

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding
Policies, Procedures and Rules for the
Self-Generation Incentive Program and Related
Issues.

R. 20-05-012
(Filed May 28, 2020)

**REPLY COMMENTS OF THE CALIFORNIA HYDROGEN BUSINESS COUNCIL ON
THE ASSIGNED COMMISSIONER'S RULING SEEKING PARTY COMMENT ON
RENEWABLE GENERATION FUELS AND TECHNOLOGIES**

Emanuel Wagner
Deputy Director
California Hydrogen Business Council
18847 Via Sereno
Yorba Linda, CA 92866
310-455-6095
ewagner@californiahydrogen.org

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I. Introduction

The California Hydrogen Business Council (CHBC)¹ appreciates the opportunity to provide the following reply comments on the *Assigned Commissioner's Ruling Seeking Party Comment on Renewable Generation Fuels and Technologies*, filed on October 22, 2020. Our reply comments are focused on questions raised in Section 6.1 pertaining to hydrogen. A summary is below and followed by a more detailed explanation in the Reply Comments section.

- A. We agree with parties who commented that hydrogen made from a broad range of renewable or zero carbon pathways should be eligible for use in the SGIP program.**
- B. We agree with parties who commented that green electrolytic hydrogen should not be limited to feedstocks in the RPS handbook, but rather should be eligible as long as any zero carbon resource is used to power the electrolysis.**

¹ The CHBC is comprised of over 100 companies and agencies involved in the business of hydrogen. Our mission is 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. CHBC Members are listed here: <https://www.californiahydrogen.org/aboutus/chbc-members/>

C. We agree with comments that support SGIP program eligibility of electrolytic hydrogen that is produced with any properly certified sources of renewable electricity.

II. Reply Comments

A. We agree with parties who commented that hydrogen made from a broad range of renewable or zero carbon pathways should be eligible for use in the SGIP program.

We support the position expressed by several parties, including SDG&E², the Center for Efficiency and Renewable Technologies (CEERT), UC Irvine’s National Fuel Cell Research Center (NFCRC), the Green Hydrogen Coalition (GHC), Fuel Cell Energy (FCE), and Southern California Gas Company (SoCal Gas) that hydrogen ought to be included as an eligible fuel in the SGIP program. We also agree with those parties, such as NFCRC, GHC, SoCal Gas, and FCE, who specifically call for a broad range of renewable and zero carbon pathways to produce the hydrogen (or methane derived from the hydrogen), including but not necessarily limited to electrolysis and bioenergy.

We agree with FCE, who opines that “given the nascent nature of hydrogen producing technologies,” the Commission ought “to allow hydrogen to be produced under the SGIP from any fuel pathway that is consistent with SB 100 and state decarbonization goals. This approach takes an attribute-centric perspective on how the end product is produced, not an approach that is particular about the technology used to make the hydrogen.”³ We also agree with GHC’s reasoning that “it is critical at this early stage in the market development to encourage multiple pathways to produce green hydrogen.”⁴ We furthermore support their opinion that “(t)he definition used by the SGIP should afford the widest access to and use of all zero-carbon energy resources and should encourage green hydrogen production from all renewable sources including non RPS eligible zero carbon sources as well as from biogas and organic matter sources.”⁵

² SDG&E Comments, p. 6 (Please see below for references pertaining to specific pertinent comments by other parties mentioned.)

³ FCE Comments, p. 9

⁴ GHC Comments, p. 7

⁵ Ibid.

We believe NFCRC encapsulates this approach well in their recommendation that “the SGIP Handbook should explicitly identify ‘green’ or ‘renewable’ fuel including hydrogen as eligible SGIP renewable fuel. The definition should be broad enough to include the full range of renewable hydrogen (and methane) pathways including electrolytic, biomass, hybrid and potential future pathways such as direct solar water splitting.”⁶

The CHBC believes that CEERT’s position that the SGIP program should not include hydrogen derived from bio-based feedstock⁷ should not be adopted by the Commission. CEERT raises the following concerns:

“While CEERT recognizes the benefits of hydrogen production from biofuels, CEERT is concerned that this process could open the door to more fossil generation and increased reliance on the natural gas system. Steam methane reforming is a very high temperature, very energy intensive process and the principal byproduct is high purity carbon dioxide from the feedstock in addition to the dilute carbon dioxide from the gas combustion. There is a question of the provenance of both the feedstock and the fuel burned to convert that feedstock and the disposition of the byproduct carbon dioxide.”

Biomass-derived fuels are renewable, and the carbon they contain is air-capture; therefore, regardless of its disposition, that carbon has no incremental global warming impact. It is true that biomass pathways that capture carbon should receive credit for that capture in carbon-intensity calculations, but biomass pathways are fundamentally green or renewable. The temperature of a typical SMR has no relevance to the question at hand, so the Commission should not take action based on that technical observation. Access to the common carrier natural gas system by eligible transporters of renewable fuel has no bearing on the continued use of natural gas, and the future of natural gas should not be a consideration in establishing policy and regulation for renewable fuels.

⁶ NFCRC Comments, p. 9

⁷ CEERT Comments, p. 7

B. We agree with parties who commented that electrolytic hydrogen should not be limited to feedstocks in the RPS handbook, but rather should be eligible as long as any zero carbon resource is used to power the electrolysis.

The CHBC supports GHC’s comment that “the definition of ‘Renewable Hydrogen’ in the RPS Guidebook narrowly limits electrolytic hydrogen to only hydrogen made from RPS-eligible renewable electricity, which misses opportunities for GHG reductions to be achieved through hydrogen’s production utilizing the electricity grid and zero-carbon non-RPS-eligible resources, which would be consistent with the goals of SB 100.”⁸ This opinion is echoed by SoCal Gas, who states that “while SGIP has historically relied on the RPS definition to determine fuel eligibility,” going forward “the Commission should create a flexible adoption pathway in SGIP that will allow inclusion of all renewable fuel sources.”⁹

CEERT raises the concern that electrolysis feedstock should be limited to RPS eligible sources to avoid double counting environmental benefits.¹⁰ This is not a risk, however, unless standards preventing double counting are not applied to other fuels. There is no reason provisions to avoid double counting cannot be adopted irrespective of RPS eligibility

C. We agree with comments that support SGIP program eligibility of electrolytic hydrogen that is produced with any properly certified sources of renewable electricity.

We support NFCRC’s opinion that electrolytic hydrogen should be deemed renewable and eligible if produced through renewable electricity from any qualified sources.¹¹ We agree with FCE¹² and GHC¹³ that 100% renewable electricity purchase programs should be included as a among the qualified sources and believe CEERT’s concern about inadvertent increased reliance on natural gas elsewhere on the grid¹⁴ could be addressed if programs are limited to those that do not allow unbundled RECs to count toward fulfilling the 100% renewable qualification.

We believe that renewable electricity that would otherwise have to be curtailed, instead be used to produce electrolytic hydrogen is a great opportunity to integrate renewables and make clean

⁸ GHC Comments, p. 5

⁹ So Cal Gas Comments, p. 13

¹⁰ CEERT Comments p. 9

¹¹ NFCRC Comments, p. 10

¹² FCE Comments, p. 10

¹³ GHC Comments, p. 6

¹⁴ CEERT Comments, p. 8

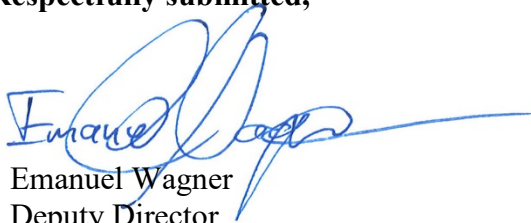
fuel to be used in the SGIP and other state programs. At the same time, we believe NFCRC is wise to caution being careful about incorporating the term “excess renewable electricity” into statute because of the potential for the meaning of that term to change, given “the potential for the re-institution of market rules allowing bilateral contracting for renewable electricity by renewable fuel producers.”¹⁵ To ensure enough flexibility to accommodate such possible evolution, we support their recommendation to add to any defined sources the broadening caveat ‘including but not limited to.’”¹⁶

III. Conclusion

The CHBC thanks the Commission for their consideration and looks forward to working together to facilitate advancement of hydrogen solutions in the SGIP to increase resiliency, decrease reliance on fossil fuels, and accelerate greenhouse gas reduction.

Respectfully submitted,

Dated: November 24, 2020



Emanuel Wagner
Deputy Director
California Hydrogen Business Council

¹⁵ NFCRC Comments, p. 10

¹⁶ Ibid.