

**BEFORE THE PUBLIC UTILITIES COMMISSION**

**OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue	)	Rulemaking 11-05-005
Implementation and Administration of	)	(Filed May 5, 2011)
California Renewables Portfolio Standard Program.	)	
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**BIOENERGY ASSOCIATION OF CALIFORNIA'S COMMENTS ON  
STAFF PROPOSAL ON IMPLEMENTATION OF SENATE BILL 1122**

The Bioenergy Association of California (BAC) submits these Comments on the Staff Proposal on Implementation of Senate Bill 1122 (SB 1122). Many BAC members were involved in the development and passage of SB 1122, and BAC has worked with the Commission's staff and consultants since then to provide technical information and suggestions for the program's implementation. Although the Staff Proposal incorporates a few of BAC's suggestions, it will require significant changes to implement SB 1122 as the Legislature intended, which was to provide an incubation program for a pre-commercial industry that, at scale, will provide enormous ratepayer and other benefits. The changes necessary to successfully implement SB 1122 are described below.

**I. BIOENERGY ASSOCIATION OF CALIFORNIA**

The Bioenergy Association of California (BAC) represents all sectors and technologies eligible for SB 1122. BAC's members include bioenergy developers, technology providers, investors, technical experts and other industry members. BAC's members also include numerous public agencies and local governments with a business or regulatory interest in bioenergy, including public agencies responsible for air quality and environmental protection, solid waste and wastewater treatment, water utilities, and more. BAC's members develop, own, operate, and are otherwise involved in bioenergy projects in all three waste categories of SB 1122.

## II. PURPOSE OF SENATE BILL 1122

Although SB 1122 does not contain intent language, its purpose was clearly understood by the Legislature and the Brown Administration and reflected in numerous other policies adopted around the same time. Above all, SB 1122 was intended to incubate the small-scale bioenergy industry across different organic waste sectors, recognizing that bioenergy is very different in both operation and industry maturity than other forms of distributed generation.

### A. Need to Incubate Small-Scale Bioenergy Industry

The *2012 Bioenergy Action Plan*, a joint plan developed by nine state agencies including this Commission and the Governor's Office, was released shortly before and helped lead to the passage of SB 1122. The *2012 Bioenergy Action Plan* points out many of the challenges to the small-scale bioenergy industry and states that "Community-scale bioenergy developers would benefit from a simple and streamlined procurement tool that offers an established price sufficient to incentivize new bioenergy development."<sup>1</sup> More recently, the California Energy Commission (CEC) has described the purpose of SB 1122 in its 2013 Integrated Energy Policy Report: "In 2012, the Legislature expanded this FIT program to spur development of pre-commercial small bioenergy projects."<sup>2</sup> [emphasis added]

Although large biomass plants have been in operation for decades in California, the small-scale bioenergy industry has yet to develop in some sectors (forestry) and has stalled or shrunk in others (dairy, wastewater treatment, landfill gas).<sup>3</sup> The *Final Consultant Report on Small-Scale Bioenergy* (hereinafter, "*Final Consultant Report*"), prepared for this Commission, notes the lack of an existing market for small-scale bioenergy and the likelihood of an "operational learning curve until greater experience is gained on these units in California."<sup>4</sup> The learning curve is

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<sup>1</sup> *2012 Bioenergy Action Plan*, Prepared by the Bioenergy Interagency Working Group, August 2012, at page 34. Available at: [http://www.energy.ca.gov/bioenergy\\_action\\_plan/](http://www.energy.ca.gov/bioenergy_action_plan/).

<sup>2</sup> *2013 Integrated Energy Policy Report, Draft Lead Commissioner Report*, October 2013, at page 59. CEC-100-2013-011-LCD.

<sup>3</sup> *2013 Integrated Energy Policy Report, Draft Lead Commissioner Report*, October 2013, at page 65. CEC-100-2013-011-LCD

<sup>4</sup> *Small-Scale Bioenergy: Resource Potential, Costs, and Feed-In Tariff Implementation Assessment*, Final Consultant Report Prepared for the California Public Utilities Commission, October 31, 2013, at page 1-7.

critical to gain the commercial experience and scale needed to lower prices for small-scale bioenergy projects.

### **B. Need to Spur Projects from Different Waste Sectors**

SB 1122 itself and the *2012 Bioenergy Action Plan*, also emphasize the importance of developing small-scale bioenergy projects from all the different waste sectors. SB 1122 requires specific megawatt amounts from three different waste categories, but within each of those categories, the Legislature specifically mentions different waste types.<sup>5</sup> Significantly, waste categories 1 and 2 each list two or more waste types connected with an “and” rather than an “or” which shows the Legislature’s intent to spur projects of each type, not merely to list the types that are potentially eligible.<sup>6</sup> In category 2, the Legislature includes “dairy and other agricultural waste,” clearly signaling its intention to stimulate the development of dairy projects. If the Legislature had been indifferent as to whether this category would incentivize projects using plant waste or dairy waste, it would have simply listed “agricultural waste,” which is defined by CalRecycle to include both plant and animal waste.<sup>7</sup> Instead the Legislature listed dairy waste specifically, and first, followed by “and other agricultural waste.” Rules adopted to implement SB 1122 should, therefore, ensure that it spurs the development of dairy projects in addition to projects using other agricultural wastes.

The *2012 Bioenergy Action Plan* also underscores the Brown Administration’s intention to spur development of bioenergy projects across all the different waste sectors mentioned in SB 1122 and provides recommendations for each sector. More specifically, it recommends that adjustments are made to the ReMAT “if needed to ensure it incentivizes different forms of bioenergy and adequately accounts for the different bioenergy types’ costs and benefits.”<sup>8</sup>

### **C. The Legislature Intended SB 1122 to Stimulate Projects from Each Waste Sector Because Each Sector Provides Unique Benefits.**

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<sup>5</sup> SB 1122, SEC. 1, amending Public Utilities Code section 399.20 at 399.20(f)(2)(A)(i)-(iii).

<sup>6</sup> *Id.*

<sup>7</sup> 14 CCR 17852. CalRecycle defines agricultural material as “material of plant or animal origin, which result from the production and processing of farm, ranch, agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural products, including manures, orchard and vineyard prunings, and crop residues.” [emphasis added]

<sup>8</sup> *2012 Bioenergy Action Plan*, above, at page 34.

All small-scale bioenergy provides a distributed source of baseload renewable electricity, helping to meet the Renewable Portfolio Standard and to firm and shape intermittent renewables. Each waste sector provides additional benefits as well. Both SB 1122 and the *2012 Bioenergy Action Plan* specifically address different waste sectors because each sector provides unique benefits for ratepayers and California more generally.

1. Category 1 Benefits.<sup>9</sup>

Bioenergy from wastewater treatment facilities provides baseload renewable power with potential for use as energy storage, firming and shaping. It can also help to meet the onsite load of wastewater treatment facilities, reducing costs for water utility customers. Bioenergy from diverted municipal organic waste, food processing and codigestion can provide baseload renewable electricity as well as energy storage and energy for firming and shaping intermittent renewables. In addition, most category 1 waste types are located in urban areas where distributed bioenergy can relieve grid congestion.

2. Category 2 Benefits.<sup>10</sup>

Bioenergy from dairy waste can provide energy storage in addition to baseload power. This storage capacity is likely significant, storing multiple days of gas, given the ability to build large lagoon digesters with inflatable covers. It can also help to firm and shape intermittent renewables. Both dairy and agricultural waste can provide energy in more remote rural areas, providing benefits to the grid and rural electricity supplies. Bioenergy from dairy waste also provides significant greenhouse gas reductions,<sup>11</sup> which could help the utilities to meet the requirements of AB 32, and reduces both air and water pollution.

3. Category 3 Benefits.<sup>12</sup>

SB 1122 includes category 3 to ensure that small-scale forest biomass projects are developed to reduce the risks and impacts of catastrophic wildfires, both to ratepayers and to public health and safety. The recent Rim Fire demonstrated the direct ratepayer and public health impacts of

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<sup>9</sup> PU Code section 399.20(f)(2)(A)(i).

<sup>10</sup> PU Code 399.20(f)(2)(A)(ii).

<sup>11</sup> AB 32 Scoping Plan, 2008; *Climate Change Scoping Plan, First Update, Discussion Draft for Public Review and Comment*, October 2013, released by the California Air Resources Board. Both plans available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.

<sup>12</sup> PU Code 399.20(f)(2)(A)(iii).

large wildfires, causing tens of millions of dollars in damages to utility infrastructure, both power lines and substations, and risking significant impacts to the Hetch Hetchy reservoir from erosion and sedimentation caused by the fire.<sup>13</sup> The investor-owned utilities pay millions of dollars in fire related damages that they themselves cause, and which could be mitigated by additional forest fuel treatments that are then used to produce bioenergy at small-scale facilities located in or near high fire hazard zones. Reducing catastrophic wildfire also reduces the enormous carbon emissions from those fires, helping California to meet its requirements under AB 32.<sup>14</sup>

#### **D. Unique Characteristics of Bioenergy Compared to Other Forms of Distributed Generation.**

Both the Legislature and the Brown Administration recognized the unique characteristics of bioenergy and intended this Commission to adapt the ReMAT program to fit those characteristics. SB 1122 requires the Commission to direct the utilities to “develop standard contract terms and conditions that reflect the operational characteristics of the projects.”<sup>15</sup> [emphasis added] The *2012 Bioenergy Action Plan* also recommends that the Commission monitor the ReMAT and make necessary adjustments to it to “(e)nsure that dairy digesters, community-scale forest biomass and other types of bioenergy projects benefit from the SB 32 feed-in-tariff.”<sup>16</sup>

The Staff Proposal includes three significant adjustments to the ReMAT to reflect the unique characteristics of bioenergy: a higher starting price, flexibility across waste categories, and extensive verification and reporting requirements. It does not, however, address other critical differences between bioenergy development and other forms of distributed generation that are more mature and more standardized (by fuel source, technology and operational characteristics). Many of the recommended changes below are necessary to “reflect the

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<sup>13</sup> <http://sanfrancisco.cbslocal.com/2013/09/16/rim-fire-nearly-contained-hetch-hetchy-repairs-may-take-months/>.

<sup>14</sup> *Biomass to Energy: Forest Management for Wildfire Reduction, Energy Production, and Other Benefits*, Prepared by the USDA Forest Service for the California Energy Commission, January 2010, CEC-500-2009-080, page 3.

<sup>15</sup> PU Code 399.20(f)(2)(B).

<sup>16</sup> *2012 Bioenergy Action Plan*, above, Actions 4.2.a and 4.2.b, at page 34.

operational characteristics of the projects” that are unique to bioenergy and to ensure that SB 1122 works as intended by the Legislature and the Governor when SB 1122 was enacted.

### **III. ELIGIBILITY ISSUES (QUESTION 4.1.A)**

SB 1122 does not require or suggest that eligible bioenergy projects should be excluded from the ReMAT. Quite the contrary, SB 1122 requires the addition of 250 megawatts to be allocated to bioenergy, not to replace the baseload or other categories in the ReMAT program.<sup>17</sup>

Projects that are eligible for SB 1122 and the ReMAT should be allowed to choose which program to participate in and should not be automatically excluded from the ReMAT simply because they are eligible for SB 1122. Allowing bioenergy projects to participate in the ReMAT would also enable them to gain the experience required to participate in SB 1122.

Projects should not be allowed to participate in both auctions at the same time, but it is highly unlikely that would occur since it would require the ReMAT and SB 1122 auctions to happen at virtually the same price at the same time. A project that is ready to participate between now and fall of 2014 should be allowed to participate in the ReMAT. Once the SB 1122 auctions commence, an SB 1122 eligible project should still be able to participate in the ReMAT or SB 1122, but should not be allowed to be in both queues at the same time.

### **IV. ALLOCATION ISSUES (QUESTIONS 4.1.B AND 4.1.E)**

BAC proposes to change the megawatt allocations by fuel category to better accommodate industry needs and fuel source distribution. Specifically, BAC recommends reducing PG&E’s Category 3 allocation by 13.5 MW and shifting those to SCE. Similarly, BAC recommends adding 13.5 MWs to PG&E’s category 2 allocation and reducing SCE’s allocation by a commensurate amount. This proposed allocation is consistent with the *Final Consultant Report* estimates that there are three times more Category 2 resource available to PG&E than to SCE and recognizes

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<sup>17</sup> PU Code 399.20(f)(2).

that the overwhelming majority of agricultural and dairy feedstocks are located in the PG&E service territory. The proposed revision is also consistent with industry needs to foster efficient and competitive agricultural and forestry projects throughout the state.

With this change, the allocation by utility and fuel category would be:

Utility	Category 1:	Category 2:	Category 3:	Share of Statewide Peak Demand
PG&E	30.5	<del>33.5</del> <b>47</b>	<del>47</del> <b>33.5</b>	110.78
SCE	55.5	<del>56.5</del> <b>43</b>	<del>2.5</del> <b>16</b>	114.53
SDG&E	24	0	0.5	24.68
SB 1122 Procurement Targets	110	90	50	

#### V. COMMENCING OPERATIONS (QUESTION 4.1.C)

BAC generally agrees with the Staff Proposal to use the definition of “commercial on line date” in the *RPS Eligibility Guidebook*, except for the current definition of “repowering” for biogas projects, which is not consistent with the definition of repowering for other renewable energy projects. The current *RPS Eligibility Guidebook* requires a biogas project to replace both the digester – which may have been built for water treatment or other purposes – as well as the prime generating equipment.<sup>18</sup> The *Final Consultant Report on Small-Scale Bioenergy* makes clear that the added requirement for biogas projects could triple the cost of bioenergy from wastewater treatment facilities<sup>19</sup> – the original focus of California’s first feed-in tariff - and could increase costs in other sectors as well. For other forms of renewable energy, the *RPS Eligibility Guidebook* only requires replacement of the prime generating equipment to qualify as

<sup>18</sup> *RPS Eligibility Guidebook* (7<sup>th</sup> ed., April 30, 2013), at page 58. The *Guidebook* is available at: <http://www.energy.ca.gov/portfolio/documents/index.html>.

<sup>19</sup> *Final Consultant Report*, above, Table 4-1 and 4-1, pages 4-1 and 4-2.

a repower.<sup>20</sup> It does not require replacement of the equipment used to produce the fuel or used for other purposes altogether.<sup>21</sup>

The California Association of Sanitation Agencies (CASA) is also a party to this proceeding and an active member of BAC. CASA concurs with the suggestions and comments made herein, and would emphasize the changes identified in this Section are vital to ensuring that wastewater entities will be able to participate in the SB 1122 program.

BAC and CASA are working with the California Energy Commission and other stakeholders to develop an alternative definition of repowering for biogas projects that stimulates new projects without adding repowering requirements that would significantly increase the costs of SB 1122 and exceed repowering requirements for other renewables.

## **VI. BIOENERGY CATEGORIES (QUESTIONS 4.1.D)**

### **A. Flexibility across Waste Sectors**

BAC agrees with the Staff Proposal to allow up to 20 percent waste from another category of SB 1122, with the exception of dairy waste. For dairy projects, adding more than “de minimus” waste from another category would constitute “co-digestion” and should be included in Category 1 rather than Category 2 of SB 1122.

### **B. Definition of Agricultural Waste**

1. BAC agrees with the Staff Proposal that the line between food processing waste in Category 1 and agricultural waste in Category 2 must be clearly delineated.<sup>22</sup>
2. BAC urges the Commission to clarify that the term “on the premises” in the definition of agricultural waste does not define the feedstock to be used or exclude waste produced on premises other than where the generator is located. In other words, the definition of

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<sup>20</sup> *RPS Eligibility Guidebook*, above, at page 58.

<sup>21</sup> *Id.*

<sup>22</sup> Staff Proposal at page 18.

agricultural waste should not limit eligible feedstock to feedstock that is produced on the same premises as the bioenergy facility.

### **C. Clarification of Category 1 Eligibility**

BAC agrees with the Staff Proposal to use the definition of “biogas” contained in the *RPS Eligibility Guidebook* which includes “any gas derived from an eligible biomass feedstock.”<sup>23</sup>

According to this definition, gasification of an eligible biomass feedstock, such as diverted wood waste, is eligible under category 1 of SB 1122.<sup>24</sup>

## **VII. COMPLIANCE AND VERIFICATION (QUESTION 4.1.F)**

### **A. Fuel Source Flexibility (Questions 4.1.F.1 and F.2)**

As stated in section VI-A above, BAC agrees with the Staff Proposal that at least 80 percent of the fuel for a bioenergy generation facility must be from the SB 1122 category for which it is contracted with the utility, with the exception of dairy waste projects, which should include no more than de minimus waste from other categories. Existing small-scale bioenergy projects have found that using multiple feedstocks can increase biogas production significantly. For example, adding food or other organic waste to wastewater treatment projects can double or triple the methane production, significantly increasing the electricity generation and reducing the cost per megawatt. Existing gasification projects have found that mixing agricultural and diverted municipal organic waste can also improve a project’s output and reduce costs by providing flexibility in feedstocks and improving the generation process itself.<sup>25</sup> Allowing up to 20 percent flexibility for projects other than dairy projects, will reduce project costs and improve project efficiencies, both of which will reduce the costs of the SB 1122 program.

### **B. Determination of SB 1122 Fuel Category (Questions 4.1.F.3 and F.4)**

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<sup>23</sup> Staff Proposal at page 15.

<sup>24</sup> PU code 399.20 (f)(2)(A)(i).

<sup>25</sup> See, eg, Phoenix Energy projects in Modesto and Madera where adding wood waste and peach pits improves production and increases output.

BAC does not agree with the Staff Proposal that the contracting IOU should determine the relevant category of fuel sources. IOUs have no particular expertise in distinguishing one waste source from another and requiring them to make the determination could be a source of delay in project development. Instead, project applicants should determine the appropriate category under SB 1122 before entering the queue. IOUs should accept the applicant's determination unless the IOU has reason to challenge it.

### **C. Monitoring and Verification (Questions 4.1.F.5 – F.11)**

BAC agrees with the Staff Proposal that monitoring and verification of fuel categories is necessary to ensure that the IOUs meet the requirements of SB 1122 to procure a certain number of megawatts in each of the three waste categories. The ReMAT should be monitored similar to the FERC Form 556 for Qualified Renewable Facilities, which requires owner "Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually: Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregate, exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter."<sup>26</sup>

### **VIII. PRICING (Question 5)**

Although BAC supports the higher starting price recommended in the Staff Proposal, without other pricing changes, implementation of SB 1122 will still be significantly delayed and may not work to incubate the small-scale bioenergy industry across all the sectors mentioned in SB 1122. As the *Final Consultant Report* noted, the current ReMAT starting price, combined with other ReMAT rules, will result in 33 month delays for bioenergy projects, which would not comply with the intent of SB 1122.<sup>27</sup> BAC recommends several additional changes to ensure that the program incentivizes projects in all three categories of SB 1122 and in a timely manner.

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<sup>26</sup> [www.ferc.gov/docs-filing/forms/form-556/form-556.pdf](http://www.ferc.gov/docs-filing/forms/form-556/form-556.pdf).

<sup>27</sup> *Final Consultant Report on Small-Scale Bioenergy*, above, at pages 1-7 and 1-8.

Some of BAC's recommendations, such as reducing the minimum number of bidders, would remove mechanisms intended to protect against market manipulation, but as noted above and in the *Final Consultant Report*, the bigger risk with SB 1122 is failing to stimulate a market at all. The Commission has authority to suspend the program and take other steps to protect ratepayers, potentially including setting a price point at which the Commission would review program costs and market behavior. Rules designed for much larger industries operating at a commercial scale should not be applied to the pre-commercial bioenergy industry, which still requires incubation and a learning curve to achieve commercial scale.

#### **A. Starting Price (Question 5.4)**

BAC strongly supports the Staff Proposal to start at \$124.66/MWh to enable eligible projects to participate in SB 1122 in a timelier manner. The starting price of \$124.66/MWh is lower than the low estimate of levelized costs for Categories 2 and 3 projects and between the low and medium estimates for Category 1 projects.<sup>28</sup> A starting price at \$124.66 is still low enough to encourage the lowest cost projects in each of the different categories of SB 1122. Setting it any lower would delay program participation without benefit to ratepayers.

#### **B. Separate Price or Other Mechanism for Dairy Projects**

BAC urges the Commission to adopt a separate price or other mechanism to ensure that dairy projects can participate in SB 1122. As explained in Section II-B above, SB 1122 was enacted not just to stimulate bioenergy generally, but to ensure the benefits of bioenergy from each of the different waste sectors, including dairy. Yet dairy projects will not be able to participate in the program as set forth in the Staff Proposal since dairy projects are significantly more expensive than other agricultural projects,<sup>29</sup> but are in the same category of SB 1122.<sup>30</sup> It is critical, therefore, to adopt a mechanism that ensures dairy projects can participate in SB 1122.

BAC urges the Commission to create a price screen between dairy and other agricultural waste projects. The screen would enable each sector (dairy and other agriculture) to begin bidding at

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<sup>28</sup> *Final Consultant Report*, above, at page 4-1 to 4-4.

<sup>29</sup> *Final Consultant Report*, above, at page 4-3.

<sup>30</sup> PU Code 399.20(f)(2)(A)(ii).

the price point that is appropriate for that sector while maintaining competition within that sector. The price adjustments and adjustment periods would remain separate for each of the sectors, but the megawatts for Category 2 would be distributed on a first come/first served basis.

### **C. Price Adjustment Periods (Question 5.6)**

BAC recommends accelerated price increases until sufficient numbers of projects begin to participate in SB 1122 to avoid lengthy delays in program participation, particularly for some of the smaller and more expensive sectors. Although the higher starting price proposed by staff will enable projects to participate in SB 1122 sooner, bioenergy projects will still face unacceptable delays waiting for the price to reach a point at which a project could possibly participate. In the forest sector, it would take 15 months to reach the medium range price estimated in the *Final Consultant's Report*.<sup>31</sup> Even to reach the low range price estimate would require 7 months (including 1 month from opening until first offering plus 3 price increases each increase over a 2 month period).<sup>32</sup> BAC agrees with the *Final Consultant Report's* proposal for either a faster tariff ramp or larger price step changes to make the SB 1122 program operational more quickly.<sup>33</sup> BAC recommends adjusting the price monthly until the first project proponent bids at a price under the program.

### **D. Minimum Number of Bidders (Question 5.6)**

BAC recommends reducing the minimum number of bidders required in categories 2 and 3 of SB 1122. As noted above, the small-scale bioenergy industry is very small overall, nonexistent in some sectors and shrinking in others. The biggest risk with SB 1122 is failing to stimulate the market at all or within a reasonable time period. Requiring a minimum of five bidders in the queue for each category of SB 1122 could result in delays of 33 months,<sup>34</sup> and potentially even longer for the forestry and dairy/agricultural sectors. In the forestry sector, there are not five

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<sup>31</sup> *Final Consultant Report on Small-Scale Bioenergy*, above, at pages 4-3 and 4-4.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.* At page 1-8.

<sup>34</sup> *Id.*

projects in development or even in the planning stage at this point.<sup>35</sup> As the *Final Consultant Report* stated, few SB 1122 eligible projects have passed the ReMAT eligibility screens and only seven of those – across all three waste categories in SB 1122 - were in the utilities’ interconnection queue.<sup>36</sup> In the most recent ReMAT solicitation, PG&E had fewer than five applicants in the baseload category (which includes small hydropower in addition to bioenergy) but had 22 requests and 15 applicants in the peaking as available category.<sup>37</sup>

Requiring the same minimum number of bidders for small-scale bioenergy as for solar and wind, which are significantly larger and more established industries in California, places a disproportionate burden on SB 1122 eligible projects and will significantly delay if not prevent successful program implementation in one or two of the SB 1122 program categories.

#### **E. Inflation Adjustment Adder (Question 5.6)**

BAC urges the Commission to include an inflation adjustment adder to account for non-fixed costs such as fuel collection and transport and labor. Unlike solar and wind power, which have relatively fixed costs and no ongoing fuel costs, bioenergy production requires ongoing fuel collection, treatment and – in many cases – transport. Bioenergy also has higher operation and maintenance costs, which will increase over time, due to fuel collection and treatment as well other operation and maintenance costs, including: 1) the costs of running reciprocating engines and other generating equipment; 2) replacement of parts such as oil, spark plugs, filters, urea for emissions control, filters for H2S control; 3) the labor associated with monitoring and replacing these parts and also the extensive labor costs for regular top end and bottom end overhauls.

A fixed price contract with no inflation adder requires front-loading costs that will increase over time, putting project developers and the utilities at risk. BAC recommends instead that an

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<sup>35</sup> See Comments of Placer County Air Pollution Control District.

<sup>36</sup> *Final Consultant Report on Small-Scale Bioenergy*, above, at page 1-1.

<sup>37</sup> [http://www.pge.com/includes/docs/pdfs/b2b/wholesaleelectricssuppliersolicitation/ReMAT/Program\\_Period\\_1\\_Queue\\_Information.pdf](http://www.pge.com/includes/docs/pdfs/b2b/wholesaleelectricssuppliersolicitation/ReMAT/Program_Period_1_Queue_Information.pdf).

inflation adder of 70 percent of the Consumer Price Index be included in the tariff price for SB 1122 projects.

#### **IX. OTHER CHANGES NEEDED TO THE ReMAT (Question 5.7)**

BAC urges the Commission to adjust the requirement for Developer Experience.<sup>38</sup> Given the scarcity of developers, early stage of the industry, and need to maximize competition, we recommend that the definition of “Developer Experience” be amended to allow for the utilization of bioenergy experience across categories.

The following is from the PG&E tariff, redlined with our suggested changes:

“Developer Experience: The Applicant must provide ~~the utility to PG&E~~ an attestation that at least one member of its development team has: (a) completed the development of at least one bioenergy project ~~of similar technology and capacity~~; or (b) begun construction of at least one other project of similar technology and capacity. A project less than 1 MW will be deemed to be similar capacity to a Project up to 1 MW. A project between 1 MW to 3 MW will be deemed to be a similar capacity to a Project up to 3 MW. For example, for a 3 MW Project, a project of similar capacity cannot be smaller than 1 MW.”

#### **X. OTHER CHANGES NEEDED TO THE PPA TEMPLATE (Question 5.8)**

##### **A. Definition of Strategically Located**

BAC recognizes the goal of containing interconnection costs, but the current definition of “strategically located” would preclude many or perhaps most SB 1122 projects from interconnecting. Unlike solar and wind projects, which have great flexibility about location, bioenergy projects generally must be located at or near the site of the waste production. Facilities such as wastewater treatment plants, dairies, food processing plants, farms and orchards cannot be moved. Forest biomass facilities also need to be located close to high fire risk areas.<sup>39</sup> California’s first feed-in tariff statute, AB 1969, which focused on energy production at wastewater treatment facilities, recognized that and deemed wastewater

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<sup>38</sup> Decision 12-05-035, section 10, page 69.

<sup>39</sup> See, eg, CalFire’s letter to the CPUC dated June 14, 2013.

treatment facilities as “strategically located.”<sup>40</sup> That statutory definition and the requirements of SB 1122 supersede the Commission’s current definition of “strategically located.”

Since SB 1122 was enacted after the Commission adopted its current definition of “strategically located,” it is appropriate (and necessary) to make conforming changes to implement the legislation. To maintain cost-containment wherever possible while fulfilling the more recently enacted requirements of SB 1122, BAC recommends the following revised definition of “strategically located”:

“Strategically located” means that the generator is interconnected to the distribution, as opposed to, the transmission system and either (1) sited near load or (2) located in a geographic area necessary to meet state legislative requirements. “Sited near load” means in an area where interconnection of the proposed generation requires \$300,000 or less in upgrades to the transmission system or the generator bears any costs above \$300,000, whether or not such costs are determined before or after the execution of the contracts.

## **B. Guaranteed Energy Production**

Given the limited experience of small-scale bioenergy developers in California and the variable fuel sources (feedstocks), BAC also recommends that the contract term allow for greater energy fluctuation during the first two years of a project’s term. We recommend allowing for 140 percent fluctuation within the first two years of a project, then 170 to 180 percent fluctuation in subsequent years. BAC also recommends removing penalty provisions during the initial two-year period. Providing this flexibility would not increase costs of the program as the cost to replace power is almost certain to be lower than SB 1122 contract prices.

Also, BAC urges the Commission to revise the damages provision to reflect actual damages for failing to meet Guaranteed Energy Production requirements. The PPA Template’s damages for

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<sup>40</sup> AB 1969 (Yee, 2006), adding section 399.20 to the Public Utilities Code. Section 1(f) declares that: Public water and wastewater facilities are strategically located and interconnected to the electric transmission system in a manner that optimizes the deliverability of electricity generated at those facilities to load centers.

failing to meet GEP appear to be punitive since they would exceed actual damages. Including punitive damages provisions seems contrary to the Legislature's intention to incubate the small-scale bioenergy industry in California. Moreover, since replacement power on the spot market would likely cost less than SB 1122 contract prices, no damages would actually occur as a result of failure to meet GEP.

### **C. Changes to Contract Amount over Life of Contract**

BAC urges the Commission to allow more than one change to contracted energy quantities over the course of a ten- to twenty-year PPA. While we appreciate the need for planning and predictability, allowing only one change in a one- to two- decade long contract is not realistic or even desirable for many bioenergy projects. Because bioenergy depends on variable fuel sources, subject to natural and regulatory conditions beyond developers' control, additional changes may be legally required or otherwise necessary. For instance, in the forest sector, climate changes, wildfire, new findings on forest sustainability and other issues could all impact the availability and cost of fuels for a particular facility. In the agricultural sector, changing crop production, the availability of water (which affects crop choices and output) in any given year, and other significant events can have enormous impacts on which fuels are available and when, and can vary greatly from year to year which, in turns, affects energy production.

In addition, wastewater treatment facilities, solid waste processing facilities, landfills and other bioenergy facilities operate under quickly changing regulatory requirements that could affect both the availability of fuels and the energy production capacity of these facilities. For example, in the South Coast Air Quality Management District, some wastewater treatment facilities may be forced to shut down existing generators and flare their biogas because new emissions standards for internal combustion engines require technologies that may not be available, reliable or affordable for public agencies. Since these are public agencies providing essential public services, they require the flexibility to make adjustments that will best protect the environment, public health and safety, as well as public finances.

Similarly, for bioenergy from diverted urban organic waste, the regulatory framework is likely to change multiple times over the next ten to twenty years and may necessitate more than one

change to contract quantities for bioenergy.<sup>41</sup> For other bioenergy facilities using urban organic waste, there are almost certain to be regulatory changes affecting the amount and type of organic waste that will be available which will, in turn, affect bioenergy production.<sup>42</sup>

In addition, many of these facilities – including public agency developers – have changing needs for onsite energy and their ability to use the energy onsite is critical to these agencies and developers. Such changes in onsite demand affect the amount of energy that is available for export. Allowing additional onsite use of the energy may also provide additional grid benefits by reducing transmission needs to and from projects.

Finally, BAC urges the Commission to explore the utilities' claim that contract quantity changes that occur more than once in a decade or two could negatively impact the grid. While we understand the need for resource adequacy and grid stability, we do not see evidence from the utilities that delivery changes agreed to a year or more in advance by distributed generation facilities would negatively impact grid stability or resource adequacy.

For all these reasons, BAC urges the Commission to allow more than one change to contract quantities for the contract period to allow greater flexibility in the bioenergy sector, which has more variables than other sectors.

#### **D. Contract Cancellation due to Utility Caused Delays (Section 2.8.2.2)**

Utilities should not be able to cancel contracts due to interconnection delays when the delay is caused by the utility or CAISO. Section 2.8.2.2 of the PPA template allows for a six month contract extension when interconnection delays are caused by an IOU or CAISO, but the developer is still vulnerable to contract cancellation if the IOU or CAISO delays a project's interconnection past the six month period. Rather than allowing utilities to cancel contracts for delays not caused by developers, Section 2.8.2.2 should allow contract extensions for as long as the utility or CAISO caused interconnection delay continues.

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<sup>41</sup> See, eg, Assembly Bill 323 (Chesbro, 2013), which would require commercial organics recycling. See also, the *Climate Change Scoping Plan First Update, Discussion Draft for Public Review and Comment*, released by the California Air Resources Board, October 2013.

<sup>42</sup> Id.

### **E. Scheduling Delays (Appendix D, Section 15)**

BAC seeks clarification of the term “binding” for the day ahead forecast. It is our understanding that the Seller is only responsible for penalties for failure to provide forecasts and failure to report outages, but request clarification of this issue.

## **XI. OTHER ISSUES AND QUESTIONS**

### **A. Is any Bioenergy not “baseload” (Questions 6.1-6.3)**

All bioenergy projects can provide baseload power, but they can also provide peaking, shaping and load-following power. Bioenergy projects using biogas can also provide energy storage because the gas can be stored and used at a later time.

### **B. Feedstock from Outside Utility Service Territory (Question 6.4)**

Although SB 1122 requires a generating facility to be located within the service territory of the contracting IOU, nothing in SB 1122 requires that the feedstock be sourced within the IOU’s service territory.

### **C. Coordination with other State Incentives (Question 6.5a)**

BAC is aware of the following incentives and subsidies that the Commission should coordinate with in implementing SB 1122:

#### **1. Electricity Program Investment Charge**

The Electricity Program Investment Charge (EPIC), which was developed and authorized by this Commission, is administered by the CEC and the IOUs. The Commission required that at least 20 percent of the Technology Demonstration and Deployment funds be allocated to bioenergy projects. Additional funding from the Research & Development, Technology Demonstration and Deployment, and Market Facilitation funds should be allocated to bioenergy projects with priority given to SB 1122 eligible projects.

The IOUs also administer EPIC funding and should be required to coordinate their funding with this program to reduce program costs and incentivize projects in the less robust categories and markets.

## 2. Cap and Trade Revenues

Cap and trade revenues from the sale of allowances should also be coordinated with SB 1122 and used to help incentivize projects across the different sectors. State agencies such as CalFire, California Department of Food and Agriculture, and CalRecycle should coordinate their cap and trade revenues with SB 1122 to incentivize eligible projects.

## 3. Carbon Offset Credits

The only bioenergy sector with an approved carbon offset protocol is the dairy sector. The Air Resources Board should consider additional offset protocols for wastewater treatment, forestry, diverted municipal organic waste, and agricultural projects, which could help to reduce the costs of SB 1122 implementation.

## 4. Grant Funding from CalRecycle, the U.S. Department of Agriculture and other Public Agencies

Several other state and federal agencies have grant programs that should be coordinated with SB 1122 implementation, including programs at the U.S Department of Agriculture to help dairy and forestry projects, programs at CalRecycle to reduce landfilling, and others.<sup>43</sup>

### **D. Definition of “Control” and “Affiliate” in Tariff**

BAC request a clarification to the term “affiliate” and what it means in terms of the program to ensure that the small-scale bioenergy market is sufficiently flexible to allow this fledgling industry an opportunity to grow. The Commission determined that a ‘seller concentration’ requirement was too complicated and time consuming, and that reliance on different product types provides for sufficient opportunity for different market segments to participate in the

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<sup>43</sup> See, eg, [www.rurdev.usda.gov/ca](http://www.rurdev.usda.gov/ca).

ReMAT. The challenge is that the definition of the term “affiliate” within the current Tariff is not consistent with the Commission’s position. Section H of the tariff states:

H. PRICE (Continued)

a. A Contract Price adjustment ... only if ... there are at least five (5) eligible Projects from five (5) different Applicants (including Applicant’s Affiliates) ....

If an Applicant or its Affiliates have **any** ownership interest . . . the Project will be attributed to the Applicant(s) for purposes of this provision. **If there are fewer than (5) eligible Projects from five (5) different Applicants in the queue for any Product Type** at the beginning of any Period, then the Contract Price for that Product Type will remain the same in the next Period. [emphasis added]

This definition essentially re-inserts the seller concentration requirement into the program.

While the Re-Mat program still requires that different sponsors occupy the queue, there is no requirement that affiliates of sponsors be prohibited from participating in the program. The Commission has already determined that seller concentration is not required. The language within the Tariff should be changed to clarify the Commission’s intentions and strike language within Section H that refers to project applicant affiliates.

## **XII. CONCLUSION**

The Legislature intended SB 1122 to incubate and launch the small-scale bioenergy industry in California. Achieving those goals will require significant changes to the Staff Proposal that reflect the industry’s small size and stage of development, as well as operational differences that SB 1122 requires the program rules to address. Program requirements should focus on stimulating enough eligible projects across all the waste sectors for the industry to gain experience, drive costs down and reach commercial scale in California. Doing so will provide the significant ratepayer and public benefits intended by the Legislature and the Administration in enacting SB 1122.

DATED: December 20, 2013

Respectfully submitted,

*/s/ Julia A. Levin*

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**VERIFICATION**

I am a representative of the non-profit organization herein, and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and, as to those matters, I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 20th day of December, 2013, at Kensington, California.

*/s/ Julia A. Levin*

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