

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



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 5954E
As of March 22, 2021

Subject: Approval of Bioenergy Agreement Between Pacific Gas and Electric Company and Wheelabrator Shasta Energy Company Inc. in Compliance with Resolution E-4977

Division Assigned: Energy

Date Filed: 09-18-2020

Date to Calendar: 09-23-2020

Authorizing Documents: E-4977

Disposition:

Signed

Effective Date:

03-18-2021

Resolution Required: Yes

Resolution Number: E-5123

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- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)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

September 18, 2020

Advice 5954-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 Wheelabrator Shasta Energy Company Inc. 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 Wheelabrator Shasta Energy Company Inc (Wheelabrator). PG&E executed a new Renewable Auction Mechanism Power Purchase Agreement (RAM PPA) and BioRAM Rider for a five-year term (collectively the "Agreement") to become effective following expiration of the current BioRAM agreement between PG&E and Wheelabrator, and PG&E is submitting the Agreement for Commission review and approval in compliance with Ordering Paragraph (OP) 4 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.

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

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 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 providing: a list of all PG&E's biomass contracts; a showing that PG&E had contacted all its contracted BioRAM facilities and other eligible biomass facilities pursuant to Section 8388; an attestation regarding the lack of interest expressed by one qualifying counterparty for a contract extension pursuant to Section 8388 (including Independent Evaluator Report); and proposed terms related to PG&E's status in bankruptcy.

Prior to submitting Advice Letter 5516-E, PG&E requested and received an extension of time from the Commission's Executive Director pursuant to Commission Rule 16.6 for demonstrating compliance with certain requirements set forth in Ordering Paragraph 2 of Resolution E-4977. The Commission set a new deadline of July 30, 2019, for PG&E to demonstrate compliance with subsections (a), (b), (c) and (f), (g), and (h) of Ordering Paragraph 2, although it instructed PG&E to submit contractual amendments earlier if issues could be resolved prior to that date.²

PG&E submitted Advice Letter 5603-E on July 30, 2019 explaining that Wheelabrator was not willing to execute the non-extension contract language. Instead of providing an executed contract amendment, AL 5603-E included an unexecuted amendment with an explanation of why negotiations had reached an impasse. Wheelabrator had declined to execute the Amendment attached to AL 5603-E, however PG&E remained willing to execute that Amendment if Wheelabrator wished to do so in the future. PG&E offered to provide the Energy Division a quarterly update on the status of its outstanding offer and Wheelabrator's further response, if any. By negotiating with

² Letter from Alice Stebbins, Executive Director, to Erik Jacobson, dated March 22, 2019 (served on the service list for R.18-07-003).

Wheelabrator in good faith, offering the Amendment to implement the terms of SB 901 and Resolution E-4977, submitting the unexecuted Amendment to the Commission, and committing to execute the Amendment in the future should Wheelabrator elect to do so, PG&E made all reasonable efforts within its control to give effect to SB 901 and complied with the requirements of Resolution E-4977 applicable to existing BioRAM contracts. AL 5603-E became effective on August 29, 2019.

PG&E and Wheelabrator continued to negotiate after August 2019 in order to resolve the impasse regarding the amendment of the existing BioRAM agreement by concurrently reaching agreement on a new BioRAM Agreement with Wheelabrator pursuant to Section 8388. The parties have now resolved both issues, and PG&E is concurrently submitting this Advice Letter to implement Ordering Paragraph 3 of Resolution E-4977 as to Wheelabrator and a separate Advice Letter (5955-E), which amends the existing BioRAM agreement with Wheelabrator to implement subsections (a)-(c), (f) and (i) of Ordering Paragraph 2 of Resolution E-4977.

III. Description of New BioRAM Contract with Wheelabrator for Extended Term

PG&E is seeking Commission approval for the Agreement, in compliance with OP3 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)
Wheelabrator Shasta Energy Company, Inc.	Biomass	34	Anderson, CA	238	12/2/2022	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.³ 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 3.10	3.10(b)(i) Quarterly Submission	

³ https://www.pge.com/tariffs/tm2/pdf/ELEC_4958-E.pdf

	Section 3.10	3.10 (b)(ii) Monthly Submission	Section 4584 of the Public Resources Code.
	Section 3.10	3.10(c) Buyer's Audit Right	
	Appendix A	Form of [Monthly][Quarterly] Fuel Attestation	
OP 2(b)	Definitions	"Monthly Opt Out", "Monthly Fuel Attestation", "Monthly Fuel Attestation Deadline", "Amended Price"	Monthly opt-out and reporting option with revised payment and other terms
	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	
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 2 (i)	Definitions	"Chapter 11 Cases"	Modifications to sections related to representations and warranties and events of default to account for PG&E's status in bankruptcy and the related jurisdiction of federal bankruptcy court.
	Section 5.1	5.1(a)(iv)	
	Section 5.1	5.1(a)(v)	
	Section 10.2	10.2(a)	
	Section 10.2	10.2(d)	
	Section 10.3	10.3(a)	
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 length of 5 years
OP 4 (a)	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.

OP 3 of Resolution E-4977 also requires PG&E to file the Advice Letter for this Agreement at least 12 months before the expiration of the existing BioRAM contract between Wheelabrator and PG&E. The existing BioRAM contract between Wheelabrator and PG&E expires on December 1, 2022, which is more than 12 months from the date of this Advice Letter submission.

IV. Reasonableness of Procurement

In Resolution E-4977, the Commission established a per se reasonableness benchmark for contract prices for new or amended BioRAM contracts that is no higher than current contract prices. The contract price proposed in this Agreement exceeds Wheelabrator's existing contract price, and is therefore being submitted to the Commission via a Tier 3 Advice Letter.

As part of the negotiation process with Wheelabrator, PG&E conducted an open book review of the resource's financial statements in order to evaluate and assess the proposed price. The details of this review are included in Confidential Appendix B - Contract Summary

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 Wheelabrator 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.⁴ Accordingly, PG&E proposes to recover the costs of the Agreement through the TM NBC.

⁴ 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).

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 May 4, 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 Wheelabrator for energy eligible to meet E-4977 requirements using biofuel sourced primarily from designated HHZs. The attached IE report does not offer an opinion on whether or not the new contract merits CPUC approval. 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 March 17, 2021).

XI. Request for Commission Approval

PG&E requests the Commission approve the BioRAM PPA through an Energy Division disposition letter issued within 30 days of the submittal of this Advice Letter (by October 18, 2020), 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 to extend the term of the existing BioRAM agreement between PG&E and Wheelabrator; 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 Wheelabrator, 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 October 8, 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
Wheelabrator (Confidential)

Attachment B: Summary of Contract Terms (Confidential)

Attachment C: Independent Evaluator Report (Public)

Attachment D: Independent Evaluator Report (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) #: 5954-E

Tier Designation: 3

Subject of AL: Approval of Bioenergy Agreement Between Pacific Gas and Electric Company and Wheelabrator Shasta Energy Company Inc. 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: 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: Mark Muranishi, (415)973-8094, M9MP@pge.com

Resolution required? ☒ Yes ☐ No

Requested effective date: 3/17/21

No. of tariff sheets: N/A

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 MARK MURANISHI
SEEKING CONFIDENTIAL TREATMENT
FOR CERTAIN DATA AND INFORMATION CONTAINED
IN ADVICE LETTER 5954-E**

I, Mark Muranishi, 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 5954-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 September 18, 2020 at San Francisco, California.

_____/s/

Mark Muranishi

Manager, Structured Energy Transactions

Pacific Gas & Electric Company

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5954-E
September 18, 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 Wheelabrator	Item VII(G) Renewable Resource Contracts under RPS program	This attachment contains the executed BioRAM Agreement between PG&E and Wheelabrator Shasta Energy Company, Inc. (Wheelabrator), which include terms deemed non-public.	Three years from contract date for deliveries to start or one year after expiration, whichever comes first.
Appendix 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 Wheelabrator.	Three years from contract date for deliveries to start or one year after expiration, whichever comes first.
Appendix C, 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 appendix contains the confidential IE report, which discusses, analyzes and/or evaluates the terms of the BioRAM Agreement and confidential negotiations between PG&E and Wheelabrator. 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

Attachment A

Executed Amendment to BioRAM Rider between PG&E and Wheelabrator (Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Attachment B

Summary of Contract Terms (Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Attachment C

**Independent Evaluator Report
(Public)**

ARROYO SECO CONSULTING

PACIFIC GAS AND
ELECTRIC COMPANY
RENEWABLE ENERGY
CONTRACT PURSUANT
TO SENATE BILL 901

REPORT OF THE INDEPENDENT
EVALUATOR ON A NEW CONTRACT WITH
WHEELABRATOR SHASTA ENERGY
COMPANY INC.

AUGUST 27, 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 five-year contract with Wheelabrator Shasta Energy Company Inc. (“Wheelabrator”) for energy eligible for Renewables Portfolio Standard (“RPS”) compliance using primarily woody biofuel sourced primarily 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) on wildfire-related issues. The Resolution directed investor-owned utilities (“IOUs”) to offer five-year contract extensions or new contracts to sellers that have existing BioRAM contracts for delivery of energy from such HHZ-derived fuels; the parties have chosen to execute a new five-year contract. The Resolution also directed IOUs to make specific changes to the terms and conditions of existing BioRAM agreements to comply with SB901.

An independent evaluator (“IE”), Arroyo Seco Consulting (“Arroyo”), acted to review and check PG&E’s processes as the utility conducted outreach to owners of biomass-fueled plants eligible for contract extensions or new contracts. Activities included monitoring outreach efforts, assessing the fairness of PG&E’s evaluation methodology, and observing negotiations for new contracts. Findings of this independent review are that

- PG&E offered negotiations to Wheelabrator under the specific direction of Resolution E-4977, which ordered PG&E to offer contract extensions or new contracts that expand the HHZ fuel definition, add a monthly opt-out and reporting option for the seller, revise the triggers of an event of default, implement seller’s air pollution control reporting requirements, edit provisions to account for PG&E’s Chapter 11 filing, and extend delivery term by five years.
- Contract-specific negotiations for a new five-year contract with Wheelabrator with deliveries commencing at the termination of the existing agreement were handled in a manner that was, overall, fair to competitors, in Arroyo’s opinion.
- The contract price ranks quite high compared to alternative sources of RPS-eligible energy. The project viability of Wheelabrator’s facility is quite high. The new contract will continue to support elements of PG&E’s previous RPS Goals criterion. Its fit with PG&E’s supply portfolio ranks somewhat low.
- PG&E conducted an open-book review of the facility’s recent and projected financial performance. In Arroyo’s opinion this review has not provided an adequate basis upon which to support a sufficiently well-informed IE judgment that the price of the new contract is fair and reasonable. Therefore, Arroyo offers no opinion on the merit of the new contract for 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 facilities using forest-based bioenergy 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 IOUs to conduct solicitations from generation facilities using biofuel from HHZs, using the Renewable Auction Mechanism (“RAM”) process 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 Bioenergy Renewable Auction Mechanism (“BioRAM”) solicitation in 2016, which led it to award 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 evaluating those competing proposals, PG&E awarded a contract to Wheelabrator in late 2016.

Following the 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 for delivery to PG&E. The CPUC’s Resolution E-4977 specified that investor-owned utilities (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 in this solicitation to fulfill those roles.

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

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

of an IE to evaluate and report on the entire solicitation, evaluation, and selection process for the 2006 RPS RFO and future competitive 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 RPS 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 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 negotiating a new contract with Wheelabrator, Arroyo pursued various activities, including:

- Reviewing the procedural history leading to the directives of Resolution E-4977, PG&E's contract rider to the RAM form agreement that was developed specifically for new SB901-directed contracts, and the prior history of PG&E and Wheelabrator's existing BioRAM contract.
- Examining PG&E's contract list and checking whether PG&E appropriately offered the opportunity to negotiate extensions or new contracts to all eligible sellers.
- Observing communications and negotiations between PG&E and Wheelabrator, and reviewing in detail marked-up contract drafts exchanged between parties.
- Employing an independent valuation model to value the new contract. The IE model used independent inputs and a different methodology than PG&E's.
- Reviewing and analyzing the historical financial reports and projections for future financial performance that Wheelabrator made available to PG&E for an open-book review of the facility's operating economics.

2. ADEQUACY OF OUTREACH TO ELIGIBLE SELLERS

Resolution E-4977 required PG&E to offer negotiations for new or extended BioRAM 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 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 any interest in seeking to extend their existing contracts. [REDACTED]

[REDACTED] PG&E has separately filed a new contract with Burney Forest Products. Both facilities are sited in Shasta County, which is an attainment zone for the federal ozone and particulate standards (although it is a non-attainment zone for the California state ozone standard).

PG&E had a ten-year RPS contract with Woodland Biomass Power Ltd. (“Woodland”) that began in early 2010 and expired at the end of February 2020. Woodland also was eligible for a new BioRAM contract, and PG&E contacted it in February 2019. Woodland is a subsidiary of Michigan-based DTE Energy Services, an affiliate of the integrated electric utility DTE Energy, formerly Detroit Edison. [REDACTED]

[REDACTED] Woodland is sited in Yolo County, which is a federal moderate non-attainment zone for ozone.

PG&E had a ten-year Renewables Portfolio Standard contract with Wadham Energy L.P. (“Wadham”) that began deliveries in 2008 and terminated in May 2018. Wadham was eligible for a new BioRAM 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 reported in a report attached to PG&E’s Advice 5533-E in April 2019, Arroyo believes that PG&E made all reasonable efforts to seek interest from Wadham in negotiating a new contract for HHZ-based energy deliveries. This [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 suggest that the facility was sold in 2019 and demolished to make way for a new warehouse. TEDP was arguably ineligible for an SB901-based new BioRAM contract because it is sited in San Joaquin County, which is a federal extreme non-attainment zone for ozone.

Arroyo's review did not reveal other biomass-fueled facilities in PG&E's portfolio that might be eligible for extensions or new contracts based on the requirements of SB901. Several of PG&E's prior contracts with biomass-fueled generators expired before the start of calendar 2018. One active 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 extensions or new BioRAM contracts under the provisions of SB901 was adequate, and that PG&E made all reasonable efforts to engage these sellers in negotiations.

3. FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

This chapter provides an independent review of the extent to which PG&E's negotiations with Wheelabrator for a new BioRAM agreement were conducted fairly with respect to the seller and to its competitors. The next chapter further addresses the issue of whether the contract is fair to PG&E's ratepayers based on its pricing.

A. BACKGROUND INFORMATION

After Wheelabrator responded affirmatively to PG&E's outreach to seek its interest in a contract extension or new contract, the parties commenced negotiations. PG&E noted that the timing of its obligation posed by Resolution E-4977 to file an advice letter within 60 days of the Resolution suggested that it might be better to first negotiate a contract amendment that addressed the requirements of subsections (a) through (f) and (i) of Ordering Paragraph 2. PG&E observed that Ordering Paragraph 3 allowed for the utility to address Paragraph 2's sections (g) and (h) in an advice letter filed later than the 60-day deadline. In other words, PG&E suggested that the Resolution-directed changes to the terms of Wheelabrator's existing BioRAM contract regarding the definition of HHZ fuels, the monthly opt-out and reporting option, specific air quality reporting requirements, and changes to representations and warranties to account for PG&E's Chapter 11 filing status should best be handled first by an amendment to the existing contract that could be quickly negotiated, while terms of a new contract could be negotiated later.

PG&E requested and received an extension of time from the CPUC to demonstrate compliance with Ordering Paragraph 2 of Resolution E-4977. The new deadline was set to July 30, 2019. On the date of the deadline, PG&E filed Advice 5603-E, in which it reported that Wheelabrator had declined to execute PG&E's draft of a contract amendment that would have addressed subsections (a) through (f) and (i) of Ordering Paragraph 2. Arroyo reported on the negotiations up to that point in an IE report attached to the advice filing.

[REDACTED]

[REDACTED]



The parties continued to negotiate the new contract; it was executed on May 24, 2020.

B. PRINCIPLES FOR EVALUATING THE FAIRNESS OF NEGOTIATIONS

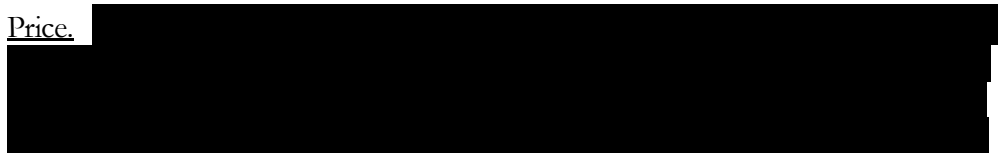
Arroyo considered some principles to evaluate the degree of fairness with which PG&E handled negotiations for a new contract required by Resolution E-4977.

- Were sellers treated fairly and consistently by PG&E during negotiations? Were all sellers given equitable opportunities to advance proposals towards final contracts? Were individual sellers given unique opportunities to move their proposals forward or concessions to improve their contract's commercial value, opportunities not provided to others?
- Was the distribution of risk between seller and buyer distributed equitably across agreements? Did PG&E's ratepayers take on a materially disproportionate share of risks in some 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 contracts or realizing commercial value from those contracts?
- 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 treatment? Were other proposals of comparable value to ratepayers assigned materially worse outcomes?

C. NEGOTIATIONS BETWEEN PG&E AND WHEELABRATOR SHASTA

The parties addressed several issues in their negotiations for the new contract, some of which applied to the amendment to the existing agreement as well.

- Price.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

² Arroyo assumes that the average BioRAM contract price cited in the Resolution does not include the SB 859-compliant PPA signed with ARP-Loyalton Cogen LLC for \$97.50/MWh by publicly-owned utilities that are not CPUC-jurisdictional.

[REDACTED]

³

[REDACTED]

[REDACTED]

[REDACTED]

⁴

[REDACTED]

- Bankruptcy. [REDACTED]

³ Recent year-on-year escalation in CPI-U has ranged from a low of 0.7% in 2015 to 2.3% in 2019.

⁴ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5

[REDACTED]

[REDACTED]

5

[REDACTED]

[REDACTED]

- Events of default. [REDACTED]

- Delivery term security. [REDACTED]

[REDACTED]

[REDACTED]

- Buyer's audit right. [REDACTED]

- Fuel requirements. [REDACTED]

- Air pollution control reporting.

[REDACTED]

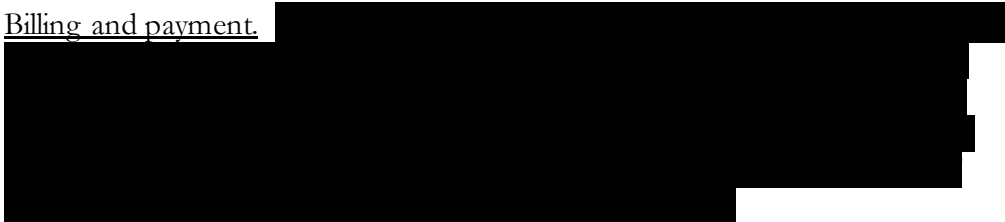
[REDACTED]

[REDACTED]

- Monthly opt-out.

[REDACTED]

[REDACTED]

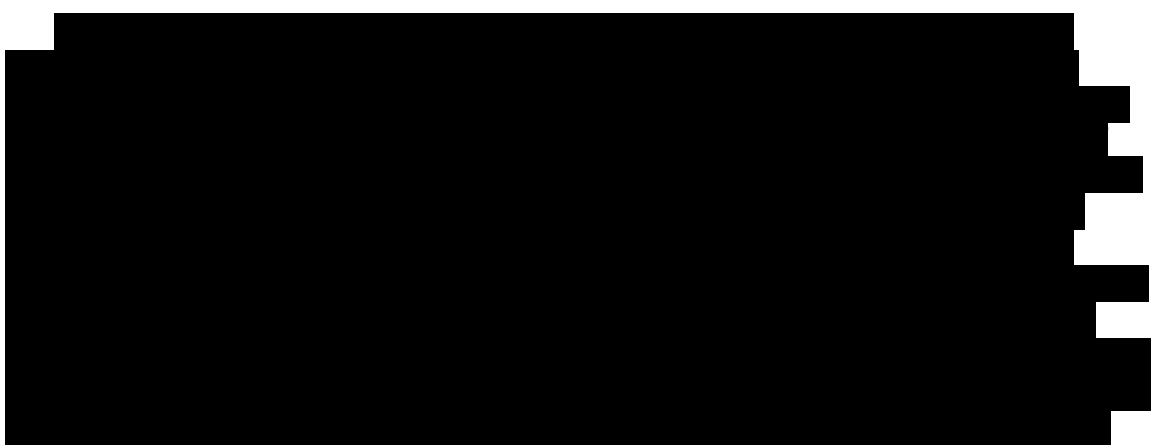
- Billing and payment.
- 

While the parties negotiated with success on nearly all of their points of contention, they reached an impasse in mid-July 2019. Consequently, the parties failed to agree to execute either the new contract or the amendment to the existing contract by the extended filing deadline of end-July 2019.

Following the impasse, the parties continued to negotiate, and were able to resolve the remaining differences as described. The resulting agreement was executed on May 24, 2020.

D. DEGREE OF FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

Arroyo's opinion is that PG&E's negotiations with Wheelabrator were, overall, fair to competitors and to the seller. PG&E gave Wheelabrator an equitable opportunity to advance its new contract. The balance of benefits and costs between buyer and seller is consistent with those in PG&E's RAM contracts generally. Fairness to PG&E's ratepayers and the issue of price reasonableness is discussed in the next chapter.



Arroyo did not observe PG&E providing Wheelabrator with non-public information that might have advantaged the seller against its competitors. Wheelabrator was not given any special opportunities to shift costs or risks towards ratepayers beyond those specific contract provisions directed by Resolution E-4977. With one minor exception, the RAM form agreement and the BioRAM rider were not materially altered to provide more favorable terms uniquely to Wheelabrator that were not provided to competitors.

Arroyo's opinion is that PG&E handled its negotiations with Wheelabrator in a manner that was, overall, fair to the seller's competitors.

4. MERIT FOR CPUC APPROVAL

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

A. CONTRACT SUMMARY

On May 24, 2020, PG&E and Wheelabrator executed a new five-year contract for continuing delivery of RPS-eligible energy from Wheelabrator's biomass-fueled generation facility. Deliveries under the new contract are expected to commence when the existing contract expires in December 2022. Contract capacity is 34 MW and contract quantity is about 238 GWh/year over the five-year contract term. The project is located southeast of the city of Anderson in Shasta County; it began operations in 1989. Wheelabrator Shasta's parent, Wheelabrator Technologies Inc., was acquired by Waste Management, Inc. in 1990 and then sold in 2014 to Energy Capital Partners, a private equity firm. Energy Capital Partners sold Wheelabrator Technologies to a managed fund administered by Macquarie Infrastructure Partners in early 2019.

The new contract, which is expected to commence deliveries in December 2022, differs from the existing BioRAM agreement in specific terms and conditions that were ordered by Resolution E-4977 that affect defined feedstock requirements, a monthly option to opt out of HHZ requirements, air pollution control reporting, and events of default. The parties negotiated new contract pricing for the five years following the existing contract.

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 contract has a price for deliveries [REDACTED]

[REDACTED]

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

[REDACTED]

[REDACTED]

There are few fresh public benchmarks for market price for PPAs with biomass-fueled generators. The Redwood Coast Energy Authority has recently renewed two such contracts. In January and February 2020 RCEA paid \$59/MWh for RPS-eligible deliveries from DG Fairhaven, and in the rest of 2020 RCEA is paying \$65/MWh. RCE pays Humboldt Sawmill Company \$67/MWh in 2020, a price that will escalate starting in March 2021 based on the consumer price index. These are facilities that burn non-HHZ-derived sawmill waste rather than fuel primarily harvested from HHZs, so the fuel for each of these generators is provided by an adjacent mill facility rather than trucked in to the plant from more distant forests [REDACTED]

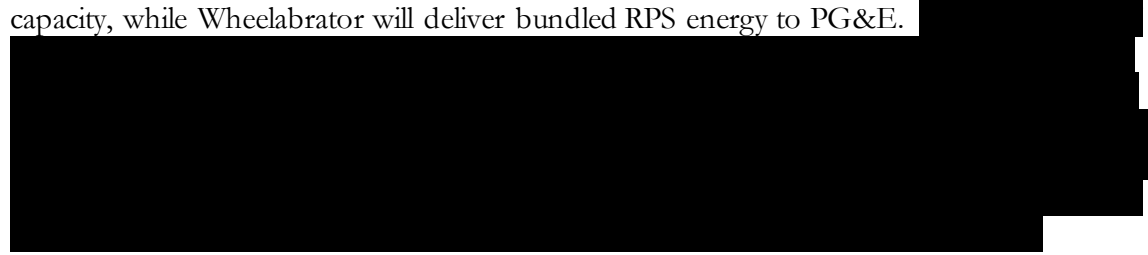
Several public-owned utilities, including Sacramento Municipal Utility District, Modesto Irrigation District, Turlock Irrigation District, and Southern California Public Power Authority acting on behalf of Imperial Irrigation District, Los Angeles Department of Water and Power, and the cities of Anaheim and Riverside, entered contracts with ARP-Loyalton Cogen, LLC in late 2017. The POU's sought their PPAs in order to comply with Senate Bill 859, as this facility was obligated under the contracts to begin deliveries of RPS-eligible energy primarily from HHZ fuels in April 2018 for a five-year delivery term. The pricing of the contracts is \$97.50/MWh with no escalation. This price for ARP-Loyalton's deliveries was negotiated after the original Wheelabrator BioRAM contract was executed. 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 to Arroyo 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 generators using HHZ fuel rather than relying solely on bilateral negotiations of extensions to existing biomass contracts. [REDACTED]

Arroyo observes that the ARP-Loyalton plant is sited in eastern Sierra County about a mile from the Tahoe National Forest boundary and close to several Tier 1 High Hazard Zones; Wheelabrator is sited on the floor of the Sacramento Valley, a longer truck haul from analogous Tier 1 sites in the Lassen and Plumas National Forests. The fuel supply and plant economics might be expected to differ between the two generators.

In December 2019, the Southern California Public Power Authority entered a five-year PPA with Roseburg Forest Products Company that prices deliveries of HHZ-fueled RPS energy at \$46/MWh. SCPPA is buying this power on behalf of its members, the Los

⁶ ARP-Loyalton Cogen LLC filed for Chapter 11 bankruptcy protection in February 2020, as did its parent company American Renewable Power LLC. The financial failure of the Loyalton biomass plant calls into question whether its PPA pricing should be considered a reliable indicator of market comparable pricing for SB 859-compliant contracts, as one might speculate that the contract price was too low for the project to operate economically. (Sacramento Municipal Utility District has since reported negotiations for a new five-year PPA with another party to fulfill its SB 859 obligations.)

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 RFO that included non-SCPPA members Sacramento Municipal Utility District and the Modesto and Turlock Irrigation Districts. The contracts are intended for these POU's to comply with the requirements of Senate Bill 859. The HHZ fuel is to be burned at the cogeneration unit at Roseburg Forest Products' veneer mill in Weed, California. Arroyo believes that the \$46/MWh price of the Roseburg Forest Products PPA should not be used as a point of comparison to Wheelabrator's contract, because Roseburg will not deliver any energy to the publicly-owned utilities, only "SB 859 Attributes" and capacity, while Wheelabrator will deliver bundled RPS energy to PG&E.



Market Valuation. Arroyo performed an independent market valuation of the new Wheelabrator contract. The net market value of the agreement would rank in the lowest decile for value among offers to PG&E's most recent competitive solicitations for RPS-eligible energy. As these proposals were mostly for new solar and wind generation, one would expect the Wheelabrator contract to compare unfavorably given the lack of competitiveness of biomass-fueled power against the other renewable energy technologies. PG&E also performed a net market valuation of the new Wheelabrator agreement.

When compared to the net market values of proposals to PG&E's 2016 BioRAM solicitation, the value of the new Wheelabrator contract ranks somewhat below the median of those peers as they proposed to burn HHZ-based fuels, in the third quartile of NMV. This comparison with stale benchmarks might suggest that the price of deliveries from the Wheelabrator facility is roughly competitive among its peer group; this comparison is not apples to apples because one might expect the costs of the other biomass-fueled facilities to have escalated as well since 2016. Without a new competitive solicitation, it is difficult to infer Wheelabrator's standing in price competitiveness against this peer group, though the ARP-Loyalton and Roseburg contracts resulted from more recent solicitations.

Open-book review. PG&E requested, and Wheelabrator 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. In fact, PG&E previously had sought and obtained such open-book information from Wheelabrator Shasta twice during such negotiations for prior amendments, though the facility had been under different ownership then.

In this case, the parties agreed that 2018 and partial 2019 year-to-date historical information would be relevant to analyze, but that prior historical financial performance would not be useful. Prior to December 2017, the contractual requirements for Wheelabrator as a QF differed considerably from those of the BioRAM agreement.

Wheelabrator was previously able to combust a much broader range of biomass fuels than primarily HHZ-derived biofuels, the volumetric obligation for production was higher, and payment incentives for availability performance differed. Based on those differences, it seemed unreasonable to compare projected financial performance to the pre-2018 historical costs that were based on using non-HHZ woody waste as fuel.

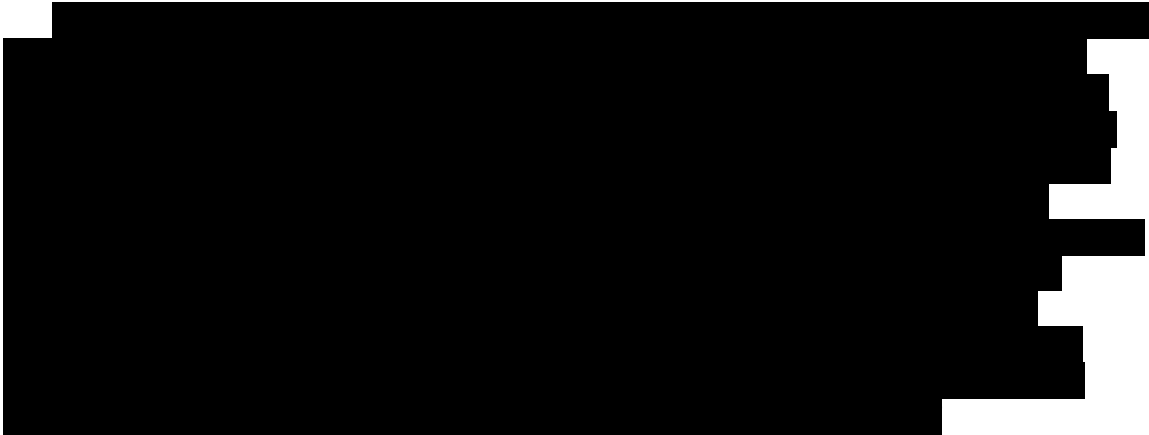


Figure 1.

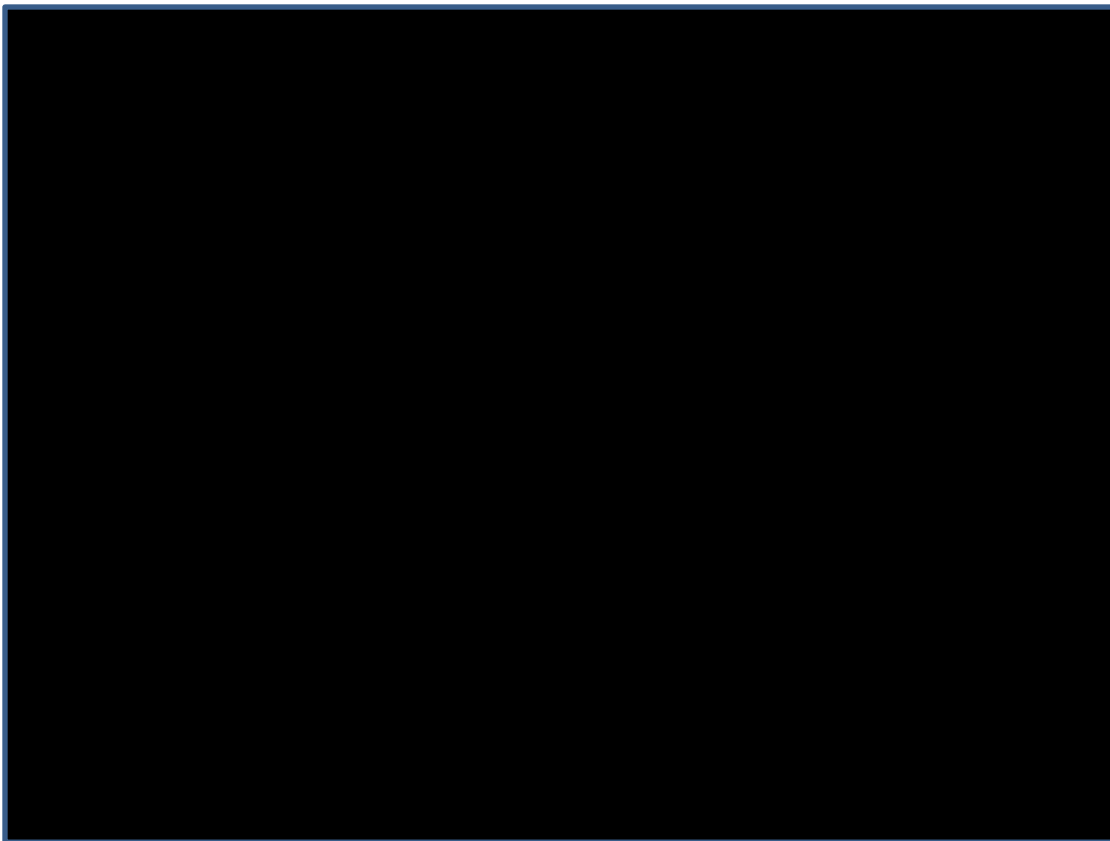
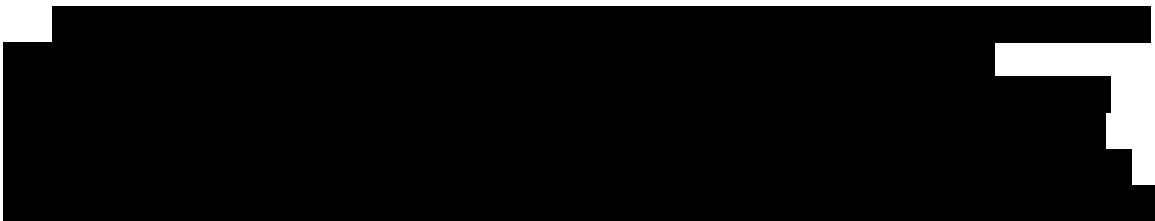




Figure 2.



.7

Figure 3.



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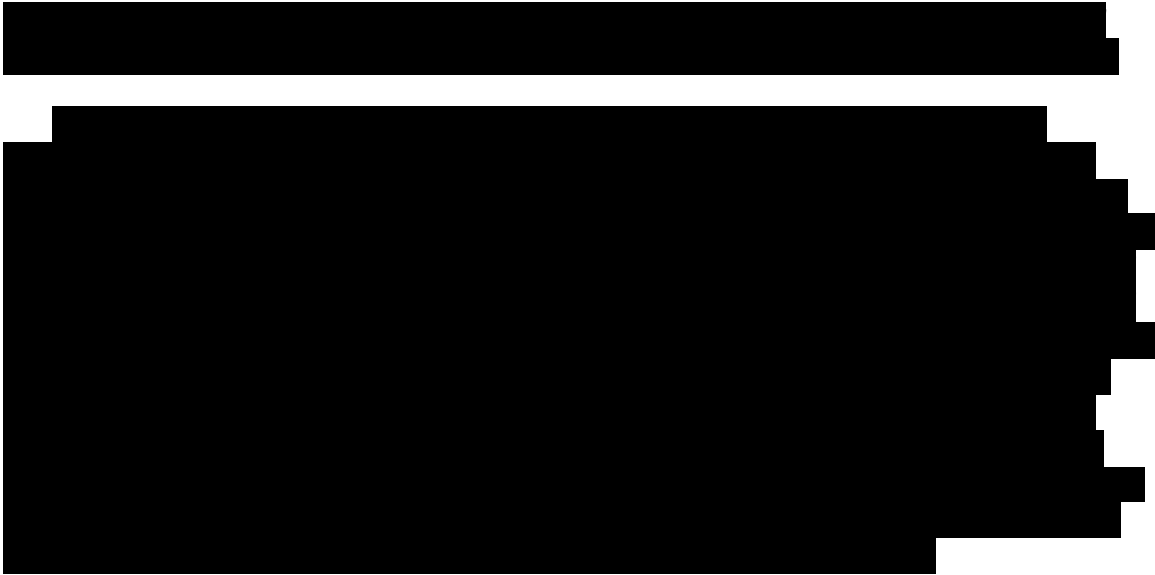
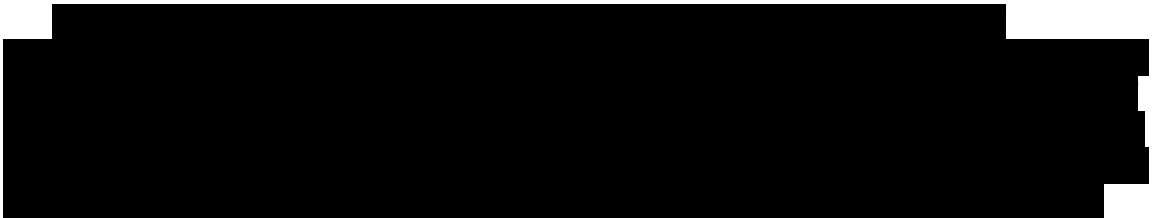


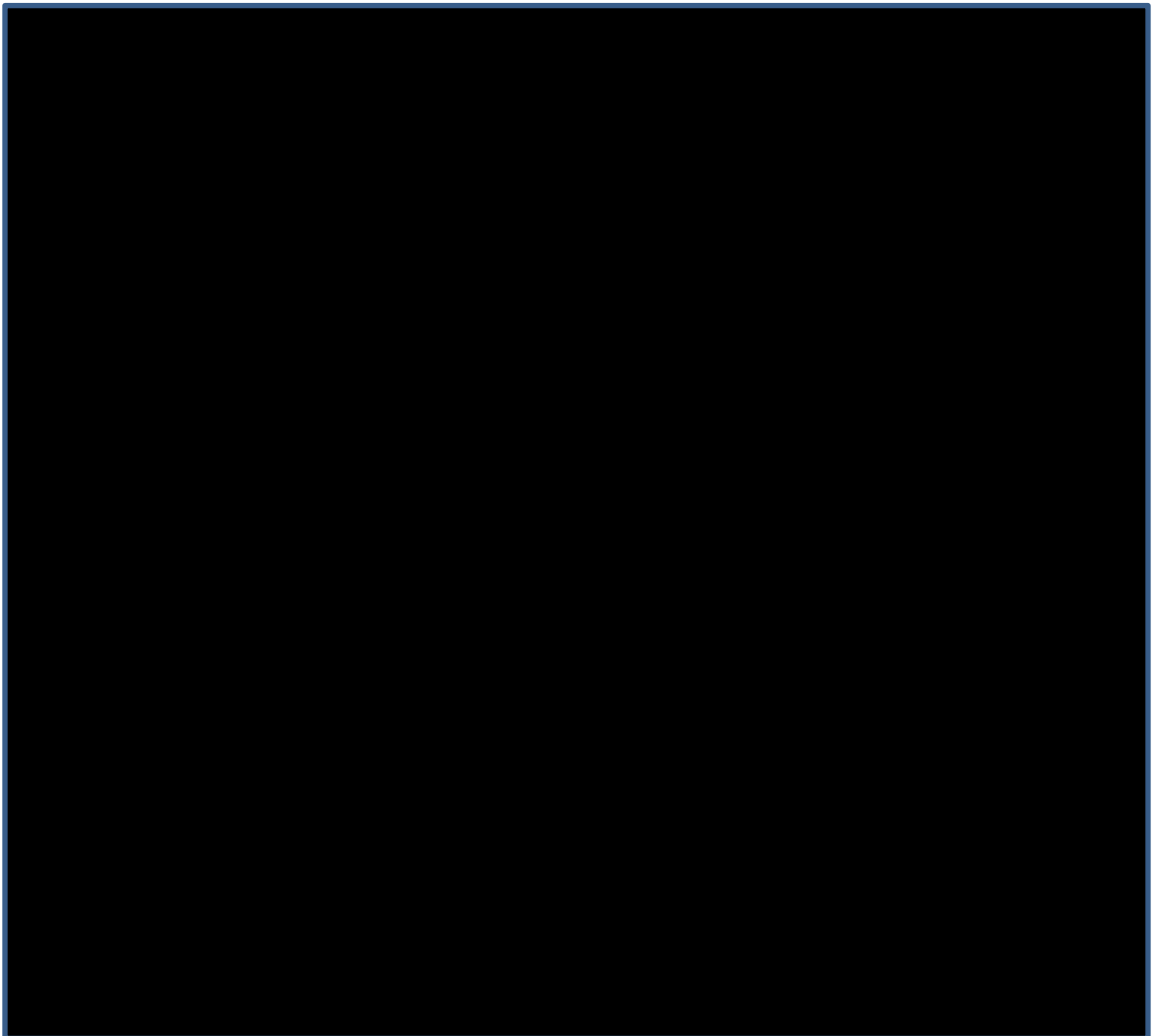
Figure 4.



[REDACTED]

[REDACTED]

Figure 5.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



CONSISTENCY WITH RPS GOALS AND PROCUREMENT PLAN

Procurement plan. PG&E's 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 also explicitly states that new or extended biomass contracts pursuant to SB901 are also part of these CPUC mandates. On that basis, executing the new Wheelabrator 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 Anderson (the facility is sited just outside the city limits) somewhat fits that characterization: estimated median annual household income in Anderson in 2018 was \$38.9 thousand vs. \$75.3 thousand for the state of California, based on the U.S. Census Bureau's 2018 American Community Survey. The estimated percentage of its population living below poverty levels was 18.2% vs. the state's 12.8%. An estimated 5.7% of the population over age 16 was unemployed vs. 5.5% for the state. This might imply average unemployment rates in Anderson, but the statistic may be influenced by the fact that 44% of the population of Anderson over age 16 is not in the labor force vs. 36% for the state as a whole. The census unemployment statistic reports on unemployed people who are considered to be in the labor force.

During negotiations, Wheelabrator characterized its expectation of employing [REDACTED] full-time employees at the facility. If it were to shut down the generator absent a new five-year contract, other jobs outside the generator and could be directly affected, such as those of the facility's fuel supply contractors.

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. Shasta County is a non-attainment area for the California state ozone standard, though it is an attainment area for the federal ozone standard and for state and federal particulate matter standards. If the expanded definition of HHZ fuels were to stimulate increased tree harvesting activity and job creation for the communities around Wheelabrator Shasta, this would be a benefit, but Arroyo has no evidence that the enhanced provisions would have such an effect.

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 Wheelabrator contract will continue to contribute towards meeting this goal.

PORTFOLIO FIT

Arroyo's opinion is that, qualitatively, the fit of the new Wheelabrator agreement with PG&E's portfolio ranks somewhat 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 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. PG&E pursued BioRAM contracts as part of a CPUC mandate, and is engaging Wheelabrator 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.

Wheelabrator'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 Wheelabrator contract during periods of overgeneration than many other contracts in its RPS portfolio, and more flexibility than with some other biomass-fueled sellers.

PROJECT VIABILITY

As an existing, operating generation facility that has functioned reliably, the project viability of the Wheelabrator facility ranks quite high.

C. DISCUSSION OF MERIT FOR APPROVAL

There are several factors that in other circumstances would suggest that the new Wheelabrator contract is meritorious.

- While Arroyo ranks the contract price for the new agreement as quite high compared to recent competing proposals from projects delivering renewable energy, the 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 price of the existing agreement ranks moderate when compared to prices offered by the peer group of biomass-fueled plants when PG&E sought offers for BioRAM and BioRAM 2 contracts in 2016. The price of the new Wheelabrator agreement compares [REDACTED] to more recent contracts with facilities burning primarily HHZ-derived fuel.

- Arroyo's valuation of the new agreement ranks it as moderate in net market value when compared to the offers received in that 2016 solicitation.
- In Arroyo's opinion the new Wheelabrator contract fulfills the requirements of Ordering Paragraph 2 of Resolution E-4977 regarding new or extended contracts with eligible sellers that incorporate specific changes to the BioRAM form ordered by the Resolution.
- If the Wheelabrator facility meets the contractual target for the content of its delivered fuel that originates in High Hazard Zones, as it has done under its existing BioRAM agreement, it will contribute to meeting an urgent public policy goal stated in the emergency proclamation on tree mortality and in regulatory and legislative directives.
- In Arroyo's opinion the Wheelabrator facility ranks high in project viability and in support for RPS Goals. It ranks somewhat low in fit with PG&E's supply portfolio.
- In Arroyo's opinion the negotiations between PG&E and Wheelabrator for the new contract were conducted fairly with respect to competitors.

If Arroyo were to conclude that the contract price of the new Wheelabrator agreement were demonstrably fair and reasonable, it would have arrived at an opinion that the contract merits CPUC approval. However, in Arroyo's opinion the open-book review has not provided an adequate basis upon which to support a sufficiently well-informed IE judgment that the price of the new contract is fair and reasonable. Information provided to PG&E by the project's owner in the open-book review was based on historical financial performance during a limited portion of the interval that the facility has burned primarily HHZ-derived fuel, and was also based on a set of specific input assumptions for financial projections made by the owner for the new contract's delivery term. Therefore, Arroyo offers no opinion on the price reasonableness of the new contract, and therefore offers no opinion on the merit of the new contract for CPUC approval.

Arroyo acknowledges that if policymakers place a high priority on ensuring that the facility continues to burn primarily HHZ-derived fuel, they may very well conclude that contributing to that important priority for the state of California may outweigh any concerns about the adequacy of the case made for the price reasonableness of the contract.

PACIFIC GAS AND ELECTRIC COMPANY

Attachment D

Independent Evaluator Report (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	