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 R.18-07-003

REPLY COMMENTS OF THE CALIFORNIA BIOMASS ENERGY ALLIANCE, CALIFORNIA FARM BUREAU FEDERATION, CALIFORNIA FORESTRY ASSOCIATION AND GREEN POWER INSTITUTE ON THE BIOMAT PROGRAM REVIEW / STAFF PROPOSAL

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Pursuant to the Oct. 30 email of ED staff member James McGarry, as modified by the Nov. 19 and Dec.19 emails of Mr. McGarry, in Proceeding R-18-07-003, the **Order Instituting Rulemaking to Continue Implementation and Administration, and Consider Further Development, of California Renewables Portfolio Standard Program**, the California Biomass Energy Alliance (CBEA), the trade organization of the solid-fuel California biomass energy industry, the California Farm Bureau Federation, a nonprofit organization of farmers and ranchers, and the California Forestry Association, a trade association that consists of forest owners, forest products producers and forestry professionals, provides these *Reply Comments of the California Biomass Energy Alliance, etc. on the BioMAT Program Review / Staff Proposal*. Our reply comments address the comments filed jointly by Center for Biological Diversity, Sierra Club, and Partnership for Policy Integrity (Joint Comments).

The BioMAT program, which was created in 2012 in response to a legislative mandate (SB1122), is an environmentally driven program that is designed to promote the production of energy from waste and residue forms of biomass whose conventional disposal practices, including landfill burial, open burning, and accumulation as dead and overgrowth material in the forests, are known to be worse, from an environmental perspective (e.g. conventional air pollution, greenhouse-gas emissions, tree mortality, wildfires), than energy production. The legislation and the governor's executive order created the BioMAT program precisely for the purpose of delivering these benefits on behalf of the people of California.

The BioMAT program has failed to produce the robust market for small biomass generators that was envisioned by the authors of the legislation. In fact, the offering price

in one program category, category 3, hit a trigger price that, among other things, caused the Commission to undertake the review of the program that is the subject of the present round of informal comments and replies. In addition to the program review, the Commission also released a staff proposal containing suggestions for improvements to the program that are intended to boost program participation and efficiency. These staff proposals are also the subject of remarks in the present round of informal comments and replies.

The Joint Comments to which we are herein replying do not so much address the Oct. 30, *BioMAT Program Review and Staff Proposal*; rather they question whether the BioMAT program should be conducted at all, and whether any forms of biomass energy should be classified as eligible resources under the California RPS program. The issue of whether biomass energy per se should be an eligible RPS resource is well outside of the scope of the informal comments and replies that were requested by Mr. McGarry in his email of Oct. 30. The email also did not request general comments on the environmental performance of biomass as an energy resource, although it did request comments on the topic of whether individual BioMAT applicants should be required to demonstrate that their projects provide greenhouse-gas benefits in order to be deemed eligible for participation in the program.

The Joint Comments present their basic thesis in the introductory paragraph:

> Biomass emits more CO_2 at the smokestack than fossil fuel generation, and it incentivizes forest management practices that both emit greenhouse gases ("GHGs") and reduce carbon storage. When substituted for fossil fuel generation, biomass generation produces more GHG and air pollutant emissions at a higher financial cost. [Joint Comments, pg. 2.]

Category 3 of the BioMAT program, which requires the use of biomass fuel that is derived from sustainable forest management activities, was created for the express purpose of reducing wildfire risks on some of California's most at-risk acreage, in order to avoid massive losses of carbon stocks due to wildfire. Of course, the initial result of performing a forestry treatment is the removal from the forest of some of the stored biogenic carbon,

some or all of which is transferred to the atmosphere in the forms of CO_2 and CH_4 during cleanup after the treatment operation (pile burning or energy production). But the purpose behind performing the treatment is to boost the carbon storage on the treated plot and its surroundings in the long term, by reducing the risks of massive carbon loss due to wildfires, disease, and infestations. With climate change, the risk of massive carbon losses from catastrophic events in California forests is clearly on the increase. Forest treatment operations are not the only or total solution to reducing the risks of catastrophic forest losses, but it is one of the key ingredients of the toolbox that can be used to mitigate the losses.

The Joint Comments focus on the carbon losses that occur during the forest treatment operation itself, including the combustion of the residuals for energy production, but they fail to confer any credit to the operation for the reduced risks of catastrophic losses that the treatments were designed to provide. They note:

> Because it is impossible to know in advance when wildfire will occur in a thinned stand, thinning operations may remove carbon that would not have been released in a wildfire within the effective life of the thinning operation (Joint Comments, pgs. 5-6).

It is indeed impossible to know in advance when stochastic occurrences like wildfire events and other catastrophic-loss events will occur, but that does not give the analyst license to ignore them. Stochastic events can be modeled on a probabilistic basis using standard approaches and techniques. When this is done using California-specific parameters, it has been demonstrated that the carbon stocking in California forests recovers to its initial levels within a decade of the thinning operation, and thereafter is significantly greater for the treated forest than for the overgrown forest.[1] And the enhancement is surely more dramatic for the extensive stands of California forest that are today dominated by standing dead trees. By acknowledging only the costs of forest treatments but none of the benefits, it is an inevitable conclusion that biomass power

[1] USDA Forest Service Pacific Southwest Research Station, Biomass to Energy: Forest Management for Wildfire Reduction, Energy Production, and Other Benefits, CEC report no. CEC-500-2009-080, January 2010. http://www.energy.ca.gov/2009publications/CEC-500-2009-080/index.html.

plants that use forest residuals as fuel fail to deliver environmental benefits. It is also bad science.

The Joint Comments seem to suggest that the status quo in California's forests is a stable situation, possibly to be enhanced by very limited treatment operations. In fact, in just three fires in the state during the summer and fall of 2018, the Mendocino, Carr, and Camp fires, Northern California has lost over one million forested acres, and the fires demonstrated the inability of the combined efforts of federal, state, and local agencies to control the outcome. California's forests are at increasing risk across the state, to the extent that the state is at serious risk of losing its rich forest legacy. Doing nothing will lead to continuing losses. Biomass energy is one of only a very few tools we have for improving the current situation. Failure to encourage the use and development of biomass energy at all scales is bad policy.

The Joint Comments begin their introduction with the following invective:

> Bioenergy, in particular Category 3 biomass, is a dirty fuel. Classifying it as a "renewable resource" is a fiction of policy and does not represent scientific realities. In this letter, the Environmental Groups will present data that challenges the notion that these facilities benefit the environment or ratepayers. [Joint Comments, pg. 2.]

There is little question that when biomass is open burned in piles, or burned in wildfires that there is a limited ability to control the impacts from the burning. In contrast, controlled burning in an electricity-generating facility reduces the amount of conventional pollutants compared to open burning by factors of 10-100 or more.[2] It also reduces the potency of the greenhouse-gas emissions by virtually eliminating the emissions of CH_4 and hydrocarbons associated with uncontrolled combustion. We note that the Joint

[2] Springsteen B. December 6, 2016. Biomass facilities play an important role in improving air quality. The Biomass Monitor https://thebiomassmonitor.org/2016/12/09/opinion-biomass-facilities-play-important-role-in-improving-air-quality/.

Comments acknowledge the need to consider the alternative fate of biomass used for energy production,[3] but they fail to actually do so.

Biomass is recognized as a renewable resource by every renewable energy program that we are aware of. The reason for this is simple – biomass, as currently used in California and the U.S. **is** a renewable resource. While it is possible to posit scenarios in which biomass resources are used on a non-renewable basis, such as clear cutting forests for the express purpose of producing fuels, that kind of scenario has no relationship to the real-world biomass industry. The Joint Comments themselves provide the explanation for why this is so: "The relative failure of the BioMAT program thus far demonstrates that small-scale biomass and biogas facilities are extraordinarily difficult to justify economically (Joint Comments, pg. 3)." And, "BioMAT facilities produce energy that can be five times more expensive than wind and solar (Joint Comments, pg. 7)."

In short, biomass energy production based on the use of waste and residue resources is expensive relative to many of the non-biomass alternatives available in the marketplace. Biomass energy production is supported by various policies and programs because of the ancillary environmental services it provides. There is no conceivable way that the marketplace would support even more expensive electricity associated with non-waste and residue forms of biomass, especially when the rationale for policy support for such fuels is no longer valid. Considering the large surplus of usable waste and residues forms of biomass of all kinds in California, there is no reason to even think about pursuing non-waste and residue forms of biomass for energy production in the state. The Joint Comments fail to present any data that challenge these realities.

The Joint Comments conclude their introduction with the following assertion:

> The Environmental Groups urge the Department of Energy and the California Public Utilities Commission ("Commission") to use these revisions as an opportunity to

[3] See Joint Comments, pg. 15, " (2) Compare the emissions of bioenergy generation to the emissions of the possible **alternative fates of the biogenic feedstock material** if not used for energy generation (e.g., if used as a woody product or simply left to decompose in the forest). [Emphasis in original.]

> incorporate science-based decision-making into the BioMAT program (Joint Comments, pg. 2).

Science-based decision making has long been part of the mission of the California Public Utilities Commission. Part of the essence of science-based decision making is the ability to differentiate between good science and bad science. The Joint Comments present data and conclusions that are at odds with the scientific findings and conclusions of mainstream scientific organizations and agencies, including in California the ARB, CEC, and CalFire. These matters cannot be adjudicated in these informal comments and replies. Unless or until the various unconventional assertions in the Joint Comments become generally accepted, they should hold no sway in the terms of Commission action with respect to the BioMAT program.

An illustrative example of the clash between accepted science and the science presented in the Joint Comments is found in the following statement:

> Biomass procurement subsidizes forest management activities – such as those outlined in the Forest Climate Action Team's California Forest Carbon Plan – that have substantial GHG impacts (Joint Comments, pg. 5).

The California Forest Carbon Plan[4] is the result of a multiagency effort and represents the state-of-the-art with respect to the science of forestry and fire protection in California. The Plan is expressly designed to preserve California's forests, including their stocks of sequestered carbon. In contradiction to the California Forest Carbon Plan the Joint Comments assert that carrying out that Plan will cause losses of sequestered carbon in California's forests. In fact, the California Forest Carbon Plan notes that carbon emissions from wildfires are anticipated to increase if there is no change in current forest management practices. It is incumbent on the Commission to apply and follow established and vetted state policy in interpreting the science underlying possible improvements to the BioMAT program. The BioMAT program is an important element of the state's overall

[4] Forest Climate Action Team, California Forest Carbon Plan: Managing Our Forest Landscapes in a Changing Climate, (May 2018) . http://resources.ca.gov/wpcontent/uploads/2018/05/California-Forest-

package in addressing emissions from biomass management and should not be undermined by faulty logic.

The Joint Comments fall completely outside of the scope of the comments and replies that were requested by Commission staff. They bring up issues that are not subject to adjudication in the RPS proceeding, and they present data and conclusions that fail the test of good science. Their recommendations should not be allowed to interfere in the Commission's efforts to improve and stimulate the BioMAT program.

Pursuant to Rule 1.8 (d) of the Commission's Rules of Practice and Procedure, the undersigned have been authorized to sign on behalf of all parties named in these Reply Comments.

Dated January 4, 2019
Respectfully Submitted,

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