BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration, and Consider Further Development, of California Renewables Portfolio Standard Program.	Rulemaking 18-07-003 (Filed July 12, 2018)

REPLY COMMENTS OF BLOOM ENERGY, INC. ON THE ISSUES STIPULATED IN THE BIOENERGY MARKET ADJUSTING TARIFF (BIOMAT) PROGRAM REVIEW AND STAFF PROPOSAL

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Pursuant to Rule 14.3 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure, Bloom Energy, Inc. (Bloom) respectfully submits these Reply Comments on the Issues Stipulated in Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal.

I. Introduction

Bloom appreciates the opportunity to provide these reply comments on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal. Bloom agrees with the majority of other stakeholders who focused on the need to increase certainty in both BioMAT pricing and administration and echoes that predictability is key to encourage greater participation. Bloom offers reply comments on the following two areas to enhance BioMAT's certainty and establish a level-playing field that is technology-neutral:

1. GHG eligibility: Establishing a GHG reduction criterion will create a special set of rules for an RPS program, ones that are not currently applied to other proceedings affecting the RPS: IRP, RA, RPS, etc. Additionally, this approach will require participation from multiple state agencies in crafting the eligibility, quantification methodology, verification, and reporting standards—adding additional complexity and hurdles, and likely further suppressing program participation. As such, Bloom strongly recommends rejecting this approach: it is inconsistent with well-established RPS policy and could depress the methane emission reductions of the program.

2. Fuel content: Currently, BioMAT prevents using fuel derived from any feedstock other than the three program content categories for both onsite and exported electricity generation. If the biogas supply stops—due to a decline in seasonal production or a problem with the digester, for example—the generation technology must cease as well. For certain generation technologies, fuel reductions threaten operational integrity. BioMAT should allow all technologies to access back-up fuel that complies with the CEC's RPS Eligibility Guidelines to supply the parasitic load of their systems during a biogas outage that is not within the control of the developer and/or generation technology.

II. GHG Reduction Methodology as a Requirement for Eligibility

As multiple parties commented, there is sufficient guidance from other policies and ample scientific evidence that makes the addition of a GHG reduction eligibility criterion and methodology to BioMAT unnecessary.[1] BioMAT is currently only available to RPS-eligible resources. If a GHG eligibility standard is applied, the Commission will be creating a special test for this RPS resource that is not currently applied to other resources, or to other proceedings that encompass all RPS resources (e.g., Integrated Resource Planning, Resource Adequacy, and Renewable Portfolio Standard). Creating a unique test for this program, but not for others, will create confusion and inconsistency in the RPS market.

In terms of efficacy, as the Green Power Institute clearly articulated, BioMAT is designed to reduce biogenic carbon that is already in circulation between the atmosphere and biosphere,[2] and given that the global warming potential of methane is 56 times greater over a 20-year timeframe,[3] the program is already properly designed to significantly reduce GHG emissions. As such, an additional test could further complicate the program and is not necessary to ensure GHG emission reductions. Practically, as the entity that sets the RPS eligibility guidelines, the California Energy Commission ("CEC") would need to be involved with this

[1] See Placer County Air Pollution Control District at Page 6; Bioenergy Association of California at Page 17; and Green Power Institute at p.4.

[2] GPI Comments on the BioMAT Program Review and Staff Proposal, in R.18-07-003 at p.4.

[3] UNFCCC – Global Warming Potentials: https://unfccc.int/process/transparency-and-reporting/greenhouse-gas-data/greenhouse-gas-data-unfccc/global-warming-potentials.

change; additionally, the California Air Resources Board would need to develop the quantification methodology. This complex interagency process will almost certainly lead to substantial delays and market uncertainty. The net results would be: a). an inconsistent policy; b). an unnecessary standard; c). formidable hurdles (delays, additional administration, increased reporting); and d). decreased program participation. In total, this change would ultimately jeopardize BioMAT's methane emission reduction goals. As such, it is unnecessary and the Commission should not pursue it.

III. Fuel Availability

Currently, BioMAT prevents participants from using fuel that is not derived from the program's three content categories to generate electricity for both onsite use and export.[4] If the biogas supply fluctuates or stops—because of a decline in seasonal production or a problem with the digester, for example—the generation technology must curtail or cease as well. This scenario is likely not a problem for internal combustion engines: if the biogas stops, and the engine ceases to combust. But for always-on fuel cells, the loss of fuel will require the entire system to ramp down and then restart once the fuel is restored—a process that threatens the integrity of the system. As such, though unintentional, the current program design is not technology-neutral and could limit the participation of the most efficient generation technologies.

To ensure BioMAT fuel content rules are technology-neutral, Bloom suggests the Commission allow the limited use of non-BioMAT fuels to meet the generator's parasitic load needs in instances when the biogas supply stops. In this scenario, the generator would not be exporting the power and subsequently would not expect compensation; they would simply be using the non-BioMAT fuel to protect the technology's system integrity by preventing repeated ramping. This common-sense change could easily be achieved by requiring BioMAT back-up fuel be consistent with the CEC's RPS eligibility guidelines.[5] This approach is consistent with state policy and will provide clear guidance to BioMAT generators when they must rely upon

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[4] PG&E BioMAT Feed-in Tariff Program, FAQ at p.3: https://www.pge.com/includes/docs/pdfs/b2b/wholesaleelectricsuppliersolicitation/BioMAT/BioMAT_Webpage_FAQs.pdf.

[5] Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition Revised, adopted April 27, 2017, p.32: https://efiling.energy.ca.gov/getdocument.aspx?tn=217317.

back-up fuel to preserve system integrity. Importantly, the RPS eligibility guidelines do not allow station service load (parasitic load) to count toward RPS credits, thus creating an important incentive to ensure this back-up fuel is solely used for system integrity.[6] Bloom offers a redline modification to the standard BioMAT PPA in Attachment 1 below to enable this technology-neutral, back-up solution that is consistent with established RPS eligibility criteria.

IV. Conclusion

Bloom thanks the Commission and staff for their on-going efforts to improve this critical program. The changes articulated in these comments are instrumental to achieving BioMAT's laudable emissions reduction goals.

Dated: January 4, 2019

Respectfully submitted,

By: /s/

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[6] Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition, Revised, adopted April 27, 2017, p.28.

ATTACHMENT 1

Proposed Modification to Standard BioMAT PPA

4.4. Seller's Fuel Resource Category Representations, Warranties and Covenants.

4.4.1. Seller hereby represents, warrants and covenants to Buyer that the fuel used to generate electricity ~~and if applicable, Useful Thermal Energy Output from the Facility to serve Site Host Load, Station Use and generate Energy~~ for sale to Buyer ("Fuel Use") conforms and, throughout the Delivery Term, will conform to the definition of the Fuel Resource Category selected in Section A(i) of the Cover Sheet, subject to the Fuel Resource Requirements outlined in Section 4.4.2. Additionally, Seller hereby represents, warrants and covenants to Buyer that the fuel used to serve Site Host Load, Station Use, and generate Energy for onsite uses conforms to the CEC's Renewable Portfolio Standards, as specified in the RPS Eligibility Guidebook, Ninth Edition Revised.

13.2. Events of Default. An "Event of Default" means, with respect to a Party, the occurrence of any of the following:

~~13.2.2.16. Seller uses a fuel resource to generate electricity and if applicable, Useful Thermal Energy Output from the Facility that is not one of the Fuel Resource Categories.~~