

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue
Implementation and Administration of
California Renewables Portfolio Standard
Program.

Rulemaking 11-05-005
(Filed May 5, 2011)

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-E)
REPLY COMMENTS ON ADMINISTRATIVE LAW JUDGE'S
RULING SEEKING COMMENTS ON STAFF PROPOSAL ON
IMPLEMENTATION OF SENATE BILL 1122**

JUDI K. MOSLEY
CHARLES M. MIDDLEKAUFF
Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, CA 94120
Telephone: (415) 973-1455
Facsimile: (415) 972-5952
E-mail: JKM8@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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I. INTRODUCTION

PG&E appreciates the opportunity to provide reply comments on the Staff proposal on the implementation of Senate Bill (SB) 1122. In these reply comments, PG&E responds to opening comments on cost containment, bioenergy categories, fuel verification, power purchase agreement (PPA) terms, and program eligibility.

As noted in its opening comments filed on December 20, 2013, PG&E remains concerned about the magnitude of costs that Investor Owned Utility ("IOU") customers may incur through the SB 1122 program in comparison to alternative RPS-eligible sources. To protect IOU customers from potentially excessive costs, it is imperative the Commission take steps to contain costs and ensure those costs are shared equitably.

The development of California's bioenergy industry requires a holistic and coordinated policy approach by state and federal agencies that fairly allocates the costs across all Californians. SB 1122, which calls for a feed-in tariff (FIT) procurement program for small-

scale bioenergy projects, is just one vehicle chosen by the state to promote the bioenergy sector.^{1/} SB 1122 is not the sole method for procuring bioenergy, nor was it intended to create a carve-out for the industry at any cost. In fact, the Legislature intended for this program to be market-based and to include cost containment mechanisms to prevent excessive costs that would inflict undue harm on IOU customers.^{2/}

II. COST CONTAINMENT

Starting Price. The Staff proposal relies on bioenergy prices from the first, second and third Renewable Auction Mechanism (RAM) solicitations to determine the starting price. A number of parties^{3/} – including PG&E – noted in their opening comments that the proposed starting price does not reflect that current market price for renewable energy, nor does it accurately capture all available market data. PG&E stressed that the starting price of \$124.66 per Megawatt Hour (“MWh”) is significantly higher than alternative RPS-eligible renewable energy sources. PG&E agrees with recommendations by a number of parties^{4/} that more recent market data should be included in calculating the starting price and proposes that the starting price for SB 1122 projects should be the simple average pre-Time of Delivery (“pre-TOD”) price of all RAM projects executed by all IOUs in the first four auctions.^{5/} The price adjustment mechanism will ensure that the price accurately reflects the market price of bioenergy projects while at the same time protecting customers from excessively high prices.^{6/} By designing the program this way, the Commission would mitigate the risk of project developers gaining excess profits at the expense of customers.

^{1/} Some examples include implementation of Assembly Bill (AB) 1900 and AB 2196, use of ARB cap-and-trade investment plan monies, and California Energy Commission’s EPIC funds.

^{2/} See Section 399.15(c) requiring the Commission to establish expenditure limitations for renewable resources, Section 399.20 (d)(2) and Section 399.20 (d)(4).

^{3/} Opening comments of The Utility Reform Network (TURN), Dec. 20, 2013, p. 4; opening comments of Southern California Edison (SCE), Dec. 20, 2013, pp. 11-12; opening comments of San Diego Gas & Electric Company Comments (SDG&E), Dec. 20, 2013, p. 7.

^{4/} TURN opening comments, p. 4. SCE opening comments, p. 12.

^{5/} PG&E’s Opening comments, Dec. 20, 2013, p. 6.

^{6/} PG&E Opening comments, Dec. 20, 2013, pp. 5-6.

A number of parties propose maintaining or raising the starting price of \$124.66/MWh, claiming bioenergy projects are more expensive and that without a higher starting price, the development of new assets will be delayed because it would take a long time for the price to increase to a level that is high enough to support bioenergy projects.^{7/} In fact, some parties suggest the price for dairy and other agricultural residues in Category 2 be further split into two separate prices, with one party proposing a starting price as high as \$253/MWh for dairy projects in that category.^{8/}

PG&E notes that the Legislature did not intend for this program to develop the bioenergy industry at any cost to ratepayers. The statute is very clear in its reference to Section 399.15(c) and the requirement to limit costs. Nor did SB 1122 provide for the price mechanism for Category 2 to be split in two. If the Legislature had intended for that to be the case, it would have separated the Category 2 targets between the two technologies or removed bioenergy projects using agricultural waste from the category entirely. Commission adoption of such a proposal would directly contradict the requirements of the statute.

Finally, there appears to be no merit in calling for a starting price that is already at the *estimated* Levelized Cost of Electricity (“LCOE”) price for bioenergy projects^{9/} based on the Black & Veatch study. The Green Power Institute recommends a starting price for all technologies that blends the low and medium LCOE estimates.^{10/} In its opening comments,

^{7/} Comments of the Green Power Institute, Dec. 20, 2013, p. 7-8; comments of Dairy Cares, Dec. 20, 2013, p. 7; comments of Bioenergy Association of California (BAC), p. 11; comments of Sustainable Conservation, Dec. 20, 2013, p. 8; Placer County Air Pollution Control District Opening Comments, Dec. 20, 2013, p. 1. In Opening Comments, L. Jan Reid proposes to maintain the Staff’s proposed starting price for all technologies with the exception of existing digestion projects under Category 1, which he proposed should be priced at \$92.46/MWh (p. 10).

^{8/} Comments of the Green Power Institute, p. 7-8; comments of Dairy Cares, p. 7; BAC comments, p. 11; comments of Sustainable Conservation, p. 8. Green Power Institute calls for four separate starting prices, with a starting price of \$253/MWh for dairy projects.

^{9/} Comments of the Green Power Institute, p. 7.

^{10/} Final Consultant Report Small-scale Bioenergy: Resource Potential, Costs and Feed-in Tariff Implementation Assessment prepared for California Public Utilities Commission, October 31, 2013, p. 1-5. Comments of the Green Power Institute, p. 7.

PG&E provided examples of bioenergy projects that have been developed, financed, constructed and operated at much lower PPA prices than the estimates provided in the consultant report.^{11/} Green Power Institute’s proposal would result in higher costs for IOU customers, since there are projects that could operate at the low range of the estimate or even lower.

PG&E disagrees with suggestions by many of these same parties that the starting price should be different for each feedstock category.^{12/} Under the Renewable Market Adjusting Tariff (ReMAT) program, which was established after an extensive regulatory process with input from numerous stakeholders, it was decided that the same starting price would apply to each category, despite the fact that the ReMAT categories included a wide variety of renewable energy technologies – including baseload energy. There is no rationale for adding more complexity and higher costs with a price adjustment mechanism that would move differently for each category. A single price adjustment mechanism for each of the three categories as defined in the statute will ensure that each technology is able to reach a price that is both market-based and reflective of their costs.

Accelerated Price Adjustment. In its opening comments, the Bioenergy Association of California (“BAC”) and Agricultural Energy Consumers Association call for accelerated price adjustment periods or larger price increments. Similar to calls for a higher starting price, these proposals completely dismiss the need for ensuring customer protection against excess costs. PG&E reiterates its support for the Staff proposal to maintain the tariff adjustment increments that were established in the thoroughly vetted ReMAT program and which will promote a functioning and non-volatile market.

The most effective way to protect customers against excessive costs is to adopt a price cap based on a percentage of the renewable energy market price. In opening comments, PG&E

^{11/} PG&E Opening Comments, p. 6.

^{12/} Comments of the Green Power Institute, pp. 6-7; comments of Pacific Forest Trust, p. 20. In opening comments, Sustainable Conservation suggests a separate starting price for dairy biogas projects (Opening Comments, December 20, 2013, p. 8).

proposed a cap of 200 percent of a simple average pre-TOD price of all active RAM projects executed by all IOUs in the first four auctions. A price cap proposal at two times the price of what other renewable energy resources have recently executed across California fairly balances the concerns of the bioenergy industry while preventing excessive cost impacts to customers.^{13/}

Program End Date. PG&E continues to stress the need for maintaining a specific program end date, as was done in ReMAT. PG&E supports a program end date that is linked to the ReMAT program length, which would result in consistent treatment of the programs.^{14/} PG&E would also support Southern California Edison’s recommendation to create a 42-month program that incorporates bioenergy development consideration and timelines.^{15/}

Market Depth Requirement and “Affiliate” Definition. As PG&E noted in its opening comments, the market depth requirement of a minimum of five different applicants per category per IOU, which is an essential element in ReMAT, would be severely weakened by the Staff proposal to pool projects across all three IOUs. Pooling projects across the three IOUs to determine the price but then not pooling the minimum seller requirement would increase upward pressure on prices and would undermine the statutory requirement of establishing a market-based pricing mechanism.^{16/} Although a number of parties echoed PG&E’s concerns,^{17/} some parties called for an even further weakening of the market depth requirement.^{18/} PG&E strongly believes that by requiring only five projects from different applicants across all three IOU territories, the Staff proposal does not create sufficient market depth to protect against market malfunction. Reducing the number even further, as suggested by some parties, is therefore unacceptable. And, when coupled with the proposals by some parties to raise the program

^{13/} PG&E Opening Comments, p. 5.

^{14/} PG&E Opening Comments, p. 9.

^{15/} SCE Opening Comments, p. 3.

^{16/} PG&E Opening Comments, p. 5.

^{17/} SCE Opening Comments, p. 10; SDG&E Opening Comments p. 5.

^{18/} BAC Comments, p. 12-13; Placer County Air Pollution Control District Opening Comments, p. 10; TURN Comments, p. 5.

starting price and further segment the statutory categories, there is an increasing probability for excessive costs and market manipulation, which will adversely impact ratepayers.

In addition, PG&E objects to proposals by BAC and Placer County Air Pollution Control District^{19/} to redefine the project eligibility terms to remove the inclusion of affiliates. As noted by these same parties, the goal of SB 1122 is to develop a bioenergy market, and a critical step in doing so is the promotion of diversity in market participants. Allowing affiliated entities to be considered as different applicants, as proposed by these parties, would completely undermine the market depth requirements and would reduce or eliminate the competitive foundation needed for a properly functioning market.

Additionally, PG&E proposes that the market manipulation and malfunction mechanism for the SB 1122 program be modified to better protect customer interests given the cost uncertainty and the potential for considerably high costs. PG&E requests that the Commission allow the IOUs to file a Tier 1 Advice Letter, which would automatically freeze the program while the Commission assesses whether the market is functioning appropriately.

Cost Equity. PG&E appreciates the recommendation from Placer County Air Pollution Control District that the Commission “seriously consider establishing a cost balancing account for the bioenergy FiT program.”^{20/} PG&E also recommends that the Commission adopt a programmatic mechanism that will facilitate greater equity among IOUs. While the Commission has taken steps to address concerns about PPA price equity among IOUs by creating a single state-wide starting price for each category, PG&E continues to believe that in order to fully address concerns over equity, the Staff proposal should be supplemented with the programmatic mechanism outlined in PG&E’s opening comments.^{21/} In addition, to maintain a level playing field between bundled, Direct Access (DA), and Community Choice Aggregation (CCA)

^{19/} BAC Comments, pp. 19-20; Placer County Air Pollution Control District Opening Comments, pp. 11-12.

^{20/} Placer County Air Pollution Control District Opening Comments, p. 5.

^{21/} PG&E Opening Comments, pp. 10-11.

customers, PG&E supports SDG&E's proposal for a cost allocation mechanism that would fairly spread net capacity costs to all DA and CCA customers as well as the IOUs bundled customers.^{22/}

III. BIOENERGY CATEGORIES, FUEL REQUIREMENTS AND TECHNOLOGY

Forest Waste Management. A number of parties raised concerns about the definition of forest waste management.^{23/} This disagreement among key stakeholders underscores the need to clearly define forest waste management before moving forward with SB 1122 implementation. As mentioned in prior comments, the Commission must provide SB 1122 participants with a clear delineation of what is deemed sustainable forest management feedstock to ensure full compliance.^{24/}

Dairy Biogas. In addition to calls for splitting the pricing mechanism in Category 2 for dairy and agricultural waste feedstock, a number of parties also propose splitting the 90 MW target for Category 2 equally between dairy and agricultural waste feedstock.^{25/} PG&E objects to such proposals on the grounds that it is inconsistent with the statute. Furthermore, creating an additional category increases the administrative burden and could also lead to higher costs for customers in a program that parties already note will be significantly above the current market price of other renewable energy resources.

Storage. A number of parties commented that some bioenergy technology, particularly dairy bioenergy, is able to provide flexible baseload capacity.^{26/} Based on the definition of energy storage in AB 2514, PG&E believes that dairy bioenergy with the capability to store

^{22/} SDG&E Opening Comments, pp. 10-11.

^{23/} Comments on the Center for Biological Diversity RE: Staff Proposal on Implementation of SB 1122, Dec. 20, 2013, pp. 2-9; Placer County Air Pollution Control District Opening Comments, p. 2; Pacific Forest Trust Opening Comments, p. 5.

^{24/} PG&E Opening Comments, p. 1.

^{25/} Comments of Agricultural Energy Consumers Association, Dec. 20, 2013, p. 5; Comments of Dairy Cares, p. 5; BAC Comments, pp. 11-12. In opening comments, Green Power Institute recommends separate pricing for Category 2 (Opening Comments, Dec. 20, 2013, p. 3).

^{26/} Comments of Dairy Cares, p. 7; BAC Comments, p. 4.

energy for use at a later time could meet the definition of energy storage. As PG&E noted in prior comments, if dairy bioenergy is able to provide operational flexibility and meet the CPUC’s goals for energy storage, it should be counted towards PG&E’s energy storage targets.^{27/}

IV. REMAT PPA TERMS

In opening comments, some parties propose^{28/} significant changes to the terms of the PPA. PG&E would like to reiterate that the ReMAT PPA was developed through an extensive multi-year and multi-stakeholder process and resulted in a package of terms that balance the interests of buyers and sellers. It is therefore appropriate to utilize the ReMAT PPA, using the baseload terms where applicable, for the SB 1122 program. Only modifications necessary to reflect the differences between the SB 1122 and ReMAT program terms should be made (e.g., provisions to enforce fuel source requirements), and the specific language can be proposed at a later date. **Strategically Located Definition.** The Staff proposal appropriately proposes to maintain the definition of “strategically located” established in the ReMAT program.^{29/} Dairy Cares, BAC, Clean Coalition, and Agricultural Energy Consumers Association challenge the Staff’s proposal and suggest that all dairy projects be deemed “strategically located,” remove the cost limit, or allow the costs to be bought down by the project developer. Again, the “strategically located” definition was developed after an extensive stakeholder process, and there is no justification for changing that definition for the SB 1122 program. The proposal to remove the cost limit would render the concept of “strategically located” used in ReMAT meaningless. The “strategically located” definition utilizes the studies that are already done as part of the interconnection process. Interconnection processes are well defined for project development. Simply deeming all dairy projects as “strategically located” removes any analysis or meaning

^{27/} For example, Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting, released on June 10, 2013, directs PG&E to procure 580 MW of storage projects. (See <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M065/K706/65706057.PDF>).

^{28/} Comments of L. Jan Reid on Implementation of Senate Bill 1122, Dec. 20, 2013, pp. 10-14.

^{29/} CPUC Staff Proposal on Implementation of SB 1122, Nov. 19, 2013, p. 41.

from the process and would result in higher ratepayer costs by removing any developer incentive to interconnect their project to an optimal location. Furthermore, the ReMAT PPA already has provisions to deal with transmission network upgrade costs in excess of \$300,000, if they increase after PPA execution. In this circumstance, the project can choose to pay the difference in the amount of the transmission Network Upgrade costs beyond the \$300,000 threshold (not reimbursed) in order to proceed with the project instead of the contract being terminated.

Fuel Switching. A number of parties raised concerns with the ability of projects to meet their fuel feedstock requirements over the lifetime of their PPA.^{30/} Some parties go further and recommend that projects be eligible for an adjustment to their PPA, based on the actual fuel mix used each year and the product bucket rates in effect at the time that the contract was finalized.^{31/} PG&E is extremely concerned with the administrative implications of such proposals, as well as the impact that proposal would have on program prices and compliance. In addition, such a proposal would undermine the Legislature's intent to promote all technology categories outlined in the SB 1122 legislation. Put simply, if the Legislature had been indifferent to which feedstock category a facility uses, it would not have created specific targets for the three bioenergy feedstock categories. To address fuel availability concerns, it is more appropriate for the industry to work with state and federal policymakers to address these issues.

Inflation Adjustment Adder. In opening comments, several parties call for an inflation adjustment adder to account for changes in operational and maintenance costs, as well as non-fixed costs such as fuel collection and transport and labor.^{32/} These proposals would substantially deviate from the pricing terms in existing CPUC-approved RPS PPAs and create significant customer cost uncertainty over a long time horizon. This inconsistency with other RPS procurement programs is unwarranted. Bioenergy projects competing in the SB 1122

^{30/} Comments of Green Power Institute, p. 5-6; Placer County Air Pollution Control District Opening Comments, p. 7.

^{31/} Comments of Green Power Institute, pp. 5-6.

^{32/} BAC Comments, p. 13; Phoenix Energy Comments, Dec. 20, 2013, p. 5; Placer County Air Pollution Control District Opening Comments, p. 11.

program must take responsibility for factoring all costs – including inflation expectations – into their decisions regarding which price to accept.

Developers need to assess and appropriately address these uncertainties in their business model and can seek other means of mitigating such risks. For example, a bioenergy developer could choose to seek assistance from state and federal bodies to manage and address the specific challenges related to fuel collection and transportation costs. Funding from state initiatives such as the California Energy Commission’s (“CEC”) Electricity Program Investment Charge (“EPIC”) funds or Air Resources Board’s AB 32 Investment Plan funds could also help advance the competitiveness of bioenergy technologies and development strategies as well as drive down costs. The CEC’s EPIC investment plan for the 2012-2014 investment cycle includes a minimum of \$27 million for bioenergy technology demonstration and deployment projects.^{33/}

Guaranteed Energy Production, Interconnection, and Changes to Contract Amount. A few parties call for changes to the ReMAT PPA’s Guaranteed Energy Production requirements and damage provisions, claiming there is limited experience of small-scale bioenergy and the fuel sources are variable.^{34/} BAC requests changes to prevent contract cancellation due to utility caused delays and to allow more than one change to the contracted energy quantities over the duration of the PPA.^{35/}

Again, these terms were developed through an extensive multi-year and multi-stakeholder process and resulted in a package of terms that balance the interests of buyers and sellers, and there is no reason to believe that bioenergy technologies in the SB 1122 program could not likewise abide by these terms. Bioenergy projects should be held to the same standards as other renewable energy technologies, which similarly face a variety of uncertainties, if not greater uncertainty, regarding their production profile. There is enough information

^{33/} The CPUC approved the Energy Commission’s EPIC Investment Plan in November 2013. The IOU’s EPIC investment plans do not include spending on bioenergy projects.

^{34/} Phoenix Energy Comments, p. 6; BAC Comments, p. 15; Placer County Air Pollution Control District Opening Comments, p. 11.

^{35/} BAC Comments, pp. 16-17.

regarding SB 1122 technologies for developers to comply with these contract terms; gasification technologies have been used extensively in Europe, and California itself has a number of dairy digesters projects. These risks should not be simply passed onto customers.

V. ELIGIBILITY BETWEEN REMAT AND SB 1122

A number of parties suggest projects should be able to participate in both the ReMAT and SB 1122 program at the same time.^{36/} PG&E believes that a project should be able to choose between participating in the ReMAT or SB 1122 programs. However, given the nature of the ReMAT and proposed SB 1122 program pricing mechanisms, a project should not be allowed to participate in both programs at a given time. This restriction avoids the possibility that a project could count as a different developer to meet the minimum market depth requirements in both programs simultaneously, even though the project would be unable to execute a PPA under both programs. The Staff proposal addresses this concern, as it removes eligibility overlap between the two programs.

VI. CONCLUSION

PG&E supports balancing the development of SB 1122-eligible resources and customer costs in order to ensure PG&E customers receive the best value at the lowest cost for these resources. The SB 1122 program was not intended to create a carve-out for the industry at any cost, and the Commission must not lose sight of its responsibility to contain the costs of this program. Furthermore, the support of the bioenergy industry through the SB 1122 program should not entail passing on a multitude of project siting, development, price and performance risks, as doing so would be ignoring the economic impact to customers. PG&E is committed to

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^{36/} Comments of L. Jan Reid, p. 1-2.

working with Energy Division and other stakeholders to ensure that the SB 1122 program strikes such a balance.

Respectfully submitted,

JUDI K. MOSLEY
CHARLES R. MIDDLEKAUFF

By: /s/ Judi K. Mosley
JUDI K. MOSLEY

Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, CA 94120
Telephone: (415) 973-1455
Facsimile: (415) 972-5952
E-mail: JK M8@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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