

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 5983E
As of April 20, 2021

Subject: Approval of Bioenergy Agreement Between Pacific Gas and Electric Company and Woodland Biomass Power, LLC. in Compliance with Resolution E-4977

Division Assigned: Energy

Date Filed: 10-27-2020

Date to Calendar: 10-30-2020

Authorizing Documents: E-4977

Disposition:

Signed

Effective Date:

04-15-2021

Resolution Required: Yes

Resolution Number: E-5135

Commission Meeting Date: None

CPUC Contact Information:

edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:

Annie Ho

415-973-8794

PGETariffs@pge.com

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

October 27, 2020

Advice 5983-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Approval of Bioenergy Agreement Between Pacific Gas and Electric Company and Woodland Biomass Power, LLC. in Compliance with Resolution E-4977

I. Purpose

Pacific Gas and Electric Company (PG&E) respectfully submits this advice letter seeking California Public Utilities Commissions' (CPUC or Commission) approval of a Bioenergy Renewable Auction Mechanism (BioRAM) contract between PG&E and Woodland Biomass Power, LLC (Woodland). PG&E executed a new Renewable Auction Mechanism Power Purchase Agreement (RAM PPA) and BioRAM Rider for a five-year term (collectively the "Agreement"), and PG&E is submitting the Agreement for Commission review and approval in compliance with Ordering Paragraph (OP) 3 of Resolution E-4977 (the Resolution). That Ordering Paragraph requires the Investor-Owned Utilities (IOUs), including PG&E, to seek to extend existing BioRAM contracts or offer new BioRAM¹ contracts to eligible bioenergy facilities, as further described below.

II. Background

On October 30, 2015, Governor Brown issued an Emergency Proclamation addressing public safety from dead and dying trees and severe drought conditions. On March 17, 2016, the Commission issued Resolution E-4770 in response to the Proclamation requiring each IOU to enter into contracts to purchase their share of generating capacity from biomass generation facilities that use prescribed levels of high hazard zone (HHZ) material as feedstock. The IOUs were required to provide five-year contracts, with the right to extend the five-year contract term for one year at a time, up to a cumulative total of ten years. These contracts are known as "BioRAM 1" contracts.

In 2016, Senate Bill (SB) 859 was enacted and included a new requirement for IOUs to procure additional shares from existing biomass facilities using prescribed amounts of dead and dying trees located in HHZ as feedstock. The bill also specified that

¹ BioRAM contracts are those entered into pursuant to Resolutions E-4770 and E-4805.

procurement pursuant to Resolution E-4770 more than the procurement requirement shall count towards the SB 859 requirement. The Commission issued Resolution E-4805 to implement SB 859. New procurement contracts executed pursuant to Resolution E-4805 were known as “BioRAM 2” contracts.

The California Legislature passed SB 901 on August 31, 2018 and Governor Brown signed it into law on September 21, 2018. The Commission issued Resolution E-4977 implementing key provisions of SB 901 including revisions to the HHZ fuel definitions, requiring BioRAM contracts to include a monthly compliance option with updated reporting and payment, and revisions to default terms. Furthermore, Resolution E-4977 implements the part of SB 901 codified in California Public Utilities Code Section 8388, which requires load-serving entities with certain qualifying biomass contracts in their portfolios to offer contract negotiations and make all reasonable efforts to execute new or amended contracts that extend those biomass contracts by up to five years if those facilities agree to the feedstock requirement of BioRAM 2.

On April 2, 2018, PG&E submitted Advice Letter 5516-E in compliance with Resolution E-4977. In AL 5516-E PG&E provided a list of all PG&E’s biomass contracts and identified four facilities that were eligible for new or amended biomass contracts. PG&E contacted the four eligible facilities pursuant to Section 8388. One eligible facility was not interested in a new contract. PG&E has sought CPUC approval for executed contract amendments and new five year contracts with two of the eligible facilities – Wheelabrator Shasta² and Burney Forest Products³. PG&E is submitting this Advice Letter to implement Ordering Paragraph 3 of Resolution E-4977 for the fourth and final eligible facility - Woodland.

PG&E and Woodland were parties to a Renewable Portfolio Standard (RPS) Power Purchase Agreement (PPA) that expired in February 2020. After initially declining to pursue a BioRAM Agreement pursuant to Section 8388 with PG&E in July 2019, Woodland approached PG&E in December 2019 to engage in negotiations for a new BioRAM Agreement. PG&E notes that Resolution E-4977 required PG&E to file a new contract with Woodland pursuant to Section 8388 within 60 days of the issuance of the Resolution, or, if not by then, at least 12 months prior to the end date of the current biomass contract with Woodland.⁴ That 60-day deadline was subsequently extended pursuant to Commission Rule 16.6 to July 30, 2019. Because the expiration of the Woodland contract occurred in February 2020, the 12-month deadline was infeasible because it preceded the issuance of the Resolution. Accordingly, PG&E offered a new contract to Woodland prior to the July 30, 2019 deadline. However, Woodland declined at that time to pursue a new contract that included the BioRAM 2 terms and conditions, as required by statute.⁵ Given these facts, it was not possible for PG&E to submit a new contract with Woodland within either of the timeframes established by Resolution E-4977.

² Advice 5954-E and Advice 5955-E

³ Advice 5533-E and Advice 5844-E

⁴ Resolution E-4977, pp. 36-37 (OPs 2.g., 3).

⁵ Advice 5603-E submitted on July 30, 2019.

Nonetheless, PG&E diligently pursued negotiations with Woodland toward a new contract once Woodland contacted PG&E in December 2019, consistent with Section 8388.

III. Description of New BioRAM Contract with Woodland

PG&E is seeking Commission approval for the Agreement, in compliance with OP 3 and OP 4 of Resolution E-4977. The following table summarizes the Agreement:

Project	Technology	Capacity (MW)	Location	Est Annual Deliveries (GWh)	Expected Initial Delivery Date	Term (years)
Woodland	Biomass	25	Woodland, CA	168	03/01/2021	5

The executed Agreement is included as confidential Attachment A to this Advice Letter, and key terms of the Agreement are summarized in confidential Attachment B. The public version of the RAM standard contract and BioRAM Rider was submitted as Appendix B in Advice Letter 4958-E.⁶ The following table includes a summary of the specific requirements set forth in Resolution E-4977 for new or amended BioRAM contracts for extended terms, and the corresponding reference in the Agreement:

Resolution E-4977 Reference	Reference in Agreement		Description
OP 2(a)	Definitions	"High Hazard Zones"	Expanded HHZ definition to include requirements pursuant to subdivisions (a), (f), (j), and (k) of Section 4584 of the Public Resources Code.
	Section 3.10	3.10(b)(i) Quarterly Submission	
	Section 3.10	3.10 (b)(ii) Monthly Submission	
	Section 3.10	3.10(c) Buyer's Audit Right	
OP 2(b)	Appendix A	Form of Monthly/Quarterly Fuel Attestation	Monthly opt-out and reporting option with revised payment and other terms
	Definitions	"Monthly Opt Out", "Monthly Fuel Attestation", "Monthly Fuel Attestation Deadline", "Amended Price"	
	Section 3.10	3.10(a)(iii) Monthly Option to Relieve Feedstock Obligations	
	Section 3.10	3.10(b)(i) Quarterly Submission	
	Section 3.10	3.10(b)(ii) Monthly Submission	
	Section 3.10	3.10(b)(iii)(C) Failure to Submit	
	Section 6.1	6.1 Billing and Payment; Remedies	
	Appendix A	Form of Monthly/Quarterly Fuel Attestation	
	Appendix B	High Hazard Fuel Use Calculation	

⁶ https://www.pge.com/tariffs/tm2/pdf/ELEC_4958-E.pdf

OP 2(c)	N/A	N/A	Missing mandated fuel or feedstock usage levels is not considered an event of default
OP 2 (f)	Section 3.11	3.11 Air Pollution Control Reporting	Air quality reporting requirements
	Appendix C	Appendix C Air Quality Attestation	
OP 3 (a)	Section 10.3	10.3(b)(iv)	Seller's attestation that their biomass facilities are physically capable of using HHZ and sustainable forest management fuel and have any necessary permits to do so
OP 3 (a)	Appendix D	A. Transaction Type	Contract term of 5 years
OP 4 (b)	Appendix D	C. Contract Price	A contract price above the per se reasonableness benchmark, which requires the Agreement to be filed via a Tier 3 Advice Letter.

Resolution E-4977, Ordering Paragraph 2(i) directs PG&E to include language in the BioRAM contracts related to PG&E's recent Chapter 11 bankruptcy case. On July 1, 2020, PG&E emerged from Chapter 11, successfully completing its restructuring process and implementing PG&E's Plan of Reorganization that was confirmed by the United States Bankruptcy Court on June 20, 2020.⁷ The Agreement was executed on October, 21, 2020, subsequent to emerging from bankruptcy. Therefore, the Chapter 11-related provisions of OP 2(i) were not included in the Agreement.

Through negotiations with Woodland, Some BioRAM contract terms were modified to accommodate the facility's unique fuel supply considerations and the lack of an existing Power Purchase Agreement. Those modifications are discussed in confidential Appendix B.

IV. Reasonableness of Procurement

In Resolution E-4977, the Commission established a per se reasonableness benchmark for contract prices for non-BioRAM facilities at \$119/MWh.⁸ The Commission recognized that specific circumstances may warrant a price exceeding the benchmark, in which case it ordered the resulting contract to be filed via a Tier 3 Advice Letter for a heightened level of review.⁹ In such cases, the IOU is directed to explain why the price of the contract is reasonable in this instance despite exceeding the pre-established benchmark.¹⁰ The contract price proposed in this Agreement exceeds the per se

⁷ See Notice of Entry of Confirmation Order and Occurrence of Effective Date Of Debtors' And Shareholder Proponents' Joint Chapter 11 Plan Of Reorganization Dated June 19, 2020, filed in Bankruptcy Case No. 19-30088 before the United States Bankruptcy Court for the Northern District of California, July 2, 2020 (confirming an effective date for the Plan of Reorganization for July 1, 2020) (available at <https://restructuring.primeclerk.com/pge/Home-DownloadPDF?id1=NDU0NjY3&id2=0>).

⁸ Resolution E-4977, p. 37 (OP 4(b)).

⁹ *Id.*

¹⁰ *Id.*, p. 13.

reasonableness benchmark and is therefore being submitted to the Commission via a Tier 3 Advice Letter.

As part of the negotiation process with Woodland, PG&E conducted an open book review of the resource's historical and forecasted costs in order to evaluate and assess the proposed price. PG&E determined as a result of this review that a price exceeding the reasonableness benchmark established in Resolution E-4977 was reasonable, in light of the statutory requirement to procure the capacity from Woodland. The details of the open book review are included in Confidential Appendix B - Contract Summary. The Independent Evaluator provides a separate assessment of the open book review and the reasonableness of the contract in Confidential Appendix D.

V. Compliance with Other Statutory and Commission Requirements

A. RPS Portfolio Content Categorization

D.11-12-052 requires that the IOUs make an upfront showing related to the portfolio content categorization of each proposed Renewables Portfolio Standard (RPS)-eligible procurement transaction. Specifically, for approval of contracts meeting the criteria of Public Utilities Code Section 399.16 (b)(1)(A) ("Portfolio Content Category One"), an IOU may show that the RPS-eligible generator has its first point of interconnection with the Western Electricity Coordinating Council (WECC) transmission system within the boundaries of a California balancing authority area (CBA).

The BioRAM PPA satisfies the upfront showing required by D.11-12-052 for Portfolio Content Category One. The PPA has or is expected to have its first point of interconnection within the metered boundaries of an IOU transmission or distribution system, within a CBA (ie., the CAISO). Therefore, the RPS-eligible procurement from the PPA satisfies the criteria for Portfolio Content Category One adopted in D.11-12-052.

B. Emissions Performance Standard Compliance

In D.07-01-039, the Commission adopted an Emission Performance Standard ("EPS") that applies to contracts for a term of five or more years for baseload generation with an annualized plant capacity factor of at least sixty (60) percent. The Woodland procurement complies with the EPS because it is an existing biomass facility covered by Conclusion of Law 35(d) of D.07-01-039.

VI. Cost Recovery

D.18-12-003 established a non-bypassable charge for costs associated with tree mortality-related biomass energy procurement (the "TM NBC"). That decision specifically addresses contracts, like the Agreement, that are executed in compliance with Section 8388 of the California Public Utilities Code and allows for the costs of the BioRAM contract

during that extension period to continue to be recovered through the TM NBC.¹¹ Accordingly, PG&E proposes to recover the costs of the Agreement through the TM NBC.

VII. Procurement Review Group Participation

PG&E's Procurement Review Group (PRG) includes representatives from: California Public Utilities Commission's Energy Division and the Public Advocates Office, Coalition of California Utility Employees (CUE), Coast Economic Consulting, The Utility Reform Network (TURN), Union of Concerned Scientists, and Woodruff Expert Services (representing TURN). The Agreement was presented to the PRG via e-mail on October 8, 2020.

VIII. Independent Evaluator

An independent evaluator (IE), Arroyo Seco Consulting (Arroyo), conducted a range of activities to review and check PG&E's processes as PG&E conducted outreach to owners of biomass-fueled power plants that are eligible under Resolution E-4977 for contract amendments or new contracts. The IE reviewed and assessed the process by which PG&E negotiated the Agreement with Woodland for energy eligible to meet E-4977 requirements using biofuel sourced primarily from designated HHZs. The attached IE report concludes that the Woodland contract fulfills the requirements of Ordering Paragraph 2 of Resolution E-4977. The detailed findings of the IE regarding the Agreement are contained in Confidential Attachment D. Please see Attachment C for the public version of the IE report.

IX. Tier Designation

PG&E is designating this as a Tier 3 Advice Letter, in accordance with OP 4 of Resolution E-4977.

X. Effective Date

Accordingly, PG&E requests that the Energy Division issue a disposition approving PG&E's BioRAM PPA within 180 days of the submittal of this Advice Letter (by April 25, 2021).

XI. Request for Commission Approval

¹¹ D.18-12-003, p. 22 ("This decision finds that the term of the TM NBC for each IOU shall end at the end of the Energy Resources Recovery Account (ERRA) forecast period following the expiration of the last TM contract for each IOU. *This will allow for the TM NBC to continue past 2022 if some of the TM contracts covered by the TM NBC are renewed pursuant to SB 901.*") (emphasis added).

PG&E requests the Commission approve the BioRAM PPA through an Energy Division disposition letter issued within 180 days of the submittal of this Advice Letter (by April 25, 2021), including adoption of the following findings of fact and conclusions of law:

- The BioRAM PPA should be approved in its entirety, including payments to be made by PG&E pursuant to the PPA, subject to the Commission's review of PG&E's administration of the PPA;
- A finding that, subject to after-the-fact verification that all applicable criteria have been met, the Energy Division accepts PG&E's upfront showing that deliveries from the BioRAM PPA should be categorized as procurement under the portfolio content category specified in Public Utilities Code Section 399.16 (b)(1)(A);
- Adopts the following findings with respect to resource compliance with the EPS adopted in R.06-04-009:
 - The BioRAM PPA is pre-approved as meeting the EPS because it is an existing biomass facility covered by Conclusion of Law 35(d) of D.07-01-039;
- A finding that all procurement and administrative costs, as provided by Public Utilities Code section 399.13(g), associated with the BioRAM PPA shall be recovered in rates;
- A finding that the Agreement satisfies PG&E's obligation under OP 3 of Resolution E-4977 and Section 8388 of the Public Utilities Code to seek a new 5 year term BioRAM agreement between PG&E and Woodland; and
- A finding that payments under the BioRAM PPA shall be recovered through PG&E's Tree Mortality Non-Bypassable Charge Account.

XII. Limited Access to Confidential Material

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protection of Section 583 and 454.5(g) of the Public Utilities Code. This material is protected from public disclosure because it consists of, among other items, the executed BioRAM Agreement between PG&E and Woodland, which are protected pursuant to D.06-06-066 and D.08-04-023. A separate Declaration Seeking Confidential Treatment regarding the confidential information is submitted concurrently herewith.

XIII. Protests

*****Due to the COVID-19 pandemic and the shelter at home orders, PG&E is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter to EDTariffUnit@cpuc.ca.gov and PGETariffs@pge.com*****

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than November 16, 2020, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

XIV. Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for R.18-07-003. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

_____/S/

Erik Jacobson
Director, Regulatory Relations

Attachment A: Executed RAM PPA and BioRAM Rider between PG&E and Woodland
(Confidential)

Attachment B: Summary of Contract Terms (Confidential)

Attachment C: Independent Evaluator Report (Public)

Attachment D: Independent Evaluator Report (Confidential)

Attachment E.1: Open Book Review (Confidential)

Attachment E.2: Attestation and Fuel Study (Confidential)

cc: Cheryl Lee, Energy Division
Service List for R.18-07-003



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39 E)

Utility type:

☒ ELC ☐ GAS ☐ WATER
☐ PLC ☐ HEAT

Contact Person: Annie Ho

Phone #: (415) 973-8794

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: AMHP@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 5983-E

Tier Designation: 3

Subject of AL: Approval of Bioenergy Agreement Between Pacific Gas and Electric Company and Woodland Biomass Power, LLC. in Compliance with Resolution E-4977

Keywords (choose from CPUC listing): Compliance, Agreement

AL Type: ☐ Monthly ☐ Quarterly ☐ Annual ☒ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: E-4977

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? ☒ Yes ☐ No

If yes, specification of confidential information: Yes, see confidentiality declaration and matrix
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/
access to confidential information: Vy Manthripragada, (301) 651-3544

Resolution required? ☒ Yes ☐ No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Erik Jacobson, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Clear Form

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

PACIFIC GAS AND ELECTRIC COMPANY

**DECLARATION OF VY MANTHRIPRAGADA
SEEKING CONFIDENTIAL TREATMENT
FOR CERTAIN DATA AND INFORMATION CONTAINED
IN ADVICE LETTER 5983-E**

I, Vy Manthripragada, declare:

1. I am a Manager in Structured Energy Transactions within the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include managing the procurement of various electric resources and products including energy storage and renewable energy. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with Decisions 06-06-066, 08-04-023, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the attachments to Advice Letter 5983-E.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by Public Utilities Code section 454.5(g), D.06-06-066, D.08-04-023 and/or relevant Commission rules. The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am

incorporating into this declaration all of the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on October 22, 2020 at San Francisco, California.

_____/s/_____

Vy Manthripragada

Manager, Structured Energy Transactions

Pacific Gas & Electric Company

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5983-E
October 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time
Attachment A, Executed RAM PPA and BioRAM Rider between PG&E and Woodland	Item VII(G) Renewable Resource Contracts under RPS program	This attachment contains the executed BioRAM Agreement between PG&E and Woodland Biomass Power, LLC (Woodland), which include terms deemed non-public.	Three years from contract date for deliveries to start or one year after expiration, whichever comes first.
Attachment B, Summary of Contract Terms	Item VII(G) Renewable Resource Contracts under RPS program	This attachment contains a summary of the non-public terms of the BioRAM Agreement between PG&E and Woodland.	Three years from contract date for deliveries to start or one year after expiration, whichever comes first.
Attachment D, Independent Evaluator Report – grey shaded sections	Item VII(G) Renewable Resource Contracts under RPS Item VII (H): Score sheets, analyses, evaluations of proposed RPS projects	This attachment contains the confidential IE report, which discusses, analyzes and/or evaluates the terms of the BioRAM Agreement and confidential negotiations between PG&E and Woodland. If released publicly, this information would provide valuable market sensitive information to market participants, could be damaging to future PG&E contract negotiations and ultimately detrimental to PG&E's customers, and could create a disincentive to do business with PG&E and other regulated utilities. Therefore, this information should remain confidential.	VII(G): Three years from contract date for deliveries to start or one year after expiration, whichever comes first. VII(H): Three years

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5983-E
October 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time
Attachment E.1 and E.2, Woodland Cost Summary, Attestation, and Fuel Analysis Report	Item VII (H): Score sheets, analyses, evaluations of proposed RPS projects	This attachment contains confidential analysis that support the terms of the BioRAM Agreement and confidential negotiations between PG&E and Woodland. If released publicly, this information would provide valuable market sensitive information to market participants, could be damaging to future PG&E contract negotiations and ultimately detrimental to PG&E's customers, and could create a disincentive to do business with PG&E and other regulated utilities. Therefore, this information should remain confidential.	VII(H): Three years

Attachment A

**Executed RAM PPA and BioRAM Rider between PG&E
and Woodland (Confidential)**

Attachment B

Summary of Contract Terms (Confidential)

Attachment C

Independent Evaluator Report (Public)

ARROYO SECO CONSULTING

PACIFIC GAS AND
ELECTRIC COMPANY
NEW CONTRACT
PURSUANT TO SENATE
BILL 901

REPORT OF THE INDEPENDENT
EVALUATOR ON A NEW RENEWABLE
ENERGY CONTRACT WITH WOODLAND
BIOMASS POWER LTD.

OCTOBER 21, 2020

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EXECUTIVE SUMMARY

This report provides an independent review of the process by which the Pacific Gas and Electric Company (PG&E) negotiated a new contract with Woodland Biomass Power Ltd. (Woodland) for energy eligible to meet Renewables Portfolio Standard (RPS) goals using biofuel, including fuel sourced from designated High Hazard Zones (HHZs). The contract was negotiated bilaterally and was pursued by PG&E to comply with the California Public Utility Commission's (CPUC's) Resolution E-4977, which implements legislative directives of Senate Bill 901 (SB901) that addressed several wildfire-related issues. The Resolution directs investor-owned utilities (IOUs) to offer new five-year contracts to sellers such as Woodland for delivery of RPS-eligible energy, including from usage of HHZ-derived fuels.

An independent evaluator (IE), Arroyo Seco Consulting (Arroyo), conducted a range of activities to review and check PG&E's processes as the utility conducted outreach to plants that are eligible under Resolution E-4977 for new contracts or extensions. Activities included monitoring outreach efforts, assessing the fairness of PG&E's evaluation methodology, observing negotiations for the new agreement, and reviewing financial information that Woodland provided to PG&E. Findings include:

- PG&E offered negotiations to Woodland as directed by Resolution E-4977, which ordered IOUs to offer new Bioenergy Renewable Auction Mechanism (BioRAM) contracts or contract extensions to biomass-fueled facilities that were contracted and operational in 2018 but whose contracts would expire prior to the end of 2023.
- PG&E's contract-specific negotiations with Woodland for a new five-year contract were fair to competitors and to Woodland, in Arroyo's opinion.
- The contract price ranks quite high compared to alternative sources of RPS-eligible energy, and high compared to prior proposals to PG&E to supply biomass energy derived from HHZ-derived fuels. The project viability of Woodland's facility is high and the new contract will support RPS program goals. The new contract's fit with PG&E's supply portfolio is low.
- Woodland allowed PG&E to conduct an open-book review of recent plant financial performance and the owner's projections of a range of outcomes over the new contract's term. Arroyo views the cost projections to be reasonable. Arroyo does not believe the information currently available provides the basis to support a sufficiently well-informed IE judgment on whether or not the contract price is reasonable. The actual price to be paid by PG&E's customers could vary considerably depending on how the project is operated. Therefore, Arroyo does not offer an opinion on whether or not the new contract merits CPUC approval.

The report details the basis for these findings, following the 2014 version of the RPS Solicitation Shortlist Report Template provided by the Energy Division (ED) of the CPUC. The public version of this report has had confidential information redacted.

1. ROLE OF THE INDEPENDENT EVALUATOR

The Governor issued an Emergency Proclamation on October 1, 2015 to respond to widespread drought and tree mortality in forests across California which have heightened risks of wildfire and hazards to public safety from falling trees. It included directives to the CPUC to ensure that existing contracts with forest bioenergy facilities could be extended and new contracts could be executed. It directed the Department of Forestry and Fire Protection (CalFire) and other state agencies to identify High Hazard Zones. The CPUC issued Resolution E-4770 on March 17, 2016, which directed the investor-owned utilities (IOUs) to conduct solicitations for generation facilities using biofuel sourced from HHZs, using the Renewable Auction Mechanism (RAM) mechanism and standard contract.

The CPUC directed each IOU to develop a bioenergy-specific rider to the standard RAM contract with contract requirements designed to achieve the goals of the Emergency Proclamation and Resolution E-4770. PG&E held a BioRAM solicitation in 2016, which resulted in an award of a five-year contract to Burney Forest Products.

The CPUC subsequently issued Resolution E-4805 to implement Senate Bill 859, which among other things directed IOUs to procure more biomass-fueled deliveries from HHZ fuels, with somewhat altered feedstock requirements (“BioRAM 2”). PG&E complied with that directive by asking the losing participants in its BioRAM solicitation, plus two additional non-participants that qualified for the BioRAM program, to refresh their offers or submit fresh new offers. Based on those competitive proposals, PG&E awarded a contract to Wheelabrator Shasta Energy Company, Inc. in late 2016.

Following the enactment of SB901 and the subsequent issuance of Resolution E-4977 at the end of January 2019, PG&E directly approached five owners of generators that currently produce or have produced biomass-fueled RPS-eligible energy under contract to the utility. The CPUC’s Resolution E-4977 specified that IOUs must “offer contract negotiations to all eligible sellers and make all reasonable efforts to execute new or amended contracts that extend contract term lengths by up to five years”.¹

This chapter describes key roles of the IE and details activities undertaken by Arroyo to fulfill those roles for PG&E’s negotiations with Woodland for a new BioRAM contract.

A. KEY INDEPENDENT EVALUATOR ROLES AND RESPONSIBILITIES

The CPUC first required an independent evaluator to participate in competitive solicitations for utility power procurement in its Decision 04-12-048. It required an IE when participants in a competitive procurement solicitation include affiliates of IOUs, IOU-built projects, or IOU-turnkey projects. Decision 06-05-039 expanded requirements, ordering use of an IE to evaluate and report on the entire solicitation, evaluation, and selection process

¹ California Public Utilities Commission, Resolution E-4977, January 31, 2019, page 11.

for the 2006 RPS RFO and future competitive RPS solicitations. This was intended to increase the fairness and transparency of the offer selection process. Decision 09-06-050 further expanded the requirement to require an IE to report on long-term RPS contracts that are bilaterally negotiated rather than awarded through a competitive solicitation; the new five-year contract addressed in this report is the result of such a bilateral negotiation.

The CPUC's Decision 06-06-066 detailed guidelines for treating confidential information in IOU power procurement including competitive solicitations. It provides for confidential treatment of "Score sheets, analyses, evaluations of proposed RPS projects", vs. public treatment of the total number of projects and MW bid by resource type. Where Arroyo's reporting on the fairness of PG&E's negotiation of the new contract requires explicit discussion of such analyses, scores, and evaluations, these are redacted in the public version of this document.

B. IE ACTIVITIES

To fulfill the role of evaluating PG&E's process of extending or entering new BioRAM contracts, various activities were undertaken by Arroyo, including:

- Reviewing the procedural history leading to the directives of Resolution E-4977, PG&E's draft contract rider to the RAM form agreement that was developed specifically for SB901-related new contracts, and the history of PG&E and Woodland's previous contracts.
- Examining PG&E's outreach efforts and checking whether PG&E appropriately offered the opportunity to negotiate contract extensions or new agreements with all eligible sellers.
- Observing communications and negotiations between PG&E and Woodland and reviewing in detail marked-up contract drafts exchanged between the parties.
- Employing an independent valuation model to value the new contract. This served as a cross-check against PG&E's Net Market Value analysis. The IE model used independently derived input parameters and a different methodology than PG&E's.
- Analyzing non-public financial information provided by Woodland to PG&E through an open-book review process in an attempt to ascertain the price reasonableness of the new contract.

2. ADEQUACY OF OUTREACH TO ELIGIBLE SELLERS

Resolution E-4977 required PG&E to offer contract amendments and extensions or new contracts to all eligible sellers. This was a very short list. Eligibility was defined as

“Eligible sellers are all counterparties to BioRAM contracts and any other biomass contracts that were operative at any time in 2018 and expire or expired on or before December 31, 2023, except for sellers that operate facilities located in federal severe or extreme nonattainment areas for particulate matter or ozone are not eligible for contract extensions”.

PG&E has two active BioRAM contracts for biomass-fueled energy produced primarily from HHZ fuels, one that originated directly from its BioRAM solicitation in 2016 and the second from the competitive process it held later that year to enlarge deliveries of bioenergy from HHZ fuels pursuant to the CPUC’s Resolution E-4805. PG&E contacted both sellers, Burney Forest Products and Wheelabrator Shasta, in February 2019 to ascertain whether the sellers had interest in seeking to amend and extend their existing contracts. Both facilities are sited within Shasta County, which is an attainment zone for federal ozone and particulate standards, although it has long been a non-attainment zone for the California ozone standard. In both cases, negotiations resulted in new five-year BioRAM agreements, previously filed separately for CPUC approval.

PG&E had a ten-year RPS contract with Woodland Biomass Power that was bilaterally negotiated in 2009 and began deliveries in early 2010; it expired at the end of February 2020. Woodland was eligible for a new contract or extension by the terms of the Resolution, and PG&E contacted it in February 2019. Woodland is a subsidiary of Michigan-based DTE Energy Company, the holding company parent of the integrated electric utility DTE Electric Company, formerly Detroit Edison. The Woodland facility is sited in Yolo County, which is a moderate non-attainment zone for the federal ozone and PM-2.5 standards and was previously a severe non-attainment zone under the 2008 federal ozone standard. Yolo County is not currently a federal severe or extreme non-attainment area, so the facility is eligible for a new BioRAM agreement. PG&E and Woodland’s negotiations led to the executed agreement for a new five-year BioRAM contract that is the subject of this filing.

PG&E had a ten-year Renewables Portfolio Standard contract with Wadham Energy L.P. (Wadham), that began energy deliveries in 2008 and terminated in May 2018. Wadham was eligible for a contract amendment or new contract based on Resolution E-4977’s direction because the prior contract for biomass-fueled energy was in effect for part of calendar 2018 and expired before 2023. Colusa County is a federal attainment zone for ozone and PM-2.5. As Arroyo previously stated in a report attached to PG&E’s Advice 5533-E in April 2019, PG&E made all reasonable efforts to seek interest from Wadham in negotiating a new contract for HHZ-based energy deliveries. This [REDACTED]

[REDACTED]

PG&E also had a long-term Qualifying Facilities (“QF”) contract with Thermal Energy Development Partnership (“TEDP”) that terminated in early 2020. Based on federal filings, this facility appears not to have operated since late 2014. Prior to its long-term lay-up, the facility burned a mix of urban waste and agricultural woody waste, not forest waste. [REDACTED]

[REDACTED] News reports indicate that the facility was sold in 2019 and demolished to make way for a new warehouse.²

Arroyo’s review did not reveal other biomass-fueled facilities in PG&E’s portfolio that might be eligible for contract amendments and extensions based on the requirements of SB901. Several of PG&E’s prior contracts with biomass-fueled generators expired before the start of 2018, so they are not eligible for a new agreement directed by Resolution E-4977. One active biomass contract has a delivery term that extends well past the end of 2023.

Based on this, Arroyo’s opinion is that PG&E’s outreach to sellers eligible to negotiate contract amendments or new contracts under the provisions of SB901 was adequate, and that PG&E made all reasonable efforts to engage these eligible sellers in negotiations for new contracts or contract amendments.

² TEDP’s now-defunct biomass-fueled facility was situated in southwestern San Joaquin County, which is classified as an extreme non-attainment zone for the federal 8-hour ozone criterion; thus, that generator was arguably not eligible for a contract extension or new contract.

3. FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

This chapter provides an independent review of the extent to which PG&E's negotiations with Woodland for a new agreement were conducted fairly with respect to the seller and to its competitors.

A. BACKGROUND INFORMATION

Woodland Biomass Power began operations in 1989 with deliveries to PG&E under a Qualifying Facilities Standard Offer 4 agreement. The facility is sited in the northeast corner of the city of Woodland in Yolo County. Its owner reports on a public website that recently about 41% of its feedstock has been agricultural waste including orchard removals, trimmings, and pits and shells, and 59% has been urban waste including demolition debris, pallets, and other discarded wood. In 2009 Woodland and PG&E bilaterally negotiated a ten-year RPS agreement whose delivery term expired at the end of February 2020.

Woodland responded affirmatively to PG&E's initial outreach in February 2019 to seek its interest in a new contract. Woodland observed that completing negotiations, performing due diligence on operational requirements, and securing management approvals might take several months. PG&E noted that Resolution E-4977 posed an obligation for the utility to file an advice letter within 60 days of the Resolution. PG&E requested and was granted a time extension for filing to late July from the CPUC.

Despite its earlier positive response, in early July 2019, after an interval of no communications, Woodland informed PG&E that it had decided not to pursue a new contract under the Resolution E-4977 requirements. [REDACTED]

PG&E reported to the CPUC on Woodland's stated lack of interest in entering a new BioRAM contract in Advice 5603-E submitted on July 30, 2019.

Months later, in December 2019, Woodland contacted PG&E to express an interest in re-engaging in negotiations for a new contract. [REDACTED]

[REDACTED]³ The parties' negotiations resulted in execution of a BioRAM rider and underlying RAM agreement on October 21, 2020.

B. PRINCIPLES FOR EVALUATING THE FAIRNESS OF NEGOTIATIONS

Arroyo considered some principles to evaluate the degree of fairness with which PG&E handled negotiations for contracts required by Resolution E-4977.

- Were sellers treated fairly and consistently by PG&E during negotiations? Were all sellers given equitable opportunities to advance proposals towards new contracts? Were individual sellers given unique opportunities to move their proposals forward or concessions to improve their contracts' commercial value, opportunities not provided to others?
- Was the distribution of risk between seller and buyer in new contracts distributed equitably across agreements? Did PG&E's ratepayers take on a materially disproportionate share of risks in some new contracts and not others? Were individual sellers given opportunities to shift their commercial risks towards ratepayers, opportunities that were not provided to others?
- Was non-public information provided by PG&E shared fairly with all sellers? Were individual sellers uniquely given information that advantaged them in securing new contracts or realizing commercial value from those agreements?
- If any individual seller was given preferential treatment by PG&E in the course of negotiations, is there evidence that other sellers were disadvantaged by that

³ On a public website, DTE Energy states that Woodland "uses a small percentage of high fire hazard zone woody biomass today." [REDACTED]

- treatment? Were other proposals of comparable value to ratepayers assigned materially worse outcomes?

C. NEGOTIATIONS BETWEEN PG&E AND WOODLAND BIOMASS POWER

PG&E's starting point for contracting for deliveries from the Woodland facility was its pro forma BioRAM rider as updated pursuant to Resolution E-4977 and its underlying RAM agreement. These differ substantially in terms from the prior RPS agreement negotiated bilaterally by the parties in 2009. PG&E used the same pro forma rider as the basis for starting negotiations with Burney Forest Products and Wheelabrator Shasta. The parties addressed several issues in their negotiations.

- Price.

[REDACTED]

[REDACTED]

[REDACTED]

- Time-of-delivery (TOD) factors.

[REDACTED]

- Initial energy delivery date.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Scheduling coordinator role.

[REDACTED]

- Fuel usage compliance.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- DTE Stockton.

[REDACTED]

- Termination right.

[REDACTED]

- Delivery term security.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- GEP damages. [REDACTED]

[REDACTED]

- Contract capacity. [REDACTED]

- Supplier diversity. [REDACTED]

- Bankruptcy. [REDACTED]

- Operational characteristics. [REDACTED]

[REDACTED]

The parties executed the new contract on October 21, 2020.

D. DEGREE OF FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

Arroyo's opinion is that PG&E's negotiations with Woodland were fair to competitors and to the seller. PG&E gave Woodland an equitable opportunity to advance its new contract; the balance of benefits and costs between buyer and seller was consistent with those in PG&E's RAM contracts generally. The new contract's terms and conditions closely follow those of the previously negotiated new BioRAM agreements and adhere to directives in Resolution E-4977 to alter several provisions of the original BioRAM rider.

[REDACTED]

[REDACTED]

Arroyo did not observe PG&E providing Woodland with non-public information that might have advantaged it against competitors. The RAM form agreement and the BioRAM rider were not materially altered to provide more favorable terms uniquely to Woodland that were not provided to its competitors. Arroyo does not believe that the negotiated terms agreed to by the parties uniquely advantaged Woodland compared to its competitors. Arroyo's opinion is that PG&E's negotiations with Woodland for a new contract were conducted in a manner that was fair to Woodland and to its competitors. The next chapter addresses the issue of fairness to ratepayers of the contract price.

⁴ [REDACTED]

4. MERIT FOR CPUC APPROVAL

This chapter provides an independent review of the merits of the new contract between PG&E and Woodland Biomass Power based on criteria specified in the Energy Division's 2014 RPS IE template.

A. CONTRACT SUMMARY

On October 21, 2020, PG&E and Woodland executed a new five-year contract for delivery of RPS-eligible energy from Woodland's biomass-fueled generation facility. Contract capacity is 25 MW and contract quantity averages about 168 GWh/year over the five-year contract term. The project is located within the city of Woodland in Yolo County. Woodland Biomass Power is a subsidiary of Michigan-based DTE Energy Services, an affiliate of the integrated electric utility DTE Electric Company, formerly Detroit Edison. DTE Energy Services acquired the facility in 2005 from AES Corporation. The new contract, which becomes effective upon final CPUC approval and is expected to begin energy deliveries afterwards, incorporates terms and conditions of PG&E's original 2016 BioRAM form rider and also includes specific requirements that were ordered by Resolution E-4977 that revised feedstock requirements, inserted provisions for a monthly opportunity to opt out of HHZ and sustainable forestry fuel requirements, enhanced air pollution control reporting, and removed an event of default for non-compliance with fuel requirements.

B. NARRATIVE OF EVALUATION CRITERIA AND RANKING

The 2014 RPS template for IEs provided by the Energy Division calls for a narrative of the merits of the proposed project on the criteria of contract price, net market value, portfolio fit, and project viability.

CONTRACT PRICE AND MARKET VALUATION

Contract Price. The new agreement has a contract price for deliveries

[REDACTED]

[REDACTED]

[REDACTED]

The new Woodland agreement ranks high in contract price compared to prior offers for RPS-eligible generation in PG&E's past solicitations. When compared to existing BioRAM contracts which are based on combusting biomass primarily harvested from HHZs, [REDACTED]

[REDACTED]

[REDACTED]

There are few recent public benchmarks for market price for PPAs with biomass-fueled generators. Redwood Coast Energy Authority has recently renewed two such contracts. In January and February 2020 RCEA paid \$59/MWh for deliveries from DG Fairhaven; the rest of the year RCEA will pay \$65/MWh. RCEA pays Humboldt Sawmill Company \$67/MWh in 2020, a price that will escalate starting in March 2021 based on consumer price index. These plants burn non-HHZ wood waste from nearby sawmill or timber operations rather than fuel harvested from HHZs and transported from the forest to the generator, so their economics are unlikely to be directly comparable to those of the Woodland facility.

Several public-owned utilities, including Sacramento Municipal Utility District, Modesto Irrigation District, Turlock Irrigation District, and Southern California Public Power Authority (SCPPA) acting on behalf of Imperial Irrigation District, Los Angeles Department of Water and Power, and the cities of Anaheim and Riverside, entered contracts with ARP-Loyalton Cogen, LLC in late 2017. These POU's entered the PPAs in order to comply with Senate Bill 859, as this facility was obligated under the contracts to begin deliveries of RPS-eligible energy derived primarily from HHZ fuels in April 2018 for a five-year delivery term. The pricing of the contracts was \$97.50/MWh with no escalation. SCPPA reported that the ARP-Loyalton offer was the lowest-priced of nine proposals submitted to its competitive solicitation in the spring of 2017. It is unclear what sort of pricing might be available to PG&E today if it were able to employ a competitive process to secure PPAs with biomass plants primarily using HHZ fuel rather than relying solely on bilaterally negotiated extensions to existing BioRAM contracts or new contracts with eligible facilities.

ARP-Loyalton Cogen LLC filed for bankruptcy protection in February 2020, as did its parent company American Renewable Power LLC; one might expect the POU buyers to encounter problems meeting their SB859 obligations, as the seller may exercise its choice to reject the PPAs in Chapter 7 liquidation proceedings. [REDACTED]

[REDACTED]

[REDACTED] SMUD has since reported negotiations for a new five-year SB859 contract with another seller.)

In November 2019, SCPPA entered a five-year PPA with Roseburg Forest Products Company for deliveries from a facility burning primarily HHZ-derived fuel; the contract is priced at \$46/MWh. SCPPA is buying this power on behalf of some of its members: Los Angeles Department of Water and Power, Imperial Irrigation District, and the cities of Anaheim and Riverside. This contract resulted from a competitive solicitation that SCPPA held in April 2018, an RFP that included as additional buyers non-SCPPA members Sacramento Municipal Utility District and the Modesto and Turlock Irrigation Districts, that have also contracted with Roseburg. The contracts are intended for these POU's to comply with the requirements of Senate Bill 859. The HHZ-derived fuel is to be burned in the cogeneration unit at Roseburg Forest Products' veneer mill in Weed, California. Note that the POU's contracts with Roseburg are not directly comparable to the Woodland contract because they do not include delivery of energy or RECs to the POU's, only of "SB 859 Attributes", capacity, and ancillary services. The \$46 price is therefore not directly comparable as a market benchmark for the Woodland contract's price.⁵

Market Valuation. Arroyo performed an independent market valuation of the Woodland contract. The net market value of the agreement would rank quite low among all offers to PG&E's recent competitive solicitations for RPS-eligible energy. As these other proposals were mostly for new solar PV generation, one would expect the Woodland contract to compare unfavorably given the current lack of competitiveness of biomass-fueled power against other technologies.

When compared instead to the net market values of proposals to PG&E's 2016 BioRAM solicitation, Arroyo's estimate of the value of the Woodland contract ranks it lower than all but one of the offers made to PG&E. The new contract's value ranks low even compared to biomass-fueled facilities that proposed to operate using primarily HHZ-derived fuels.

This comparison is however based on the contract price for Woodland's deliveries of energy that meet the HHZ feedstock requirements, not on the Amended Price if Woodland chooses to opt out of adherence to BioRAM feedstock requirements. If Woodland were to choose to never use HHZ-derived feedstocks and instead to operate using its historical agricultural and urban waste fuel sources, Arroyo's valuation of the contract would place it in the top quartile for value compared to the BioRAM solicitation's offers. However, in that scenario Woodland would not be delivering the SB859-compliant product that BioRAM RFO participants proposed to deliver. It would be inappropriate to compare the pricing of deliveries that do not meet the goals of the BioRAM program to that of proposals that were based on complying fully with the requirement of primarily burning HHZ-derived fuel.

PG&E performed its own net market valuation of the new Woodland agreement. [REDACTED]

⁵ [REDACTED]

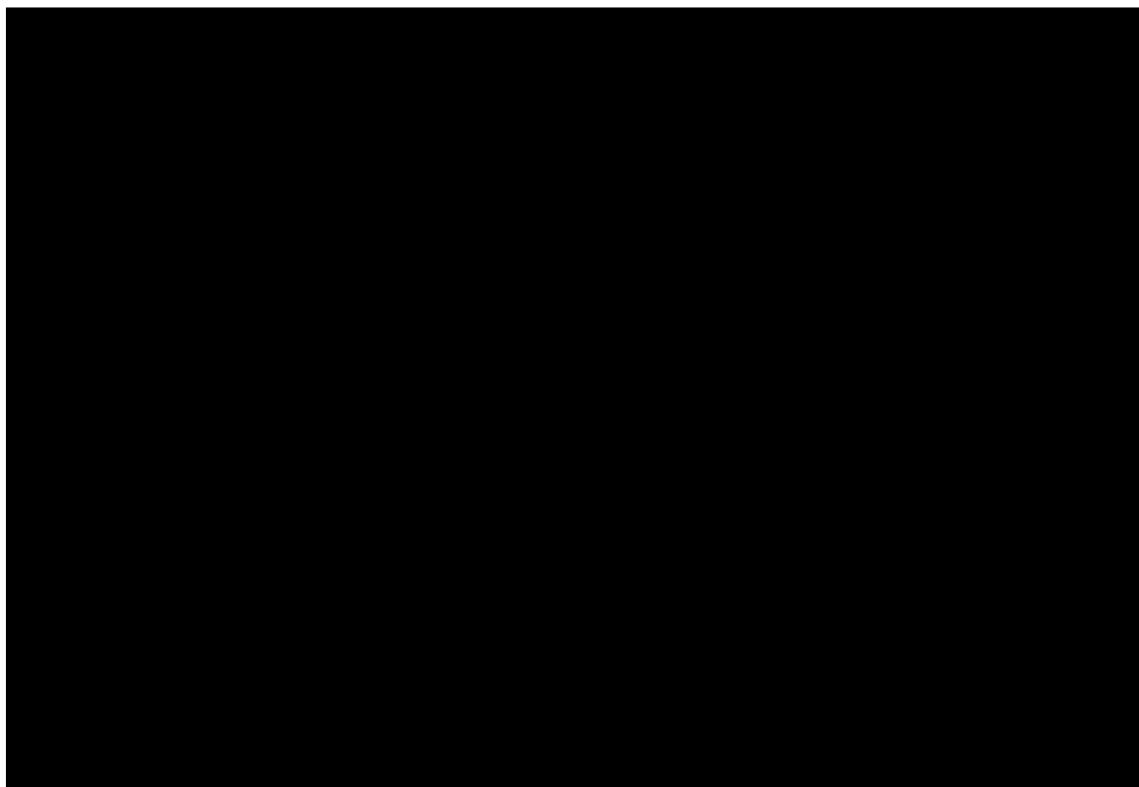
Open-book review. In mid-June 2020 PG&E requested, and Woodland agreed, that the historical and forecasted financial performance of the facility be provided confidentially in order for the utility to ascertain the price reasonableness of the new contract. PG&E has in the past conducted open-book reviews of the financial statements of several biomass-fueled projects contracted under QF agreements in order to test and demonstrate the price reasonableness of proposed price relief amendments. Wheelabrator Shasta had also agreed to undergo an open-book review by PG&E for its new five-year BioRAM agreement.

[REDACTED]

[REDACTED] According to a DTE Energy public website, Woodland “uses a small percentage of high fire hazard zone woody biomass today, but could quickly source 100% of its fuel from high fire hazard zone woody biomass if needed.”⁶ [REDACTED]

[REDACTED]

Figure 1



[REDACTED]

⁶ [REDACTED]

[REDACTED]

[REDACTED]

Figure 2

[REDACTED]

[REDACTED]



Figure 3

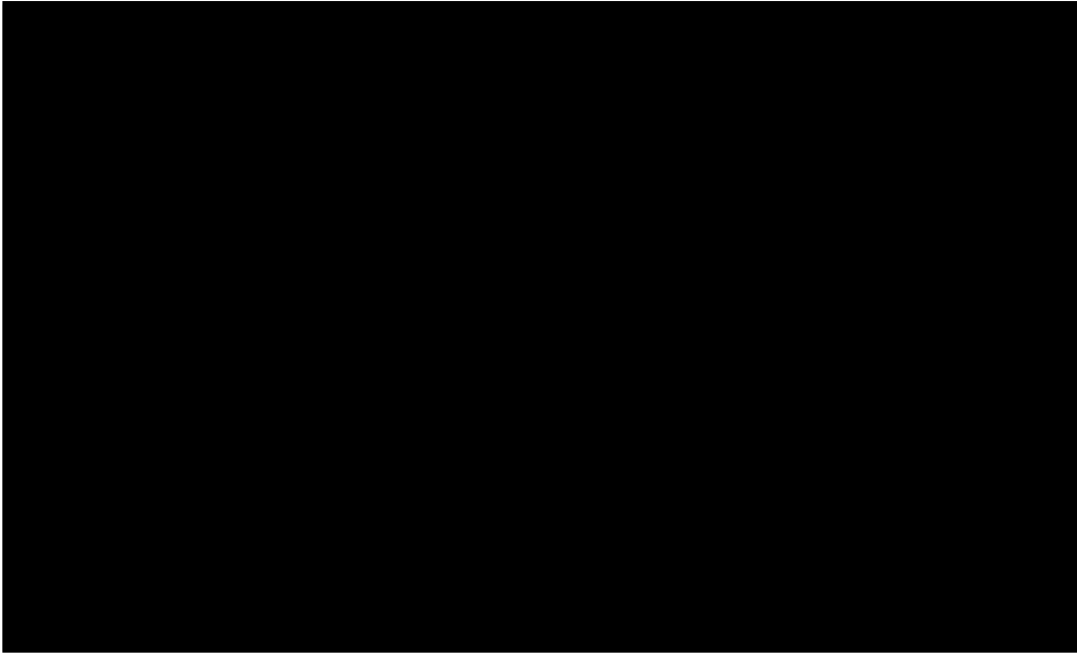
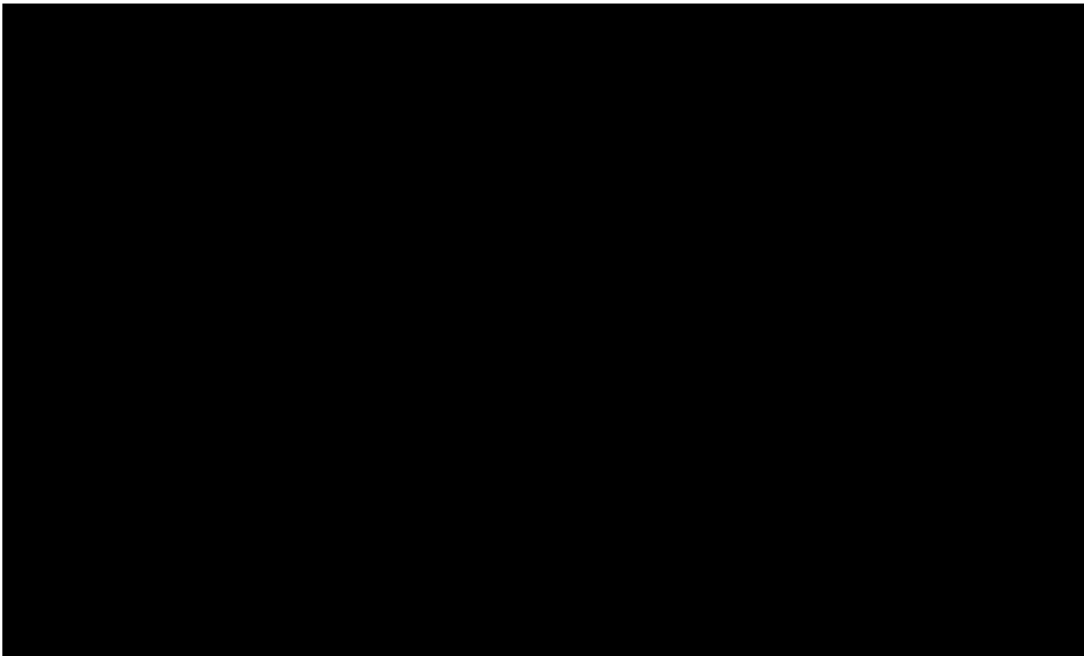


Figure 4



[REDACTED]

[REDACTED]

Figure 5

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

CONSISTENCY WITH RPS GOALS AND PROCUREMENT PLAN

Procurement plan. PG&E's approved 2019 renewable energy procurement plan states that PG&E has no near-term need for RPS resources but will procure incremental volumes of RPS-eligible contracts through CPUC-mandated programs such as the ReMAT and BioMAT programs. It acknowledges that mandated procurement through the BioRAM program benefits all customers. The plan explicitly states that new or extended biomass contracts pursuant to SB901 are also part of these CPUC mandates. On that basis, entering into the Woodland contract is consistent with the plan.

RPS Goals. PG&E's 2014 RPS solicitation protocol included an evaluation criterion for a contract's contribution to RPS goals. One of the subcriteria was whether a project would provide economic benefits to "communities afflicted with high poverty or unemployment", which was one of the legislative goals for the state's RPS program. The city of Woodland does not fit that characterization. Median annual household income in Woodland in 2018 was \$64.1 thousand vs. \$75.3 thousand for the state of California, as estimated by the U.S. Census Bureau's 2018 American Community Survey. The estimated percentage of Woodland's population living below poverty levels was 12.8%, the same as the state of California; an estimated 5.7% of the population over age 16 was unemployed vs. 5.5% for the state. The populace of Woodland does not seem to be disproportionately afflicted by poverty or unemployment compared to the rest of California overall.

A public letter to PG&E's CEO from Woodland's representatives to the State Senate and Assembly, dated October 2019,⁷ stated that the Woodland Biomass facility employed 27 personnel. If the project were to fail to restart operations, other jobs outside the generator also would likely be affected, such as those of Woodland's fuel supply contractors. The biomass plant also provides a useful solution for disposing of wood waste for orchard operators in Yolo County (but if the facility were to switch to HHZ-harvested forest fuel as its primary feedstock that solution would diminish in volume anyway).

⁷ Oddly, this October letter advocated for PG&E to execute an extension to Woodland's contract, at a point in time after Woodland had unilaterally terminated discussions, stating that it had "decided not to pursue a new contract" under the BioRAM program, and well before it contacted PG&E to re-engage in negotiations.

SB 2 (1X) stated a requirement that preference should be given to renewable energy projects that provide benefits to communities that suffer from high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases. Yolo County is a moderate non-attainment zone for the federal ozone and PM-2.5 standards; it was previously a severe non-attainment zone under the 2008 federal ozone standard. If Yolo County had even higher levels of criteria air pollutants, Woodland would be ineligible for a BioRAM contract.

Another RPS Goals evaluation subcriterion in PG&E's 2014 RPS RFO was contribution to Executive Order S-06-06, which called for 20% of the state's renewable energy needs in electricity to be met from biomass. The new Woodland contract will allow the facility to again contribute to meeting this goal. Overall, Arroyo ranks the Woodland PPA as moderate in supporting RPS Goals as the criterion was previously defined.

PORTFOLIO FIT

Arroyo's opinion is that, qualitatively, the fit of the new Woodland agreement with PG&E's portfolio ranks low. The utility already expects a net long RPS compliance position because of its prior procurement activities and because of changes in PG&E's retail load outlook. However, the primary purpose of the BioRAM program is not to add RPS resources to PG&E's supply portfolio but for the state to make progress coping with its tree mortality emergency by employing biomass-fueled facilities to dispose of HHZ timber rather than alternatives such as open burn or leaving dead or dying HHZ trees in place, worsening wildfire risks. PG&E pursued BioRAM contracts as part of a CPUC mandate, and is engaging Woodland in a new contract as part of a CPUC mandate, rather than to improve the management of its portfolio or to pursue a more balanced portfolio.

Woodland's production shape is generally baseload, whereas PG&E needs more flexible resources to deal with periods of overgeneration and negative market prices. BioRAM contracts provide PG&E with unlimited buyer curtailment hours per contract year, giving the utility the right to dispatch the unit down to minimum load. This provides PG&E with more flexibility to manage the new Woodland contract during periods of overgeneration than many other contracts in its RPS portfolio. However,

PROJECT VIABILITY

As an existing generation facility that performed reliably up until its shutdown after the termination of the prior RPS agreement, the project viability of the Woodland facility ranks high.

C. DISCUSSION OF MERIT FOR APPROVAL

Arroyo does not here offer an opinion on whether or not the new Woodland contract merits CPUC approval. While Arroyo believes that the cost information that Woodland provided to PG&E in an open-book review was reasonable, Arroyo does not believe the

information currently available provides the basis to support a sufficiently well-informed IE judgment that the actual average price that PG&E customers will pay for Woodland's deliveries will be reasonable. The range of possible outcomes over the delivery term includes scenarios in which Arroyo would consider the price paid for Woodland's deliveries to be reasonable and others in which the price customers would pay seems unreasonably high.

- Arroyo ranks the contract price for the new agreement as quite high compared to recent competing proposals from projects delivering RPS-eligible energy. A more relevant peer group to which to compare this contract is other proposals from biomass-fueled facilities that offered to deliver power from biofuel harvested from High Hazard Zones. The contract price of the new agreement, assuming that Woodland were to fully meet the HHZ and sustainable fuel requirements of the BioRAM agreement, ranks very high when compared to that peer group of biomass-fueled plants that submitted proposals for BioRAM and BioRAM 2 contracts in 2016. The contract price of the Woodland agreement compares [REDACTED] to more recent SB859-compliant contracts executed by POU's with generators burning HHZ-derived fuel, but there are very few publicly available data points. [REDACTED]
- Arroyo's valuation of the new agreement, assuming deliveries at its contract price, would rank it in the bottom decile in net market value when compared to the offers PG&E received in the prior BioRAM solicitation. The solicitation was held in 2016 so these are stale benchmarks for competitive pricing.
- The Woodland agreement does not meet the CPUC's per se reasonableness benchmark for contract pricing of a new five-year agreement with a facility that has not been in the BioRAM program.
- In Arroyo's opinion the new Woodland contract fulfills the requirements of Ordering Paragraph 2 of Resolution E-4977.
- If the Woodland facility were to consistently meet the feedstock requirements of the new BioRAM contract regarding the content of its delivered fuel that originates in High Hazard Zones and is harvested using sustainable forest management practices, it would contribute to meeting urgent public policy goals stated in the emergency proclamation on tree mortality and in regulatory and legislative directives. [REDACTED]

[REDACTED] Woodland appears to have not yet made significant use of

fuel harvested from HHZs.⁸ Its contribution to meeting the public policy goals of the BioRAM program will depend on the degree to which it chooses to and succeeds in procuring HHZ-derived and sustainable forestry feedstocks during the delivery term.

[REDACTED]

[REDACTED]

- The Woodland facility ranks high in project viability and low in its fit with the supply needs of PG&E's portfolio. Arroyo ranks Woodland as moderate in support for the RPS Goals evaluation criterion as it has been interpreted by PG&E in the past. Restarting the facility would allow it to resume economic support for jobs in Woodland, although that is a community that has not been afflicted with high poverty or unemployment when compared to the state of California overall.
- In Arroyo's opinion the negotiations that PG&E held with Woodland for the new contract were conducted in a manner that was fair to Woodland's competitors.
- The Woodland facility's 25 MW of capacity were unavailable to the grid during the episodes in summer 2020 when the CAISO ordered rolling blackouts of customers.

⁸ DTE Energy has created a public website, "www.savewoodlandpower.com" that states that the facility "uses a small percentage of high fire hazard zone woody biomass today, but could quickly source 100% of its fuel from high fire hazard woody biomass if needed."

[REDACTED]

Woodland's production would by no means be competitive with other sources of incremental generation that could help the CAISO balance demand and supply (consider for example the coastal gas-steam facilities that were ordered to be withdrawn from service by the state). However, it seems likely that a BioRAM contract that would bring 25 MW back into operation would be beneficial to customers simply by reducing the numbers of accounts suffering rolling blackouts in future such episodes. The incremental value of this capacity to society is likely not being fully valued in either PG&E's or Arroyo's analyses that were performed before August 2020, [REDACTED]

- Based on these observations, Arroyo finds it difficult to arrive at an opinion that the new Woodland contract meets a threshold for price reasonableness. The cost assumptions in Woodland's financial projections revealed to PG&E in an open-book review seem to Arroyo to be reasonable. [REDACTED]

[REDACTED]

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[REDACTED]

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[REDACTED]

On that basis, Arroyo believes that it does not have sufficient information to support an independent opinion that the Woodland contract merits CPUC approval, nor that the Woodland contract should be disapproved either.

⁹ However, as described in the prior chapter, Arroyo was not able to observe directly the telephonic discussion in early May 2020 in which [REDACTED]

[REDACTED]

Attachment D

Independent Evaluator Report (Confidential)

Attachment E.1

**Open Book Review
(Confidential)**

Attachment E.2

Attestation and Fuel Study (Confidential)

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	
	Ellison Schneider & Harris LLP	Redwood Coast Energy Authority
Alta Power Group, LLC	Energy Management Service	Regulatory & Cogeneration Service, Inc.
Anderson & Poole	Engineers and Scientists of California	SCD Energy Solutions
		San Diego Gas & Electric Company
Atlas ReFuel		
BART	GenOn Energy, Inc.	SPURR
	Goodin, MacBride, Squeri, Schlotz & Ritchie	San Francisco Water Power and Sewer
Barkovich & Yap, Inc.	Green Power Institute	Sempra Utilities
California Cotton Ginners & Growers Assn	Hanna & Morton	
California Energy Commission	ICF	Sierra Telephone Company, Inc.
California Public Utilities Commission	IGS Energy	Southern California Edison Company
Carpine	International Power Technology	Southern California Gas Company
	Intestate Gas Services, Inc.	Spark Energy
Cameron-Daniel, P.C.	Kelly Group	Sun Light & Power
Casner, Steve	Ken Bohn Consulting	Sunshine Design
Cenergy Power	Keyes & Fox LLP	Tecogen, Inc.
Center for Biological Diversity	Leviton Manufacturing Co., Inc.	TerraVerde Renewable Partners
		Tiger Natural Gas, Inc.
Chevron Pipeline and Power		
City of Palo Alto	Los Angeles County Integrated	TransCanada
	Waste Management Task Force	Utility Cost Management
City of San Jose	MRW & Associates	Utility Power Solutions
Clean Power Research	Manatt Phelps Phillips	Water and Energy Consulting Wellhead
Coast Economic Consulting	Marin Energy Authority	Electric Company
Commercial Energy	McKenzie & Associates	Western Manufactured Housing
Crossborder Energy		Communities Association (WMA)
Crown Road Energy, LLC	Modesto Irrigation District	Yep Energy
Davis Wright Tremaine LLP	NLine Energy, Inc.	
Day Carter Murphy	NRG Solar	
Dept of General Services	Office of Ratepayer Advocates	
Don Pickett & Associates, Inc.	OnGrid Solar	
Douglass & Liddell	Pacific Gas and Electric Company	
	Peninsula Clean Energy	