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Subject: Informal Reply Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal

INTRODUCTION

The Public Advocates Office at the California Public Utilities Commission replies to the stakeholders' December 7, 2018 informal opening comments on the Energy Division staff's Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal (Staff Proposal), which was sent to the Rulemaking (R.) 18-07-003 service list on October 30, 2018.

DISCUSSION

Questions 1-7: Pricing Mechanisms

The Commission should not adopt fixed prices for the BioMAT program and should reject parties' recommendations opposing the revised BioMAT price adjustment mechanism

In opening comments, multiple parties recommended that the Commission reject proposal 2, the revision of the BioMAT price adjustment mechanism.[1] These parties also recommend that the Commission abandon BioMAT's price adjustment mechanism altogether and adopt fixed prices instead. The Commission should reject these recommendations because the rationales behind

[1] Sierra Nevada Conservancy's (SNC) *Response to BioMAT Program Review and Staff Proposal*, dated Nov. 28, 2018, p. 3; Bioenergy Association of California's (BAC) *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 8; Generate Capital's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 1; Agricultural Energy Consumers Association's (ACEA) *Informal Comments Regarding Staff's BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2; Fuel Cell Energy's *Comments on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 3; Placer County Air Pollution Control District's (Placer APCD) *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2; Camptonville Community Partnership's (CCP) *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2; Maas Energy Works, Inc.'s *Informal Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 2-3; *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-4; *Opening Comments of Small Business Utility Advocates (SBUA) on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 2-3.

them represent a misunderstanding of the proposed rule changes and are flawed and speculative. Proposals by parties to slow down the rate of price decreases, or avoid price decreases altogether through fixed prices, are unfair to ratepayers and should be rejected because they prevent the achievement of the BioMAT program review's stated goal of "long-term program success at the lowest cost to ratepayers."[2]

The Revised Price Adjustment Mechanism Will Not Increase Volatility and Uncertainty

Multiple parties claim that the revision of BioMAT's price adjustment mechanism will increase price volatility and increase uncertainty for project developers.[3] These claims should be rejected because: (1) they are contrary to the stated program goals of establishing a healthy standalone bioenergy market, and (2) because they represent a flawed analysis of how the revised price adjustment mechanism would function.

First, it is important to note that one of BioMAT's stated goals is market transformation. The Author's Statement in Senate Bill (SB) 1122 declares that "the intent of SB 1122 is to unleash a growth spurt in California's biopower ***market***."[4] According to the Staff Proposal, "a ***competitive market*** structure was designed [for BioMAT] to facilitate lower costs to utility customers and encourage market transformation."[5] The potential "uncertainty" with regards to price changes is a necessary dynamic of a normal, functioning market where prices are not fixed and there can be movement of prices based on market activity. The Commission should especially reject the Bioenergy Association of California's (BAC) rationale that a revised price adjustment mechanism would increase risk and therefore cause more harm to project developers because they "have no control over whether other projects will accept a price."[6] Under the existing price adjustment mechanism and even in a fixed price market, developers would still have no control over their competitor's decision making. The only market situations where competitors have control over the decisions of their competitors are in cartels and in price fixing, which would represent market failure for BioMAT's market transformation goals. Contrary to BAC's protest, it is *not* unfair for competitors to lack control over the decisions of other competitors as this type of "uncertainty" is a normal dynamic of a properly functioning market. The Commission should reject this line of reasoning because it inappropriately and unfairly attempts to transfer normal entrepreneurial risk onto ratepayers.

Second, the Staff Proposal's revised price adjustment mechanism is more predictable and transparent than BioMAT's current price adjustment mechanism and would provide more

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[2] Staff Proposal, p. 1.

[3] SNC's *Response to BioMAT Program Review and Staff Proposal*, dated Nov. 28, 2018, p. 3; BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 8; Generate Capital's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 1; ACEA's *Informal Comments Regarding Staff's BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2; Fuel Cell Energy's *Comments on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 3.

[4] D.14-12-081, p. 7. SB 1122 requires the procurement of small bioenergy projects, which the Commission implemented through adoption of the BioMAT program. Emphasis added.

[5] Staff Proposal, p. 5. Emphasis added.

[6] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 8.

certainty to the market. Under existing rules, it is difficult to determine if price changes are likely. For example, offer prices either increase, decrease, or do not change as a result of the contracting of specific percentages of a statewide allocation of capacity in a program period. This statewide allocation varies from 9-15 megawatts (MW) depending on the technology category. Further, under the current mechanism, BioMAT price changes are more volatile because offer prices can rise or fall in unstandardized increments; the longer that price change conditions are met in consecutive program periods, the greater the increment of price change that occurs.[7] The revised price adjustment proposal eliminates these rules and simplifies the pricing mechanism so that the market can better predict where prices will go.[8] In addition, price volatility would be further reduced if more granular price change increments are also adopted[9] since BioMAT prices would be allowed to change in standardized increments that are more predictable and less dramatic than under current rules.

The Revised Price Adjustment Mechanism Will Not Decrease Competition

The Commission should also reject BAC's and Dairy Cares' mistaken claims that the proposal for price decreases would reduce competition because it would deter or otherwise prevent project developers from entering BioMAT queues.[10] BAC's flawed line of reasoning here assumes that if it is easier for BioMAT offer prices to decrease, then prices will quickly fall to levels unacceptable to project developers and dissuade them from entering BioMAT queues, which will reduce overall competition. First, this line of reasoning should be rejected because BAC ignores the fact that, along with simplified rules for price decreases, the Staff Proposal also provides simplified rules for both price increases and prices remaining unchanged. Therefore, BAC's suggestion that offer prices are very likely to fall and then remain at levels unacceptable for project development is not reflective of the proposed changes.

Second, the proposal for price decreases should also serve to increase competition in BioMAT queues in that once an initial price is accepted at a given offer price, prudent project developers would be more inclined to act sooner on accepting the second price offer for the fear of the price dropping because a competitor beat them to it. Dairy Cares opposes the revision to the pricing

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[7] Staff Proposal, pp. 3-4. Under the current BioMAT pricing mechanism, prices change at $4, $8, and then $12 increments.

[8] For example, under the new price adjustment rules of proposal 2, prices decrease when two offer prices are accepted at a given price in any program period. When an initial offer price is accepted by a project applicant, the market can be certain that prices decreases are relatively likely because all it will take for a price decrease is a second price acceptance, and not the subscription of 100% of the statewide capacity allocation for a specific technology category. Similarly, prices increase when market depth is achieved and offer prices have not been accepted for two consecutive program periods. If an offer price is not accepted in a program period, the market can be certain that the price will either: (1) rise if it is not accepted in the subsequent program period, or, (2) it will not change if the price is accepted in the next program period.

[9] Staff Proposal, question 6, p. 21, asks parties if the Commission should establish more granular, standardized price increments for price changes.

[10] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 8, and *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-4.

mechanism because it "is concerned by the risk that developers with little experience will underestimate their costs, drive the administratively set prices down and then fail to deliver on the contracts."[11] Here, Dairy Cares speculates that the BioMAT program would be harmed if developers with more experience, and thus more potential for success, were prevented from developing successful projects due to low prices while inexperienced developers failed to deliver projects. This is an extreme "what if" scenario that should be rejected because it is highly speculative. Dairy Cares does not provide any evidence that this scenario has occurred in the past, or that it is likely, or to what extent it could happen. Dairy Cares ignores the fact that the Staff Proposal also simplified the rules for price increases, and if it can be speculated that prices could easily decrease because of the poor decisions of inexperienced developers, it could also be speculated that prices could easily increase because of the prudent decisions of experienced developers. In addition, in a healthy market, it is each developer's responsibility to identify risk and appropriately determine their ability to bid into BioMAT. Rejecting the Staff Proposal's price adjustment revisions, or establishing fixed prices for BioMAT due to fear of poor decision making in the BioMAT market would be acting contrary to BioMAT's stated goal of transformation to a healthy, standalone market.

The Commission should adopt both proposal 1 & 2 of the Staff Proposal in order to prevent market manipulation

The Public Advocates Office clarifies that if the Commission adopts proposal 1 of the Staff Proposal, which would lower BioMAT's market depth requirement, it must also adopt proposal 2 for the revision of the price adjustment mechanism. The Public Advocates Office agrees with the Investor Owned Utilities (IOUs) that lowering BioMAT's market depth requirement increases the risk of market manipulation.[12] The IOUs and Public Advocates Office share concerns that lowering the market depth requirement could subject the BioMAT program to the risk of a group of project owners or developers controlling the rate of subscription into the BioMAT queues in order to artificially prevent prices from decreasing. However, as discussed in more detail in our opening comments, proposal 2 eliminates market manipulation situations where slow price acceptance rates of less than 100% of the statewide capacity allocation requirement are executed in order to prevent prices from decreasing. Therefore, if the Commission adopts proposal 1, it must also adopt proposal 2 to ensure that crucial ratepayer protections are in place. In addition, the adoption of more granular and standardized price change increments of no more than $4 per price change (as opposed to $4, $8, and then $12 per price change) would provide further ratepayer protections.

Fixed Pricing is Inappropriate

The Staff Proposal's revised price adjustment mechanism and its proposal for more granular pricing better reflects BioMAT market activity. As was discussed in the Public Advocates

[11] *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-4.

[12] *Informal Comments of Southern California Edison Company, Pacific Gas & Electric Company, and San Diego Gas & Electric Company (the Joint IOUs) on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 4.

Office's opening comments, BioMAT prices have been stagnant for over a year and prices are unlikely to decrease because the current pricing mechanism does not adequately reflect the small size of the BioMAT market.[13] Placer APCD suggests that BioMAT prices should be fixed because "there is nothing within the statute that requires that a sliding pricing mechanism be used for this program."[14] However, this rationale should be rejected because this same statute also requires the Commission to "establish a methodology to determine the market price of electricity" from BioMAT Contracts.[15] The BioMAT statute requires the Commission to consider a variety of factors, but does not restrict the Commission from establishing an adjusting price.

Moreover, for reasons stated in the Public Advocates Office's opening comments, establishing fair fixed prices at this point in the program would be too difficult and time consuming.[16] The revisions to BioMAT's pricing mechanism will help the program better discover correct market prices based on market activity. If the Commission determines that the price adjustment mechanism is unsuitable and must be scrapped, then the Commission should adopt a renewable auction mechanism (RAM) format for BioMAT rather than fixed prices. The RAM process at least maintains some of the necessary features of a healthy, standalone market such as competition among sellers and discovery of the lowest market prices for the best projects.

The Commission should reject the proposal for an inflation price adder

The Commission should reject BAC's proposal to include an inflation adder in BioMAT's pricing structure.[17] First, the Commission already considered a range of prices when it established prices for BioMAT.[18] Adding an inflation adder would essentially just increase the range of prices, which has already been litigated. Further, BAC offers no evidence to support the need for an adder. Second, the inclusion of an inflation adder is contrary to the IOUs' general approach to power purchase agreements under the Renewables Portfolio Standard (RPS) procurement framework.[19] Third, accounting for inflation is a task that project developers can and should do for themselves. Making assumptions for inflation, as well as accurately accounting for other assumptions in project finance such as generation output, sales, future expenses, suppliers, taxes, etc., are a normal part of successfully bringing any entrepreneurial

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[13] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 1-6.

[14] Placer APCD's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2.

[15] Pub. Util. Code § 399.20(d)(1) and § 399.20(d)(2).

[16] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p 7.

[17] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 11.

[18] As part of the process of implementing SB 1122, Energy Division commissioned a report from consultants Black & Veatch titled "Small-Scale Bioenergy: Resource Potential, Costs, and Feed-in Tariff Implementation Assessment" (published October 31, 2013) which presented a range of bioenergy costs that the Commission used for evaluating and determining pricing for BioMAT. According to Decision (D.) 14-12-081, pp. 54 and 62, the starting program price for BioMAT across all technology categories is $127.72 / MWh and the program's "soft" price cap is $197 / MWh for all technology categories.

[19] D. 14-12-081, p. 67.

venture to market. The inclusion of an inflation adder in BioMAT's pricing format is a task that would also require stakeholder input and would unnecessarily take time from the completion of the BioMAT review process. If, according to BAC, making significant assumptions for inflation is a task that "no one can be expected to do accurately,"[20] why would the Commission be in a uniquely better position to make this assumption more accurately through the inclusion of an inflation adder? On the other hand, if BAC is "happy to suggest a mathematical way to calculate" a starting price adjustment in BioMAT that accounts for an inflation adder[21] then it could also apply this analysis to assist project developers directly to make accurate assumptions about inflation.

The Commission should reject BAC's suggestions that it is inappropriate for the BioMAT program review to focus on pricing revisions, cost containment, and ratepayer costs because these suggestions are heavily misguided, and they distort the Commission's role

Although the Staff Proposal recommends various revisions to BioMAT's pricing format to improve the program's performance and strengthen ratepayer protections, BAC mistakenly suggests that "proposals for additional cost containment are not appropriate" and that "[a]t this point, focusing on ratepayer costs is little more than a red herring."[22] The Commission should swiftly reject these suggestions for various reasons.

First, the Commission's role with regards to energy procurement policy is to ensure fair and just rates for ratepayers, and not to grant unnecessary, self-serving concessions to industry groups. Consistent with Public Utilities Code Section 399(c), electric utilities must make prudent investments such that ratepayers "continue to receive safe, reliable, ***affordable***, and environmentally sustainable electric services."[23] Similarly, pursuant to Section 701.1(a)(1), "a principal goal of electric and natural gas utilities' resource planning and investment shall be to ***minimize the cost to society*** of the reliable energy services that are provided by natural gas and electricity."[24] Ratepayer protection is a paramount responsibility for load serving entities and the Commission. Ratepayer costs, far from being a red herring, are fundamental to the Commission's statutory responsibilities.

Second, BAC is mistaken with regard to the role of ratepayers in BioMAT. BAC's suggestions ignore the role of the IOUs' ratepayers as <u>the</u> central and most important stakeholder in BioMAT because of the fact that IOU ratepayers will ultimately bear all of BioMAT's costs and because it is ratepayers' best interests that are supposedly being served by BioMAT's environmental and

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[20] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 11.

[21] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 11.

[22] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 5 and 15.

[23] Pub. Util. Code § 399.20(c) states "[t]he Legislature finds and declares that in order to ensure that the citizens of this state continue to receive safe, reliable, affordable, and environmentally sustainable electric services, it is essential that prudent investments continue to be made in all of the following areas: . . . (5) To achieve a sustainable supply of renewable energy." Emphasis added.

[24] Pub. Util. Code § 701.1(a)(1) states "[t]he Legislature finds and declares that, in addition to other ratepayer protection objectives, a principal goal of electric and natural gas utilities' resource planning and investment shall be to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity . . . " Emphasis added.

public safety goals. The essential function of a market is to successfully provide a product to the end-user—in this case, the ratepayer. Further, three of the four BioMAT category prices have remained stagnant near the program's soft cap for over a year, and none of the four categories have experienced price decreases, and it is the IOUs' ratepayers who continually face these high costs. In addition, there are critical ratepayer protections against market manipulation that are missing in BioMAT. As discussed in the Public Advocates Office's previous comments, the Staff Proposal's revision of the price adjustment mechanism would address these concerns.

Third, BAC also mistakenly asserts that cost containment proposals are inappropriate, and therefore low priority, for the Commission because: (1) the IOUs' BioMAT MW targets represent only a fraction of their overall RPS procurement, (2) because there is already cost containment in RPS, (3) and because BioMAT's impacts on ratepayers "has been less than de minimus."[25] These comments should be rejected because they are an oversimplified and misguided representation of the IOUs' RPS procurement and because the statement that RPS already features a cost containment mechanism is false. Whatever fraction of the IOUs RPS procurement that BioMAT MW targets represent, this energy is not needed by the IOUs because they are currently exceeding their long-term RPS goals and the ability of BioMAT to have substantial impact on the state's environmental and public safety goals has not yet been determined.

Even at a fraction of the IOUs' RPS procurement, energy from BioMAT contracts is expensive in that it costs three to four times more than other renewables such as solar and wind. For example, Pacific Gas & Electric Company (PG&E) previously noted that at current BioMAT prices, procuring their entire BioMAT targets of 111 MW could cost approximately $3 billion, resulting in above market costs of nearly $2 billion.[26] For the same $3 billion, PG&E could procure approximately 1,350 MW of other renewables.[27] BAC, on the other hand, attempts to suggest that, for example, "the price of forest BioMAT projects is trivial in comparison to the cost of catastrophic wildfires, which are affecting utility ratepayers and shareholders significantly" and therefore "[c]onverting forest fuel and other vegetation to energy will save ratepayers and shareholders money in the long run by reducing the risk and severity of wildfires.[28] However, with regards to the ability of BioMAT to have a substantial impact on mitigating wildfires, this determination has not been made and the Commission has not compared BioMAT capabilities to other fire safety initiatives that could be more effective at combating wildfires. Finally, although the development of a cost containment mechanism for RPS procurement is required by California Public Utilities Code Section 399.15(c), the Commission has not yet taken steps to develop such a mechanism.

Therefore, BAC's attempt to shift the Commission's attention away from ratepayer interests is misguided and inappropriate and should be rejected.

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[25] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 6 and 10.

[26] Motion of PG&E (U 39-E) to Suspend BioMAT Program Procurement, dated Dec. 1, 2017, filed in R. 11-05-005, pp.10-11.

[27] Motion of PG&E (U 39-E) to Suspend BioMAT Program Procurement, dated Dec. 1, 2017, filed in R. 11-05-005, pp.10-11.

[28] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 6.

Question 8: BioMAT queue management procedures

The Public Advocates Office supports the queue management modifications detailed in proposal 3 of the Staff Proposal.[29] The proposal is a direct response to a market malfunction that occurred in Southern California Edison Company's (SCE) BioMAT queue. An ineligible project in SCE's queue triggered an inappropriate price change that required the BioMAT price for technology category 2 to be reset. The proposal is not creating unnecessary red tape, as three parties suggest,[30] nor is it punitive.[31] The proposal is also not creating redundant procedures. Rather, it is preventing market malfunction. Proposal 3 would increase transparency between the energy purchaser and the applicant, and provide a disincentive for ineligible projects that remain in the queue. It is a thoughtful modification that has already been implemented in SCE's BioMAT queue.[32]

Question 9: 30-day contract execution deadline

No response.

Question 10: BioMAT program end date

The Public Advocates Office does not support extending the BioMAT program beyond its 2021 end date. The program is not needed for the IOUs to meet their long-term RPS goals,[33] and it is generally more expensive than other RPS-eligible resources. The only reasonable justification for extending BioMAT is if the Commission determines that BioMAT substantially contributes to the achievement of other statewide climate, waste diversion, and public safety goals. It is premature to extend BioMAT before an in-depth review of the program's ability to accomplish its goals.

BioMAT and any subsequent changes made to the program must be thoroughly reviewed before the program's end date in 2021. The Public Advocates Office strongly supports Staff's initiative to address party concerns with the BioMAT program and implement feasible changes before the program's end date in 2021. This provides an opportunity to adjust the program, evaluate whether the market responds, and evaluate whether the program helps achieve the statewide goals[34] identified in the Staff Proposal.

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[29] Staff Proposal, p. 15.

[30] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 5. ACEA's *Informal Comments Regarding Staff's BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 4.

[31] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 11

[32] SCE's queue management changes were approved in Advice Letter 3621-E.

[33] According to the draft updated RPS procurement plans filed by the IOUs on October 8, 2018, the IOUs are exceeding their RPS targets and, after applying banked RECs to their RPS compliance requirements, do not have need to procure additional renewables until after 2030.

[34] Staff Proposal, pp. 5-6, 9-12.

The Staff Proposal and Environmental Groups[35] raise serious concerns that Bioenergy projects will not achieve state environmental goals. As an RPS program, BioMAT must be consistent with SB 100.[36] To be consistent with SB 100, energy resources must be renewable and zero-carbon. BioMAT feedstock is defined in statute as a renewable resource,[37] but no California agency has evaluated whether BioMAT-generated electricity is zero-carbon. Given that many parties support investigating the greenhouse gas (GHG) emissions from BioMAT facilities,[38] it is inappropriate to rely on unverified claims[39] that bioenergy reduces climate emissions. It is critical that a resource's environmental performance be evaluated and determined through rigorous scientific methodology. The Commission should thoroughly investigate the lifecycle emissions from BioMAT facilities before any consideration of program extension.

Finally, BAC and Placer APCD's request to extend BioMAT indefinitely should be rejected. The Commission has two reasons for not extending BioMAT. First, the Commission initially implemented a 5-year sunset date because it is a reasonable amount of time for developers to enter the BioMAT queue "while not allowing the price adjustments (leading to price uncertainty) to go on indefinitely."[40] Second, as stated in the Staff Proposal, without an end date "the

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[35] *Informal Comments of Center for Biological Diversity, Sierra Club, and the Partnership for Policy Integrity (Environmental Groups) on the BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-7, 11-21. Staff Proposal, p. 22.

[36] SB 100 states, "it is the policy of the state that eligible renewable energy resources and *zero-carbon resources* supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045 (emphasis added)."

[37] Public Resources Code, Section 25740.

[38] *Informal Comments of the Joint IOUs on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 11-13. Fuel Cell Energy's *Comments on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 6. National Fuel Cell Research Center's *Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 5-7. Schatz Energy Research Center, Humboldt State University's *Comments Regarding the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 2-4. *Informal Comments of the Environmental Groups on the BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-7, 11-21.

[39] The only parties that disregard the need to account for GHG emissions are BioMAT developers and the Green Power Institute. They cited studies to support their claim that bioenergy reduces climate emissions. However, the studies they cite are not lifecycle GHG emissions studies of bioenergy facilities and have not been vetted by the Commission. As such, the studies do not validate their claims. See, *Comments of the California Biomass Energy Alliance (CBEA) on the BioMAT Program Review/Staff Proposal*, dated Dec. 7, 2018, p. 5. *Comments of Bloom Energy, Inc., on the Issues Stipulated in the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 10-11. *Informal Comments of the Green Power Institute (GPI) on the BioMAT Program Review and Staff Proposal* dated Dec. 7, 2018, p. 4-8. BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 4-5, 17-18. AECA's *Informal Comments Regarding Staff's BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 5. Placer APCD's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 6. Maas Energy Works, Inc.'s *Informal Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 9. *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p.10.

[40] D.14-12-081, p. 71.

program could go on indefinitely with a miniscule amount of megawatts remaining in technology category queues, as the Commission and utilities continue to incur administrative expenses."[41]

Question 11: Interconnection delays & commercial operation dates

No response.

Questions 12 and 13: Expansion of BioMAT facility capacity

As detailed in the Public Advocates Office's opening comments,[42] expanding BioMAT facility capacity through incremental generation or through removing the 3MW delivery cap is inconsistent with Public Utilities Code Section 399.20. Despite parties'[43] support for these proposals, the Commission cannot alter statutory requirements without legislation. Even parties who develop bioenergy facilities and strongly support the continuation of the BioMAT program[44] noted that legislation is required to modify the statutory requirement. The Public Advocates Office does not consider this a feasible option at this time.

Question 14: High Hazard Zone (HHZ) fuel requirements for BioMAT projects

The Public Advocates Office supports temporarily setting an 80% HHZ fuel requirement for Category 3 facilities because it will help achieve Governor Brown's October 2015 and May 2017 Emergency Proclamations, and because it is consistent with SB 1122. Some parties argue that adopting a temporary 80% HHZ requirement cuts against the intent of SB 1122 because it "only requires that forest fuels be the product of sustainable forestry . . ."[45] However, SB 1122 made it clear that "[a]llocations under [Category 3] shall be determined based on the proportion of bioenergy that sustainable forest management providers derive from sustainable forest management <u>in fire threat areas</u>, as designated by the Department of Forestry and Fire

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[41] Staff Proposal, p. 16.

[42] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 11-12.

[43] National Fuel Cell Research Center's *Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 4-5. Fuel Cell Energy's *Comments on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 6. *Opening Comments of SBUA on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 3. *Comments of CBEA on the BioMAT Program Review/Staff Proposal*, dated Dec. 7, 2018, pp. 2-3. *Comments of Bloom Energy, Inc., on the Issues Stipulated in the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3, 8-9. *Informal Comments of GPI on the BioMAT Program Review and Staff Proposal* dated Dec. 7, 2018, p. 2. BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 13. *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 7.

[44] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 13. Maas Energy Works, Inc.'s *Informal Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 7.

[45] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 13. See also, Placer APCD's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 3.

Protection."[46] This statutory language, acting in congress with the Governor's Emergency Proclamations provides sufficient justification for the Commission to set a temporary requirement.

BioMAT data also shows that adopting a temporary 80% HHZ requirement for Category 3 is consistent with how the program works in practice. To date, all Category 3 projects that have executed BioMAT contracts are in areas containing eligible Category 3 biomass resources.[47] Thus, the legislative and executive policies, as well as the empirical data, support the proposed 80% HHZ requirement for Category 3.

Further, the Commission currently permits Category 3 BioMAT facilities using 60% or more HHZ fuel to accept contracts priced above the soft cap of $199.72/MWh. The Public Advocates Office reiterates that, if the Commission requires Category 3 facilities to use 80% HHZ fuel, the Commission should remove the price cap incentive that was intended to encourage use of HHZ fuels. This is reasonable because the use of HHZ would be mandatory, so the incentive would no longer be necessary. The Public Advocates Office recommends that the Commission enforce the current price cap of $199.72/MWh across all Category 3 contracts.[48]

Question 15: Geographic requirements for BioMAT projects

The Public Advocates Office opposes adding a geographic component to the strategic location requirement. Only the Joint IOUs recommend that the Commission consider a geographic component to this requirement. The Joint IOUs argue that "[o]ne of the intentions of Category 3 of the BioMAT program was to site small projects near the fuel source to avoid long haul drives to existing biomass projects and excessive greenhouse gas (GHG) emissions linked to the truck fuel."[49] In opening comments, the Public Advocates Office noted that the Commission previously considered strategic location issues, and concluded that the costs of moving fuel long distances will likely deter long-haul trucking, especially considering that the BioMAT facilities are small generation facilities with limited capital.[50] As stated above, to date, all Category 3 projects that have executed BioMAT contracts are located in areas containing eligible Category 3 biomass resources.[51] Thus, a geographic component appears redundant. The Joint IOUs do not

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[46] Public Utilities Code Section 399.20(f)(2)(A)(iii) [emphasis added].

[47] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 14; citing PG&E BioMAT Executed PPAs 10-Day Report, retrieved from: https://pgebiomat.accionpower.com/biomat/documents.asp?Col=DateDown&strFolder=d.%20PPAs%20Awarded/2.%20PPAs%20Awarded-10-Day%20Report/&filedown=&HideFiles=

[48] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 13.

[49] *Informal Comments of the Joint IOUs on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 10.

[50] Public Advocates Office's Opening Comments, p. 14; citing D.14-12-081, pp. 45-46.

[51] Public Advocates Office's Opening Comments, p. 14; citing PG&E BioMAT Executed PPAs 10-Dya Report, retrieved from: https://pgebiomat.accionpower.com/biomat/documents.asp?Col=DateDown&strFolder=d.%20PPAs%20Awarded/2.%20PPAs%20Awarded-10-Day%20Report/&filedown=&HideFiles=

provide any evidence supporting the need for a geographic component. Absent concrete facts, there is no reason to introduce a geographic component to the requirement that facilities be strategically located, at this time.

Question 16: Allocation of BioMAT costs through a non-bypassable charge

Implementing a non-bypassable charge to *all* customers in the IOUs' service territory[52] fairly allocates BioMAT procurement costs. Of the ten parties who submitted comments regarding the cost allocation proposal, nine support cost-sharing.[53] The only party that opposed a non-bypassable charge is the Joint CCAs, which currently do not share the cost of BioMAT procurement.[54] If a non-bypassable charge is implemented, CCA customers will be required to share costs. The Public Advocates Office recommends that all LSE customers share the costs of the BioMat program, as well as any benefits from the BioMAT program, such as Renewable Energy Credits.[55]

Question 17: Interagency coordination

Public Utilities Code Section 399.20 and D.14-12-081 encourage the Commission to coordinate with other agencies, but that coordination is limited to what is "feasible." The Public Advocates Office supports close coordination with the Commission's sister agencies to promote the state's policies of renewable energy and GHG reduction, so long as closer interagency cooperation does not erode each agencies' independent regulatory obligations (such as the Commission's responsibilities to ensure that costs to ratepayers are in fact just and reasonable). In this case, several parties' recommendations go well beyond feasible agency coordination.

For example, BAC argues that the Commission "[a]llocate 20 percent of Electricity Program Investment Charge (EPIC) funding to BioMAT projects until all 250 MW have been procured…

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[52] Staff Proposal, p. 18.

[53] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 14-15. Schatz Energy Research Center, Humboldt State University's *Comments Regarding the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 2. *Informal Comments of the Joint IOUs on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 10. Placer APCD's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 5. BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 15. (ACEA) *Informal Comments Regarding Staff's BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 5. *Comments of Dairy Cares on the Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018,, p. 8. *Comments of SBUA on Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 3-4. *Informal Comments of GPI on the BioMAT Program Review and Staff Proposal* dated Dec. 7, 2018Green Power Institute, p. 3.

[54] Informal Comments of Direct Access Customer Coalition, and Joint Community Choice Aggregators on Energy Division's BioMAT Program Review and Proposal, dated Dec. 7, 2018, pp. 3-7.

[55] The Staff Proposal also lists other benefits such emissions reduction, waste diversion, and wildfire prevention. If realized, these benefits will be enjoyed by the entire state and not just by the customers of IOUs.

."[56] BAC's proposal should be rejected for several reasons. First, the EPIC Program is in its last triennial investment cycle (2018-2020), and the Commission recently approved the EPIC Program administrators' investment plans, which identified specific investment proposals.[57] Stakeholders, including bioenergy developers, were afforded ample opportunity to propose and advocate that the EPIC Program administrators incorporate appropriate bioenergy investment concepts into their triennial investment plans. Second, BAC ignores the purpose of the EPIC Program. The EPIC Program is a research and development, technology demonstration and deployment, and market facilitation program.[58] Instead, BAC advocates a market support purpose.[59] However, in D.12-05-037, the Commission concluded that EPIC shall not fund investment in market support.[60] Moreover, with respect to bioenergy facility funding, the Commission refused to direct EPIC funds to their operation because:

> While the [Public Goods Charge] may have been an important funding source to spur the development and/or support continued operation of biomass facilities as part of [the Existing Renewables Facilities Program] in the past, it is unclear why the Commission should continue indefinitely to offer electricity ratepayer subsidies to a particular type of facility or fuel that appears to continue to be expensive relative to other options. The RPS program in California is, by definition, technology neutral. Thus, biomass and other bioenergy facilities are free to compete in RPS solicitations and other related programs such as the feed in tariff.
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> . . .
>
> The Commission will continue to participate in and be supportive of multi-agency and/or multi-party discussions of bioenergy policy for the state, such as the Bioenergy Interagency Working Group. A coherent strategy and/or program for encouraging more bioenergy in the state, capturing not only electricity benefits but also the non-energy benefits,

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[56] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018,, p. 18.

[57] D.18-10-052 (issued October 25, 2018); in A.17-04-028 et al.

[58] The Commission previously ordered the EPIC Program administrators to set aside 20% technology demonstration and deployment funds for bio-energy. This set-aside only applied to the EPIC Program administrators' 2012-2014 triennial investment plans. [See, D.12-05-037, pp. 46-47.] However, technology demonstration and deployment is not market support. Technology demonstration and deployment is meant to invest in the "installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments to enable appraisal of the operational performance characteristics and the financial risks." [D.12-05-037, Ordering Paragraph 3, p. 100.] Furthermore, the Commission declined to reauthorize this bioenergy set aside because it found that the EPIC Program administrators were sufficiently funding bioenergy projects on their own. [D.15-04-020, Finding of Fact 7, p. 57.]

[59] D.12-05-037, Ordering Paragraph 4, p. 100. [Market Support is defined as: Programs that seek to enhance the competitive position of certain preferred, commercially-proven technologies or approaches relative to incumbent technologies or approaches."

[60] D.12-05-037, Ordering Paragraph 4. p. 100.

> should be continuing priority. But EPIC funds alone are not the appropriate source for funding such a program.[61]

The Public Advocates Office supports Commission coordination when feasible. Exploring incentive opportunities beyond BioMAT should be the responsibility of the developers.

Question 18: GHG emissions reduction requirements

BAC argues that the "Commission should not require GHG quantification or proof from individual BioMAT projects [because] SB 1122 contains no requirements related to GHG emissions."[62] The Commission should reject this argument for at least three reasons. First, as the Staff Proposal notes, "[a]chieving pollution and GHGs reductions was an original goal of BioMAT."[63] Second, although SB 1122 does not contain a GHG requirement, nothing in SB 1122 prohibits the Commission from establishing GHG reduction regulations for BioMAT. Third, when examining the state's energy policy holistically, there is no question that GHG reduction is a central policy objective. Since SB 1122 was enacted into law in 2012, the state has made subsequent policy determinations that have led to a more aggressive effort to reduce GHG emissions.[64] Additionally, SB 100 established a goal of transitioning toward a zero-carbon electric system in California by 2045.[65] Given the state's policy decision to transition to a more carbon-free electricity generation procurement portfolio, the Commission should adopt a requirement that facilities reduce emissions as a condition for BioMAT eligibility. Shielding BioMAT from GHG reduction verification requirements would only serve to exempt this program from the state's global effort to tackle GHG emissions.

For example, in the Integrated Resource Plan (IRP), the Commission identified biomass (and renewables generally) as a component of the modeling efforts to achieve a "42 MMT Scenario [which] represents increasing momentum from current policies, including renewables, energy efficiency, storage, and a number of other initiatives, to push the most emissions reductions out of the electric sector without creating unreasonable costs."[66] It would be antithetical to state policy and the Commission's own efforts to determine that BioMAT-eligible facilities should be precluded from demonstrating that they too promote, rather than impede, GHG reductions.

Further, requiring GHG reduction verification is an important step towards achieving the statutory requirement to mitigate GHG harms on disadvantaged communities.[67] The Staff

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[61] D.12-05-037, pp. 53-54 [emphasis added].

[62] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018,, p. 17.

[63] Staff Proposal, pp. 22.

[64] See, SB 350, Clean Energy and Pollution Reduction Act of 2015 [Chapter 547, Statutes of 2015]; SB 32, California Global Warming Solutions Act [Chapter 240, Statutes of 2016]; SB 100, California Renewables Portfolio Standard Program: emissions of greenhouse gases [Chapter 312, Statutes of 2018].

[65] See, SB 100, California Renewables Portfolio Standard Program: emissions of greenhouse gases [Chapter 312, Statutes of 2018].

[66] D.18-02-018, p. 52.

[67] See, SB 535, California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund [Chapter 830, Statutes of 2012].

Proposal recognizes that "[s]everal proposed BioMAT facilities are located in Disadvantaged Communities . . . and these facilities could have impacts on local air quality, water quality, and lifecycle greenhouse emissions."[68] The Staff Proposal further acknowledges that "BioMAT facilities emit GHG emissions and other criteria air pollutants at the point of combustion, and trigger additional upstream emissions associated with the production and transportation of the fuel to the facilities" and that "these plants clearly have a higher GHG and other emissions impact than zero-carbon renewable resources[.]"[69] The Staff Proposal deduces that BioMAT facilities may reduce net emissions by "reducing short-lived climate pollutants, reducing the use of biogas flaring . . . and increasing net forecast carbon sequestration" to name a few.[70] However, the Staff Proposal also correctly states that verification of these benefits is dependent "on project-specific factors related to technology, fuel management, the displacement of other emissions, and the timescale over which emissions reductions are realized."[71] Thus, though some BioMAT facilities may be capable of helping the areas where they are located, such as disadvantaged communities, the only way to truly know if they will provide benefits, instead of long-term harms, is to require verification.

The Public Advocates Office reiterates the recommendations it made in opening comments about the specific models that the Commission should consider when establishing quantification tools or methodologies to verify that BioMAT projects will result in net emission reductions.[72] Nonetheless, the Public Advocates Office welcomes the opportunity for a robust stakeholder process that will "assist [stakeholder] understanding of emissions quantification tools or methodologies that could facilitate net emission reduction analysis and resulting benefits from BioMAT facilities."[73] Parties' opening comments reveal a possible need to conduct a thorough fact-finding exercise to bridge that gap between parties' positions regarding BioMAT facility-related GHG emissions, and the information identified in support of either side. For instance, BAC states that "the United States Environmental Protection Agency [EPA] has classified climate emissions from bioenergy production as carbon neutral ("biogenic") . . . "[74] Conversely, the Environmental Groups cite the EPA's Science Advisory Board's conclusions that "bioenergy cannot be considered a priori 'carbon neutral.'"[75] Similarly, the Staff Proposal notes that "BioMAT facilities emit GHG emissions and other criteria air pollutants at the point of combustion, and trigger additional upstream emissions associated with the production and transportation of the fuel to the facilities."[76] Constructing a process for the Commission and

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[68] Staff Proposal, p. 2.

[69] Staff Proposal, p. 11.

[70] Staff Proposal, p. 11.

[71] Staff Proposal, p. 11.

[72] *Informal Comments of the Public Advocates Office regarding Bioenergy Market Adjusting Tariff Program Review and Staff Proposal*, dated Dec. 7, 2018, pp. 15-17.

[73] *Informal Comments of the Joint IOUs on the Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, dated Dec. 7, 2018, , p. 12.

[74] BAC's *Comments on BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 17.

[75] *Informal Comments of the Environmental Groups on the BioMAT Program Review and Staff Proposal*, dated Dec. 7, 2018, p. 12 (citation omitted).

[76] Staff Proposal, p. 11.

stakeholders to better understand the GHG impacts of BioMAT-eligible facilities will lead to the retention of available, or creation of new, tools that will allow the Commission to verify that BioMAT projects are in fact reducing GHG emissions over their lifecycles. This will ensure the BioMAT program will further advance the state's GHG reduction goals.

CONCLUSION

Public Advocates Office requests that the Commission adopt the recommendations made herein. Please contact Christian Knierim at Christian.Knierim@cpuc.ca.gov or (415) 703-1177 with any questions regarding these comments.

Sincerely,

/s/ Julie Halligan

Julie Halligan

Program Manager

Electricity Planning and Policy Branch

cc: Service List R.18-07-003