPUC Commissioner Rechtschaffen’s Proposed Decision issued on January 22, 2019 to keep open Rulemaking 13-02-008 - *Order Instituting Rulemaking to Adopt Biomethane Standards and Requirements, Pipeline Open Access Rules, and Related Enforcement Provisions (OIR)*.ⁱⁱ Technical, industry and academic experts worked diligently for more than a year to educate the Commissioners, particularly Assigned Commissioner Rechtschaffen, on why addressing issues pertaining to renewable hydrogen in this proceeding is aligned with state policy and environmental and energy objectives, participating in comments, in which the majority of parties to the proceeding agreed that a discussion of renewable hydrogen was warranted, and making what seemed to be significant progress to address our concerns. This week, the CHBC and members were blindsided by the release of an Alternate Proposed Decision by CPUC President Pickerⁱⁱⁱ that calls for closing the proceeding after a narrow ruling that ignores many critical matters, including all that directly concern renewable hydrogen. This unjustified action is in sharp contrast to state policy regarding renewable hydrogen, and we hope you will support us in calling for this proceeding to remain open, so that the rulemaking may fulfill its statutory requirements.

Commissioner Picker’s Alternate Proposed Decision on this OIR would limit this proceeding only to conclusions about siloxane concentration limits and heating values of pipeline injected biomethane. While in accordance with a part of SB 840 and part of the original proposed scope of the OIR in question, this fails to align with the public input from the majority of parties to the proceeding and the requirements of numerous state statutes, including:

- **AB 1900^{iv}** – This OIR was opened pursuant to AB 1900, which among other provisions, requires “the PUC to adopt pipeline access rules that ensure that each gas corporation provides nondiscriminatory open access to its gas pipeline system to any party for the purposes of physically interconnecting with the gas pipeline system and effectuating the delivery of gas.” Hydrogen is a gas, but is currently not allowed to access the gas pipeline. **Closing the proceeding before establishing standards and protocols of injection of hydrogen into the gas pipeline system is not in keeping with this law.**
- **D.14-01-034** – The CPUC decision D.14-01-034 specifically identified hydrogen as a constituent of concern for pipeline safety and integrity, and therefore, the CHBC^v and several other parties to the OIR in question contend that hydrogen is de facto already within the scope of this proceeding. The Decision also adopted a trigger level of .01% for hydrogen in biomethane recommended by the gas utilities that are based on minimal and incomplete data and needs to be updated based on evidence-based analysis. The Decision additionally found as a Conclusion of Law that the *“four utilities should be required to specify the lower action and upper action levels for ammonia, biologicals, hydrogen, mercury, and siloxanes in the next update proceeding”*^{vi} and ordered a review of the Decision by January 2019. **President Picker’s Alternate Proposed Decision to limit the proceeding to a discussion of siloxane concentrations, while ignoring a discussion of lower and upper hydrogen limits in the gas system is contradictory to this finding and puts the Commission past the due date to comply with its own Conclusion of Law.**
- **Executive Order B-48-18** - As Commissioner Rechtschaffen’s Scoping Memo and Ruling for the OIR rightly notes,^{vii} Executive Order B-48-18 calls for the expansion of hydrogen fueling stations to enable the state’s goal to put 5 million zero emissions vehicles on California roads by 2050. **The Scoping Memo and Ruling further states that the Assigned Commissioner’s “future intention (is) to consider issues within this, or a successor proceeding, that pertain to the safe, cost-effective development of other renewable gases, such as renewable hydrogen.”** Notably, the majority of parties commented that renewable hydrogen ought to be included in the scope of this proceeding or a parallel track, and no parties disagreed.
- **AB 8** – This law calls for funding of hydrogen fueling infrastructure for transportation. A recent Joint Agency report on AB 8, however, predicts a shortfall of hydrogen supply to keep up with ZEV fueling demand by 2020, highlighting the urgency of removing regulatory barriers to increased hydrogen production and transfer to fueling stations in California.^{viii} Currently, virtually all hydrogen used as transportation fuel is delivered by truck. Although in the long-term future, dedicated hydrogen pipelines will likely be the most cost-effective solution, in the near term, **existing natural gas infrastructure can serve a critical role in the hydrogen supply chain, and hydrogen blends will likely be part of the natural gas supply over the long term as well. Addressing hydrogen blends in the gas system is, therefore, time critical.**
- **SB 1505** – This law mandates that a third of hydrogen for transportation fueling in California come from renewable sources, which can be produced from biogas, syngas made from bio-waste, directly with solar energy, or by electrolysis that splits water into hydrogen and oxygen. Any of these production pathways may show improved economics through transport over natural gas common carrier system in various use cases. Currently, the hydrogen industry has surpassed the state’s 33% renewable mandate^{ix}, and the

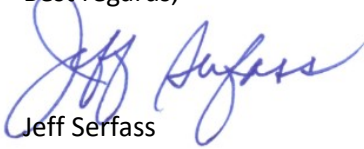
first generation of renewable hydrogen production facilities are under development in the state, including a 100% renewable hydrogen production facility in Moreno Valley, Riverside County, due to come online in 2020 that is funded by the Energy Commission.^x There are also several other projects bid in the Energy Commission solicitation, along with other projects that have not been publicly announced. **Until the Public Utilities Commission acts on developing standards for hydrogen limits on the common carrier natural gas pipeline system, however, these projects cannot consider this option in their production and delivery optimization.**

- **SB 1383^{xi}** – This law requires the Public Utilities Commission, along with other state agencies, “to consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas.” Technical experts, the CHBC, and CHBC members worked closely with the author of SB 1383 to ensure that the law explicitly does not limit the scope of the agencies’ consideration to biomethane and biogas when deciding upon solutions to mitigating short-lived climate pollutants, but instead to broaden it to “renewable gas,” so that renewable hydrogen is included in all relevant deliberations. The Energy Commission’s 2017 Integrated Energy Policy Report reinforces this in its recommendations on implementing SB 1383, explicitly calling for inclusion of hydrogen produced via electrolysis and synthetic methane derived from this process (also often referred to as “power to gas”) in the suite of solutions California deploys to mitigate short lived climate pollutants.^{xii} **The Public Utilities Commission’s decision to now put off discussions of hydrogen would be inconsistent with SB 1383 and the Energy Commission’s recommendation.**
- **Federal Clean Air Act – The Alternate Proposed Decision could adversely impact California’s ability to fully implement the State Implementation Plan in order to achieve federal and state ambient air quality standards.** The Air Board has determined that hydrogen will play a significant role in reducing smog in California.^{xiii}
- Underscoring the interest in the state legislature in making sure the CPUC establishes protocols and standards for injection of hydrogen into the gas system, **AB 491 (Rubio)^{xiv} was introduced to ensure that a comprehensive study of issues related to this is undertaken, in the event that the Commission fails to do so as it ought to in the context of this current OIR.**

Until now, the CPUC has appeared prepared to fulfill its responsibility to address these matters. For example, Commissioner Rechtschaffen solicited comments last November in the context of this OIR on a staff proposal for the definition of “renewable methane” that recognized hydrogen-based pathways for producing renewable methane.^{xv} Earlier this year, the Commission also issued a budget request for additional technical staff to investigate the safe injection of hydrogen into the gas pipeline system. And recently, CPUC staff reported they have been hoping to hold a workshop this spring on hydrogen injection related matters for this OIR. President Picker’s Proposed Alternate Decision to close the OIR prematurely, in contrast, is a roadblock. If it stands, it would seriously hinder renewable hydrogen development in California and be inconsistent with state laws and policies.

We appreciate your consideration and sincerely look forward to working with you to advance zero-emissions renewable hydrogen solutions that help California reach its climate, clean air and clean energy goals.

Best regards,



Jeff Serfass

Executive Director

California Hydrogen Business Council

CC:

The Honorable Toni Atkins

The Honorable Ben Allen

The Honorable Richard Bloom

The Honorable Robert Hertzberg

The Honorable Chris Holden

The Honorable Ben Hueso

The Honorable Bob Wieckowski

The Honorable Nancy Skinner

Jared Blumenfeld, Secretary of Cal EPA

William Burke, Chair, South Coast Air Quality Management District

Wade Crowfoot, Secretary of California Department of Natural Resources

David Hochschild, Chair, California Energy Commission

Fiona Ma, California State Treasurer

Patricia Monahan, Commissioner, California Energy Commission

Mary Nichols, Chair, California Air Resources Board

Janea Scott, Vice Chair, California Energy Commission

ⁱ The 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, Ballard Power Systems, Inc., Bay Area Air Quality Management District (BAAQMD), Beijing SinoHytec, Black & Veatch, BMW of North America LLC, Center for Transportation and the Environment (CTE), Charm Industrial, Chiyoda Corporation, Clean Energy Enterprises, Community Environmental Services, CP Industries, DasH2energy, Dominion Energy, 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., General Engineering & Research, General Motors, Infrastructure Planning, Geoffrey Budd G&SB Consulting Ltd, Giner ELX, Gladstein, Neandross & Associates, Greenlight Innovation, GTA, H2B2 USA, H2Safe, LLC, Hexagon Lincoln, Hitachi Zosen Inova ETOGAS GmbH, HODPros, Hydrogenics, Hydrogenious Technologies, HyET - Hydrogen Efficiency Technologies, Hyundai Motor Company, IGX Group Inc, ITM Power Inc, Ivys Inc., Iwatani Corporation of America, Johnson Matthey Fuel Cells, Kraft Powercon, Life Cycle Associates, Longitude 122 West, Inc., Loop Energy, Magnum Energy, Manticore Advocacy LLC, Millennium Reign Energy, Mitsubishi Hitachi Power Systems Americas, Motive Energy Telecommunications, Natural Gas Fueling Solutions (NGFS), Nel Hydrogen (US), 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, Pacific Northwest National Laboratory (PNNL), PDC Machines, Planet Hydrogen Inc, Plug Power, Politecnico di Torino, Port of Long Beach, Primidea Building Solutions, RealEnergy, LLC, RG Associates, Rio Hondo College, Rix Industries, Sacramento Municipal Utility District (SMUD), SAFCell Inc, Schatz Energy Research Center (SERC), Sheldon Research and Consulting, 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, Vaughan Pratt, Vinjamuri Innovations LLC, Worthington Industries, YanliDesign, Zero Carbon Energy Solutions

ⁱⁱ <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M259/K972/259972085.PDF>

ⁱⁱⁱ <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M281/K394/281394516.PDF>

^{iv} https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201120120AB1900

^v <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M221/K866/221866128.PDF>

^{vi} #13 in Conclusions of Law, D.1401034

^{vii} R13-02-008 *Assigned Commissioner's Amended Scoping Memo and Ruling*, p. 7

^{viii} <http://www.energy.ca.gov/2017publications/CEC-600-2017-002/CEC-600-2017-002.pdf>

^{ix}As reported by CARB Staff to CHBC and published in *Zero Emission Transportation and Power The Opportunity of Hydrogen Energy*, CHBC, January 2018 https://www.californiahydrogen.org/wp-content/uploads/2018/03/CHBC_Opportunity-of-Hydrogen-and-Fuel-Cells-January-2018.pdf

^x This project is being developed by Hydrogenics and Stratosfuel with funding from the Energy Commission.

^{xi} SB 1383 text: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383

^{xii} See 2017 IEPR pp. 285-286. Note the IEPR uses the term "power to gas," which is hydrogen produced via electrolysis using grid electricity or dedicated renewable generation, or this hydrogen synthesized into methane.

^{xiii} See, e.g.: <https://ww2.arb.ca.gov/our-work/programs/hydrogen-fueling-infrastructure>

^{xiv} https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB491

^{xv} <http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=242068929>