BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.	Rulemaking 20-08-020 (Filed August 27, 2020)

REPLY COMMENTS OF BLOOM ENERGY CORPORATION RESPONDING TO THE ADMINISTRATIVE LAW JUDGE'S RULING SOLICITING RESPONSES TO RULING QUESTIONS

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Pursuant to the February 28, 2023 "Administrative Law Judge's Ruling Soliciting Responses to Ruling Questions" ("Ruling"),[1] Bloom Energy Corporation ("Bloom Energy") respectfully submits these reply comments responding to the joint comments of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company ("Joint IOUs")[2] and FuelCell Energy[3] regarding the Net Energy Metering Fuel Cell ("NEMFC") tariff and the Ruling's Questions 27 and 28.

I. IN ORDER FOR FUEL CELLS TO CONTINUE PLAYING A PART IN ADDRESSING CALIFORNIA'S RELIABILITY AND CLIMATE CHALLENGES, THE COMMISSION MUST TAKE SWIFT ACTION

The Joint IOUs acknowledge that "there have been multiple decisions subsequent to the ALJ ruling and comments that have addressed fuel cells, including those listed above in addition to D.22-12-003 … However, it is not clear to the Joint Utilities that any of the findings or orders from those decisions are relevant to net energy metering for fuel cells."[4] Bloom Energy's opening comments illustrate that the significant evolution of the California electricity system

[1] On March 21, 2023, Administrative Law Judge Hymes approved a one-week extension to file reply comments until April 4, 2023.
[2] Response of the Joint IOUs to the Administrative Law Judge's Ruling Soliciting Responses to Ruling Questions (Mar. 21, 2023) ("Joint IOU Comments").
[3] Comments of FuelCell Energy on Administrative Law Judge Ruling Questions (Mar. 21, 2023) ("FCE Comments").
[4] Joint IOU Comments at 21.

since 2020 warrant a reassessment of the assumptions used by the California Air Resources Board ("CARB") to develop and adopt greenhouse gas ("GHG") emission standards (the "GHG Emission Standards") in 2020.[5] In light of these developments, implementation of the GHG Emission Standards in their current form would be inconsistent with Public Utilities Code Section 2827.10(b). The Commission should only incorporate GHG emission standards in NEMFC tariffs that further incentivize reliable in-state Distributed Energy Resources ("DERs") that produce lower GHG and air pollutant emissions than other alternatives, consistent with Public Utilities Code Section 2827.10(b)(2). The GHG Emission Standards are out of date and do not do so; the Commission should request that CARB re-evaluate the GHG Emission Standards given the changed circumstances in California.

Moreover, on December 31, 2023, the current NEMFC tariff will no longer be available to new fuel cell projects in California. In the period while CARB conducts its reassessment, the Commission should work expeditiously to replace the expiring NEMFC tariff with new tariffs that will maintain existing projects that are supporting the grid post-December 31, 2023 and also allow for new fuel cell projects. The Commission can and should engage stakeholders on how best to ensure that the new tariffs continue to advance California's decarbonization laws, policies and goals, including by utilizing revised GHG emission standards from CARB.

The imminent expiration of the NEMFC tariff and continued uncertainty around the compliance obligations that will become associated with the potential implementation of CARB's GHG Emission Standards are creating skepticism among potential customers otherwise interested in investing in fuel cells. If implemented as adopted, the GHG Emission Standards may subject fuel cell systems to unrealistic standards when they are cleaner than the grid

[5] *See* Comments of Bloom Energy Corporation Responding to the Administrative Law Judge's Ruling Soliciting Responses to Ruling Questions (Mar. 21, 2023) ("Bloom Energy Comments").

electricity that they displace, even while other higher emitting generation is not subject to similar standards.[6] Moreover, at the end of this year, the current NEMFC tariff will no longer be available to new fuel cell projects in California. California is experiencing an unprecedented level of growth in the installation and use of back-up generators, 90% of which run on diesel fuel.[7] Because this cloud of regulatory uncertainty surrounds fuel cells, customers are instead turning to dirtier technologies such as diesel back-up generation.

This effect is perverse because fuel cells have the ability to fill a similar role to diesel back-up generation, present opportunities not found in other conventional generation methods, and offer environmental benefits where diesel back-up generation does not. Fuel cells are feedstock neutral and capable of running on natural gas, biogas, or green hydrogen to the extent that those feedstocks are available. As a result of this feedstock flexibility and the short-term need for addressing a shortfall in electricity available from other sources, fuel cell technology is not an investment that locks customers or the State into long-term commitments that make additional GHG improvements difficult. On the contrary, fuel cells are a technology that is lockstep with the Commission's commitment to advance renewable and clean energy resources for resiliency.

To advance its policy objectives while maintaining a reliable, resilient and affordable energy supply, the Commission should take swift action to incentivize fuel cell technology. First and foremost, the Commission should recommend that CARB revisit the GHG Emissions Standards to align the standards with the current reality of the California grid. Second, in the period while CARB conducts its reassessment, the Commission should work expeditiously to

[6] *See Id.* at 16.
[7] *See Id.* at 18.

replace the expiring NEMFC tariff with new tariffs that will maintain existing projects that are supporting the grid and incentivize new fuel cell projects post-December 31, 2023.

II. THE COMMISSION SHOULD NOT IMPLEMENT THE GHG EMISSION STANDARDS IN THEIR CURRENT FORM

In its opening comments on the Ruling, FuelCell Energy emphasizes that, "if the Commission proceeds to implement a NEM fuel cell GHG emission standard, it must be implemented prospectively," because "it would be utterly unfair and counterproductive to impose any newly developed emissions standard on projects developed in good faith many years ago."[8] While Bloom agrees with prospective (as opposed to retrospective) implementation, the available data shows the Commission should not move to implement the adopted GHG Emission Standards at all yet, as they are based on what have proven to be materially false assumptions.[9] Before implementing the GHG Emission Standards, the Commission should recommend that CARB revisit the GHG Emissions Standards to align the standards with the current reality of the California grid.

As Bloom details in its opening comments, six years of real data demonstrates that CARB's standards are not aligned with the statutory directive to reduce "greenhouse gas emissions compared to the electrical grid resources, including renewable resources, that the fuel cell electrical generation resource displaces, accounting for both procurement and operation of the electrical grid."[10] CARB took an approach to the GHG Emission Standards that does not reflect a true marginal emissions rate and adopted standards that are unduly aggressive relative to the actual performance of the energy system. If implemented as adopted, the GHG Emission

[8] FCE Comments at 2.
[9] *See* Bloom Energy Comments at 10-16.
[10] Pub. Util Code § 2827.10(b)(2).

Standards could well result in replacing lower-emitting fuel cells with higher-emitting alternatives. Thus, implementing the GHG Emission Standards today would not only be inconsistent with the law, it would undermine the Commission and the state's policy objectives by making it difficult for a reliable and lower emitting generation resource to come online.

The circumstances in California have changed significantly since CARB adopted the GHG Emission Standards in 2020. Increasing frequency of extreme weather conditions, increasing electricity demand overall, decreasing availability of imported electricity, less capacity availability in the market, and accelerating goals for clean energy production have prompted the Commission to issue numerous recent decisions to address grid reliability.[11] Similarly, the California Energy Commission ("CEC") has highlighted changing circumstances in California and the significant need for additional grid reliability in its Diablo Canyon Power Plant Extension analysis.[12] So too does the implementation of the Strategic Reliability Reserve, adopted in AB 205, showcase the changed circumstances in California.[13] Finally, the significant rise of back-up generators utilizing diesel – even as the GHG Emission Standards will likely stymie fuel cell deployment – is very problematic, particularly for disproportionately-impacted disadvantaged communities, and runs contrary to the requirement that the standards achieve greenhouse gas emission reductions. For all these reasons, the Commission should first and foremost request that CARB reassess the GHG Emissions Standards, without implementing the current standards as adopted.

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[11] *See* Bloom Energy Comments at 4-6.
[12] *See* David Erne and Mark Kootstra, *Diablo Canyon Power Plant Extension – Final Draft CEC Analysis of Need to Support Reliability"* at 1, California Energy Commission (Mar. 2023), https://efiling.energy.ca.gov/GetDocument.aspx?tn=248971.
[13] *See* Bloom Energy Comments at 17-18.

III. CONCLUSION

To incentivize fuel cell technology, the Commission should:

1) Recommend that CARB reassess the GHG Emissions Standards;

2) While CARB conducts its reassessment, replace the expiring NEMFC tariff with new tariffs that will maintain existing projects that are currently supporting the grid and incentivize new fuel cell projects post-December 31, 2023; and

3) Consider an interim requirement that fuel cell systems must have the ability to consume renewable fuels, similar to the requirement adopted in the microgrid proceeding, to advance California's decarbonization laws, policies and goals.

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Respectfully submitted,

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