

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



June 19, 2012

**Advice Letters 3921-E and 3921-E-A**

Brian K. Cherry  
Vice President, Regulation and Rates  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, CA 94177

**Subject: Amendments to Five Existing Qualifying Facility Power Purchase Agreements for Procurement of Eligible Renewable Energy Resources between Covanta Mendota, L.P., Rio Bravo Fresno, Rio Bravo Rocklin, Pacific Ultra-Power Chinese Station, Wheelabrator Shasta Energy Company Inc., and PG&E Company and Supplemental Filing**

Dear Mr. Cherry:

Advice Letters 3921-E and 3921-E-A are effective March 8, 2012 per Resolution E-4455.

Sincerely,

A handwritten signature in cursive script that reads "Edward F. Randolph".

Edward F. Randolph, Director  
Energy Division



**Brian K. Cherry**  
Vice President  
Regulation and Rates

*Mailing Address*  
Mail Code B10C  
Pacific Gas and Electric Company  
P.O. Box 770000  
San Francisco, CA 94177

Fax: 415.973.6520

October 14, 2011

**Advice 3921-E-A**

(Pacific Gas and Electric Company ID U39 E)

Public Utilities Commission of the State of California

**Subject: Supplemental Filing for the Amendments to Five Existing Qualifying Facility Power Purchase Agreements for Procurement of Eligible Renewable Energy Resources Between Covanta Mendota, L.P., Rio Bravo Fresno, Rio Bravo Rocklin, Pacific Ultra-Power Chinese Station, Wheelabrator Shasta Energy Company Inc., and Pacific Gas and Electric Company**

**Purpose:**

Pacific Gas and Electric Company (“PG&E”) submits to the California Public Utilities Commission (“Commission”) a supplemental filing to PG&E’s Advice Letter 3921-E, dated October 6, 2011 (“Advice Letter”).<sup>1</sup> The Advice Letter submitted amendments to five Qualifying Facility (“QF”) Standard Offer Power Purchase Agreements (collectively, the “Amendments”) that PG&E has executed with Covanta Mendota, L.P. (“Mendota”), Rio Bravo Fresno (“Fresno”), Rio Bravo Rocklin (“Rocklin”), Pacific-Ultrapower Chinese Station (“Chinese Station”), and Wheelabrator Shasta Energy Company, Inc. (“Shasta”). The Advice Letter is currently pending approval by the Commission.

The purpose of this filing is to provide the Commission with slightly revised Independent Evaluator (“IE”) reports and with updated Confidential Appendices B1 through B5 to the Advice Letter that reflect a change contained in the revised IE reports.

PG&E is attaching revised confidential and public IE reports as Confidential Appendix C and Public Appendix E, respectively. The changes made to the confidential and public IE reports are limited to small changes to the IE’s ranking of the Amendments’ contract price and market valuation. PG&E has also revised Confidential Appendices B1 through B5 to reflect that the IE changed his ranking of the Amendments’ contract price from “low to moderate” to “moderate.”<sup>2</sup> The revised Confidential Appendices B1 through B5 are attached.

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<sup>1</sup> Supplements to Advice Letters are authorized by General Order 96-B, section 7.5.1.

<sup>2</sup> These revisions occur on the following pages: Confidential Appendices B1 and B4 – page B-31; Confidential Appendices B2 and B3 – page B-30; Confidential Appendix B5 – page B-32.

**Effective Date:**

PG&E requests that this advice filing become effective concurrently with the Commission's disposition of Advice Letter 3921-E.

**Confidential Attachments:**

In support of this advice filing, PG&E provides the following confidential supporting documentation:

- Confidential Appendix B1 - Contract Amendment Terms and Conditions Explained - Mendota (Revised October 14, 2011)
- Confidential Appendix B2 – Contract Amendment Terms and Conditions Explained – Fresno (Revised October 14, 2011)
- Confidential Appendix B3 – Contract Amendment Terms and Conditions Explained – Rocklin (Revised October 14, 2011)
- Confidential Appendix B4 – Contract Amendment Terms and Conditions Explained – Shasta (Revised October 14, 2011)
- Confidential Appendix B5 – Contract Amendment Terms and Conditions Explained – Chinese Station (Revised October 14, 2011)
- Confidential Appendix C – Confidential Independent Evaluator Report (Revised)

**Public Appendix:**

- Appendix E – Public Independent Evaluator Report (Revised)

**Protests:**

PG&E requests that the protest period for Advice Letter 3921-E not be extended, because the revised IE reports provided in this supplemental filing update the ranking of the Amendments with respect to contract price and market valuation, but do not change the IE's conclusion that the Amendments merit Commission approval. Therefore, anyone wishing to protest this filing may do so by sending a letter by **October 26, 2011**, which is **20** days from the date of filing of Advice Letter 3921-E. The protest must state the grounds upon which it is based, including such items as financial and service impact, and it should be submitted expeditiously. Protests should be mailed to:

CPUC Energy Division  
Attention: Tariff Unit, 4<sup>th</sup> Floor  
505 Van Ness Avenue  
San Francisco, California 94102

Facsimile: (415) 703-2200  
E-mail: mas@cpuc.ca.gov and jnj@cpuc.ca.gov

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

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

Pacific Gas and Electric Company  
Attention: Brian K. Cherry  
Vice President, Regulation and Rates  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, California 94177

Facsimile: (415) 973-6520  
E-mail: PGETariffs@pge.com

**Effective Date:**

PG&E requests that this advice filing be approved on or before **February 29, 2012**. PG&E submits this request as a Tier 3 advice letter.

**Notice:**

In accordance with General Order 96-B, Section IV, a copy of this Advice Letter excluding the confidential appendices is being sent electronically and via U.S. mail to parties shown on the attached list and the service lists for R.11-05-005 and R.10-05-006. Non-market participants who are members of PG&E's Procurement Review Group and have signed appropriate Non-Disclosure Certificates will also receive the Advice Letter and accompanying confidential attachments by overnight mail. Address changes to the GO 96-B service list and electronic approvals should be directed to e-mail 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. Advice letter filings can also be accessed electronically at:  
<http://www.pge.com/tariffs>.

A handwritten signature in black ink that reads "Brian Cherry" followed by a stylized flourish or initials.

Vice President – Regulation and Rates

cc: Service List for R.11-05-005  
Service List for R.10-05-006  
Andrew Schwartz – Energy Division

Attachments

**Limited Access to Confidential Material:**

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protections of Sections 583 and 454.5(g) of the Public Utilities Code and General Order 66-C. This material is protected from public disclosure because it consists of, among other items, price information and analysis of the proposed Amendments, 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 filed concurrently herewith. See above for list of confidential attachments.

# CALIFORNIA PUBLIC UTILITIES COMMISSION

## ADVICE LETTER FILING 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 M)**

Utility type:

ELC       GAS  
 PLC       HEAT       WATER

Contact Person: David Poster or Greg Backens

Phone #: 415-973-1082 or 415-973-4390

E-mail: DxPU@pge.com or GAB4@pge.com

EXPLANATION OF UTILITY TYPE

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

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **3921-E-A**

**Tier: 3**

Subject of AL: **Supplemental Filing for the Amendments to Five Existing Qualifying Facility Power Purchase Agreements for Procurement of Eligible Renewable Energy Resources Between Covanta Mendota, L.P., Rio Bravo Fresno, Rio Bravo Rocklin, Pacific Ultra-Power Chinese Station, Wheelabrator Shasta Energy Company Inc., and Pacific Gas and Electric Company**

Keywords (choose from CPUC listing): Contracts, Portfolio

AL filing type:  Monthly  Quarterly  Annual  One-Time  Other \_\_\_\_\_

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: No.

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

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Is AL requesting confidential treatment? Yes

If so, what information is the utility seeking confidential treatment for: Appendices B1-B5 and C

Confidential information will be made available to those who have executed a nondisclosure agreement: All members of PG&E's Procurement Review Group who have signed nondisclosure agreements will receive the confidential information

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: Hugh Merriam (415-973-1269)

Resolution Required?  Yes  No

Requested effective date: February 29, 2012

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: N/A

Service affected and changes proposed: N/A

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

**CPUC, Energy Division**

**Tariff Files, Room 4005**

**DMS Branch**

**505 Van Ness Ave., San Francisco, CA 94102**

**jnj@cpuc.ca.gov and mas@cpuc.ca.gov**

**Pacific Gas and Electric Company**

**Attn: Brian K. Cherry, Vice President, Regulation and Rates**

**77 Beale Street, Mail Code B10C**

**P.O. Box 770000**

**San Francisco, CA 94177**

**E-mail: PGETariffs@pge.com**

**DECLARATION OF HUGH M. MERRIAM  
SEEKING CONFIDENTIAL TREATMENT  
FOR CERTAIN DATA AND INFORMATION  
CONTAINED IN ADVICE LETTER 3921-E-A  
(PACIFIC GAS AND ELECTRIC COMPANY - U 39 E)**

I, Hugh M. Merriam, declare:

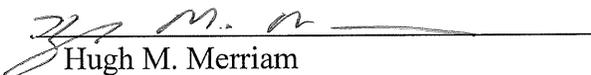
1. I am presently employed by Pacific Gas and Electric Company ("PG&E"), and have been an employee at PG&E since 1983. My current title is Manager within PG&E's Energy Procurement organization. In this position, my responsibilities include negotiating new and amended Power Purchase Agreements. In carrying out these responsibilities, I have acquired knowledge of PG&E's contracts with numerous counterparties and have also gained knowledge of the operations of electricity sellers in general. Through this experience, I have become familiar with the type of information that would affect the negotiating positions of electricity sellers with respect to price and other terms, as well as with the type of information that such sellers consider confidential and proprietary.

2. Based on my knowledge and experience, and in accordance with Decision ("D.") 08-04-023 and the August 22, 2006 "Administrative Law Judge's Ruling Clarifying Interim Procedures for Complying with Decision 06-06-066," I make this declaration seeking confidential treatment of Appendices B1-B5 and C to PG&E's Supplemental Advice Letter 3921-E-A submitted on October 14, 2011.

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 the particular type of data and information listed in Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023 (the "IOU Matrix"), and/or constitutes information that should be protected under General Order 66-C. The matrix also specifies the category or

categories in the IOU Matrix to which the data and information corresponds, if applicable, and why confidential protection is justified. Finally, the matrix specifies that: (1) PG&E is complying with the limitations specified in the IOU Matrix for that type of data or information, if applicable; (2) the information is not already public; and (3) the data 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 in the attached matrix that is pertinent to this filing.

I declare under penalty of perjury, under the laws of the State of California, that to the best of my knowledge the foregoing is true and correct. Executed on October 14, 2011 in San Francisco, California.

  
Hugh M. Merriam

**PACIFIC GAS AND ELECTRIC COMPANY**  
**Supplemental Advice Letter 3921-E-A**  
**October 14, 2011**

IDENTIFICATION OF CONFIDENTIAL INFORMATION PER DECISION 06-06-066 AND DECISION 08-04-023

| Redaction Reference                                    | 1) The material submitted constitutes a particular type of data listed in the Matrix, appended as Appendix 1 to D.06-06-066 and Appendix C to D.08-04-023 (Y/N) | 2) Which category or categories in the Matrix the data correspond to: | 3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data (Y/N)   | 4) That the information is not already public (Y/N) | 5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N) | PG&E's Justification for Confidential Treatment   | Length of Time   |   |
|--|---|---|---|---|---|---|--|---|
| <b>1 Document: Supplemental Advice Letter 3921-E-A</b> |   |   |   |   |   |   |  |   |
| 2  | Appendices B1-B5: Contract Amendment Terms and Conditions Explained   | Y   | Item V C) LSE Total Energy Forecast Bundled Customer (MWh). Item VI B) Utility Bundled Net Open (Long or Short) Position for Energy (MWh). Item VII B) Contracts and power purchase agreements between utilities and non-affiliated third parties. Item VII F) Renewable Resource Contracts under RPS program - Contracts with SEPs.                        | Y   | Y   | Y   | <p>These Appendices restate and describe the Amendments' terms, describe the parties' negotiations, analyze the effect of the Amendments on the terms of the existing Power Purchase Agreements ("PPAs"), and describe the financial circumstances of Covanta Mendota, L.P., Rio Bravo Fresno, Rio Bravo Rocklin, Pacific Ultra-Power Chinese Station and Wheelabrator Shasta Energy Company (together, the "Sellers") and how the Amendments will enable the Facilities to operate and deliver power to PG&amp;E at the specified price. Disclosure of this information would provide valuable market sensitive information to competitors. Individual contract information, such as price, other key terms, and descriptive information for the PPAs and Amendments is protected from disclosure by Item VII B) in the IOU Matrix. Information about the counterparties' financial condition and business plans and about the parties' negotiations is protected by General Order 66-C, paragraph 2.8. It constitutes "[i]nformation obtained in confidence from other than a business regulated by the Commission where the disclosure would be against the public interest."</p> <p>Disclosure would inhibit generators from providing PG&amp;E with the information the Commission needs for its reasonableness review and hamper negotiations between PG&amp;E and the seller. Information regarding the parties' negotiations is also covered by a confidentiality agreement between PG&amp;E and each of the Sellers, which prohibits either party from making an unauthorized disclosure of such information.</p> | <p>For information covered under Items V C), VI B), VII B), VII F), VII G), and VII (un-numbered category following VII G)), remain confidential for three years.</p> <p>For information covered under Item VIII A) remain confidential until after final contracts submitted to CPUC for approval.</p> |
|  | Appendices B1-B5: Contract Amendment Terms and Conditions Explained (continued)   |   | Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs. Item VII (un-numbered category following VII G)) Score sheets, analyses, evaluations of proposed RPS projects. Item VIII A) Bid information. Item VIII B) Specific quantitative analysis involved in scoring and evaluation of participating bids. General Order 66-C. |   |   |   | <p>These Appendices also analyze the Amendments' contribution toward PG&amp;E's compliance with California's Renewables Portfolio Standard ("RPS") program, assess the Facilities' viability, and compare the Amendments to other alternatives for PG&amp;E to procure RPS-eligible energy. This information is protected from disclosure by Items V C), VI B), VII F), VII G), VII (un-numbered category following VII G)), VIII A) and VIII B) in the IOU Matrix. Disclosure of this information would provide valuable market sensitive information to competitors.</p>   | <p>For information covered under Item VIII B), remain confidential for three years after winning bidders selected.</p> <p>For information covered by General Order 66-C, remain confidential indefinitely.</p>  |
| 3  | Appendix C - Independent Evaluator Report   | Y   | Item VII B) Contracts and power purchase agreements between utilities and non-affiliated third parties. Item VII (un-numbered category following VII G)) Score sheets, analyses, evaluations of proposed RPS projects. General Order 66-C.  | Y   | Y   | Y   | <p>This Appendix contains information regarding the terms of the Amendments and the existing Power Purchase Agreements ("PPAs"), the financial condition of the Sellers, and the negotiations between the parties. Disclosure of this information would provide valuable market sensitive information to competitors. Individual contract information, such as price, other key terms, and descriptive information for the PPAs and Amendments is protected from disclosure by Item VII B) in the IOU Matrix. Information about the counterparties' financial condition and the parties' negotiations is protected by General Order 66-C, paragraph 2.8. It constitutes "[i]nformation obtained in confidence from other than a business regulated by the Commission where the disclosure would be against the public interest." Disclosure would inhibit generators from providing PG&amp;E with the information the Commission needs for its reasonableness review and hamper negotiations between PG&amp;E and the seller. Information regarding the parties' negotiations is also covered by a confidentiality agreement between PG&amp;E and each of the Sellers, which prohibits either party from making an unauthorized disclosure of such information.</p>  | <p>For information covered under Items VII B) and VII (un-numbered category following VII G)), remain confidential for three years.</p> <p>For information covered by General Order 66-C, remain confidential indefinitely.</p>   |
|  | Appendix C - Independent Evaluator Report (continued)   |   |   |   |   | <p>This Appendix also analyzes the fairness of negotiations between PG&amp;E and the Sellers and reviews the merits of the Amendments for Commission approval (including contract price and market valuation, portfolio fit, and project viability). This information is protected from disclosure under Item VII (un-numbered category following VII G)) in the IOU Matrix. Disclosure of this information would provide valuable market sensitive information to competitors.</p> |  |   |

**Advice 3921-E-A**

**Public Appendix E**

**Independent Evaluator Report  
(Revised October 14, 2011)**

PACIFIC GAS AND  
ELECTRIC COMPANY  
CONTRACT  
AMENDMENT  
EVALUATION

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ADVICE LETTER REPORT OF THE  
INDEPENDENT EVALUATOR ON AMENDED  
CONTRACTS WITH COVANTA MENDOTA L.P.,  
PACIFIC-ULTRAPOWER CHINESE STATION,  
RIO BRAVO FRESNO, RIO BRAVO ROCKLIN,  
AND WHEELABRATOR SHASTA ENERGY  
COMPANY INC.

SEPTEMBER 26, 2011

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# EXECUTIVE SUMMARY

This report provides an independent evaluation of the process by which the Pacific Gas and Electric Company (“PG&E”) negotiated and executed contract amendments to existing long-term Qualifying Facility (QF) contracts with

- Covanta Mendota, L.P. (or “Mendota”), a wholly-owned subsidiary of Covanta Energy Corporation, itself a subsidiary of Covanta Holding Corporation,
- Pacific-Ultrapower Chinese Station (or “Chinese Station”), a general partnership co-owned by Covanta Energy Corp. and Constellation Energy Group, Inc.,
- Rio Bravo Fresno, a general partnership co-owned by Constellation Energy Group, Inc. and North American Power Group, Ltd. (“NAPG”),
- Rio Bravo Rocklin, a general partnership co-owned by Constellation Energy Group, Inc. and NAPG, and
- Wheelabrator Shasta Energy Company Inc. (or “Wheelabrator Shasta”), a wholly-owned subsidiary of Waste Management, Inc.,

These proposed amendments originated from the projects’ pursuit of temporary price relief from existing contracts. An independent evaluator (IE), Arroyo Seco Consulting (Arroyo), conducted activities to review and assess PG&E’s processes as the utility evaluated and negotiated the contract amendments.

The structure of this report generally follows the 2011 RPS Independent Evaluator Report Template provided by the Energy Division (ED) of the CPUC.<sup>1</sup> Topics covered include:

- The role of the IE;
- The fairness of the design of PG&E’s least-cost, best-fit (LCBF) methodology;
- Fairness of project-specific negotiations; and
- Merit of the amendments for CPUC approval.

Arroyo’s opinion is that the negotiations between PG&E and the five projects were generally conducted fairly, although some disparities in treatment of counterparties appear to be less than fully fair to specific parties. Ratepayer protections in the amendments are stronger than those in the existing QF contracts and Arroyo’s opinion is that ratepayers were treated fairly in the project-specific negotiations.

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<sup>1</sup> The amendments are not modern RPS contracts, but rather amended QF contracts, so this report does not strictly follow the RPS IE template but omits sections relevant for an RPS solicitation.

While Arroyo agrees with PG&E that the amendments merit CPUC approval, Arroyo has some reservations that are described in greater detail in the confidential appendix to this report. In Arroyo's opinion, the contract amendments rank as moderate in net valuation and rank as moderate in contract price relative to competing short-term in-state alternatives available to PG&E. Arroyo ranks the currently operational facilities as quite high in physical project viability, and as moderate in portfolio fit. Continued operation of these projects will contribute to Executive Order S-06-06's goal for the role of biomass in the state's renewable energy mix.

# 1. ROLE OF THE INDEPENDENT EVALUATOR

This chapter elaborates on the prior CPUC decisions that form the basis for an Independent Evaluator's participation in reviewing contracts that are negotiated by IOUs, describes key roles of the IE, details activities undertaken by the IE in this transaction to fulfill those roles, and identifies the treatment of confidential information.

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## A. CPUC DECISIONS REQUIRING INDEPENDENT EVALUATOR PARTICIPATION

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The CPUC first mandated a requirement for an independent, third-party evaluator to participate in competitive solicitations for utility power procurement in its Decision 04-12-048 on December 16, 2004 (Findings of Fact 94-95, Ordering Paragraph 28). In that Decision, which addressed the approval of three utilities' long-term procurement plans, the CPUC required the use of an IE when Participants in a competitive procurement solicitation include affiliates of investor-owned utilities (IOUs), IOU-built projects, or IOU-turnkey projects. The Decision envisaged that establishing a role for an IE would serve as a safeguard in the process of evaluating IOU-built or IOU-affiliated projects competing against Power Purchase Agreements (PPAs) with independent power developers, a safeguard to protect consumers from any anti-competitive conduct between utilities and their corporate affiliates or from anti-competitive conduct by utilities developing their own generation.

Later, in approving the IOUs' 2006 RPS procurement plans and solicitation protocols, the CPUC issued Decision 06-05-039 on May 25, 2006. In that Decision, the CPUC expanded its requirement, ordering that each IOU use an IE to evaluate and report on the entire solicitation, evaluation, and selection process, for the 2006 RPS RFO and all future competitive solicitations, whether or not a utility affiliate or utility-owned generation is involved. The five Component 2 contract amendments did not arise from a competitive solicitation.

Subsequently, as part of Rulemaking 08-08-009 to continue implementation of the RPS program, the CPUC issued Decision 09-06-050 on June 19, 2009. In that decision, the Commission concluded that short-term bilaterally negotiated RPS contracts (e.g. those with term of less than ten years but more than one month) should be governed by the same contract review processes and standards as contracts that arise through competitive solicitations, including review by an IE.

Arroyo perceives there to a spectrum between (1) a minimally amended 1980s-style Standard Offer contract with a renewable QF (e.g. one in which, say, the delivery point is altered by amendment but all other terms and conditions are unchanged) and (2) a fully renegotiated agreement with a renewable QF that closely follows PG&E's 2011 RPS Form Agreement and for which price, delivery term, and most terms and conditions are altered

from 1980s' language to 2011 language. Arroyo would speculate that (2) would likely meet the intent of Decision 09-06-050 and clearly require an accompanying IE report, while (1) might not. Arroyo perceives the amendment to the five QF agreements to be closer to (1) than to (2) and appears to fall into a gray area where it is unclear whether an IE report is formally required. The Energy Division has directed the utility to submit an Independent Evaluator report to accompany the advice letter for these five proposed amendments.

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## B. KEY INDEPENDENT EVALUATOR ROLES

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PG&E retained Arroyo Seco Consulting to serve as IE for the contract amendments to be negotiated between PG&E and the five projects.

The CPUC stated its intent for participation of an IE in competitive procurement solicitations to “separately evaluate and report on the IOU’s entire solicitation, evaluation and selection process”, in order to “serve as an independent check on the process and final selections.”<sup>2</sup> More specifically, the Energy Division of the CPUC has provided a template to guide how IEs should report on the 2011 RPS competitive procurement process, outlining specific issues that should be addressed:

1. Describe the IE’s role.
2. Did the IOU do adequate outreach to potential bidders, and was the solicitation robust?
3. Was the IOU’s least-cost, best-fit (LCBF) methodology designed such that bids were fairly evaluated?
4. Was the LCBF bid evaluation process fairly administered?
5. Describe the fairness of the project-specific negotiations.
6. Does the contract merit CPUC approval?

In this situation, in which the contracts are amendments to existing QF contracts with eligible renewable resources rather than a modern RPS contract that resulted from a competitive solicitation, Arroyo’s focus is in reporting is on the first, third, fifth, and sixth of these elements of a standard IE report for RPS solicitations.

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## C. IE ACTIVITIES

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To fulfill the role of evaluating the five contract amendments, several tasks were undertaken. Arroyo had performed several of these tasks within its work scope of serving as IE for PG&E’s 2011 RPS competitive solicitation; these prior activities were directly relevant to the evaluation of the contract amendments.

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<sup>2</sup> CPUC Decision 06-05-039, May 25, 2006, “Opinion Conditionally Approving Procurement Plans for 2006 RPS Solicitations, Addressing TOD Benchmarking Methodology”, page 46.

- Reviewed the 2011 RPS RFO Solicitation Protocol and its various attachments including the Forms of Power Purchase Agreement (PPA) and PG&E's detailed description of its LCBF bid evaluation and selection process and criteria;
- Examined the utility's nonpublic protocols detailing how PG&E evaluates proposed contracts against various criteria, including market valuation, portfolio fit, transmission adders, credit, project viability, and RPS goals;
- Interviewed members of PG&E's evaluation committee and sub-committees regarding the process, data inputs and parameters, background industry and utility information, quantitative models, and other considerations taken into account in evaluating contracts against non-quantitative criteria and in performing market valuation of contracts;
- Reviewed in detail various data inputs and parameters used in PG&E's LCBF market valuation methodology.
- Spot-checked contract-specific data inputs to PG&E's valuation model;
- Built an independent valuation model and using it to value proposed contracts. This served as a cross-check against PG&E's LCBF market valuation model. The IE model used independent inputs and a different methodology than PG&E's LCBF methodology. It was much simpler and lacked detail and granularity used in aspects of the PG&E model.
- Developed an independent project viability score, using the ED's final 2011 version of the Project Viability Calculator;
- Reviewed PG&E's evaluation using criteria other than market valuation and project viability, testing for consistency and fairness in the treatment of contracts;
- Attended meetings of PG&E's Procurement Review Group (PRG) in which the utility updated the PRG on negotiations with the five projects;
- Directly observed (telephonically) negotiation sessions between PG&E and Covanta Energy, Constellation Energy Group, and Waste Management;<sup>3</sup> and
- Reviewed documents that passed between the PG&E and its counterparties during the negotiations, including draft term sheets, draft contracts, and supporting documentation, with a focus on disagreements in specific provisions and on disparities in treatment between parties.

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<sup>3</sup> PG&E invited Arroyo to observe a negotiation session with North American Power Group but the IE was unavailable due to a schedule conflict. Many of the issues raised in negotiations were brought up and resolved through e-mail communications.

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#### D. TREATMENT OF CONFIDENTIAL INFORMATION

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The CPUC's Decision 06-06-066, issued on June 29, 2006, detailed specific guidelines for the treatment of information as confidential vs. non-confidential in the context of IOU electricity procurement and related activities, including competitive solicitations and bilaterally negotiated agreements. For example, the Decision provides for confidential treatment of "Score sheets, analyses, evaluations of proposed RPS projects",<sup>4</sup> as opposed to public treatment (after submittal of final contracts for CPUC approval) of the total number of projects and megawatts bid by resource type.

To the extent that Arroyo's reporting on the evaluation of the five contract amendments requires a more explicit discussion of such analyses, scores, and evaluations, an in-depth narrative of commercially sensitive negotiations, and a more specific critique of specific contract terms and conditions that are commercially sensitive, these are handled in greater detail in the confidential appendix to this report.

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<sup>4</sup>"Interim Opinion Implementing Senate Bill No. 1488, Relating to Confidentiality of Electric Procurement Data Submitted to the Commission", June 29, 2006, Appendix 1, page 17.

## 2. FAIRNESS OF PG&E'S CONTRACT EVALUATION METHODOLOGY

The key finding of this chapter is that, based on IE activities and findings, PG&E's evaluation methodology was designed fairly. The same methodology that the utility applies to bilaterally negotiated RPS proposals was applied to the review of the five contract amendments.<sup>5</sup>

The following discussion identifies principles for evaluating the methodology, describes the methodology, evaluates the strengths and weaknesses of the chosen methodology, and identifies some specific issues with the methodology and its inputs that Arroyo recommends be addressed in future solicitations.

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### A. PRINCIPLES FOR EVALUATING THE METHODOLOGY

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The Energy Division of the CPUC has usefully suggested a set of principles for evaluating the process used by IOUs for evaluating contracts in competitive renewable solicitations, within the template intended for use by IEs in reporting. The principles include:

- The IOU bid evaluation should be based only on information submitted in bid proposal documents.
- There should be no consideration of any information that might indicate whether the bidder is an affiliate.
- Procurement targets and objectives were clearly defined in the IOU's solicitation materials.
- The IOU's methodology should identify quantitative and qualitative criteria and describe how they will be used to rank bids. These criteria should be applied consistently to all bids.
- The LCBF methodology should evaluate bids in a technology-neutral manner.
- The LCBF methodology should allow for consistent evaluation and comparison of bids of different sizes, in-service dates, and contract length.

Some additional considerations appear relevant to the specific situation PG&E finds itself in when evaluating renewable power contracts. Unlike some utilities, PG&E does not rely on weighted-average calculations of scores for various evaluation criteria to arrive at a

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<sup>5</sup> This approach is a modified version of the methodology applied to Offers received in PG&E's competitive RPS solicitations; the modification is described below, under "Transmission Cost Adders".

total aggregate score. Instead, the team ranks contracts by net market value using its methodology, after which, “[u]sing the information and scores in each of the other evaluation criteria, PG&E will decide which Offers to include and which ones not to include on the Shortlist.”<sup>6</sup> The application of judgment in bringing the non-valuation criteria to bear on decision-making, rather than a mechanical, quantitative means of doing so, implies an opportunity to test the fairness and consistency of the method using additional principles:

- The methodology should identify how non-valuation measures will be considered; non-valuation criteria used in evaluating contracts should be clear to counterparties.
- The logic of using non-valuation criteria or preferences to reject high-value contracts and select low-value contracts should be applied consistently and without bias.
- The valuation methodology should be reasonably consistent with industry practices.

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#### **B. PG&E’S LEAST-COST BEST-FIT METHODOLOGY**

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The California state legislation that mandated the RPS program required that the procurement process use criteria for the selection of least-cost and best-fit renewable resources; in its Decisions D.03-06-071 and D.04-07-029 the CPUC laid out detailed guidelines for the IOUs to select LCBF renewable resources. PG&E adopted selection and evaluation processes and criteria for its 2011 RPS RFO. These are summarized in Section XI of PG&E’s 2011 Solicitation Protocol for its renewable solicitation, and detailed in Attachment K to that Solicitation Protocol.

Additionally, PG&E developed non-public documents for internal use that detail the protocols for each individual criterion used in the evaluation process. These include:

- Market valuation
- Portfolio fit
- Credit (including provision of collateral requirements)
- Project viability
- RPS goals
- Adjustment for transmission cost adders
- Ownership eligibility
- Sites for development

The first six of these are listed as evaluation criteria in the 2011 RPS RFO solicitation protocol. Additionally, the protocol states two other evaluation criteria: the materiality and

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<sup>6</sup> “Renewables Portfolio Standard, 2011 Solicitation Protocol, Pacific Gas and Electric Company, May 11, 2011 (Updated June 7, 2011)”, page 40.

cost impact of counterparty's proposed modifications to PG&E's Form Agreement, and the total volume of offers submitted by a single counterparty (considering the volume of energy already under contract as well).

This section summarizes PG&E's methodology briefly and at a high level; readers are referred to the Solicitation Protocol and its Attachment K for a fuller treatment of the detailed methodology.

## MARKET VALUATION

PG&E measures market value as benefits minus costs. Benefits include energy value and capacity value (Resource Adequacy value); ancillary services value is assumed zero. Costs are PG&E's payments to the counterparty, appropriately adjusted by Time-of-Delivery (TOD) factors as specified in the Solicitation Protocol. The TOD factors serve as a multiplier to the contract price per megawatt-hours (MWh) based on the time of day and season of the delivery, and are intended to reflect the relative value of the energy and capacity delivered in those time periods. Also, costs are adjusted to reflect transmission adds. The costs of integrating an intermittent resource into the electric system, such as load-following, providing imbalance services, operational reserves, and regulation, are assumed zero. Both benefits and costs are discounted from the entire contract period to 2011 dollars per MWh in the methodology.

For as-available energy delivery, PG&E measures energy value by projecting a forward energy curve (in hourly granularity) out to the time horizon of the contract period, and multiplying projected hourly energy price by the projected hourly generation specified by the contract's generation profile. For peaking or baseload contracts, the energy quantity is based on the performance requirements of the contract.

PG&E projects Resource Adequacy ("RA") value as a nominal dollar per kilowatt-year estimate. The CPUC recently revised the Resource Adequacy methodology that load-serving entities use to calculate Net Qualifying Capacity for intermittent generation that is sold on an as-available basis. While previously capacity quantity was calculated based on the annual average of the generation profile for the noon to 6 p.m. period, now the calculation is based on averaging the generation profile over five-hour blocks, the hours of which differ between April-October and November-May to reflect the different timing of peak demand in different seasons.<sup>7</sup> Also, the CPUC decided to base the Net Qualifying Capacity on a 70% exceedance level for these solar and wind resources whose output is stochastic in nature, in a calculation that takes into account diversity benefits of multiple individual generators with different profiles. The PG&E team has adapted its calculations of Resource Adequacy value to reflect the new definition of Net Qualifying Capacity.

For baseload and dispatchable resources, the capacity quantity is determined by the performance requirements of the contract. Capacity benefit is calculated as the product of capacity value and quantity, and discounted to 2011 nominal dollars.

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<sup>7</sup> California Public Utilities Commission, Decision 09-06-028, "Decision Adopting Local Procurement Obligations for 2010 and Further Refining the Resource Adequacy Program", June 18, 2009

## PORTFOLIO FIT

For the 2011 renewable solicitation, PG&E employed a quantitative scoring system to assess the portfolio fit of a contract into its overall set of energy resources and obligations. The team calculated one score for the firmness of delivery of the offered resource and another score for the time of delivery of the resource (relative to PG&E's portfolio needs). The overall score for portfolio fit is the numerical average of the two. This detailed methodology is not typically employed by PG&E for evaluating bilateral contracts.

## CREDIT

PG&E assesses the degree to which counterparties propose to meet the requirements for providing collateral to meet their obligations. The requirements for collateral, described in detail in Section VII of the Solicitation Protocol, include posting Project Development Security after a PPA or PSA is executed and before Commercial Operation Date of the project, and posting Delivery Term Security for a PPA following the commencement of commercial operation.

## PROJECT VIABILITY

PG&E uses the 2011 final version of the Project Viability Calculator provided by the ED as a screening tool to assess the likelihood that a proposed generation facility will be completed and enter full commercial operation on the proposed on-line date.

The viability score is developed through an assessment of several attributes of the project, including

- Project development experience,
- Ownership and operating and maintenance experience,
- Technical feasibility,
- Resource quality,
- Manufacturing supply chain (e.g. degree of constraints upon availability of key components),
- Site control,
- Permitting status,
- Project financing status,
- Interconnection progress,
- Transmission requirements, and
- Reasonableness of Commercial Operation Date (COD).

In the case of the five contract amendments, the generating facilities already exist and are currently operating, so physical viability is not a concern. The Calculator is most useful in screening proposed new projects to assess their relative viability as opposed to evaluating existing, operating projects.

### RPS GOALS

PG&E assesses the degree to which a contract is consistent with and will contribute to the state of California's goals for the RPS Program, and the degree to which a contract will contribute to PG&E's goals for supplier diversity. The CPUC has articulated specific attributes of renewable generation projects which can be considered in utility procurement evaluations, such as benefits to low-income or minority communities, environmental stewardship, and resource diversity, that do not clearly fall within the other evaluation criteria. Similarly, the CPUC has issued a Water Action Plan, and to the extent a renewable energy project makes use of water on site, its proposed use of water is evaluated for consistency or inconsistency with the CPUC's recommended water conservation practices.

Additionally, the California Legislature articulated program benefits anticipated for the RPS program in the Legislative Findings and Declarations associated with the laws passed to create the program, and PG&E assesses the degree to which contracts would promote these benefits.

The Governor of California issued Executive Order S-06-06 that, among other things, established a goal that the state will meet 20% of its renewable energy needs with electricity generated from biomass. PG&E assesses the extent to which a project supports that goal.

PG&E has well-defined corporate objectives for supplier diversity, and evaluates whether the counterparty has a diverse supplier plan, or will make a good faith effort to subcontract with, Women-, Minority-, and Disabled Veteran-owned Business Enterprises.

### TRANSMISSION COST ADDERS

The cost of transmission to move power from a project offered in the solicitation to PG&E retail customers is considered in the process of market valuation.

The methodology takes into account the possible need to upgrade the transmission network in order to accommodate the increment of new renewable generation in locations (clusters) that may require significant capital outlay, either by PG&E or by other IOUs. Each California IOU publishes a Transmission Ranking Cost Report (TRCR) which identifies clusters that would require network upgrades to accommodate some level of new generation, and estimates a proxy for the cost of upgrades and the amount of new generation that would trigger the need for upgrades. If a CAISO interconnection study has been completed, the team uses the project-specific estimate of transmission network upgrade costs identified in the study rather than the TRCR proxy.

PG&E does not directly use TRCR adders in the evaluation of bilaterally negotiated contracts, and did not use either a TRCR adder or an estimate of the cost of alternative commercial arrangements in evaluating the five contract amendments; the facilities are already interconnected to the grid and operating, and continued operation will likely require

no network upgrades as long as these QFs continue operating under their existing agreement, which include a CPUC-jurisdictional interconnection rather than a FERC-jurisdictional interconnection that follows CAISO rules.

### UTILITY OWNERSHIP ALTERNATIVES AND SITES FOR DEVELOPMENT

PG&E has developed protocols for evaluation of proposals to sell the utility a site for development of renewable generation, to build and transfer to utility ownership a new facility, to provide the utility with an option to purchase a facility after some period of commercial operation, or to undertake joint development and/or joint ownership of a new facility. The evaluation of such Offers includes both an analysis of the economics of the project generation under utility ownership, analogous to the valuation of PPAs, as well as a consideration of the extent to which ownership of such a project is compatible with the utility's core competencies.

### COUNTERPARTY CONCENTRATION

In the 2011 RPS solicitation protocol, PG&E stated explicitly that it will consider its total exposure to volume of contracted deliveries from any individual counterparty as well as the volume already contracted with the counterparty in making short list decisions. Arroyo regards supplier concentration as a legitimate business concern for the utility, both with respect to credit risk for the utility's supply portfolio as well as risk of development failure.

### PG&E'S PREFERENCES REGARDING OFFERS

In addition to the various evaluation criteria, PG&E's 2011 solicitation protocol stated two preferences regarding selection of Offers. In section III regarding Solicitation Goals, the discussion of resource needs indicates that because of uncertainty about regulatory implementation of SBX 2 the utility "will encourage bids that recognize that uncertainty and offer flexibility toward meeting a range of possible targets" Arroyo views this as a reasonable preference to take into account when making a short list given the utility's current procurement position and the state of flux in regulatory decisions.

PG&E also stated in its solicitation protocol a preference for projects that deliver power to "a nodal delivery point...within PG&E's service territory" over projects that deliver to CAISO interface points (e.g. the California-Oregon Border, or COB, or points such as Mead, Palo Verde, or Four Corners substations) or to "California locations outside of the CAISO's control area", or to out-of-state locations.

Arroyo regards this as a reasonable preference, and appropriate to state in the protocol. Some of the operators of control areas external to the CAISO have in the past chosen not to provide services such as imbalance service or operating reserves that would be required to enable an intermittent generator such as a wind or solar photovoltaic facility that interconnects in their territory to schedule firm deliveries to a CAISO intertie. For other control area operators, there is a limitation on availability of transmission to wheel power within their territory from a generator to and across a CAISO interface point, as there has historically been on Path 42 between IID and Southern California Edison territories.

### 3. FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

This chapter gives an independent review of the extent to which PG&E's negotiations with the five project companies to enter into contract amendments to the existing QF agreements were conducted fairly. A more detailed narrative of commercially sensitive discussion points of the negotiation and issues of fairness to other counterparties is provided in the confidential appendix to this report.

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#### A. PRINCIPLES FOR EVALUATING THE FAIRNESS OF NEGOTIATIONS

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Arroyo took into account several principles to evaluate the degree of fairness with which the five QFs and other entities that are seeking to obtain temporary price relief from PG&E were treated in the course of project-specific negotiations.

- Were counterparties treated fairly and consistently by PG&E during negotiations? Were all counterparties given equitable opportunities to advance their proposals towards final PPAs? Were individual counterparties 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 the PPAs distributed equitably across PPAs? Did PG&E's ratepayers take on a materially disproportionate share of risks in some contracts and not others? Were individual counterparties 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 counterparties in discussions? Were individual counterparties uniquely given information that advantaged them in securing contracts or realizing commercial value from those contracts?
- If any individual counterparty was given preferential treatment by PG&E in the course of negotiations, is there evidence that other counterparties were disadvantaged by that treatment? Were other proposals of comparable value to ratepayers assigned materially worse outcomes?
- Were some parties denied the opportunity to make changes to basic terms of the contract amendment while other parties were allowed to adjust those terms in their amendments based on their preferences or concerns?

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**B. INDEPENDENT EVALUATOR'S OBSERVATIONS OF NEGOTIATIONS  
BETWEEN THE FIVE QF PROJECT COMPANIES AND PG&E**

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Arroyo observed several negotiation sessions between PG&E's and the staffs of the owners of the five projects over the course of about four months. Arroyo was also able to review several draft versions of term sheets and contract amendments in order to identify specific proposals and counterproposals the two parties made regarding terms in the course of discussion, as well as supporting documents.

Based on this review, Arroyo did not identify any situations where PG&E provided any of the QF projects with concessions in contract terms that Arroyo considered to be materially unfair to ratepayers. Arroyo believes that information provided to the projects has generally been made available to other competing counterparties that are renewable QF generators actively seeking contract amendments. Arroyo's opinion is that none of the five projects been unfairly advantaged (to the detriment of ratepayers or competing facilities) by PG&E providing unique confidential information that has not been provided to others. Arroyo believes that in the course of the summer of 2011, PG&E stood open to pursue discussions with other renewable QFs with issues similar to the five projects, with the qualification that Arroyo is not directly involved in all contacts the utility has with all owners of renewable QFs.

The executed amendments provide ratepayers with several specific protections not provided in the existing QF contracts. The QF contracts as amended shift certain risks towards the QFs from ratepayers that the projects do not bear in the existing contracts. Arroyo believes that the QF contract amendments fall somewhat short of the ratepayer protections provided by modern short-term RPS contracts that PG&E has entered, though there are provisions in the amendment that significantly mitigate concerns about these variances. Arroyo does not believe that, given the situation where a 1980's-era QF agreement is amended for a short portion of the remaining term, rather than a fully new long-term RPS contract being executed, these variances create a serious level of concern about the fairness to ratepayers of the amendment, especially given the new protections given to ratepayers compared to the unamended contract. These issues are discussed in detail in the confidential appendix to this report.

Arroyo's review of the contract amendments suggests that in most respects the contract amendments do not provide the QF projects with terms and conditions that are materially more advantageous to the sellers than could have been the case had the parties used the short-term version of PG&E's RPS Form Agreement. In that sense the amended contracts are almost comparable in ratepayer protections to other agreements with terms less than five years that PG&E has executed.

Arroyo has been asked by the ED to opine specifically on the extent to which project-specific negotiations have been fair to the individual sellers. While the sellers were generally treated fairly in the course of negotiations, there are a few cases in which disparate treatment of some projects tended to favor those sellers while disfavoring others in the contract terms that were obtained. Arroyo's opinion is that the treatment of those sellers appears to be less than fully fair; details are provided in the confidential appendix to this report.

## 4. MERIT FOR CPUC APPROVAL

This chapter provides an independent review of the merits of the amendment to the contracts between PG&E and the five projects against criteria identified in the Energy Division's 2011 RPS IE template.<sup>8</sup>

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### A. CONTRACT SUMMARIES

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Mendota. On July 20, 2011, PG&E and Covanta Mendota executed a contract amendment to their existing 25-MW QF contract that governs delivery of renewable energy from a woody waste biomass-fueled generator. The existing, operating facility is located in the city of Mendota in western Fresno County, and has produced renewable energy for PG&E customers for more than two decades. The term of the amendment is four years and four months. The amendment sets a contract quantity of 175 GWh annually.

Chinese Station. On September 21, PG&E and Pacific-Ultrapower Chinese Station executed an amendment to their existing 22-MW contract; the existing, operating facility is located west of the community of Chinese Camp in western Tuolumne County. The term of the amendment is four years and eleven months; the base contract quantity is 135 GWh/year.

Rio Bravo Fresno. On August 22, 2011, PG&E and Rio Bravo Fresno executed an amendment to their existing 26.5-MW contract; the existing, operating facility is located southeast of the city of Fresno outside the city limits. The term of the amendment is four years and eleven months; the contract quantity is 160 GWh/year.

Rio Bravo Rocklin. On August 22, 2011, PG&E and Rio Bravo Rocklin executed an amendment to their existing 25-MW contract. The existing, operating facility is located west of the city of Rocklin in southwestern Placer County, outside the city limits. The term of the amendment is four years and eleven months; the contract quantity is 162 GWh/year.

Wheelabrator Shasta. On September 6, 2011, PG&E and Wheelabrator Shasta executed an amendment to their existing 54.6-MW contract. The existing, operating facility is located southeast of the city of Anderson in southern Shasta County. The term of the amendment is four years and eleven months; the contract quantity is 391 GWh/year.

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<sup>8</sup> While the amendments modify existing QF contracts for power delivery from eligible renewable resources and are not strictly RPS agreements, Arroyo regards the 2011 RPS IE template as the most applicable approach to discussing the amendments' merits, rather than a non-RPS template.

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## B. NARRATIVE OF EVALUATION CRITERIA AND RANKING

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The 2011 RPS template for IEs provided by the Energy Division calls for a narrative of the merits of proposed contracts on the criteria of contract price, portfolio fit, and project viability. More specific details are provided in the confidential appendix to this report.

### CONTRACT PRICE AND MARKET VALUATION

Arroyo has compared the net value of the five contract amendment to relevant peer groups of previously and currently offered competing sources of RPS-eligible energy, using both PG&E's LCBF methodology and the simpler but independent IE model. Based on those comparisons, Arroyo opines that the market valuations of the five contract amendment rank as moderate compared to relevant peer groups of competing proposals, and that the contract prices also rank as moderate. The confidential appendix to this report provides a more detailed discussion of the pricing of the contract amendments and the basis for Arroyo's opinion that the net valuations of the amendments rank as moderate among competing alternatives.

### PORTFOLIO FIT

Arroyo ranks the five contract amendments' fit with PG&E's supply portfolio needs as moderate. The existing facility generally operates as a baseload generator. While PG&E does not have an immediate need for more baseload generation, removing the projects' production from the portfolio might create or accelerate such a need at some point in time, and could affect the utility's ability to meet its RPS goals in the first and second compliance periods.

### PROJECT VIABILITY

In Arroyo's opinion, the physical project viability of the five biomass-fueled facilities is quite high. The projects have operated for decades to provide PG&E customers with renewable energy and have performed reliably in recent years despite their age. An existing, currently operating project is more viable, in a physical sense rather than an economic sense, than any proposed as-yet-unbuilt generator.

### RPS GOALS

The five contract amendments would advance PG&E and the state towards the goal stated in Executive Order S-06-06 of providing at least 20% of the state's renewable power needs from biomass-based generation. Arroyo believes that PG&E currently exceeds that target, but over time there is some risk that biomass as a portion of PG&E's portfolio will drop below 20% because of impending rapid growth in other sources of renewable generation. Arroyo believes that approval of these contract amendments will significantly increase the likelihood that the five biomass-fueled QFs will continue to provide PG&E customers with generation over the term of the amendment, as opposed to seasonally curtailing or ceasing their production under the pricing of the existing contracts.

Additionally, the legislative findings stated in Senate Bill 1078 that established the RPS program included a view that increasing the use of renewable energy sources may create

employment opportunities. The CPUC's Decision 04-07-029 included benefits to low-income communities as a qualitative attribute that could be taken into consideration by utilities in evaluating competitive offers for new renewable generation. In the absence of a contract amendment there is greater risk to the employment base of the five facilities. Three of the projects are sited in localities with higher incidence of poverty and lower median household income than the state as a whole.

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**C. DISCUSSION OF MERIT FOR APPROVAL**

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Arroyo concurs with PG&E management that the five contract amendments merit CPUC approval, although Arroyo has some reservations about the amendments, described in greater detail in the confidential appendix to this report. In Arroyo's opinion the contract amendments offer moderate net value, moderate contract price, and high project viability. They would contribute to PG&E's efforts to meet its RPS Goals. In particular, the contract amendments would support continued compliance with Executive Order S-06-06 regarding the goal for biomass-fueled generation in the state. They would protect against employment losses in some localities with a higher proportion of low-income residents than the state at large.

Arroyo's opinion is that the special considerations relating to the contract amendments' support of RPS program goals outweigh the IE's modest reservations. However, any individual decision-maker's judgment about the merits of these contract amendments may depend on the policy-maker's relative emphasis placed on the cost impact of the amendment upon ratepayers or the fairness with how the amendments were negotiated, vs. the contribution of the projects' continued operation to meeting the state's biomass-fueled generation goal and to employment stability.

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

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|--|---|--|
| AT&T                                     | Dept of General Services                    | Northern California Power Association                      |
| Alcantar & Kahl LLP                      | Douglass & Liddell                          | Occidental Energy Marketing, Inc.                          |
| Ameresco                                 | Downey & Brand                              | OnGrid Solar   |
| Anderson & Poole                         | Duke Energy                                 | Praxair  |
| Arizona Public Service Company           | Economic Sciences Corporation               | R. W. Beck & Associates                                    |
| BART                                     | Ellison Schneider & Harris LLP              | RCS, Inc.  |
| Barkovich & Yap, Inc.                    | Foster Farms                                | Recurrent Energy   |
| Bartle Wells Associates                  | G. A. Krause & Assoc.                       | SCD Energy Solutions                                       |
| Bloomberg                                | GLJ Publications                            | SCE  |
| Bloomberg New Energy Finance             | GenOn Energy, Inc.                          | SMUD   |
| Boston Properties                        | Goodin, MacBride, Squeri, Schlotz & Ritchie | SPURR  |
| Braun Blasing McLaughlin, P.C.           | Green Power Institute                       | San Francisco Public Utilities Commission                  |
| Brookfield Renewable Power               | Hanna & Morton                              | Seattle City Light   |
| CA Bldg Industry Association             | Hitachi                                     | Sempra Utilities   |
| CLECA Law Office                         | In House Energy                             | Sierra Pacific Power Company                               |
| CSC Energy Services                      | International Power Technology              | Silicon Valley Power                                       |
| California Cotton Ginners & Growers Assn | Intestate Gas Services, Inc.                | Silo Energy LLC  |
| California Energy Commission             | Lawrence Berkeley National Lab              | Southern California Edison Company                         |
| California League of Food Processors     | Los Angeles Dept of Water & Power           | Spark Energy, L.P.   |
| California Public Utilities Commission   | Luce, Forward, Hamilton & Scripps LLP       | Sun Light & Power  |
| Calpine                                  | MAC Lighting Consulting                     | Sunshine Design  |
| Cardinal Cogen                           | MBMC, Inc.                                  | Sutherland, Asbill & Brennan                               |
| Casner, Steve                            | MRW & Associates                            | Tabors Caramanis & Associates                              |
| Chris, King                              | Manatt Phelps Phillips                      | Tecogen, Inc.  |
| City of Palo Alto                        | McKenzie & Associates                       | Tiger Natural Gas, Inc.                                    |
| City of Palo Alto Utilities              | Merced Irrigation District                  | TransCanada  |
| City of San Jose                         | Modesto Irrigation District                 | Turlock Irrigation District                                |
| Clean Energy Fuels                       | Morgan Stanley                              | United Cogen   |
| Coast Economic Consulting                | Morrison & Foerster                         | Utility Cost Management                                    |
| Commercial Energy                        | NLine Energy, Inc.                          | Utility Specialists  |
| Consumer Federation of California        | NRG West                                    | Verizon  |
| Crossborder Energy                       | NaturEner                                   | Wellhead Electric Company                                  |
| Davis Wright Tremaine LLP                | Navigant Consulting                         | Western Manufactured Housing Communities Association (WMA) |
| Day Carter Murphy                        | Norris & Wong Associates                    | eMeter Corporation   |
| Defense Energy Support Center            | North America Power Partners                |  |
| Department of Water Resources            | North Coast SolarResources                  |  |