

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 12, 2015

Advice Letter 4522-E
4522-E-A
4522-E-B

Meredith Allen
Senior Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

**Subject: Procurement Transaction Quarterly Compliance Filing
(Q3, 2014) and Supplemental Filings**

Dear Ms. Allen:

Advice Letter 4522-E, 4522-E-A, and 4522-E-B are effective March 29, 2015.

Sincerely,

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

Edward Randolph
Director, Energy Division



Meredith Allen
Senior Director
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

Fax: 415-973-7226

October 30, 2014

Advice 4522-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Procurement Transaction Quarterly Compliance Filing (Q3, 2014)

Pacific Gas and Electric Company ("PG&E") hereby submits to the California Public Utilities Commission ("Commission" or "CPUC") its compliance filing for the third quarter of 2014 in conformance with PG&E's Bundled Procurement Plan ("BPP") approved by the Commission in Decision ("D.") 12-01-033 and D.12-04-046. PG&E's submittal of this Procurement Transaction Quarterly Compliance Report ("QCR") for record period July 1, 2014, through September 30, 2014, (Q3-2014) is in accordance with D.03-12-062, Ordering Paragraph 19, which requires that the Quarterly Procurement Plan Compliance Reports be submitted within 30 days of the end of the quarter.

Background

In D.07-12-052, the Commission directed Energy Division and the Investor-Owned Utilities ("IOUs") to continue the collaborative effort to develop a reformatted QCR. The Commission authorized Energy Division to implement a reformatted QCR and to make ministerial changes to the content and format of the report as needs arise. Energy Division and the IOUs finalized the QCR format in December 2008. This QCR is consistent with the final format authorized by Energy Division on December 15, 2008.

Compliance Items

Attachment 1 to this QCR includes a narrative with supporting Confidential Attachments that conforms to the reformatted QCR. The public version of Attachment 1 includes the Narrative, which is not confidential. Attachment 2 includes the public version of Independent Evaluator (IE) Reports issued during the quarter. The confidential version of this QCR includes the following supporting Confidential Attachments:

- Attachment A – Third Quarter 2014 Electric and Natural Gas Transactions
- Attachment B – Third Quarter 2014 Counter-Party Information
- Attachment C – Third Quarter 2014 Electric Transactions Summary
- Attachment D – Third Quarter 2014 Natural Gas Transactions Summary
- Attachment E – Third Quarter 2014 Other Transactions

- Attachment F – Third Quarter 2014 Key Briefing Packages
- Attachment G – Third Quarter 2014 Independent Evaluator Reports
- Attachment H – Third Quarter 2014 New Contracts Executed/Contracts Amended
- Attachment I – Summary of Retained Generation Investments Completed During Third Quarter 2014
- Attachment J – System Load Requirements/Conditions
- Attachment K – Risk Management Strategy Communication and Management Disclosure
- Attachment L – Reasonable Number of Analyses Models, Description of Models, and How Models Operate
- Attachment M – Transactions Subject to Strong Showing

Attachment 3 to this QCR includes a confidentiality declarations and matrix.

The public version of this QCR is provided to the service lists for Rulemaking (“R.”) 12-03-014, R.01-10-024, R.11-10-023. The confidential version of this QCR is provided to PG&E’s Procurement Review Group.

The filing would not increase any current rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than November 19, 2014, which is 20 days after the date of this filing. 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:

Meredith Allen
Senior Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Rule 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, Rule 3.11).

Effective Date

In accordance with D.02-10-062, the requested effective date of this Tier 2 advice letter is November 29, 2014, which is 30 days after the date of filing.

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 Rulemaking ("R.") R.12-03-014, R.01-10-024, and R.11-10-023. Address changes to the General Order 96-B service list and all electronic approvals should be sent 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>.

/S/

Meredith Allen
Senior Director – Regulatory Relations

cc: Service List R.12-03-014, R.01-10-024, R.11-10-023 (Public Version)
PG&E's Procurement Review Group (Confidential Version)

Public Attachments: Attachment 1 – Narrative
Attachment 2 – IE Reports (Public Version)
Attachment 3 – Confidentiality Declarations and Matrix

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 E)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: Jennifer Wirowek

Phone #: (415) 973-1419

E-mail: J6ws@pge.com and PGETariffs@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) #: **4522-E**

Tier: **2**

Subject of AL: **Procurement Transaction Quarterly Compliance Filing (Q3, 2014)**

Keywords (choose from CPUC listing): Compliance, Procurement

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.12-01-033, D.12-04-046 and D.03-12-062

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: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: Yes. Please see attached Confidentiality Declarations and Matrix

Confidential information will be made available to those who have executed a nondisclosure agreement: Yes No

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: Jay Bukowski, (415) 973-1727 / Pete Koszalka (415) 973-3818 / Marianne Aikawa (415) 973-0375

Resolution Required? Yes No

Requested effective date: **November 29, 2014**

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

Pending advice letters that revise the same tariff sheets: 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:

California Public Utilities Commission

Energy Division

EDTariffUnit

505 Van Ness Ave., 4th Flr.

San Francisco, CA 94102

E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Meredith Allen

Senior Director, Regulatory Relations

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Attachment 1

Narrative

PACIFIC GAS AND ELECTRIC COMPANY
PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT
FOR THE THIRD QUARTER OF 2014

October 30, 2014

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Summary of Attachments

- Confidential Attachment A: *Transactions*, provides a summary of all transactions executed during the Quarter, which are less than five years in length and that have not been filed through a separate advice filing or application.
- Confidential Attachment B: *Counterparty Information*, provides a summary of (1) all non-investment grade counterparties with whom PG&E transacted; and (2) the top 10 counterparties by volume during the Quarter.
- Confidential Attachment C: *Electric Transactions Summary*, provides a summary of the electric transactions executed during the Quarter.
- Confidential Attachment D: *Natural Gas Transactions Summary*, provides a summary of the gas transactions executed during the Quarter.
- Confidential Attachment E: *Other Transactions*, provides the executed transactions resulting from non-energy-related products during the Quarter.
- Confidential Attachment F: *Key Briefing Packages*, provides a summary of all relevant Procurement Review Group (PRG) agendas and presentations presented.
- Confidential Attachment G: *Independent Evaluator Reports*, provides any relevant Independent Evaluator (IE) report(s) completed during the Quarter.
- Confidential Attachment H: *New Contracts Executed/Contracts Amended*, provides a summary of all agreements executed and/or amended during the Quarter.
- Confidential Attachment I: *Summary of Retained Generation Investments Completed*, provides a summary of any investments related to retained generation facilities and multiple contracts for the same supplier, resource or facility, consistent with the requirements of D.07-01-039.
- Confidential Attachment J: *System Load Requirements/Conditions*, provides a summary of all information related to addressing PG&E's residual net open position.
- Confidential Attachment K: *Risk Management Strategy Communication and Management Disclosure*, provides a summary of all procurement-related risk strategies and issues communicated to PG&E's senior management.

Summary of Attachments
(Continued)

- Confidential Attachment L: *Reasonable Number of Analyses Models, Description of Models, and How Models Operate*, provides a summary of any models related to the relevant transactions identified in this filing.
- Confidential Attachment M: *Transactions Subject to Strong Showing*, provides a summary and supporting documentation for strong showing transactions.

A. Introduction

As required by Ordering Paragraph (OP) 8 of Decision (D.) 02-10-062, and clarified in D.03-06-076, D.03-12-062, D.04-07-028, D.04-12-048 and D.07-12-052, Pacific Gas and Electric Company (PG&E) hereby provides its report demonstrating that its procurement-related transactions during the period July 1, 2014 through September 30, 2014 (Quarter) were in compliance with PG&E's Bundled Procurement Plan (BPP or Plan) approved by the California Public Utilities Commission (CPUC or Commission) in D.12-01-033 and D.12-04-046.

B. Summary

During the Quarter, PG&E engaged in the following procurement activities in accordance with its BPP-approved procurement methods and practices:

1. **Completed Competitive Solicitations, Approval Through This Quarterly Compliance Report (QCR) –**
 - a. 2014 Intermediate Term RFO (ITRFO) (issued April 22, 2014)
2. **Ongoing Competitive Solicitations –** The following competitive solicitations remained ongoing during the Quarter:
 - a. 2013 Renewables Portfolio Standard RFO (issued on December 16, 2013)
 - b. Third Combined Heat and Power (CHP) Request for Offer (RFO) (issued January 23, 2014)
 - c. 2014 Greenhouse Gas (GHG) Offset Credit RFO (issued March 19, 2014)
 - d. Renewable Auction Mechanism (RAM) RFO 5 (issued May 30, 2014)
3. **Other Procurement Activities, Approval Through This QCR –** PG&E is also seeking approval of the following transactions executed from procurement activities, other than competitive solicitations, through this QCR:
 - a. Electric Transactions:
 - i. California Independent System Operator (CAISO) Monthly Congestion Revenue Rights (CRR) Allocation and Auction Processes
 - ii. Convergence Bidding
 - iii. Bilaterally Negotiated Contracts

iv. Electronic-Solicitations

These procurement activities are described in greater detail in Section C.3, below.

b. Gas Transactions:

i. Transparent Exchanges

ii. Direct Bilateral Contracting for Short-Term Products

iii. Voice Brokers

iv. Electronic Solicitations

These procurement activities are described in greater detail in Section C.3, below.

4. **Other Procurement Activities, Approval Through Separate Advice Filing or Regulatory Process** – During the Quarter, approval of contracts resulting from the following procurement activities was requested through separate regulatory processes, and are referenced here for informational purposes only:

- a. Bilaterally negotiated contracts or amendments executed pursuant to other regulatory requirements.
- b. Pursuant to D.12-04-046, three transactions executed through the ITRFO were submitted for approval via advice letter because of the requirements for Once-Through-Cooling.
- c. One contract from the third CHP RFO, which was issued on January 23, 2014, was submitted to the CPUC for approval via Advice Letter 4489-E, i.e., the Power Purchase Agreement between PG&E and Tesoro Refining & Marketing Company LLC.
- d. PG&E executed a Termination Agreement with Rio Bravo Poso Cogeneration Company, a legacy coal fired Qualifying Facility. The transaction was submitted to the CPUC for approval via Application 14-10-002.

C. **Master Data Request Documentation**

D.02-10-062, Appendix B, as clarified by D.03-06-076, sets forth specific elements to be addressed in this report. Each element is discussed below.

1. Identification of the ultimate decision maker(s) up to the Board level, approving the transactions.

All procurement-related activity during the Quarter was approved and executed either by, or under the direction of, Fong Wan, Senior Vice President, Energy Procurement; Roy Kuga, Vice President, Energy Supply Management; Gary Jeung, Senior Director, Renewable Energy; Don Howerton, Director, Renewable Transactions; Marino Monardi, Director, Portfolio Management; and/or Pete Koszalka, Director, Electric Gas Supply, consistent with the delegation of authority effective for the period.

2. The briefing package provided to the ultimate decision maker.

The “decision-maker” for a particular contemplated transaction depends on many factors, such as term, volume, and notional value. For many of the transactions during the Quarter, the “decision-maker” was a gas or power trading employee executing transactions per an established plan or to achieve a particular objective (such as balancing the portfolio supply and demand). For such transactions, briefing packages are not prepared. Briefing packages prepared during the Quarter for transactions or procurement activities that required senior management approval are included in Confidential Attachment K. In addition, copies of presentations made by PG&E to its Procurement Review Group during the Quarter are included in Confidential Attachment F.

3. Description of and justification for the procurement processes used to select the transactions.

a) Electric Procurement – Description

BPP-approved electricity procurement processes used during the Quarter include:

- Competitive Solicitations
- CAISO’s CRR allocations and auctions
- Convergence bidding
- Bilaterally negotiated contracts
- Electronic Solicitations

- Qualifying Facility/Combined Heat and Power (QF/CHP) legacy contracts

b) *Electric Procurement – Justification*

- i. For competitive solicitations, describe the process used to rank offers and select winning bid(s).
 - 2014 Intermediate Term RFO – PG&E issued the 2014 ITRFO on April 22, 2014. The primary objective of this RFO was to procure Resource Adequacy (RA) products for the 2015-2018 delivery period. The ITRFO concluded on September 4, 2014. PG&E evaluated and selected offers based on the following evaluation criteria: Price, Portfolio Fit, Credit and Conformance with PG&E’s RA Confirmation, and Supplier Diversity. The evaluation criteria applied was in accordance with the protocol for this RFO. In addition, during the Quarter, PG&E exercised its contractual right to extend the existing tolling agreement with NRG for its Pittsburg facility. The extension covers Units 5, 6, and 7. The capacity amount contributed to the goal of the ITRFO. An Independent Evaluator (IE) report was prepared for the ITRFO. An IE Report is required for all competitive solicitations that involve affiliate transactions or utility-owned or utility turnkey bids, and for all competitive RFOs seeking products to satisfy service area need and supply-side resources greater than two years in length regardless of the bidders. Relevant information is included in Confidential Attachment E, F, G, H, and L.
- ii. For other transactional methods, provide the documentation supporting the selection of the chosen products.

The approved procurement processes used during the Quarter and supporting documentation include the following:

- CAISO Monthly CRR Allocation and Auction Process – During the Quarter, PG&E procured CRRs to narrow the distribution of PG&E’s energy procurement costs due to electric transmission congestion while not increasing expected congestion costs that PG&E would incur in its operations. PG&E acquires CRRs for any path (represented by a source-sink pair) connecting existing generation sources to existing loads (e.g., retail loads, Helms pumping load and wholesale load obligations) or for any path that PG&E reasonably anticipates that it might need to flow energy in the future due to the addition of new contracts, resources or load obligations. Additionally, there may be CRRs which are positively correlated in value with CRRs for paths that have limited availability. PG&E is authorized to acquire CRRs for such positively correlated paths as well. Therefore, PG&E obtains CRRs that are determined to be valuable as hedges against congestion costs at the time they are offered, subject to risk assessment regarding the specific source/sink combinations as approved in its BPP.

PG&E estimated that a portion of its generation, imports and load in the months of August 2014, September 2014, and October 2014, remained exposed to congestion risk, and therefore participated in the CAISO's Monthly CRR allocation and auction process to obtain CRRs to mitigate this risk. In July 2014, August 2014, and September 2014, PG&E participated in Tier 1 and Tier 2 of the CAISO monthly CRR process to procure CRRs for August 2014, September 2014, and October 2014, respectively. In July and September 2014, PG&E participated in the Auction of the CAISO monthly CRR process to procure CRRs for August and October 2014.

PG&E submitted bids in the September 2014 CAISO CRR Auction. PG&E's original bid submission failed due to limitations with the CAISO CRR Auction system. This failure happens routinely for market participants in the CAISO's CRR's auctions thereby requiring participants to resubmit bids. PG&E's attempt to resubmit the bid was not timely, therefore, PG&E did not participate in the September 2014 CRR Auction. PG&E has modified its process to ensure that bids are resubmitted in a timely manner when the original submission fails.

PG&E provided information regarding its CRR strategy to the PRG. Relevant information is included in Confidential Attachments F, J, K and L.

- CAISO 2015 Annual CRR Allocation and Auction Process – PG&E participated in the Tier 1 allocation of the CAISO's annual release process for 2015 CRRs. Relevant information is included in Confidential Attachment F, J, K, and L.
- Convergence Bidding – Based on factors including anticipated loads, resource availabilities and intermittent resource generation forecasts, PG&E participates in the CAISO's convergence bidding market. Relevant information is included in Confidential Attachments E and F.
- Bilaterally Negotiated Contracts – During the Quarter, PG&E executed one RA bilateral contract. Relevant information is included in Confidential Attachments A, B, C, E, H and M.
- Electronic Solicitations – During the Quarter, PG&E executed RA contracts with several counterparties through Electronic Solicitations. Relevant information is included in Confidential Attachments A, B, C, E, H and M.
- QF/CHP Legacy Contracts (*For informational purposes only*) – Under the QF/CHP Program, some QF generators holding a legacy contract may convert to one of several new PPAs (i.e., Under 20 megawatts (MW) PURPA PPA, Transition PPA, and As-Available PPA) during the Quarter. In addition, many of the remaining legacy QF contracts are still active and

may require amendments or letter agreements to help the generator meet the requirements of the Commission's CHP Program (e.g., GHG administration and metering issues) that were not required under the former program. Relevant information is included in Confidential Attachment H.

c) *Natural Gas Procurement – Description*

PG&E procured natural gas during the Quarter using various methods, including:

- Transparent Exchanges
- Direct Bilateral Contracting for Short-Term Products
- Voice Brokering for the purchase and sale of natural gas futures or options
- Electronic Solicitations

d) *Natural Gas Procurement – Justification*

- i. For competitive solicitations (RFOs), describe the process used to rank offers and select winning bid(s).
 - There were no competitive solicitations (RFOs) for natural gas procurement during this Quarter.
- ii. For other transactional methods, provide the documentation supporting the selection of the chosen products.
 - Transparent Exchanges: Electronic trading exchanges for transparent prices:

Commodity Purchases/Sales – PG&E bought and sold physical natural gas on the Intercontinental Exchange (ICE) and the ICE Natural Gas Exchange (ICE/NGX) physical clearing service. ICE is an electronic system that matches buyers and sellers of natural gas products. Once buyer and seller are matched, ICE trades become bilateral trades. ICE/NGX trades are cleared by NGX rather than bilaterally. Physical transactions in the Quarter include next day and same day transactions for delivery periods of one to four days. Relevant information is included in Confidential Attachment A.

Gas Hedges (In Compliance With D.12-01-033) – During the Quarter, PG&E conducted hedging activities that were in compliance with its approved Hedging Plan. PG&E executed hedges (futures and options) directly on the ICE; these hedge transactions cleared through exchanges (ICE or the New York Mercantile Exchange [NYMEX]). ICE and NYMEX provide access to anonymous bids and offers establishing both a liquid and robust market for financial products, and a benchmark for bilateral products. These products include Henry Hub futures and options,

and basis futures against the industry benchmark indices, including Canadian Gas Price Reporter (CGPR), Gas Daily, Natural Gas Intelligence (NGI) and Inside Federal Energy Regulatory Commission (IFERC) Gas Market Report. Worksheets demonstrating PG&E's compliance with D.12-01-033 are in Confidential Attachment L.

- Direct Bilateral Contracting for Short-Term Products:

Commodity Purchases/Sales – PG&E bought and sold physical gas directly with counterparties in the bilateral market. Spot gas (deliveries less than one month) is traded at fixed prices and Gas Daily or CGPR index. Prompt month supply (deliveries each day of the following month) and term gas (greater than one month forward or one month in duration) is traded at fixed price, daily index (Gas Daily or CGPR), or monthly or bidweek index (CGPR, NGI, or IFERC) prices. For any bilateral physical supply trades with a term of one month or more, PG&E concluded these transactions bilaterally, but also used electronic solicitation methods, such as instant messaging, e-mail, voice solicitation (telephone), real time market prices, and/or broker quotes, to inform and conduct these transactions. Relevant information is included in Confidential Attachments A and M.

Gas Parking and Lending – PG&E purchased gas parking and/or lending services to balance its daily supplies with demand. The terms of the parking and lending transactions were less than one month.

- Voice Brokers: PG&E executed natural gas hedges (futures) through voice brokers that resulted in exchange-cleared trades. Brokers provide access to anonymous bids and offers from both bilateral parties and cleared counterparties. After a broker matches a buyer and a seller in a trade, the parties will determine whether the trade will be settled bilaterally or cleared through NYMEX or ICE. The broker market trades the same financial products as the bilateral market. Relevant information is included in Confidential Attachment A.

- Electronic Solicitations:

Conducted via Instant Messaging – PG&E conducted auctions for the purchase of natural gas futures and options using instant messaging with financial counterparties. In this way, PG&E is able to obtain robust price quotes from the marketplace, in real time, and may then execute with the counterparty with the best offer(s). These transactions were then cleared on an exchange, such as NYMEX or ICE.

PG&E conducted auctions for the purchase of multi-month physical gas supply using instant messaging. In this way, PG&E is able to obtain robust price quotes from the marketplace, in real time, and may then execute with the counterparty with the best offer(s).

e) Other Commodities

- i. For competitive solicitations, describe the process used to rank offers and select winning bid(s).
 - 2014 GHG Offset Credit RFO – PG&E issued the 2014 GHG Offset Credit RFO on March 19, 2014 to solicit offers of Offset Credits to satisfy PG&E’s compliance obligations under the GHG Cap-and-Trade program adopted by the California Air Resources Board (CARB) as part of CARB’s implementation of Assembly Bill 32. PG&E evaluated and selected offers based on market value, credit/collateral, project viability, portfolio fit, contract modifications, and supplier diversity. An IE monitored all evaluations and communications with Participants during the RFO. The contract executed provides PG&E with offset credits at competitive prices. The RFO has not yet concluded. Relevant information is included in Confidential Attachments E, F, G, H, and L.
- ii. For other transactional methods, provide the documentation supporting the selection of the chosen products.
 - CARB Allowance Allocation and Auction Processes – PG&E received its annual allocation of Vintage 2014 allowances from CARB in November 2013. All of these allowances in turn will be consigned into the 2014 quarterly CARB Auctions as required by the regulations and consistent with PG&E’s BPP. As PG&E cannot use any of its allocated allowances to satisfy its GHG compliance obligations, allowances must separately be procured.

CARB held its eighth allowance auction on August 18, 2014 for vintage 2014 and 2017 allowances. PG&E is authorized to procure GHG products through CARB Auctions, approved exchanges, and utilizing a competitive RFO process. PG&E provided information regarding its allowance procurement strategy to the PRG. Relevant information is included in Confidential Attachments E, F, K and L.

4. Explanation/justification of the timing of the transactions.

a) Electric Transactions

When selecting electric transactions, the best-priced bids/offers are selected first (merit-order selection) among those available for the required products at the time of the transaction, subject to credit and other limitations and operational constraints. Operational constraints include the local area reliability requirements of the CAISO, as set forth in D.04-07-028. Detailed explanation/justification for the timing of the transactions is included in Confidential Attachment J.

b) Natural Gas Transactions

For daily physical gas transactions, timing of execution is primarily driven by the requirement to match fuel usage by utility-owned and contracted electric generating units and supply delivered on a daily and monthly basis, and by the availability of information impacting expectations for daily dispatch of these units. For transactions one month or longer, PG&E typically fills its forecast short gas positions in month-ahead, seasonal, or annual blocks, depending on the liquidity and prices available in each of these markets. Execution of term transactions is based on the PG&E Electric Portfolio 2014-2015 (April 1, 2014 – March 31, 2015) Physical Gas Procurement Plan and documentation supporting the timing of transactions is included in Confidential Attachment J.

5. Discussion of the system load requirements/conditions underlying the need for the Quarter's transactions.

a) PG&E Participation in the CAISO Markets

PG&E participates in the CAISO Day Ahead electricity markets. PG&E's day-ahead planning and procurement incorporates weather-adjusted load forecasts, resource availability, price forecasts, dispatch costs and current bilateral electric market and forecasts of the CAISO's Integrated Forward Market (IFM) prices. The results of this process allow PG&E to determine the incremental costs of dispatchable resources that are bid into the IFM and the Real-Time Market (RTM). It also determines the price upon which PG&E is willing to pay the CAISO for meeting its hourly load. The CAISO then assures least cost dispatch by considering all resources simultaneously with all transmission constraints.

In the RTM, similar to the day-ahead market, PG&E submits resource bids and schedules into CAISO markets and those resources that clear the market will be obligated to operate in real time.

b) PG&E-Owned Generation Conditions During Third Quarter 2014

PG&E received 135 percent of normal rainfall during the Quarter.

Helms Pumped Storage Facility (Helms) was used throughout the quarter as unit availability, system conditions, and economics allowed. There was one major planned outage impacting all three units at the end of the quarter. On September 28, a planned outage began on Helms Units 1, 2 and 3 for tunnel work and the Unit 2 rotor replacement. Units 1 and 3 are scheduled to return to service on December 7 while Unit 2 is scheduled to return to service on January 23, 2015. There were no forced outages at Helms during the quarter.

Planned outages lasting longer than 72 hours on conventional hydro facilities greater than 30 MW during the quarter included: Bucks Creek Units 1 and 2 (33 MW and 32 MW), Caribou 1 Units 1, 2 and 3 (25 MW, each), Electra Unit 1 (31 MW), Pit 6 Units 1 and 2 (40 MW, each) and Salt Springs Units 1 and 2 (11 MW and 33 MW).

Forced outages lasting longer than 24 hours at conventional hydro facilities greater than 30 MW during the quarter occurred at: Butt Valley (41 MW), Caribou 1 Units 1 (25 MW), Drum 1 Unit 4 (14.5 MW), Haas Unit 1 (72 MW), Pit 5 Units 1 and 4 (40 MW, each), and Salt Springs Units 2 (33 MW).

There were no planned or forced outages at the fossil combined cycle facilities, Gateway and Colusa Generating Stations, during the quarter. There was one planned outage during the quarter at Humboldt Bay Generating Station Unit 10. This outage, an 18,000-hour engine overhaul, began on September 8 and is scheduled to return to service on October 31. There were also two other forced outages greater than 24 hours at Humboldt Bay Generating Station during the quarter, Unit 1 on September 1 and Unit 7 on September 21.

On August 14, Diablo Canyon Nuclear Plant Unit 2 (1,118 MW) experienced a 3.7-day forced outage to repair a broken bolt and leaking fuel oil pump on emergency diesel generator 2-3. DCPD also conducted two scheduled minor

maintenance outages to perform cold-wash cleaning of lightning arrestors, Unit 1 on September 6 and Unit 2 on July 19.

A discussion of the monthly system conditions is included in Confidential Attachment J.

6. Discussion of how the Quarter's transactions meet the goals of the risk management strategy reflected in the Plan.

As described in Section 3.d. above, during the Quarter, PG&E executed transactions in accordance with its Hedging Plan. A list of information regarding Consumer Risk Tolerance notifications and management disclosures is included in Confidential Attachment K.

7. Copy of each contract.

A list of transactional contracts executed and/or modified by PG&E during the Quarter is included in Confidential Attachment H. Copies of the contracts that were not separately filed are also included in this attachment.

8. The valuation results for the contract(s) (for contracts of three months or greater duration).

PG&E provides the valuation method and results for the contracts filed via this QCR in Confidential Attachment H.

9. An electronic copy of any data or forecasts used to analyze the transactions.

Because transaction personnel are continuously monitoring a wide range of market information on a 24-hour-per-day, 7-day-per-week basis, it is not feasible to provide all the data and forecasts used to analyze all potential and executed transactions. However, key analysis data utilized during the Quarter is in Confidential Attachment J.

10. Provide a reasonable number of analyses requested by the Commission or the PRG and provide the resulting outputs.

To the extent any analyses requested by the Commission or PRG during the Quarter were not already included as a part of PG&E's response to Items 1 through 9 above, such additional analyses would be contained in Confidential Attachment F.

11. Any other information sought by the Commission under the Public Utilities Code.

To the extent that the Office of Ratepayer Advocates (ORA) has requested information for the Quarter as identified in its Master Data Request, this information will be included in PG&E's Master Data Request response, and submitted to the ORA 14 days after the filing of the QCR. In addition, the Commission's Energy Division has requested that PG&E provide transparent exchange traded prices. PG&E has included this information in Confidential Attachments A and E.

D. Additional Reporting Requirement Pursuant to Decision 07-01-039

As required by OP 12 of D.07-01-039, PG&E has included in Confidential Attachment I, investments in retained generation that were completed during the Quarter, as well as any multiple contracts of less than five years with the "same supplier, resource or facility" as required in D.07-01-039 on page 154. There were no transactions or investments to report during the Quarter.

E. Cost Allocation Mechanism (CAM)

For the Quarter, PG&E did execute contracts that qualify as CAM resources.

Attachment 2

Independent Evaluator (IE) Reports (Public Version)

ARROYO SECO CONSULTING

PACIFIC GAS AND
ELECTRIC COMPANY
2014 INTERMEDIATE-
TERM REQUEST FOR
OFFERS

REPORT OF THE INDEPENDENT
EVALUATOR ON THE OFFER EVALUATION
AND SELECTION PROCESS AND CONTRACT-
SPECIFIC NEGOTIATIONS

SEPTEMBER 10, 2014

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1. INTRODUCTION

This report of Arroyo Seco Consulting (Arroyo), serving as Independent Evaluator (IE) for Pacific Gas & Electric Company's (PG&E's) 2014 Intermediate-Term Request for Offers (RFO), provides a review of:

- The role of the Independent Evaluator,
- The adequacy of PG&E's outreach to potential Participants and the robustness of the solicitation,
- The strengths and weaknesses of the methodology for Offer evaluation and selection used by PG&E,
- The fairness of PG&E's bidding and selection process,
- Fairness of contract-specific negotiations, and
- Merit of the contracts for approval by the California Public Utilities Commission (CPUC).

Overall, Arroyo believes that PG&E's selection methodology and process were fair to ratepayers and to competing providers of Resource Adequacy (RA) products. PG&E conducted adequate outreach to potential sellers. The solicitation was robust in the response for System and Import RA; a more shallow response was elicited for a Local RA product. In Arroyo's opinion, PG&E's evaluation and selection process were handled fairly and the selected short list was reasonable.

PG&E selected [REDACTED] Offers for its short list, from more than three hundred submitted to the solicitation. After negotiations, PG&E executed contracts for deliveries of RA products from most of the selected proposals, from [REDACTED]. Arroyo's opinion is that PG&E's negotiations to secure agreements were mostly conducted in a manner that was fair to ratepayers and to competing sellers, although Arroyo's view is that a concession on contract terms was provided to subsidiaries of one Participant in a disparate manner that Arroyo regards as less than fully fair to competitors. Despite this issue, Arroyo's opinion is that the executed agreements merit CPUC approval based on their [REDACTED] and generally high project viability.

2. ROLE OF THE INDEPENDENT EVALUATOR

Pacific Gas and Electric Company issued a Request for Offers on April 22, 2014 for Resource Adequacy products to help the utility meet its compliance obligations to the CPUC and to the California Independent System Operator (CAISO) for both System and Local RA.

This chapter describes prior CPUC decisions that form the basis for a role for an Independent Evaluator in procurement activities of investor-owned utilities (IOUs), describes key roles of the IE, details activities undertaken by the IE in this solicitation to fulfill those roles, and identifies the treatment of confidential information.

A. CPUC DECISIONS REQUIRING INDEPENDENT EVALUATOR PARTICIPATION

The CPUC first mandated a requirement for an independent, third-party evaluator to participate in competitive solicitations for utility power procurement in Decision 04-12-048 on December 16, 2004. The CPUC required use of an IE when Participants in a competitive procurement solicitation include affiliates of IOUs, IOU-built projects, or IOU-turnkey projects. The Decision envisaged that the IE role would serve as a safeguard against anti-competitive conduct in the process of evaluating IOU-built or IOU-affiliated projects competing against Power Purchase Agreements (PPAs) with independent power developers.

In approving the IOUs' 2006 RPS procurement plans, the CPUC issued Decision 06-05-039 on May 25, 2006. This Decision expanded the CPUC's requirements, 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 future competitive solicitations. This requirement now applies whether or not IOU-owned or IOU-affiliate generation participates in the solicitation. This was intended to increase the fairness and transparency of Offer selection.

Decision 06-05-039 required the IE to report separately from the utility on the evaluation, and selection process for RPS solicitations. Decision 07-12-052 stated that "the Commission requires that an IE be utilized for all competitive RFOs that seek products of more than three months in duration" referring specifically to "RFOs issued to satisfy service area need and supply-side resources not including EE and DR." The requirement was revised to apply to products of two years or greater in duration in Decision 08-11-008. In its 2014 ITRFO PG&E sought to procure RA products for delivery in the 2015 – 2018 period.

B. KEY INDEPENDENT EVALUATOR ROLES

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.”¹ The Energy Division provided a short-form IE template to guide reporting on solicitations whose contracts are filed with the CPUC through Quarterly Compliance Reports or advice letters, specifying topics including:

- Describe the IE’s role.
- How did the IOU conduct outreach to bidders, and was the solicitation robust?
- Describe the IOU’s evaluation methodology and its strengths and weaknesses.
- Evaluate the fairness of the IOU’s bidding and selection process.
- Describe contract-specific negotiations, and highlight any areas of concern.
- Are the contracts the best overall offers received?
- Are the contracts a reasonable way of achieving the need identified in the RFO?
- Do the contracts merit Commission approval?

The structure of this report, setting out detailed findings for each of these issues, is organized around these major topics.

C. IE ACTIVITIES

To fulfill the role of evaluating PG&E’s 2014 ITRFO, several tasks were undertaken, both prior to Offer Opening and subsequently. Prior to the offer due-date in April 2014, Arroyo pursued activities to assess PG&E’s evaluation methodology:

- Reviewed the draft public solicitation protocol and draft nonpublic protocols detailing how PG&E would evaluate Offers against each evaluation criterion, and provided feedback to the utility team on public and nonpublic drafts.
- Attended presentations on PG&E’s portfolio positions for Resource Adequacy products and on potential transactions affecting those positions, affecting the total RA need for the solicitation.
- Reviewed correspondence between potential Participants and the utility team as the former posed questions about the solicitation and PG&E answered them, to assess whether information was shared fairly.
- Examined PG&E’s ITRFO contact list; performed an analysis of contacts.
- Discussed the design and input parameters for the analytic tool used to optimize selection of a short list with the PG&E evaluation team.

During the period between Offer due-date and selection, IE activities included:

¹ CPUC Decision 06-05-039, May 25, 2006, “Opinion Conditionally Approving Procurement Plans for 2006 RPS Solicitations, Addressing TOD Benchmarking Methodology,” page 46.

- Participating in opening Offers. Arroyo was copied by Participants on their e-mail submittals of Offers to the PG&E team. Arroyo reviewed each Offer.
- Reviewing PG&E evaluations. The evaluation team provided several iterations of work products evaluating Offers against the various criteria.
- Developing an independent view of least-cost selection.
- Monitoring e-mail communications between PG&E and Participants to check for fairness in how information was provided.
- Observing several of the PG&E team’s discussions as members and management considered Offers, valuations, scores, targets, recommendations, etc.
- Attending meetings of PG&E’s Procurement Review Group (PRG) as the PG&E team presented its plans for and recommendations about the ITRFO; provided the PRG with independent commentary and observations about the RFO.
- Offering PG&E’s team commentary and feedback as appropriate.

After PG&E selected its short list and informed Participants of their status, Arroyo observed negotiations between PG&E and the sellers, in order to assess their fairness. This included observing meetings telephonically and reviewing draft agreements with proposed edits from each of the parties.

D. TREATMENT OF CONFIDENTIAL INFORMATION

The CPUC’s Decision 06-06-066 detailed guidelines for treating confidential information in IOU power procurement and related activities, including competitive solicitations. The Decision provides for confidential treatment of “Score sheets, analyses, evaluations of proposed RPS projects,”² vs. public treatment (after submittal of final contracts) of the total number of projects and megawatts bid by resource type. While procuring Resource Adequacy capacity is not the same as contracting with RPS-eligible projects, PG&E and Arroyo agree that commercially sensitive information on the details of Offers and their evaluation should be treated as confidential in a manner analogous to data on RPS contracts. Such information has been redacted in the public version of this report.

²California Public Utilities Commission, Decision 06-06-066, “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.

3. PG&E’S OUTREACH EFFORTS AND THE ROBUSTNESS OF THE SOLICITATION

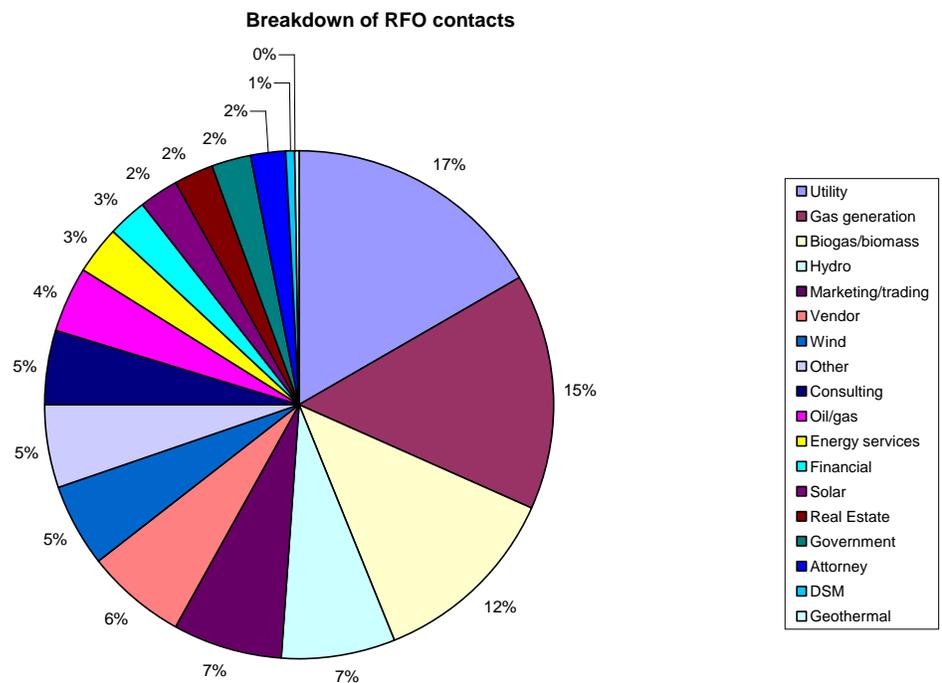
Overall, Arroyo’s opinion is that the market response to PG&E’s 2014 ITRFO was robust with the exception of [REDACTED]. This chapter describes the utility’s outreach efforts and their results.

A. PG&E’S OUTREACH TO POTENTIAL PARTICIPANTS

Prior to issuing the Request for Offers, PG&E assembled an e-mail contact list for use in publicizing the 2014 ITRFO. The utility reported that this year’s contact list builds upon those developed for prior years’ solicitations for RA products.

The e-mail contact list overall totaled more than 500 individual contacts. Figure 1 displays an analysis of the contact list to break it down by industry or category.

Figure 1.



One observation about this list is the extent of the challenge in attempting to focus on those entities likeliest to be positioned to deliver RA products in the next several years. The class

of such entities with the largest representation on the list is made up of other utilities, including investor-owned, municipal, federal, and cooperative electric utilities, many of which own generation or hold a portfolio of RA products based on prior contracting, from which sales of RA volumes excess to near-term needs could be made.

The second largest category represented on the contact list is comprised of owners or operators of gas-fueled generation, both inside and outside the state of California. To the extent that these owners have not yet committed their facilities to future sales of RA products, the projects may be available to offer to the RFO.

The third largest category consists of owners and/or developers of biomass- or biogas-fueled generation. Arroyo speculates that most of the existing facilities these potential Participants own are already contracted to sell their output including RA through the period of interest for the ITRFO, and that it would be premature for developers to offer biogas-fueled projects that are not yet constructed to a solicitation.

The fourth largest category covers owners and developers of hydroelectric generation, including water utilities. Arroyo speculates that to a large extent existing hydro projects are already contracted to sell their output including RA over the 2015 – 2018 time frame.

The fifth largest category is made up of entities that have wholesale energy marketing and trading activities. These trading desks may or may not be in a position to remarket RA products from their portfolios or to intermediate brokered sales from generation owners.

The majority of contacts that PG&E used for e-mail outreach were made up from these five categories. Beyond these generation owners and wholesale marketers were a variety of contacts in other categories.

In Arroyo's opinion it seems unlikely that PG&E's outreach to entities such as equipment vendors to generation plants, engineering and construction contractors, consultants to the utility and merchant generation industry, oil and gas exploration and production firms, financiers, real estate owners and developers, and attorneys would provide a decent yield of Offers for RA products. There is no cost for the utility to send e-mails to such entities, but Arroyo recommends that PG&E consider pruning its ITRFO contact list of these contacts in related or unrelated industries and focus its efforts on building new contacts in the first five categories. In particular, Arroyo suspects that there is an opportunity for PG&E to perform more aggressive outreach to the universe of wholesale energy marketers and traders that are active in the Pacific Northwest and desert Southwest, that might be positioned to sell Import RA.

In addition to soliciting responses by direct e-mails to the contact list, PG&E posted information about the ITRFO on its public web site, including the solicitation protocol, required offer documents, and form agreements.

PG&E did not issue a news release to publicize the ITRFO as it has done for other solicitations in the past. News of the solicitation does not appear to have been picked up and disseminated by industry groups and media such as the Geothermal Resources Council and HydroWorld, as was the case for some prior ITRFOs. PG&E did not hold a bidders'

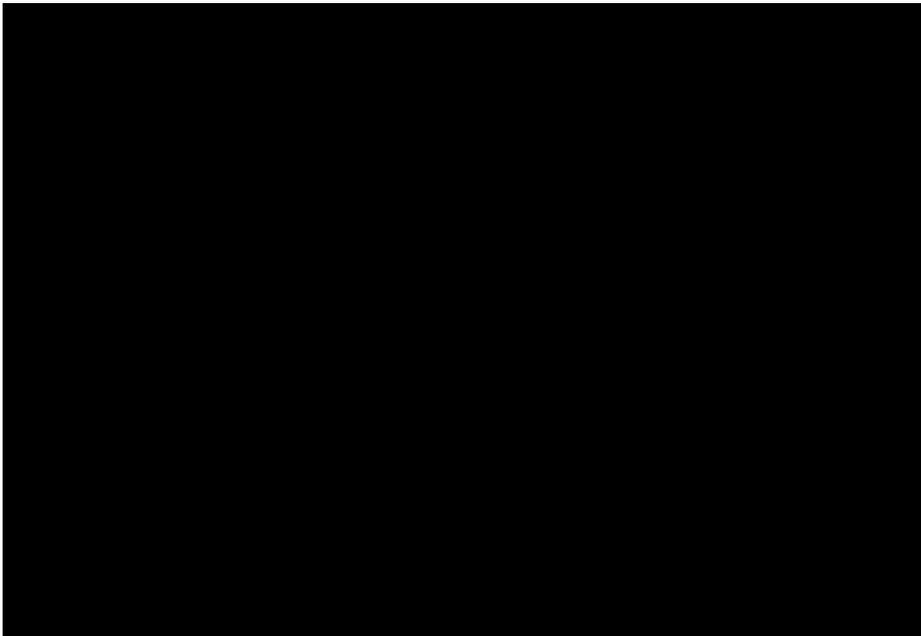
conference or on-line webinar to preview the 2014 ITRFO, as it does for its competitive solicitations for some other products.

In Arroyo's opinion, PG&E's outreach efforts to stimulate a robust response to its ITRFO were neither focused nor forceful, but were adequate to the task. Unlike solicitations for new renewable energy projects or for greenhouse gas compliance instruments, the universe of potential sellers of RA products to meet California compliance needs is relatively compact and well-defined. There are a finite number of in-state generating plants sized at 25 MW or larger (the minimum block for Offers) that are not already committed to deliver their RA to other buyers. A limited number of entities can deliver RA to the three intertie points that PG&E accepted for this year's solicitation. PG&E relied primarily on e-mails to its compiled contact list to disseminate news of the RFO; Arroyo is unsure in this case whether greater publicity, trade press coverage, or a bidders' conference would have materially improved the robustness of the solicitation. Instead, Arroyo suspects that more focused research on in-state and outside generators and marketers to augment the contact list might improve the yield of Offers resulting from e-mail outreach.

B. ROBUSTNESS OF THE SOLICITATION

PG&E developed quantitative targets for the volume of each RA product it sought to procure through this solicitation (eight System RA products differentiated by delivery period, and one Local RA product for the Greater Bay Area). These targets were non-public; the utility shared a version of them with its Procurement Review Group prior to opening the solicitation. One metric of robustness is how the volume of Offers submitted for a product compares to the target for that product.

Figure 2.



In most cases, the MW volume of Offers received was a substantial multiple of the initial target volume shared with the PRG for each product. The least robust responses by this metric were for [REDACTED] for which the ratio of offered volume to target volume was [REDACTED]. Arroyo speculates that this resulted from [REDACTED] and from the greater uncertainty on the part of Participants about [REDACTED]. If one takes into account the constraints that Participants placed on mutually exclusive Offers, which reduces the actual volume available to purchase from the arithmetic sum of Offer volumes, the ratio was [REDACTED].

Figure 2 illustrates the volume of Offers by product for the System RA products vs. the initial targets. For each of these products, the response was [REDACTED].

In addition to procuring System RA, PG&E used the ITRFO to seek Offers for Local RA in the Greater Bay Area. Product 9 was specified as delivery of RA from this local area in calendar 2015.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As part of the ITRFO, PG&E also requested Offers to exchange RA products from north of Path 26 for its portfolio holdings of RA capacity from south of Path 26. [REDACTED] Arroyo would expect that the only entities in a position to make such a swap would likely be the other California investor-owned utilities, particularly Edison, if they were in a situation of having executed a contract to take delivery of energy and capacity from a power plant north of Midway and would prefer to have RA from south of Vincent given the transfer constraint. [REDACTED]

The robustness of the 2014 ITRFO was enhanced by PG&E's choice this year to accept proposals to deliver RA from out-of-state resources at intertie points: the California-Oregon Border (COB), Nevada-Oregon Border (NOB), and Palo Verde. This enlargement of the universe of possible resources increased the number of proposals. Arroyo believes that had PG&E included other interties as eligible delivery points even more Offers would have been submitted³. However, deliveries of RA to other potential intertie points such as imports from the grids of the Los Angeles Department of Water and Power, Imperial Irrigation District, Western Area Power Administration, and Nevada Power would be subject to PG&E's constraints on its rights to transfer RA south to north across Path 26. This limitation could reduce the benefit of more robust participation from sellers proposing to deliver RA into the CAISO at intertie points of Edison and SDG&E. Arroyo would still encourage PG&E to consider opening future ITRFOs to [REDACTED].

C. SEEKING ADEQUATE FEEDBACK FROM ALL PARTICIPANTS

Best practices in competitive solicitations includes soliciting feedback from all Participants, such as commentary on how to improve the utility's practices, processes, communications, etc. PG&E intends to conduct telephonic discussions to seek such feedback on the 2014 ITRFO by debriefing shortlisted sellers, but as of the date of this report has not yet begun that process.

³ [REDACTED]

4. PG&E'S OFFER EVALUATION METHODOLOGY AND ITS STRENGTHS AND WEAKNESSES

This section describes PG&E's evaluation methodology for selecting Offers for its 2014 Intermediate-Term RFO.

A. PG&E'S METHODOLOGY

PG&E's public solicitation protocol for the ITRFO stated four evaluation criteria for assessing Offers; each had a non-public protocol detailing how Offers would be evaluated.

Price. PG&E's public protocol indicates that the pricing of Offers will be compared; the evaluation is [REDACTED] on point for the needs of the solicitation.

[REDACTED]⁴ [REDACTED]
[REDACTED]
[REDACTED]

- [REDACTED]⁵,
- [REDACTED]
[REDACTED];⁶
- [REDACTED];
- [REDACTED]
[REDACTED];
- [REDACTED]
[REDACTED]; and

⁴ [REDACTED]
[REDACTED]
[REDACTED]

⁵ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁶ [REDACTED]
[REDACTED]
[REDACTED]

- [REDACTED]

[REDACTED]

Portfolio Fit. PG&E’s public RFO protocol calls for an evaluation of how well an Offer meets the utility’s reliability or transmission needs in the Greater Bay Area. [REDACTED]

[REDACTED]

Credit and Conformance to the RA Confirm. Offers are evaluated on the degree to which the Participants’ mark-ups to the confirmation agreement diverge from PG&E’s form language for non-price terms and conditions. [REDACTED]

[REDACTED] This helps align Offer selection with ratepayers’ interests in avoiding edits to the agreement that shift benefits to the seller or risks to the buyer relative to the form language.

Supplier Diversity. PG&E required offer packages to include a version of its standard Supplier Diversity Questionnaire; this includes queries about certification status, mentoring and subcontracting programs aimed toward furthering procurement from Women-, Minority-, and Disabled Veteran-Owned Business Enterprises, and spending on WMDVBE subcontractors. The questionnaire is used in PG&E’s other competitive RFOs. This criterion is intended to help PG&E understand how Offer selection could support the utility’s enterprise-wide supplier diversity goals.

Evaluation process. PG&E established a non-public protocol for offer selection; [REDACTED]

B. STRENGTHS AND WEAKNESSES OF PG&E’S METHODOLOGY

PG&E has been conducting competitive solicitations to procure RA products for several years, and appears to have benefited from refinement of its evaluation methodology over time. Its approaches to evaluate supplier diversity and modifications to the form agreement resemble those PG&E uses to evaluate proposals and sellers in other RFOs. Using these time-tested protocols is a strength of the solicitation and is consistent with PG&E’s practices in other activities.

Other strengths of PG&E’s approach to evaluating Offers include:

- The methodology is neutral with respect to analyzing RA Offers from in-state resources vs. RFO-eligible imports to the CAISO at intertie points; there is, in general, no bias for or against resources in California.⁷
- The quantitative analysis aligns closely with the principle of achieving least-cost procurement over the 2015-2018 period while seeking to meet the volume targets of the RFO and meeting constraints on RA imports. In particular, the analytic technique appropriately seeks a least-cost solution to procuring a combination of summer-only contracts and calendar-year contracts.
- Evaluations and selection decisions are based almost entirely on information submitted in Offers. A possible exception is the consideration of [REDACTED]
[REDACTED]
[REDACTED].
- The inputs to the quantitative analysis were [REDACTED]; for example, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

Arroyo's view is that the methodology used for the ITRFO had few minor weaknesses or opportunities for improvement. For example, the procurement targets for the solicitation were not publicly disclosed to potential Participants. PG&E does not make its estimated net RA compliance needs public; information about net compliance needs is regarded as commercially sensitive. Edison and SDG&E similarly do not publish their procurement targets for Resource Adequacy solicitation; the CAISO does not publicly reveal net compliance positions of individual utilities for System RA. Transparency about solicitation objectives could be considered a desired ideal. Arroyo does not consider this to be a fatal flaw in the solicitation; the most knowledgeable market participants should have a general sense of what PG&E's needs are, and Arroyo doubts that failure to state a MW number for each product had any effect to deter RFO participation, as has been suggested by non-Participants in other RFOs.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁷ Only three intertie points were allowed for RA imports; one might argue that out-of-state resources that only have the capability of delivering through other interties were disadvantaged.

PG&E did not explicitly state publicly that its Portfolio Fit evaluation criterion was focused on [REDACTED]. While transparency is desirable, Arroyo agrees that in this case it could be harmful to signal to potential Participants [REDACTED].

PG&E's choice [REDACTED] is appropriate; [REDACTED]
[REDACTED]

PG&E did not include considerations of project viability as an evaluation criterion.⁸ One expects that most entities offering RA transactions to the ITRFO either have control of an existing, operating power plant or have a portfolio of RA products and/or plants outside the CAISO that can deliver to an intertie point, or are the process of intermediating a sale from an upstream plant owner. It seems unlikely that a Participant would make an Offer based on developing a new project. In the case of in-state resources an Offer must state the project name and its CAISO resource ID, which uniquely identifies a generating facility, but for Import RA Offers the resource ID names an intertie point rather than a generation project's node, leaving the plant unidentified. One can imagine a scenario in which a seller fails to deliver the contracted RA volume in a future year because the availability performance of the plant drops and the CAISO assignment of net qualifying capacity is reduced. The risk of such a hypothetical case of non-performance is not evaluated in PG&E's methodology. PG&E relies on protections written into the confirmation agreement regarding replacement RA and damage payments instead of an evaluation of the risk of loss of plant availability.

Finally, one key input to [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁸ PG&E's solicitation protocol, however, does explicitly require pre-delivery term security if an offered resources has not yet been qualified by the CAISO to provide RA when the agreement is executed. This collateral requirement is a form of ratepayer protection against risks that a generation project turns out not to be viable when the delivery term commences.

[REDACTED]

Arroyo considers the decisions that PG&E made in this TTRFO to be prudent with respect to [REDACTED].

5. FAIRNESS OF PG&E'S BIDDING AND SELECTION PROCESS

This section provides a review of the fairness of how PG&E administered its evaluation and selection process to create a short list for its 2014 ITRFO. Arroyo agreed with PG&E's selection, and opines that the process was fair to ratepayers and competitors.

PG&E received 320 Offers, [REDACTED], that were submitted timely before the deadline of 1 p.m. on May 13, 2014. The Participants included:

- [REDACTED];
- [REDACTED];
- Dynegy Moss Landing LLC, a subsidiary of Dynegy, Inc. and owner of the Moss Landing generating station;
- [REDACTED];
- [REDACTED];
- [REDACTED];
- NRG Energy Inc., a Princeton-based owner and operator of gas-fired generation [REDACTED] Pittsburgh Power Plant.
- [REDACTED]; and
- [REDACTED].

In most cases Participants proposed to sell RA products from [REDACTED] the proposals were to deliver from [REDACTED]

other owners' projects either within the CAISO or at intertie points. PG&E reviewed these proposals and found that nearly all of them conformed to the requirements of the RFO.

There were some Offers that did not strictly conform to the specifications laid out in the solicitation protocol:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED] These Offers were received [REDACTED] several hours after the 1 p.m. deadline, and were rejected by PG&E for not meeting the requirements of the solicitation.

A. PG&E'S EVALUATION OF OFFERS AGAINST CRITERIA

PG&E's process for evaluating these Offers was straightforward and, overall, followed the procedures described at a high level in the public solicitation protocol.

Price. PG&E's evaluation team used [REDACTED] to develop least-cost selections of Offers based on [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Based on the team's review of scenarios and the pricing of the Offers, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Portfolio Fit. PG&E received Offers for Local RA from [REDACTED]

[REDACTED]

Credit and Conformance to the RA Confirm. PG&E's evaluation team scored Participants' submitted mark-ups of PG&E's form RA confirmation agreement for the number, significance, and materiality of proposed changes. The mark-ups from [REDACTED]

[REDACTED]

⁹ California Public Utilities Commission, Decision 14-06-050, "Decision Adopting Local Procurement and Flexible Capacity Obligations for 2015, and Further Refining the Resource Adequacy Program," July 1, 2014.

PG&E shortlisted Offers from [REDACTED].

Supplier Diversity. PG&E's supplier diversity team applied its standard approach (used in other solicitations) to score the supplier diversity questionnaires submitted in the offer packages. [REDACTED]

B. FAIRNESS OF BIDDING AND EVALUATION PROCESS

Overall, Arroyo concludes that the bidding and evaluation process used in PG&E's 2014 Intermediate-Term RFO to select a short list was conducted fairly.

- Proposals were handled the same regardless of the identity of the Participant. PG&E has prior business relationships with some of the Participants and not with others, but Arroyo observed no difference in how PG&E applied its evaluation and selection methodology to the various parties¹⁰; the selection of Offers was based primarily on [REDACTED].
- While there were several communications to the Participants prior to the shortlisting decision, these focused on filling in deficiencies and gaps in Offers and clarifying eligibility requirements. Arroyo did not observe PG&E signaling Participants in a way that advantaged any individual seller. Many inquiries concerned how to fill in the Offer documents under various circumstances, and whether alternative master agreements or non-disclosure agreements would be acceptable.
- Application of evaluation criteria was handled in a consistent manner across Offers.
- Input assumptions to [REDACTED] are key parameters. Arroyo believes that the initially selected inputs were reasonable, [REDACTED]. When PG&E [REDACTED] Arroyo agreed that this seemed reasonable given regulatory developments.
- Arroyo agrees that it was reasonable for PG&E [REDACTED].

¹⁰ In the case of parties with whom PG&E has not previously transacted for purchases, the seller faces an incremental burden of negotiating an EEI master agreement, but this is not an issue of the utility's evaluation and selection process.

[REDACTED]

That being said, there were a few minor issues regarding fairness. For example, when potential sellers posed questions to the PG&E via e-mail prior to the offer due-date, and were answered, these questions and answers were not made available to competing Participants. In other competitive solicitations PG&E publicly posts such questions and answers on its website so that all potential sellers can benefit from the information made available in the answers. In this particular case, though, Arroyo does not believe that any individual seller was disadvantaged in Offer preparation or selection by being denied the benefit of seeing these specific questions and answers given to competitors.

[REDACTED]

As mentioned, PG&E altered [REDACTED] after Offers were received. While changing [REDACTED] after scrutinizing Offers may not be best practice for competitive solicitations, the ITRFO differs in that there is a tradeoff between [REDACTED]

[REDACTED] By [REDACTED], the utility could capitalize on what appear to be [REDACTED]

[REDACTED] will ultimately benefit ratepayers; [REDACTED].

Arroyo's opinion is that, overall, PG&E handled the bidding and selection process in this ITRFO in a manner that was fair to ratepayers and to competitors.

[REDACTED]

- [REDACTED];
- [REDACTED];
- [REDACTED];
- [REDACTED]; and
- [REDACTED].

[REDACTED]

- [REDACTED]; and
- [REDACTED].

[REDACTED]

- [REDACTED];
- [REDACTED]; and
- [REDACTED].

[REDACTED]

- [REDACTED]
[REDACTED]
[REDACTED]¹²;
- [REDACTED]
[REDACTED]; and

¹² [REDACTED]
[REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED];
- [REDACTED]; and
- [REDACTED].

B. NEGOTIATIONS [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

C. NEGOTIATIONS BETWEEN PG&E AND DYNEGY MOSS LANDING

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] The confirmation agreement was executed on July 28, 2014.

D. NEGOTIATIONS BETWEEN PG&E AND EDFTNA

[REDACTED]
[REDACTED]
[REDACTED]

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
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[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

- [Redacted text block]

[Redacted text block]

- [Redacted text block]

- [Redacted text block]

- [Redacted text block]

- [Redacted text block]

[Redacted text block]

E. NEGOTIATIONS [REDACTED]

[REDACTED]

F. NEGOTIATIONS BETWEEN PG&E AND NRG ENERGY

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- [Redacted]

[Redacted]

- [Redacted]

- [Redacted]

- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

The confirmation agreements with GEM were executed on August 14 and 15, 2014.

G. NEGOTIATIONS [REDACTED]

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

H. [REDACTED] CONTRACTS

[REDACTED]

[REDACTED]

I. DEGREE OF FAIRNESS OF CONTRACT-SPECIFIC NEGOTIATIONS

In Arroyo's opinion, PG&E's negotiations with [REDACTED] were, overall, conducted fairly. To the extent that PG&E agreed to material variances in these agreements from its form language, the changes do not appear to Arroyo to convey any significant advantage to the seller over its competitors or to transfer significant benefits to the seller from ratepayers or shift material risks to ratepayers.

[REDACTED]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

7. MERIT FOR CPUC APPROVAL

This chapter provides an independent opinion on whether PG&E’s contracts originating from its 2014 ITRFO merit approval by the CPUC. It also addresses other required topics identified in the Energy Division’s short-form template for Independent Evaluators to follow when reporting on non-RPS procurement.

A. AFFILIATE AND UOG ISSUES

None of the Participants in the 2014 ITRFO were affiliates of PG&E, nor did the solicitation concern the construction of utility-owned generation or other projects.

B. BEST OFFERS RECEIVED

Arroyo agrees that the Offers selected by PG&E using [REDACTED] [REDACTED] were the best conforming proposals received, given the assumed input parameters [REDACTED] [REDACTED] [REDACTED]. Had PG&E selected different assumptions for constraints and targets, other combinations of Offers could likely have emerged as the best (least-cost) strategy to meet the volume targets. Arroyo’s opinion is that PG&E’s selection [REDACTED] was reasonable [REDACTED].

C. SOLICITED PRODUCTS

All of the shortlisted Offers and resulting confirmation agreements represented proposals to sell System RA, Local RA, and Import RA as solicited by PG&E.

D. REASONABLE WAY TO MEET NEED

The need identified in PG&E’s solicitation protocol is to satisfy PG&E’s compliance obligations for Resource Adequacy. The obligations can be satisfied using a combination of Import RA and System RA, and by [REDACTED] purchases of Local RA [REDACTED] [REDACTED]. In Arroyo’s opinion, the overall cost of the executed contracts in aggregate appears [REDACTED] relative to the volume purchased [REDACTED] [REDACTED] [REDACTED]. Also, there is not enough market information available in a single annual cycle of RA procurement to identify whether PG&E’s selection is the best or least-cost approach to meet RA compliance needs in 2018 given one’s inability to foresee future years’ pricing of RA Offers. [REDACTED] [REDACTED]

[REDACTED]

Arroyo believes that [REDACTED] resulted in selection of the [REDACTED] [REDACTED] needed to meet the utility's [REDACTED] subject to the various constraints imposed by input assumptions. Figure 3 also illustrates how the selected Offers tended to be lower in price than the bulk of rejected proposals. This observation is generally true for other products, except for [REDACTED].

Focusing only on the calendar year products [REDACTED], the volume-weighted average price of all proposals to PG&E in the ITRFO was about [REDACTED]. In contrast, the weighted average price of executed agreements for calendar-year deliveries was about [REDACTED]

[REDACTED]

Arroyo's opinion is that the pricing of executed contracts resulting from the ITRFO was [REDACTED]¹³ [REDACTED]

Project viability. All of the in-state generating projects that were awarded agreements from the ITRFO are existing, operating facilities with decent track records of availability performance. [REDACTED] The Pittsburg units are older gas-steam units of 1960s and 1970s vintage that are expected to be retired based on the regulations on water intakes for once-through cooling units; the project's annual capacity factor has been reported to be less than 2% in recent years. [REDACTED]

[REDACTED]¹⁴

¹³ [REDACTED]

¹⁴ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Summary. In Arroyo's opinion the transactions resulting from PG&E's 2014 ITRFO were executed at prices that are [REDACTED]. The project viability of facilities identified as providing RA in these transactions is high; [REDACTED]. Arroyo's opinion is that nearly all of the contract-specific negotiations were handled in a manner that was fair to ratepayers and competitors.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

On that basis Arroyo's opinion is that the executed agreements from PG&E's 2014 ITRFO merit CPUC approval.

ARROYO SECO CONSULTING

PACIFIC GAS AND
ELECTRIC COMPANY
2014 GREENHOUSE GAS
OFFSET CREDIT
REQUEST FOR OFFERS

REPORT OF THE INDEPENDENT
EVALUATOR ON A CONTRACT FOR
GREENHOUSE GAS OFFSET CREDITS

OCTOBER 18, 2014

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1. INTRODUCTION

This report of Arroyo Seco Consulting (“Arroyo”), serving as Independent Evaluator (“IE”) for Pacific Gas & Electric Company’s (PG&E’s) 2014 Greenhouse Gas (“GHG”) Offset Credit Request for Offers (“RFO”), provides a review of:

- The role of the Independent Evaluator,
- The adequacy of PG&E’s outreach to potential Participants and the robustness of the solicitation,
- The strengths and weaknesses of the methodology for Offer evaluation and selection used by PG&E,
- The fairness of PG&E’s bidding and selection process,
- Fairness of contract-specific negotiations, and
- Merit of the offset credit contract for approval by the California Public Utilities Commission (“CPUC”).

Overall, Arroyo believes that PG&E’s selection methodology and process were fair to ratepayers and to competing providers of GHG compliance instruments. The solicitation was robust, which Arroyo ascribes both to PG&E’s outreach efforts and to progress in the development of California’s GHG compliance markets. In Arroyo’s opinion, PG&E’s evaluation and selection process was handled fairly and the selected short list was reasonable.

PG&E selected [REDACTED] for its short list. Following negotiations, PG&E executed a contract for deliveries of GHG offset credits from [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] Arroyo’s opinion is that the negotiations for [REDACTED] were, overall, conducted in a manner that was fair to ratepayers and to competing sellers, and that [REDACTED] ranks as moderate for project viability. Arroyo believes that [REDACTED] price falls within the range of market quotes for roughly comparable instruments at or around the date of contract execution. Based on this view of project viability and of the reasonableness of contract pricing, Arroyo’s opinion is that the executed contract merits CPUC approval.

2. ROLE OF THE INDEPENDENT EVALUATOR

Pacific Gas and Electric Company issued a Request for Offers on March 19, 2014 for GHG offset credits to help meet the utility's obligations under cap-and-trade regulations adopted by the ARB. The cap-and-trade program implements legislation adopted by the State as Assembly Bill 32 in 2006, seeking to reduce emissions of greenhouse gases.

This chapter summarizes the prior CPUC decisions that form the basis for the role of an Independent Evaluator in procurement activities of investor-owned utilities (IOUs), describes key roles of the IE, details activities undertaken by the IE in this solicitation to fulfill those roles, and identifies the treatment of confidential information.

A. CPUC DECISIONS REQUIRING INDEPENDENT EVALUATOR PARTICIPATION

The CPUC first mandated a requirement for an independent, third-party evaluator to participate in competitive solicitations for utility power procurement in Decision 04-12-048 on December 16, 2004. The CPUC required use of an IE when Participants in a competitive procurement solicitation include affiliates of IOUs, IOU-built projects, or IOU-turnkey projects. The Decision envisaged that the IE role would serve as a safeguard against anti-competitive conduct in the process of evaluating IOU-built or IOU-affiliated projects competing against Power Purchase Agreements with independent power developers.

In approving the IOUs' 2006 Renewables Procurement Standard (RPS) procurement plans, the CPUC issued Decision 06-05-039 on May 25, 2006. This Decision expanded the CPUC's requirements, 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 future competitive solicitations. This requirement now applies whether or not IOU-owned or IOU-affiliate generation participates in the solicitation. This was intended to increase the fairness and transparency of Offer selection.

Decision 06-05-039 required the IE to report separately from the utility on the evaluation, and selection process for RPS solicitations. Decision 07-12-052 stated that "the Commission requires that an IE be utilized for all competitive RFOs that seek products of more than three months in duration", referring specifically to "RFOs issued to satisfy service area need and supply-side resources not including EE and DR." The requirement was revised to apply to products of two years or greater in duration in Decision 08-11-008.

While it is unclear to Arroyo whether GHG offset credits fall into the classification of "supply-side resources" to satisfy service area need, PG&E has chosen to involve an IE for competitive RFOs for GHG compliance instruments whose transactions are not cleared on an exchange. On that basis Arroyo was engaged to serve as IE for this solicitation.

B. KEY INDEPENDENT EVALUATOR ROLES

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.”¹ The Energy Division provided a short-form template for use in reporting about non-RPS transactions that are filed through a Quarterly Compliance Report, specifying that such an IE report cover topics including:

- Describe the IE’s role.
- How did the IOU conduct outreach to bidders, and was the solicitation robust?
- Describe the IOU’s evaluation methodology and the strengths and weaknesses of the methodology.
- Evaluate the fairness of the IOU’s bidding and selection process.
- Describe contract-specific negotiations, and highlight any areas of concern.
- Does the contract merit Commission approval?

The structure of this report, setting out detailed findings for each of these issues, is organized around these major topics.

C. IE ACTIVITIES

To fulfill the role of evaluating PG&E’s 2014 GHG offset credit RFO, several tasks were undertaken, both prior to Offer Opening and subsequently. Prior to the offer due-date of April 21, 2014, Arroyo conducted activities to assess PG&E’s evaluation methodology:

- Reviewed the public solicitation protocol.
- Examined the utility’s non-public protocols detailing how PG&E would evaluate Offers against various criteria.
- Observed (telephonically) PG&E’s webinar and information session held in San Francisco on March 27.
- Reviewed the posting of questions and answers on PG&E’s public website to check whether information that was made available live to webinar attendees was also provided to other potential Participants who did not join the webinar.
- Examined PG&E’s RFO contact list; performed an analysis of contacts.

¹ CPUC Decision 06-05-039, May 25, 2006, “Opinion Conditionally Approving Procurement Plans for 2006 RPS Solicitations, Addressing TOD Benchmarking Methodology”, page 46.

- Reviewed feedback from a June 2014 survey that PG&E conducted to seek commentary about the solicitation from both Participants and non-Participants.

During the period between Offer due-date and selection, IE activities included:

- Participating in opening Offers. Arroyo was copied by Participants on their e-mail submittals of Offers to the PG&E team; Arroyo reviewed each Offer.
- Reviewing PG&E evaluations. The evaluation team provided copies of work products evaluating Offers against the various criteria.
- Monitoring e-mail communications between PG&E and Participants to check for fairness in how information was provided.
- Independently assessing the Offers against non-valuation criteria such as viability.
- Attending meetings of PG&E's Procurement Review Group (PRG), including answering questions about the solicitation and the Offers, and presenting independent commentary and observations about the RFO.
- Offering PG&E's evaluation team commentary and feedback as appropriate.

After PG&E selected its short list and informed Participants of their status, Arroyo observed negotiations between PG&E and the sellers, in order to assess their fairness.

D. TREATMENT OF CONFIDENTIAL INFORMATION

The CPUC's Decision 06-06-066 detailed guidelines for treating confidential information in IOU power procurement and related activities, including competitive solicitations. The Decision provides for confidential treatment of "Score sheets, analyses, evaluations of proposed RPS projects",² vs. public treatment (after submittal of final contracts) of the total number of projects and megawatts bid by resource type. While procuring greenhouse gas offset credits is not the same as contracting with RPS-eligible projects, PG&E and Arroyo agree that commercially sensitive information on the details of Offers and their evaluation should be treated as confidential in a manner analogous to data on RPS contracts. Such information has been redacted in the public version of this report.

²California Public Utilities Commission, Decision 06-06-066, "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.

3. PG&E’S OUTREACH EFFORTS AND THE ROBUSTNESS OF THE SOLICITATION

PG&E received [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

This was a robust response to the solicitation.

A. CLARITY AND CONCISION OF SOLICITATION MATERIALS

PG&E’s solicitation protocol for the GHG RFO was thirteen pages long, which is short for a California utility’s solicitation.³ PG&E convened an in-person outreach session and webinar at the conference “Navigating the American Carbon World” in San Francisco, a conclave focused on climate change policy and carbon markets. The presentation at this session was thirty-eight pages long. Overall, Arroyo considers these solicitation materials to be concise by the standards of utility electric power procurement.

Arroyo’s opinion is that solicitation materials for the GHG RFO were fairly clear to Participants. On its website, PG&E posted a general set of “frequently asked questions” with answers and the specific questions and answers from the outreach session. The discussion at the conference elicited only eight questions. Arroyo’s review of participants’ questions suggests that clarity of materials about the process, evaluation criteria, or schedule was not much of an issue, as opposed to concern about PG&E’s collateral requirements.

B. ADEQUACY OF OUTREACH

Prior to issuing the Request for Offers, PG&E assembled an e-mail contact list for use in publicizing the GHG offset credit solicitation. This appears to include most individuals and firms contacted by PG&E for its 2013 Renewables Portfolio Standard solicitation, plus additional contacts. This list included several types of contacts:

- Developers of solar photovoltaic generation projects;
- Vendors of equipment and services for generation projects;

³ By comparison, SDG&E’s June 2014 Renewable Auction Mechanism solicitation protocol totaled 30 pages; SCE’s solicitation for combined heat and power facilities that closed in the spring of 2014 had a protocol that totaled 38 pages.

- Consultants, including management consultants, engineering consultants, and other service contractors;
- Developers of wind generation projects;
- Owners and operators of biomass-fueled generation facilities, primarily woody waste-fueled projects;
- Marketers, traders, and brokers of oil, gas, power, and offset credits and allowances;
- Electric utilities;
- Owners or developers of natural gas-fired generation;
- A variety of non-profit entities, including land trusts, greenhouse gas offset credit registries, and forest owners;
- Digester-based biogas facility owners and operators, developers, dairy farms and industry associations, and agricultural businesses other than dairies;
- Governmental agencies, from municipalities to state regulators;
- Developers of or owners of hydroelectric, tidal, or wave-based generation;
- Banks and other financial institutions that fund generation and infrastructure investments;
- Developers of or owners of landfill gas-fueled generation projects;
- Real estate agents and landowners; attorneys; engineering, procurement, and construction firms, owners and developers of geothermal generation projects, forest owners, firms that provide energy efficiency or other demand-side management services, oil companies;
- Ozone-depleting substance (ODS) vendors, servicers, and destruction facilities;
- Other entities, including individuals, journalists, law firms, constructors, church youth groups, and other non-energy firms such as shoemakers and roofing material manufacturers.

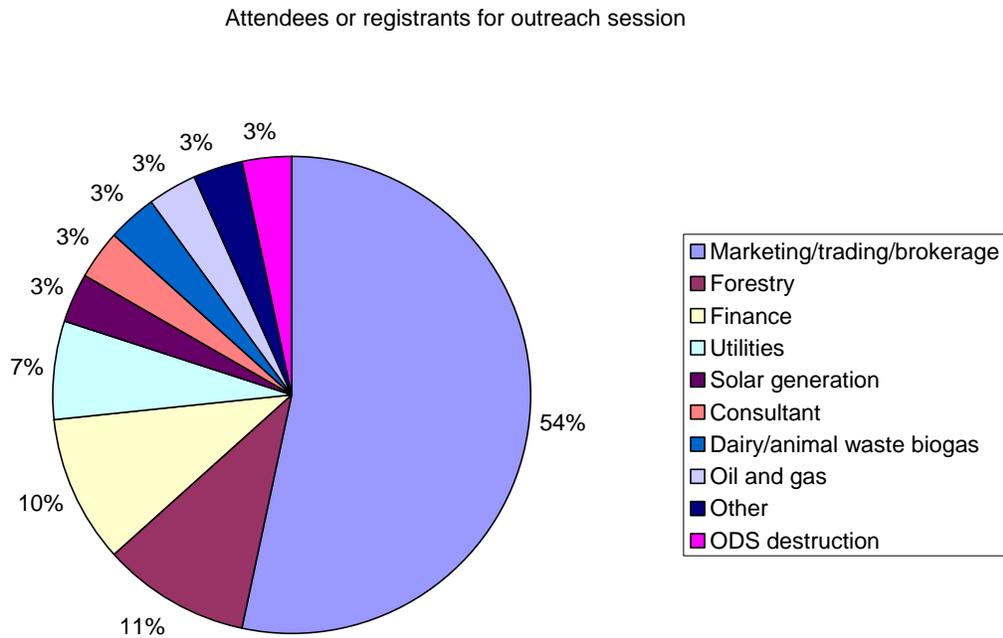
The e-mail contact list overall totaled more than 2,500 contacts. Figure 1 displays a distribution of the members of the contact list by industry or category.

One observation about this list is the extent of PG&E's challenge of attempting to focus on those entities likeliest to be in a position to sell ARB-issued offset credits. The majority of individuals or firms that PG&E contacted seem to Arroyo to be quite unlikely to participate in a solicitation for GHG offset credits. The largest segment represented on the

PG&E did not issue a public news release to publicize the GHG RFO as it has done for other solicitations in the past. PG&E worked with Platts to place an article about the solicitation in the trade publication Megawatt Daily in March⁴. News of this year’s solicitation was not picked up and distributed by other services that had in the past publicized PG&E’s GHG RFO, including Argus Air Daily, Carbon Finance, Carbon Future News, Point Carbon, and the Geothermal Resources Council.

An indicator of the adequacy of PG&E’s outreach efforts was the number of individuals who chose to attend the in-person outreach session; twenty-two attendees signed in for the session, vs. nineteen who had pre-registered, for a total expression of interest of thirty-five individuals. This was a somewhat smaller turnout than for the 2013 GHG solicitation. Figure 2 displays the distribution of those registrants or attendees by industry type.

Figure 2.



Most attendees of the outreach session represented firms that trade, market, or broker offset credits. Arroyo believes more or different outreach would be necessary to bring more direct project developers and operators into PG&E’s orbit. For example, PG&E could further research project developers that have already generated offsets under voluntary programs and could yet convert them to ARB-issued offsets. Or PG&E could research project developers that coordinate ODS destruction projects and seek to contact them.

In future GHG solicitations, Arroyo would encourage PG&E to issue a formal news release to increase public exposure to news of an RFO, and to further research and pursue

⁴ Megawatt Daily, “PG&E Seeks Offset Credits for Cap-And-Trade,” March 21, 2014.

other means of publicizing its RFO among trade associations, the trade press, and sellers of voluntary credits for potential participants rather than relying primarily on a broad salvo of e-mails to a very large contact list not specifically focused on the greenhouse gas compliance instrument community. Arroyo's opinion is that PG&E's outreach to the community of potential Participants for this GHG solicitation was entirely adequate but, with some diligence and creativity, could be improved even further for future RFOs.

C. ROBUSTNESS OF THE SOLICITATION

PG&E did not state in its public protocol any quantitative target for the volume of compliance instruments it sought to procure through this solicitation. The California Air Resource Board's regulations set a limit for entities subject to the cap-and-trade regulations to meet only up to 8% of their compliance obligation through offset credits. [REDACTED]

[REDACTED]
[REDACTED]⁵ [REDACTED]
[REDACTED]
[REDACTED]

The market's response to the solicitation was robust. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]⁶ This voluminous response seemed to offer an opportunity for PG&E to meet its volume target by shortlisting and contracting for the lowest-priced proposals. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Arroyo speculates that this robust turnout, compared to the weak response to PG&E's 2013 offset credit RFO, reflects advances in the last year in the ARB's cap-and-trade program as the agency makes progress in clarifying regulations and certifying credits, and as the market for these instruments continues to develop.

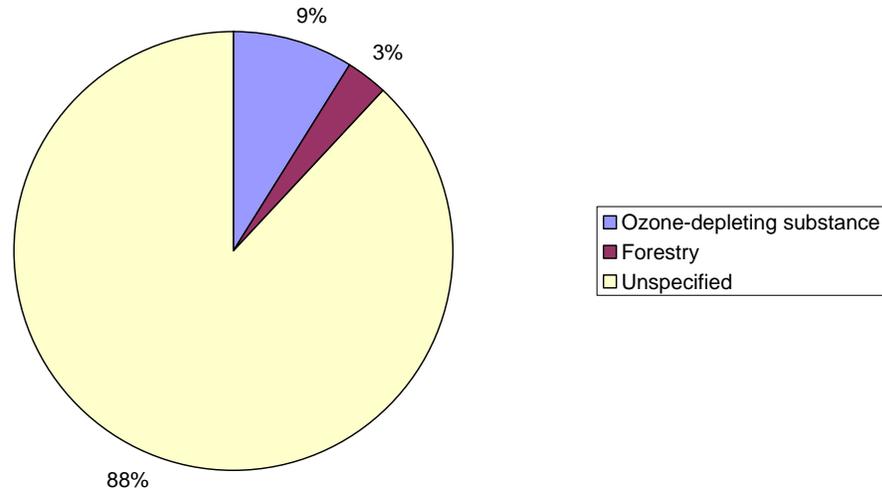
Figure 3 breaks out the volume of Offers by the protocol type or source. One difference in PG&E's design of the 2014 solicitation compared to prior years is that Participants with investment-grade credit were allowed to propose the sale of offset credits without identifying the specific project from which they originate, as long as the project and the credits satisfy the requirements of the cap-and-trade regulations and the protocol. Most of the trading desks participating in the RFO submitted Offers without identifying the origin of the offset credits or the protocol under which they would be certified.

⁵ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁶ [REDACTED]
[REDACTED]

Figure 3.

Breakout of Offer volume by protocol



D. SEEKING ADEQUATE FEEDBACK FROM ALL PARTICIPANTS

PG&E circulated a survey in June 2014 to solicit feedback about its offset credit RFO, contacting substantially all the individuals on its RFO contact list. [REDACTED]

[REDACTED] Observations included:

- Collateral requirements for the RFO pose a deterrent to participation; required postings tend to restrict participation by smaller firms and worsen the economics of selling to PG&E. Mark-to-market postings prior to delivery create a concern about uncertain requirements.
- PG&E’s position on the use of invalidation insurance to back Offers was confusing; in the question-and-answer session in the outreach session the utility indicated that “insurance products may be offered to meet some credit requirements” but such Offers would be deemed to be non-conforming.
- PG&E’s decision to alter the preferred delivery date for offset credit (from prior to December 15, 2015 to prior to December 15, 2014) by revising the solicitation protocol eleven days prior to the offer due-date was “frustrating”.
- At this early point in the development of the California offset credit market some potential participants do not have sufficient credits in place to propose Offers. Also, the offset credit market is sufficiently opaque that it is difficult to get a sense of what indicative pricing would be appropriate.

4. PG&E'S OFFER EVALUATION METHODOLOGY AND ITS STRENGTHS AND WEAKNESSES

This section describes PG&E's evaluation methodology for selecting Offers, and appraises its fairness to ratepayers and Participants.

A. PG&E'S METHODOLOGY

PG&E's public solicitation protocol for the GHG offset credit RFO stated four primary evaluation criteria for assessing Offers; each had a non-public protocol detailing how Offers would be evaluated. Also, the public protocol stated two preferences of PG&E's that could influence selection and two secondary criteria that would not necessarily be employed.

Market Valuation. The protocol calls for an estimate of net market value based on the discounted difference between Offer price and value, with the latter based on PG&E's internal forward curve [REDACTED]

[REDACTED]

Offers are ranked by net present market value in \$/mtCO₂e for evaluation. [REDACTED]

[REDACTED]

Credit. This criterion was intended to assess a Participant's ability to meet its financial obligations and to comply with collateral requirements. Participants were required to submit a variety of financial data to PG&E, including financial statements, credit ratings, banking contacts, and where relevant for new projects, project financing plans, letters of commitment, and project financing experience. PG&E's credit group assessed the credit quality of the Participant, similar to how it evaluates counterparties for other transactions.

[REDACTED]

The evaluation also takes into account the risk of excess credit concentration with any single counterparty. [REDACTED]

Portfolio Fit. Under the ARB regulations, an entity can meet no more than 8% of its compliance obligation with offset credits. CPUC Decision 12-04-046 orders the investor-owned utilities to purchase no more than 8% of their compliance requirement in the form of offsets. [REDACTED]

[REDACTED]

Adherence to Agreement Terms and Conditions. The Offer documents included form contracts for a master offset credit purchase agreement and a confirmation agreement. Participants were allowed to modify the form agreements to reflect what terms and conditions they would accept. PG&E requested that these changes be limited to what was necessary to reflect the unique nature of any Offer. Participants were warned that significant modifications to the form agreements could lead to a failure to achieve executed contracts or a failure for PG&E to file the contracts for CPUC approval. Offers were evaluated by members of PG&E's legal and commercial teams [REDACTED]

[REDACTED]

Preferences. In its public protocol, PG&E expressed a preference for offset credits from existing projects for vintage years of 2005 through 2014, though it would consider Offers for vintages through 2017. Also, in the original version of the solicitation protocol issued on March 19, 2014, a preference for delivery by December 15, 2015 was stated, in the case of offset credits yet to be issued by the ARB. The protocol was edited on April 10, eleven days prior to the offer due-date, to express a preference for delivery by December 15, 2014 instead. [REDACTED]

[REDACTED]

In prior years PG&E expressed a preference for offset credits with a shortened invalidation period of three years (by obtaining a second verification and ARB approval) over those with an invalidation period of eight years. In its 2014 GHG RFO, PG&E now requires the seller to obtain a shortened validation period of three years by a date certain to be specified in the agreement.

Project Assessment. In the case of Offers submitted by sellers that are not rated as investment grade credits, the offer package would include detailed information about the

specific projects that created or will create the offset credits offered. The information would be reviewed to assess the status of ARB certification of the credits, the risk of invalidation of the credits, and the risk of failure to deliver the credits. [REDACTED]

Supplier Diversity. PG&E required a version of its standard Supplier Diversity Questionnaire; this includes queries about goals, internal processes, certification status, and subcontracting programs aimed toward furthering procurement from Women-, Minority-, and Disabled Veteran-Owned Business Enterprises. The questionnaire is used in PG&E's other competitive RFOs, and is scored by PG&E's supplier diversity team. This criterion is intended to help PG&E understand how Offer selection could support the utility's enterprise-wide supplier diversity goals. [REDACTED] The public protocol indicates that PG&E may use supplier diversity as a tie-breaker to give a preference to CPUC-certified suppliers.

Evaluation process. PG&E established a non-public protocol for its evaluation process; this prescribed [REDACTED]

Next, the Offers would be scored for credit, with an assessment of whether the seller is investment grade or not; Offers from sellers with credit less than investment grade would need to submit project-specific information, which would be assessed. Then Offers would be evaluated against each of the other evaluation criteria as required.

B. STRENGTHS AND WEAKNESSES OF PG&E'S METHODOLOGY

Because this was PG&E's third effort to procure GHG compliance instruments through a competitive solicitation, the approach to evaluating proposals is a further refinement of the process employed in the 2013 solicitation.

PG&E's approaches to evaluate credit quality, modifications to form agreements, and supplier diversity resemble those that PG&E uses to evaluate proposals and sellers in other RFOs. Using these time-tested protocols is a strength of the solicitation and is consistent with PG&E's practices in other activities than procuring GHG compliance instruments.

Other strengths of PG&E's approach to evaluating Offers include:

- The methodology is technology-neutral; there are no internal biases that, for example, favor offset credits from urban forestry projects over those from ODS-destruction projects. The project assessment, if required, relies on assessing

technology-independent attributes such project development experience and operational experience and not on technology-specific attributes.

- The approach generally evaluates differently sized Offers and Offers of offsets from projects with different on-line dates consistently.⁷
- Evaluations are based primarily on information submitted in Offers. A possible exception might be credit evaluation; PG&E has access to information about counterparties in prior transactions and to credit rating agency reports. Another use of external information is research that PG&E may need to perform to assess the environmental performance of a project, such as the occurrence of permit violations or verification of a project's participation in a climate registry. Arroyo does not view the use of these external sources as introducing a serious risk of unfair treatment to the process as opposed to improving the quality of decisions.

One challenge of evaluating proposals to sell California offset credits is the context of valuation. While there is now a decent set of data sources for pricing California allowances, including brokers and exchange trading data, the market for offset credits is still emerging. Trades are not executed with sufficient frequency to assure that price signals are fully liquid at any point in time. Daily broker quotes are available for offset credits, but price data on actual transactions are lacking and the contractual attributes of those contracts, including protections against invalidation, are unknown outside of the sellers, buyers, and brokers.

Arroyo's sense is that these challenges to constructing forward curves are partly due to the immaturity and relative illiquidity of the market for California carbon compliance instruments. Arroyo does not expect a California-only market for allowances or offset credits to achieve the degree of liquidity seen in power and gas markets. The bid-ask spread in this less-than-fully-liquid market is rather wide. Also, the forward curves for compliance instruments may be so volatile and easily moved by market news that it will be hard to know in advance whether Offer selection will in hindsight look prudent or rash after a few months.

These issues are more concerns about how best to procure compliance instruments in this market than weaknesses of PG&E's specific methodology for evaluating market value. It seems likely that any utility attempting to make prudent procurement decisions in the California GHG compliance instrument market would have to deal with such challenges regardless of the design of the evaluation methodology.

Arroyo's opinion is that PG&E's approach to market valuation is improved from that employed in its 2013 GHG solicitation.

⁷ The methodology includes a review of counterparty concentration that may tend to reject very large purchases from a single seller; PGE's preferences tend to disadvantage Offers of future vintages.

One possible weakness is that the procurement target for the solicitation was not publicly disclosed to potential Participants. The public solicitation protocol and other materials did not state a volume target for the RFO. [REDACTED]

[REDACTED] This is not consistent with one of the principles for fairness of methodology suggested by the regulator in its IE template for RPS procurement, of clearly stating the target, objectives, and preferences of the RFO. Furthermore, the absence of a public target was previously cited by a non-participant as a disincentive to making an Offer to the RFO, perceiving that PG&E did not provide concrete evidence that it actually intended to buy offset credits through the RFO in volume, making it harder to justify the effort required for a seller to prepare an Offer. Arroyo does not consider this to be a serious flaw in the solicitation; the most knowledgeable market participants should have a general sense of what PG&E's needs are.

Another minor weakness of the 2014 GHG RFO was PG&E's decision to alter its publicly stated preference for delivery dates of offset credits, a change made less than two weeks prior to the day Offers were due. This may have limited the time Participants had to optimize their proposals. Given that the change was made public to all potential Participants and was made more than a week prior to the due-date, Arroyo does not regard this as a fatal flaw, but it deviates from best practices for conducting a competitive solicitation.

A related minor weakness was [REDACTED]

[REDACTED]

In this year's solicitation PG&E decided to drop the use of project viability as a primary criterion for evaluating the likelihood that offset credits will be delivered as contracted. This choice has pros and cons. The evaluation process is streamlined and can be conducted in a few business days, which helps alleviate the concerns of sellers that PG&E is too slow to move from Offer to contract execution, letting offer prices become stale over time.

The trade-off is that for offset credits offered by investment-grade sellers PG&E now relies on the strength of its contract terms governing default and damages to ensure that ratepayers are kept whole in the event a project or a seller fails to provide offset credits as proposed, instead of on a review of the viability of the project that produced or will produce the credits. Indeed, investment-grade sellers need not reveal where the offset credits originated, but only need to stand behind the credits in the sales agreement as a company. PG&E is comfortable treating these offset credits as a commodity product with anonymous origins as long as the seller demonstrates the credit quality to replace them or pay for damages if delivery fails. Also, some observers perceive a sense that the evaluation process may appear to be biased against small sellers lacking credit strength, who must prepare much more detailed information in their offer packages than large and creditworthy corporations.

5. FAIRNESS OF PG&E'S BIDDING AND SELECTION PROCESS

This section provides a narrative of how PG&E administered its evaluation and selection process and selected a short list for its 2014 GHG offset credit RFO. Arroyo's opinion is that the process was fair to ratepayers and competitors.

A. NARRATIVE OF EVALUATION AND SELECTION PROCESS

PG&E received [REDACTED] submitted timely before the deadline of 1 p.m. on April 21, 2014. [REDACTED]:

- [REDACTED];

- [REDACTED]

Upon review, PG&E concluded that [REDACTED] did not conform to the requirements of the solicitation protocol. [REDACTED] Arroyo agreed with this judgment and with the decision to exclude these non-conforming Offers from evaluation.

B. PG&E'S EVALUATION OF OFFERS AGAINST CRITERIA

PG&E's process for evaluating these Offers was straightforward and, overall, followed the procedures described at a high level in the public solicitation protocol.

Market Valuation. The utility's forward curve [REDACTED] was locked in for use in valuation based on market prices on April 21, 2014, the day Offers were due. [REDACTED]

[REDACTED]

Credit. [REDACTED] were judged by PG&E to have passed the screen for credit performance and [REDACTED]

[REDACTED]

Portfolio Fit. The evaluation team selected a short list that met the protocol's constraints on selecting Offers for offset credits. [REDACTED]

⁸ In its 2014 GHG RFO, PG&E allowed Participants to propose pricing as a percent discount to the public traded price of ARB-issued allowances with comparable delivery date, to be converted to a fixed-price contract at execution based on market conditions then, rather than on conditions at the offer due-date. [REDACTED]

[REDACTED]

Adherence to Agreement Terms and Conditions. PG&E scored offer packages for modifications to its form agreements [REDACTED]

[REDACTED]

None of these proposed modifications was deemed to be sufficiently disadvantageous to ratepayers to cause PG&E to reject an Offer before the start of negotiations. The PG&E team anticipated the potential opportunity to negotiate acceptable terms and conditions after shortlisting.

Supplier Diversity. PG&E's applied its standard approach (used in other solicitations) to score the supplier diversity questionnaires submitted in the offer packages. [REDACTED]

[REDACTED]

Project Assessment. The evaluation team scored conforming Offers from Participants with non-investment grade credit for risks. [REDACTED]

[REDACTED]

Preferences. The offset credits offered were for vintage years of [REDACTED]

[REDACTED]

With the exception of the [REDACTED], the shortlisted proposals met PG&E's other publicly stated preference for deliveries by December 15, 2014. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Overall, the timing of deliveries of shortlisted Offers matched the preferences in PG&E's non-public portfolio fit protocol.

Short list decision. PG&E selected the highest-valued Offers that met its publicly stated preferences for vintage and delivery date, [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

C. FAIRNESS OF BIDDING AND EVALUATION PROCESS

Overall, Arroyo concludes that the bidding and evaluation process used in PG&E's 2014 GHG offset credit RFO to select a short list was conducted fairly.

- Proposals were handled the same regardless of the seller's identity. PG&E has had prior business relationships with some sellers and not others, but Arroyo saw no difference in how PG&E applied its evaluation and selection methodology.
- PG&E posted on its public website the questions and answers about the RFO from its in-person outreach session. The audio portion of the webinar presentation was also posted. This helped to ensure that information about the RFO was made available to all potential Participants on an equal footing.
- While there were several communications with Participants prior to the shortlisting decision, these focused on clarifying how the process would work and how to fill in fields in the offer form. Arroyo did not observe PG&E signaling Participants in a way that advantaged any one seller over others.
- Applying quantitative criteria such as market valuation, scoring of supplier diversity, and the review of credit, were handled in a consistent manner across Offers.
- PG&E used the primary evaluation criteria and its publicly stated preferences regarding delivery date to select Offers for its short list. It also used a secondary criterion, project assessment, to refine the short list. All of these criteria and the preference were clearly spelled out in the public solicitation protocol.

Arroyo's opinion is that, overall, PG&E handled the bidding and selection process in this RFO in a manner that was fair to ratepayers and to competitors.

6. FAIRNESS OF CONTRACT-SPECIFIC NEGOTIATIONS

This chapter provides an independent review of the extent to which PG&E's negotiations [REDACTED] were conducted fairly with respect to competitors and to ratepayers.

PG&E notified [REDACTED] that their Offers had been shortlisted in early May 2014.

[REDACTED] withdrew its Offers from the RFO [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] The remaining parties began negotiations by mid-May.

On May 29 the California ARB announced that it was conducting a review of offset credits generated by the Clean Harbors El Dorado incinerator in southern Arkansas during a time period when the facility was not in compliance with the terms of its operating license under the Resource Conservation and Recovery Act (RCRA). The ARB blocked transfers of 26 blocks of such offset credits during the review, including credits produced in the 2011-2013 period. The review is related to a U.S. EPA enforcement action against Clean Harbors El Dorado for RCRA issues, such as improper brine disposal, not directly associated with ODS destruction.⁹ ARB regulations provide the regulator the ability to invalidate offset credits from projects that operated out of compliance with environmental, health, or safety regulations during the reporting period the offsets were produced. ARB also postponed issuance of any new offset credits associated with the Clean Harbors El Dorado facility. In October 2014 the ARB published a preliminary determination that proposed to invalidate about 231 thousand offset credits that had been created at the facility, because of the federal EPA's finding that the facility's storage and handling of concentrated brine violated RCRA regulations.¹⁰

The ARB's actions, which in a sense pose the risk that a substantial portion of the supply of ARB-issued offset credits may be withdrawn from the market, had the unfortunate effect of casting uncertainty on intended transactions between PG&E and the Participants in the 2014 GHG RFO. One Participant characterized the ARB review as "a scare in the market".

⁹ In the IE report for PG&E's 2013 GHG-RFO, Arroyo reported that the Clean Harbors El Dorado incinerator [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

¹⁰ California Air Resource Board, Important Process Information Regarding the Air Resources Board Compliance Offset Investigation Destruction of Ozone Depleting Substances, October 8, 2014.

A news report cited a carbon trader who commented “The market will remain frozen until ARB provides some clarity”¹¹. [REDACTED]

Arroyo observed two negotiation sessions between PG&E and [REDACTED]. Arroyo was also able to review draft contract versions in order to identify specific proposals and counterproposals the parties made in the course of discussions. The starting point for the negotiations was PG&E’s 2014 form confirmation agreement for GHG offset credits.

Arroyo’s opinion is that PG&E’s negotiations [REDACTED] were conducted in a manner that was fair to ratepayers and to competitors.

A. BACKGROUND INFORMATION

[REDACTED]

[REDACTED]

[REDACTED]

¹¹ Reuters News Service, “California Investigating Validity of 4.3 Mln Carbon Offset Credits”, June 4, 2014.

¹² [REDACTED]

The negotiations between PG&E and ClimeCo continued from late May through July 2014 and resulted in a confirmation agreement executed on July 18.

B. NEGOTIATIONS BETWEEN PG&E AND [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]:

- Contract price. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

[REDACTED]
[REDACTED].

- Alternative product. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

- Delivery date. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

[REDACTED]

[REDACTED]

- Supplier diversity. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] 13

- Events of force majeure. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

C. DEGREE OF FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

In Arroyo’s opinion, negotiations between PG&E and [REDACTED] were, overall, conducted fairly. Most of the negotiations focused on pricing and delivery timing; a discussion of the reasonableness of the contract price follows in the next chapter. Arroyo did not observe PG&E providing [REDACTED] any non-public information that advantaged [REDACTED] [REDACTED].

13 [REDACTED]
[REDACTED]

Arroyo does not regard PG&E's decision to [REDACTED]
[REDACTED] as unfair, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Arroyo does not consider PG&E's choice to excuse [REDACTED]
[REDACTED] to be materially unfair to ratepayers or other
sellers. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Overall, Arroyo regards the concessions provided by PG&E [REDACTED] as reasonable given the circumstances [REDACTED]. Arroyo does not believe that competitors were harmed by PG&E granting these concessions. On that basis Arroyo's opinion is that the negotiations between the parties were, overall, handled fairly.

7. MERIT FOR CPUC APPROVAL

This chapter provides an independent opinion on whether PG&E's [REDACTED] merits approval by the CPUC. It also addresses other required topics identified in the Energy Division's short-form template for Independent Evaluators to use in preparing reports on non-RPS procurement.

A. AFFILIATE AND UOG ISSUES

None of the Participants in the GHG offset credit solicitation were affiliates of PG&E, nor did the RFO seek the construction of utility-owned generation or other projects.

B. BEST OFFERS RECEIVED

PG&E selected the highest-valued proposals for its short list that met its stated preference for delivery of offset credits by December 15, 2014. It also selected the highest-valued proposals [REDACTED]. In that sense, these were the best overall Offers received by PG&E. [REDACTED]

[REDACTED] Arroyo believes that the short list represents the best Offers received in the context of the least-cost, best-fit framework that PG&E designed for this solicitation.

C. SOLICITED PRODUCTS

The shortlisted Offers directly reflect proposals to sell ARB-issued offset credits as solicited by PG&E.

D. REASONABLE WAY TO MEET NEED

The need identified in PG&E's solicitation protocol is to satisfy PG&E's compliance obligations under cap-and-trade regulations adopted by the California ARB. The obligations can be satisfied using either eligible ARB-issued GHG allowances or offset credits. The shortlisted Offers are for offset credits, and are priced below contemporaneous market indications of pricing for ARB-issued allowances. In Arroyo's opinion, the project viability of the offset credits is moderate. Arroyo's opinion, described below, is that the pricing of the contract is within the range of market indications of pricing for roughly comparable instruments at or around contract execution. On that basis, Arroyo concludes [REDACTED] a reasonable way to meet PG&E's identified GHG compliance need.

E. MERIT FOR CPUC APPROVAL

This section reports on the IE’s view of attributes of the offset credit agreement.

Fairness. In Arroyo’s opinion PG&E’s methodology for evaluating and selecting Offers and its process of implementing that methodology were, overall, designed and handled fairly.

Pricing and market value. [REDACTED]

[REDACTED]

[REDACTED]¹⁴ One market observer reported that after the ARB announced its review of the Clean Harbors El Dorado facility the pricing of Golden CCOs rose and that of CCOs with eight-year invalidation periods fell¹⁵; this likely represents the market perception of increased invalidation risk, leading to buyers attributing more value to offset credits in which the seller accepts the risk and sellers seeking a higher price to compensate for the potential costs of that risk.

[REDACTED]

On that basis Arroyo’s opinion is that PG&E is procuring these offset credits at a fair market price. Price discovery in this market is illiquid and opaque, but the data available seem to support an opinion that the pricing is reasonable. The price of these offset credits was clearly below the market price of ARB-issued allowances of comparable delivery date at the time the contract was executed.

Project viability. Arroyo’s opinion is that the risk level posed by the offset credits is moderate. [REDACTED]

[REDACTED]

¹⁴ CaliforniaCarbon.info, Cap-and-Trade Market Report, July 25, 2014.

¹⁵ CaliforniaCarbon.info, Thinking Outside the Cap, June 24, 2014.

Summary. [REDACTED] struck at prices within the range of market forward prices available for roughly comparable instruments on the date of contract execution. Arroyo ranks the offset credits as moderate in project viability. The contract meets PG&E's criterion for portfolio fit. Although PG&E provided [REDACTED] [REDACTED] concessions, in Arroyo's opinion the negotiations were, overall, conducted fairly with respect to ratepayers and competitors. On that basis Arroyo's opinion is that [REDACTED] [REDACTED] merits CPUC approval.

Attachment 3
Confidentiality Declarations and Matrix

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

**DECLARATION OF MARIANNE AIKAWA
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND
INFORMATION CONTAINED IN PG&E'S ADVICE LETTER 4522-E REGARDING
CONFIDENTIAL ATTACHMENTS A, B, C, E, H, J, L, AND M**

I, Marianne Aikawa, declare:

1. I am presently employed by Pacific Gas and Electric Company ("PG&E"), and have been an employee at PG&E since 1989. My current title is Senior Manager within PG&E's Energy Procurement organization. In this position my responsibilities include reviewing regulatory reports. In carrying out these responsibilities, I have acquired knowledge of PG&E's regulatory reporting and have also gained knowledge of electric energy procurement data, processes, and practices. Through this experience, I have become familiar with the type of information that would affect the regulatory filing, as well as with the type of information that would be considered 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 PG&E's October 30, 2014 Advice Letter 4522-E, Confidential Attachments A, B, C, E, H, J, L, and M. By this Application, PG&E is seeking the Commission's approval of Quarter Three, 2014 Procurement Transaction Quarterly Compliance Report, submitted by PG&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 the particular type of data and information listed in Appendix I of D.06-06-

066 and Appendix 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, 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; (2) the information is not already public and/or cannot be reasonably redacted; 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 submittal.

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

Executed on October 30, 2014, at San Francisco, California.

_____/s/_____
Marianne Aikawa
Senior Manager
Energy Compliance and Reporting
Energy Procurement
PACIFIC GAS AND ELECTRIC COMPANY

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

**DECLARATION OF PETE KOSZALKA
SEEKING CONFIDENTIAL TREATMENT OF FOR CERTAIN DATA AND
INFORMATION CONTAINED IN PG&E'S ADVICE LETTER 4522-E REGARDING
CONFIDENTIAL ATTACHMENTS A, B, D, J, L, and M**

I, Pete Koszalka, declare:

1. I am presently employed by Pacific Gas and Electric Company (PG&E) and have been an employee since 2003. My current title is Director, Electric Gas Supply in the Energy Supply Management Department, which is part of the Energy Procurement Department. I am responsible for physical and financial trading of gas in support of PG&E's allocated Department of Water Resources contracts, PG&E's Utility Retained Generation plants, and PG&E's tolling agreements. In carrying out these responsibilities, I have acquired knowledge of gas supply and gas hedging for electric generation, the markets for physical and financial products for gas supply and hedging, and the various types of transactions involved.
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 PG&E's October 30, 2014 Advice Letter 4522-E, Confidential Attachments A, B, D, J, L, and M. By this Application, PG&E is seeking the Commission's approval of Quarter Three, 2014 Procurement Transaction Quarterly Compliance Report, submitted by PG&E.
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066 and Appendix 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, 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; (2) the information is not already public and/or cannot be reasonably redacted; 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 submittal.

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

Executed on October 30, 2014, at San Francisco, California.

_____/s/
Pete Koszalka
Director, Electric Gas Supply
Energy Supply Management
PACIFIC GAS AND ELECTRIC COMPANY

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

**DECLARATION OF JAY BUKOWSKI
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND
INFORMATION CONTAINED IN PG&E'S ADVICE LETTER 4522-E REGARDING
CONFIDENTIAL ATTACHMENTS F, G, AND K**

I, Jay Bukowski, declare:

1. I am presently employed by Pacific Gas and Electric Company ("PG&E"), and have been an employee at PG&E since October 1998. My current title is Principal within PG&E's Energy Procurement organization. In this position, my responsibilities include review of regulatory reports and managing PG&E's Procurement Review Group and Independent Evaluator program. In carrying out these responsibilities, I have acquired knowledge of PG&E's regulatory reporting and have also gained knowledge of electric energy procurement data, processes, and practices. Through this experience, I have become familiar with the type of information that would affect the regulatory filing, as well as with the type of information that would be considered 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 PG&E's October 30, 2014 Advice Letter 4522-E, Confidential Attachments F, G, and K. By this Application, PG&E is seeking the Commission's approval of Quarter Three, 2014 Procurement Transaction Quarterly Compliance Report, submitted by PG&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 the particular type of data and information listed in Appendix I of D.06-06-066 and Appendix 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, 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; (2) the information is not already public and/or cannot be reasonably redacted; 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 submittal.

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

Executed on October 30, 2014, at San Francisco, California.

_____/s/_____
Jay Bukowski
Principal
Energy Compliance and Reporting
Energy Procurement
PACIFIC GAS AND ELECTRIC COMPANY

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
 QUARTERLY COMPLIANCE REPORT ADVICE LETTER 4522-E
 PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF QUARTER THREE 2014
 October 30, 2014**

IDENTIFICATION OF CONFIDENTIAL INFORMATION

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 (Y/N)	2) Which category or categories in the Matrix the data corresponds 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
Document:							
Attachment A – Physical and Financial Electric Transactions	Y	Item XIII) Energy Division Monthly Data Request (AB 57) XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)	Y	N	Y	This information reveals actual electric quantities and cost, as well as procurement cost categorized by transaction type, which is provided to Energy Division and is confidential for three years.	3 Years
Attachment A – Physical and Financial Natural Gas Transactions	Y	Item I)B) 2) Utility recorded gas procurement and cost information XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings) Item I) A) 4) Long-term fuel (gas) buying	Y	N	Y	Actual quantity and cost of procured physical spot gas are protected. Each financial transaction is a factor in PG&E's long term buying and hedging strategies. With the entire set of transactions PG&E's counterparties could reconstruct PG&E's gas buying and hedging plans.	Utility recorded physical gas procurement and cost information is confidential for one year. Monthly procurement costs (ERRA Filings) are confidential for 3 years. Financial

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
 QUARTERLY COMPLIANCE REPORT ADVICE LETTER 4522-E
 PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF QUARTER THREE 2014
 October 30, 2014**

IDENTIFICATION OF CONFIDENTIAL INFORMATION

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 (Y/N)	2) Which category or categories in the Matrix the data corresponds 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
		and hedging plans					transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
Attachment B – Counterparty Information, including non-investment grade counterparties table: “List of Non-Investment Grade Counterparties”	N	CPUC General Order (“G.O.”) 66-C	N/A	N	Y	Counterparty sales information constitutes confidential business information protected under G.O. 66-C.	Indefinite
Attachment C - Electric Transactions	Y	Item XIII) Energy Division Monthly Data Request (AB 57)	Y	N	Y	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be	3 Years

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 October 30, 2014**

IDENTIFICATION OF CONFIDENTIAL INFORMATION

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		XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)				protected to preserve the confidentiality of ERRA documentation. This information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	
Attachment D – Natural Gas Transactions	Y	Item I) B) 2) Utility recorded gas procurement and cost information Item I) A) 4) Long-term fuel (gas) buying and hedging plans	Y	N	Y	Actual quantity and cost of procured physical term gas are protected. PG&E's hedging strategies may be deduced through an analysis of PG&E's summarized transactions.	Utility recorded physical gas procurement and cost information is confidential for one year. Financial transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-

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							4276, Finding 8)
Attachment E – Other Transactions (Except Greenhouse Gas (“GHG”) Information, which is presented separately below)	Y	VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties; Items VIII) A) Bid Information and VIII) B) Specific quantitative analysis involved in scoring and evaluation of participating bids	Y	N	Y	This information includes confidential contract information for contracts between PG&E and non-affiliated third parties. This information also includes information related to PG&E's ITRFO, of which the participating bids, counter-party names, prices and quantities offered are confidential, and Convergence Bidding.	3 Years
Attachment E – Other Transactions- GHG Information	N	G.O. 66-C	N/A	N	Y	This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations. This information also includes confidential business information	Indefinite

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						protected under G.O. 66-C.	
Attachment F – PRG Material	Y	D.06-06-066 and Public Utilities Code Section 454.5(g) G.O. 66-C	Y	Y	Y	Presentations to the PRG include a variety of confidential market sensitive information, including information about bilateral contracts, pricing information, strategy discussions, recently issued RFO's, etc. The information constitutes confidential business information protected under GO 66-C.	Length of Time for Specific Items identified in D.06-06-066 Matrix or Indefinite
Attachment F – PRG Material- GHG Information	N	G.O. 66-C	N/A	N	Y	Presentations to the PRG include confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations. The information constitutes confidential business information protected under GO 66-C.	Indefinite
Attachment G – Independent Evaluator Reports -	Y	Items VIII) A) Bid Information and VIII) B) Specific quantitative analysis involved in	Y	N	Y	This is the confidential Independent Evaluator Report for the 2014 ITRFO. The redacted portion of this confidential appendix provides the participating bids	Confidential for three years from date contract states deliveries

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ITRFO		scoring and evaluation of participating bids VII) B) Contracts and power purchase agreements between utilities and non-affiliated third parties (except RPS)				in PG&E's 2014 ITRFO, of which the participating bids, counter-party names, prices and quantities offered are confidential. In addition, the redacted portion of this confidential appendix describes in detail the evaluation methodology and criteria used to evaluate and rank bids in PG&E's 2014 ITRFO. This information is confidential under Item VIII.B of the D.06-06-066 Appendix 1 matrix for 3 years after the winning bidders are selected. It also describes the terms and conditions of the Pittsburg Transaction, which are confidential under Item VII.B of the D.06-06-066 Appendix 1 matrix for 3 years from date contract states deliveries are to begin; or until one year following expiration, whichever comes first.	to begin; or until one year following expiration, whichever comes first.
Attachment G – GHG Offset Credit RFO	N	G.O. 66-C	N/A	N	Y	The information constitutes confidential business information protected under	Indefinite

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						G.O. 66-C.	
Attachment H - Executed Contracts	Y	VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids Item D)B) 2) Utility recorded gas procurement and cost information	Y	N	Y	Disclosure of information would provide counterparty name, volume, and price and would provide market sensitive information regarding bid strategy and selection.	3 Years; Bid information - remain confidential until after final contracts submitted to CPUC for approval Utility recorded physical gas procurement and cost information is confidential for one year.
Attachment H – GHG Contracts	N	G.O. 66-C	N/A	N	Y	The information constitutes confidential	Indefinite

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Executed						business information protected under G.O. 66-C.	
Attachment J – System Conditions	Y	Item VI) E) and F) Utility Planning Area Net Open for Energy and Capacity (Electric) G.O. 66-C	Y	N	Y	Residual net short/long is key input to PG&E's confidential forecast of net open position. The residual net short/long is information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report. This attachment also includes information regarding PG&E's trading strategies. The information constitutes confidential business information protected under G.O. 66-C.	3 Years Indefinite
Attachment J - Gas Transaction, Natural Gas Documents	Y	Item I) A) 3) Gas Demand Forecasts and 4) Long-term fuel (gas) buying and hedging plans	Y	N	Y	This information includes detailed information on PG&E's implementation of its fuel buying and hedging plans and must remain confidential to avoid disclosing PG&E's market strategy.	Physical gas information is confidential for 3 Years; Financial gas information is confidential for three years past expiration of the

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							last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
Attachment K – Risk Management	N	G.O. 66-C	N/A	N	Y	<p>TeVaR and supporting forecasts and analysis are confidential. In addition, the Risk Management Committee attachments address PG&E's energy procurement strategy, price, volumes, and counterparties.</p> <p>The information constitutes confidential business information protected under GO 66-C.</p>	Indefinite
Attachment K – Risk Management- GHG Information	N	G.O. 66-C	N/A	N	Y	<p>This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.</p> <p>This information also includes</p>	Indefinite

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						confidential business information protected under G.O. 66-C.	
Attachment L - Reasonable Number of Analyses - Electric	Y	Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric) Item XIII) Energy Division Monthly Data Request (AB 57) XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings) VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids	Y	N	Y	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve details which would reveal PG&E's position in the market place.	3 Years Bid information - remain confidential until after final contracts submitted to CPUC for approval GHG information - indefinite

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		G.O. 66-C					
Attachment L – Reasonable Number of Analyses – Natural Gas	Y	Item I) A) 4) Long-term fuel (gas) buying and hedging plans	Y	N	Y	This information includes detailed information on PG&E's hedging plan, and must remain confidential to avoid disclosing PG&E's market strategy.	Financial gas information is confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
Attachment L – Reasonable Number of Analyses - GHG	N	G.O. 66-C	N/A	N	Y	This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations. The information constitutes confidential business information protected under G.O. 66-C.	Indefinite
Attachment M – Transactions Subject to	Y	Item I) B) 2) Utility recorded gas procurement and cost	Y	N	Y	Actual quantity and cost of procured physical gas are protected.	Utility recorded physical gas procurement and

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Strong Showing - Physical and Financial Natural Gas Transactions		information Item I) A) 4) Long-term fuel (gas) buying and hedging plans				Each transaction is a factor in PG&E's hedging strategy. With the entire set of transactions PG&E's counterparties could reconstruct PG&E's hedging plan.	cost information is confidential for one year. Financial gas information is confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)

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

AT&T	Douglass & Liddell	Occidental Energy Marketing, Inc.
Alcantar & Kahl LLP	Downey & Brand	OnGrid Solar
Anderson & Poole	Ellison Schneider & Harris LLP	Pacific Gas and Electric Company
BART	G. A. Krause & Assoc.	Praxair
Barkovich & Yap, Inc.	GenOn Energy Inc.	Regulatory & Cogeneration Service, Inc.
Bartle Wells Associates	GenOn Energy, Inc.	SCD Energy Solutions
Braun Blaising McLaughlin, P.C.	Goodin, MacBride, Squeri, Schlotz & Ritchie	SCE
CENERGY POWER	Green Power Institute	SDG&E and SoCalGas
California Cotton Ginners & Growers Assn	Hanna & Morton	SPURR
California Energy Commission	In House Energy	San Francisco Public Utilities Commission
California Public Utilities Commission	International Power Technology	Seattle City Light
California State Association of Counties	Intestate Gas Services, Inc.	Sempra Utilities
Calpine	K&L Gates LLP	SoCalGas
Casner, Steve	Kelly Group	Southern California Edison Company
Center for Biological Diversity	Linde	Spark Energy
City of Palo Alto	Los Angeles County Integrated Waste Management Task Force	Sun Light & Power
City of San Jose	Los Angeles Dept of Water & Power	Sunshine Design
Clean Power	MRW & Associates	Tecogen, Inc.
Coast Economic Consulting	Manatt Phelps Phillips	Tiger Natural Gas, Inc.
Commercial Energy	Marin Energy Authority	TransCanada
Cool Earth Solar, Inc.	McKenna Long & Aldridge LLP	Utility Cost Management
County of Tehama - Department of Public Works	McKenzie & Associates	Utility Power Solutions
Crossborder Energy	Modesto Irrigation District	Utility Specialists
Davis Wright Tremaine LLP	Morgan Stanley	Verizon
Day Carter Murphy	NLine Energy, Inc.	Water and Energy Consulting
Defense Energy Support Center	NRG Solar	Wellhead Electric Company
Dept of General Services	Nexant, Inc.	Western Manufactured Housing Communities Association (WMA)
Division of Ratepayer Advocates	North America Power Partners	