

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Microgrids Pursuant to Senate Bill 1339
and Resiliency Strategies.

Rulemaking 19-09-009
(Filed September 12, 2019)

**REPLY COMMENTS OF THE CALIFORNIA HYDROGEN BUSINESS
COUNCIL ON THE ADMINISTRATIVE LAW JUDGE'S RULING
REQUESTING COMMENTS ON TRACK 1 MICROGRID AND
RESILIENCY STRATEGIES STAFF PROPOSAL**

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February 6, 2020

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I. Introduction

The California Hydrogen Business Council (CHBC)¹ welcomes the opportunity to provide the following reply comments to the staff proposal titled, “Short-Term Actions to Accelerate the Deployment of Microgrids and Related Resiliency Solutions” (“Staff Proposal”) issued on January 21, 2020 in the above captioned proceeding. The following is summary of main points, elaborated upon in the Comments section below.

- A. Several parties representing multiple sectors, in addition to CHBC, specifically advocated in their comments for hydrogen and fuel cells to be included in state microgrid programs, and none expressed opposition.**
- B. We agree with parties who support revisiting size limits for microgrid technologies.**

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 share the opinion of several parties who advocate for a standardized microgrid tariff that facilitates pairing of complementary distributed generation technologies.**
- D. Several parties agree with our recommendation to impose Health Risk Assessments on temporary generation technologies.**

II. Comments

- A. Several parties representing multiple sectors, in addition to CHBC, specifically advocated in their comments for hydrogen and fuel cells to be included in state microgrid programs, and none expressed opposition.**

Parties from a broad spectrum of interests share CHBC’s opinion that California’s microgrid policy ought to support inclusion of hydrogen and fuel cell technology. For example:

- The Joint CCAs recommend that projects eligible for queue jumping “must be powered by renewable, carbon-free generation,” including “resiliency microgrids powered by solar + storage and hydrogen fuel cells. This recommended definition ensures that eligible projects are limited to those that provide resiliency benefits to at-risk communities.”² They illustrate as an example that “hydrogen fuel cells have been shown to be a very promising generation technology in BTM microgrid installations such as the Stone Edge Farm microgrid located in Sonoma County.”³
- Fuel cell companies Doosan and Mainspring also point out the hydrogen is among the fuels that can be used by their technologies to improve resiliency and carbon savings.⁴
- The Bioenergy Association of California also shares that bioenergy that provides flexible generation to microgrids can take the form of renewable hydrogen for fuel cells.⁵ Underscoring the importance of hydrogen and other renewable gases in successfully transitioning to 100% renewable power, they also cite a paper by SCE that states that in order to reach that target, “Services provided by natural gas today, such as supporting

² See Joint CCA Opening Comments, pp. 11-12

³ Ibid, p. 12

⁴ See Doosan Opening Comments, p. 2, and Mainspring Opening Comments, p. 3

⁵ See BAC Opening Comments, p. 5

electric grid reliability, will still be needed in 2045. . . At least 40% of the remaining gas will need to be low-carbon fuels such as biomethane or hydrogen.”⁶

- The National Fuel Cell Research Center (NFCRC) also advocates for “use of small hydrogen-powered fuel cell systems to address PSPS and other shutdowns for critical infrastructure such as telecommunication towers, traffic signals and railroad crossings.” They explain that such systems provide multiple critical benefits, such as “long-duration runtime in the event of extended outages (for weeks at a time)” unlimited shelf life, small, agile sizing, and no criteria, toxic or noise pollution.⁷

Notably, no parties expressed opposition to supporting hydrogen or fuel cells in microgrid policy.

B. We agree with parties who support revisiting size limits for microgrid technologies

Bloom, for example, states that “The Commission should permit projects to be sized to meet customer needs during an emergency.”⁸ NFCRC made similar comments.⁹

C. We share the opinion of several parties that there ought to be a standardized microgrid tariff that facilitates pairing of complementary distributed generation technologies.

NFCRC points out the benefits of pairing complementary technologies. “Fuel cells,” they state, “which are non-combustion generation devices, paired with storage, wind, solar, demand response, or other technologies, can serve as the backbone for microgrids that integrate numerous distributed energy resources and controls.”¹⁰ Bloom describes the dilemma, however, that “There currently is no clear pathway to pair fuel cells with batteries in a microgrid or otherwise under a single tariff that provides streamlined interconnection and fair rates for the customer.”¹¹ CALSSA echoes a solution put forth by these parties, as well as CHBC, that “The most equitable way to socialize the cost of microgrids across California and get the best value for

⁶ *ibid*

⁷ NFCRC Opening Comments, p. 18

⁸ See Bloom Opening Comments, p. 5

⁹ See NFCRC Opening Comments, p. 12

¹⁰ *Ibid*, p. 6

¹¹ See Bloom Opening Comments, p. 4

the cost is for the Commission to create a statewide tariff that all utility customers can take service under. This could be developed so that microgrids can respond to price signals for grid services in blue sky conditions and provide resiliency during black sky conditions. This will ensure that microgrid projects get built quickly and leverage private investment by developers and customers to minimize the cost to ratepayers.”¹² We continue to urge the Commission to consider this as an elegant solution.

D. Several parties agree with our recommendation to impose Health Risk Assessments on temporary generation technologies.

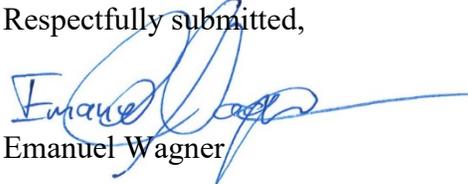
FuelCell Energy,¹³ Doosan,¹⁴ and NFCRC¹⁵ agree with us that Health Risk Assessments ought to be required when approving back up and microgrid generation technologies, in order to help ensure that resilience strategies support attaining criteria air pollutant and toxics standards that protect public health, including in disadvantaged communities.

IV. Conclusion

The CHBC thanks the Commission for the opportunity to submit these reply comment on the Staff Proposal.

Dated: February 6, 2020

Respectfully submitted,



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¹² See CALSSA Opening Comments, p. 13

¹³ See FuelCell Energy, p. 8

¹⁴ See Doosan Opening Comments, pp. 3, 13

¹⁵ See NFCRC Opening Comments, pp. 19-20