August 6, 2015

Advice Letter 4574-E and 4574-E-A

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

Subject: Q4, 2014 Procurement Transaction Quarterly Compliance Filing and Supplemental

Dear Mr. Jacobson:

Advice Letter 4574-E and 4574-E-A are effective July 19, 2015.

Sincerely,

Edward Randolph
Director, Energy Division
January 30, 2015

Advice 4574-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Procurement Transaction Quarterly Compliance Filing (Q4, 2014)

Pacific Gas and Electric Company (“PG&E”) hereby submits to the California Public Utilities Commission (“Commission” or “CPUC”) its compliance filing for the fourth 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 October 1, 2014 through December 31, 2014, (Q4-2014) 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 Attachment G, Independent Evaluator (“IE”) Reports, issued during the quarter. Attachment 3 includes the public version of Attachment H. The confidential version of this QCR includes the following supporting Confidential Attachments:
Advice 4574-E - 2 - January 30, 2015

Attachment A – Fourth Quarter 2014 Electric and Natural Gas Transactions
Attachment B – Fourth Quarter 2014 Counter-Party Information
Attachment C – Fourth Quarter 2014 Electric Transactions Summary
Attachment D – Fourth Quarter 2014 Natural Gas Transactions Summary
Attachment E – Fourth Quarter 2014 Other Transactions
Attachment F – Fourth Quarter 2014 Key Briefing Packages
Attachment G – Fourth Quarter 2014 Independent Evaluator Reports
Attachment H – Fourth Quarter 2014 New Contracts Executed/Contracts Amended
Attachment I – Summary of Retained Generation Investments Completed During Fourth 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 for the Fourth Quarter

Attachment 4 to this QCR includes a confidentiality declaration 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.

This filing will 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 February 19, 2015, 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:
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 March 1, 2015, 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 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 – Attachment G, IE Reports (Public Version)  
Attachment 3 – Attachment H (Public Version)  
Attachment 4 – Confidentiality Declarations and Matrix
Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 E)**

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<th>Contact Person: Jennifer Wirowek</th>
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**EXPLANATION OF UTILITY TYPE**

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Advice Letter (AL) #: **4574-E**

Subject of AL: **Procurement Transaction Quarterly Compliance Filing (Q4, 2014)**

Keywords (choose from CPUC listing): Compliance, Procurement

AL filing type: ☑ 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: **March 1, 2015**

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
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Public Attachment G: *Independent Evaluator Reports*, provides any relevant Independent Evaluator (IE) report(s) completed during the Quarter redacted to protect confidential information.

Public Attachment H: *New Contracts Executed/Contracts Amended*, provides a summary of all agreements executed and/or amended during the Quarter redacted to protect confidential information.

Summary of Confidential 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.
Summary of Confidential Attachments
(Continued)

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.

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 October 1, 2014 through December 31, 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. **Competitive Solicitations, Approval Through the Quarterly Compliance Report (QCR) –**

2. **Other Competitive Solicitation Activity During the Quarter** (are referenced here for informational purposes only) –
   a. PV Power Purchase Agreement (PPA) RFO (issued October 21, 2014)
   b. 2014 Energy Storage RFO (issued December 1, 2014)

3. **Other Procurement Activities, Approval Through the QCR** – PG&E also seeks approval of the following transactions executed from procurement activities, other than competitive solicitations, through this QCR:
   a. **Electric Transactions:**
      ii. Convergence Bidding
      iii. Bilaterally Negotiated Contracts
      iv. Third Party RFO
v. 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
   v. Market Request for Proposal (RFP)

   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.

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 (PRG) 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).
   • PG&E did not execute any contracts during this Quarter for approval through this QCR.

   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 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 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.

PG&E estimated that a portion of its generation, imports and load in the months of November 2014, December 2014, and January 2015, 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 October 2014, November 2014 and December 2014, PG&E participated in Tier 1, Tier 2 and the Auction of the CAISO monthly CRR process to procure CRRs for November 2014, December 2014 and January 2015, respectively.

PG&E provided information regarding its CRR monthly procurement to the PRG. Starting with the November 2014 monthly CRR report sent to the PRG, PG&E used a new format. The new format is clearer and provides a more detailed explanation of the data. The new format also presents all of the counter flow CRRs awarded by the CAISO to PG&E. In past reports, PG&E netted the counter flows with its CRR nominations or bids to show net awards. PG&E is now showing the gross CRR awards to help ensure the accuracy of the report by allowing PG&E to confirm the totals against the CAISO award files which show gross awards.

One of the three monthly reports (November) had an error. This error had a minor impact on the calculation of the “Past Performance” values. The QCR includes a revised version of the November report with the error corrected. Additional controls were put in place to prevent this error in the future. Confidential Attachment J includes the three monthly reports sent to the PRG and the revised November report.

• **CAISO 2015 Annual CRR Allocation and Auction Process** – PG&E participated in the CAISO’s 2015 annual CRR allocation and auction process and includes information on the following tiers in this QCR:
Long-Term Allocation Tier (results received on October 3, 2014), Tier 2 Allocation (results received on October 16, 2014), Tier 3 Allocation (results received on October 30, 2014), and the Annual Auction (results received on November 14, 2014). Tier 1 allocation results were reported in the third Quarter QCR.

Confidential Attachment J includes the information sent to the PRG regarding PG&E’s proposed nominations for the three annual allocation tiers (Long-Term, Tier 2 and Tier 3) and its proposed annual auction bids. Also included is a report that summarizes the awards for the three allocation tiers and the auction.

- **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, F and J.

- **Bilaterally Negotiated Contracts** – During the Quarter, PG&E executed several Resource Adequacy (RA) bilateral contracts. Relevant information is included in Confidential Attachments A, B, C, E, H and M.

- **Electronic Solicitations** – During the Quarter, PG&E executed one energy contract through an Electronic Solicitation. 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
- Market RFP
**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 the 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 five 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 electronic trading platform. Hedge transactions were 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 FERC (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, 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 – Gas Hedges – 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 exchanges. Relevant information is included in Confidential Attachment A.

- Voice Brokers – Commodity Purchases/Sales – PG&E executed physical gas supply transactions through voice brokers that resulted in bilateral transactions. 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 NGX. The broker market trades the same 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).

- California Gas Transmission (CGT) Market Request for Proposal:
  On October 9, 2014, PG&E’s CGT announced an Open Season for firm pipeline capacity on the Redwood Path. Since CGT offered this capacity only at standard tariff rates, bidders compete by bidding contract term, with longer terms receiving preference. On October 15, 2014, PG&E consulted with its PRG, sharing its plans to participate in CGT’s Pipeline Capacity RFP. PG&E submitted an offer and was awarded
capacity on October 22, 2014. The RFP results are in Confidential Attachment E, F, and H.

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 contracts executed provide PG&E with offset credits at competitive prices. The RFO concluded on December 19, 2014. 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 electric distribution utility (EDU) allocation of Vintage 2015 allowances from CARB in October 2014. All of the EDU allowances will be consigned into the 2015 CARB Auctions as required by the regulations and consistent with PG&E’s BPP. CARB held its ninth allowance auction on November 25, 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. The timing of the PG&E CGT Redwood pipeline capacity was driven by CGT’s open season schedule.

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 Fourth Quarter 2014**

PG&E received 121 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 during the Quarter. On September 28, 2014, a planned outage began on Helms Units 1, 2 & 3 for tunnel work and the Unit 2 rotor replacement. Unit 3 was returned on December 3, 2014, and Unit 1 was returned on December 6, 2014, following the tunnel outage while Unit 2 remained out the entire quarter and is scheduled to return 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), Cresta Units 1 & 2 (35 MW each), Electra Units 2 & 3 (31 MW and 36 MW), Hass Units 1 & 2 (72 MW, each), JB Black Units 1 & 2 (86 MW, each), Kerckhoff 2 Unit 1 (155 MW), Pit 1 Unit 1 & 2 (30 MW, each), Pit 5 Units 1, 2 3 & 4 (40 MW, each), Pit 6 Units 1 & 2 (40 MW, each), Pit 7 Units 1 & 2 (56 MW, each), Poe Units 1 & 2 (60 MW, each), Rock Creek Units 1 & 2 (56 MW and 63 MW), and Stanislaus (91 MW).

Forced outages lasting longer than 24 hours at conventional hydro facilities greater than 30 MW were incurred at: Balch 1 Unit 1 (34 MW), Belden (125 MW), Bucks Creek Units 1 & 2 (33 MW and 32 MW), Caribou 1 Unit 3 (25 MW), Caribou 2 Unit 4 (60 MW), Cresta Unit 1 (35 MW), Pit 3 Unit 2 (23.3 MW), and Salt Springs Units 1 & 2 (11 MW and 33 MW).
There was one planned outage at the fossil combined cycle facilities during the Quarter at Gateway Generating Station beginning November 16, 2014, lasting for four days. There were no forced outages greater than 24 hours at the fossil combined cycle facilities, Gateway and Colusa Generating Stations. There was one planned outage ending this quarter at Humboldt Bay Generating Station Unit 10. This outage, an 18,000-hour engine overhaul, began on September 8, 2014, and returned to service on October 29, 2014. There were no forced outages greater than 24 hours at Humboldt Bay Generating Station during the quarter.

c) 2014 Fourth Quarter DCPP Generation-Impacting Operational Events

i. DCPP Unit 1

On December 5, 2014, Unit 1 performed a 1.3-day planned manual outage to replace polymer lightning arrestors with ceramic lightning arrestors in the Main Bank Transformer area to help reduce potential electrical flashovers during wet atmospheric conditions. Also, as planned during that outage, ocean cooling water tunnel cleaning was performed, completing on December 9, 2014, while operating at 52% power following completion of that outage. On December 18, 2014, Unit 1 manually reduced to 92% power for a period of 12.6 days while developing plans to repair leaking tubes inside a feedwater heater located on the Secondary (non-nuclear) side of plant operation. On December 31, 2014, Unit 1 performed a planned manual outage to repair the feedwater heater tube leak, as well as repair a cracked weld on a Residual Heat Removal valve inside the Reactor Containment structure.

ii. DCPP Unit 2

On October 5, 2104, Unit 2 commenced its 2R18 (eighteenth) refueling outage, completing as planned in 32.4 days on November 6, 2014. Unit 2’s polymer lightning arrestors were replaced with ceramic lightning arrestors during the 2R18 refueling outage.
For two weeks during October 2014, Diablo Canyon Power Plant experienced unusually warm ocean cooling water temperatures in the high 60’s, the highest seawater temperatures in the plant’s 29-year operating history. The high water temperature impacted (reduced) Unit 1 power generation output (Unit 2 was off-line for its 2R18 refueling outage).

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 not execute contracts that qualify as CAM resources.
Attachment 2

Attachment G, Independent Evaluator (IE) Reports (Public Version)
PACIFIC GAS AND ELECTRIC COMPANY
2014 GREENHOUSE GAS OFFSET CREDIT REQUEST FOR OFFERS

REPORT OF THE INDEPENDENT EVALUATOR ON CONTRACTS FOR GREENHOUSE GAS OFFSET CREDITS

JANUARY 13, 2015
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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 executed offset credit 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 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 contracts for deliveries of GHG offset credits from [redacted]. Arroyo’s opinion is that the negotiations were, overall, conducted in a manner that was fair to ratepayers and to competing sellers, and that the contracts rank as indeterminate for project viability. Arroyo believes that the contracts’ prices fall 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 contracts merit 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 than 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 has 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.

• 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”, 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.

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

PG&E received This was a robust response to the solicitation.

A. CLARITY AND CONCISER 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
list that could reasonably yield sellers of GHG offset credits was made up of wholesale marketers, traders, and brokers; of these, only some are active in marketing ARB-issued offset credits. A number of dairies were contacted as well, but it appears that few dairy operators are positioned to sell offset credits directly to a utility.

The universe of owners of forestry lands on which carbon sequestration projects could be undertaken is fairly fragmented, and it would be challenging to identify which commercial forests (or acreage owned by non-profit organizations such as land trusts) have the potential to start such projects or have started such projects, unless they have already begun marketing credits in voluntary markets.

Figure 1.

![Composition of RFO contact list](image)

Very few of the contacts are associated with ODS destruction activities. One would be hard-pressed to identify how best to obtain contact lists for commercial entities that gather and process used refrigerants without more investment in researching this niche business. However, it appears that a very few U.S. incinerators account for all of the offset credits that the ARB has issued under the ODS protocol; one of those operators is on the list.

In addition to soliciting responses by direct e-mails to the contact list, PG&E posted information about the GHG RFO on its public web site, including the solicitation protocol and its appendices, the presentation and questions and answers from the outreach session, the presentation, audio recording, and questions and answers from the Participants’ webinar, and information about the ARB cap-and-trade program.
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 March. 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

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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.

The market’s response to the solicitation was robust. 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.

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.
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. 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.
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. Offers are ranked by net present market value in $/mtCO₂ for evaluation.

**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.
evaluation also takes into account the risk of excess credit concentration with any single counterparty. 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. 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. 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. 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.

**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.

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

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.\(^7\)

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\(^7\) The methodology includes a review of counterparty concentration that may tend to reject very large purchases from a single seller; PG&E’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. 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

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 numerous proposals submitted timely before the deadline of 1 p.m. on April 21, 2014.
Upon review, PG&E concluded that did not conform to the requirements of the solicitation protocol. 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 was locked in for use in valuation based on market prices on April 21, 2014, the day Offers were due. were judged by PG&E to have passed the screen for credit performance and were judged by PG&E to have passed the screen for credit.

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

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

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.

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

Preferences. The offset credits offered were for vintage years of
Overall, the exception of the shortlisted proposals met PG&E’s other publicly stated preference for deliveries by December 15, 2014. 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, 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 were conducted fairly with respect to competitors and to ratepayers.

PG&E notified that their Offers had been shortlisted in early May 2014. withdrew its Offers from the RFO 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. 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. Later the ARB invalidated about 89 thousand credits, exempting one project.

The ARB’s actions, which in a sense posed the risk that a substantial portion of the supply of ARB-issued offset credits might 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

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

scare in the market”. A news report cited a carbon trader who commented “The market will remain frozen until ARB provides some clarity”.

Eventually in November the ARB announced its final decision to invalidate some of the offset credits generated by the Clean Harbors El Dorado facility, providing some greater clarity about those specific credits.

Arroyo observed two negotiation sessions apiece between PG&E and the commercial teams of 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 and form master agreement.

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

A. BACKGROUND INFORMATION

The negotiations between PG&E and began in mid-May 2014.

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B. NEGOTIATIONS BETWEEN PG&E AND

- Contract price and delivery date.
- Replacement product.
• Representations and warranties.

• Supplier diversity.

• Adverse legal challenge and adverse legal determination.

• Bankruptcy.

• Payment system uncontrollable forces.

• Oral transactions.

• Access to financial information.

• Indemnity.
C. NEGOTIATIONS BETWEEN PG&E AND

- Contract price, volume, and delivery date.
• **Indemnity.**

  [Incorporates indemnity provisions related to the indemnification obligations of the parties.]

  [The indemnity clause outlines the conditions and limitations under which indemnification is provided.]

• **Invalidation notice.**

  [Describes the procedures and requirements for issuing an invalidation notice, including timelines and notification methods.]

  [The invalidation notice clause specifies the consequences of an invalidation, including potential remedies and disputes resolution mechanisms.]

• **Representations and warranties.**

  [Addresses the accuracy of representations and warranties made by the parties at the time of the agreement.]

  [The representations and warranties clause details the specific statements and assertions made, the applicable standards for accuracy, and the remedies for breaches of warranties.]

  [Incorporates a mechanism for verification and representation accuracy through audits or certifications.]

[12]
In Arroyo’s opinion, the separate 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 contract pricing follows in the next chapter. Arroyo did not observe PG&E providing [REDACTED] any non-public information that advantaged sellers against ratepayers or competitors.

Arroyo does not regard PG&E’s decision to [REDACTED] as unfair,
Arroyo considers the modest concessions that PG&E provided in non-price terms and conditions to have the effect of only slightly weakening ratepayer protections. For example, Arroyo regards the concessions provided by PG&E from its form contracts as reasonable given the circumstances. Arroyo does not believe that competitors were harmed by PG&E granting these concessions, though other competing sellers did not benefit from the less stringent terms. 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 contracts merit 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 in that sense, these were the best overall Offers received by PG&E.

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

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 compliance obligations under ARB’s cap-and-trade regulations. The obligations can be satisfied using either eligible ARB-issued allowances or offset credits. The Offers are for offset credits, and are priced below contemporaneous market pricing for ARB-issued allowances. Arroyo views the project viability of the offset credits as indeterminate. Arroyo’s opinion, described below, is that the pricing is within the range of market indications for roughly comparable instruments at or around contract execution. On that basis, Arroyo concludes that the contracts are 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 agreements.

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. 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. These offset credits were clearly priced below ARB-issued allowances of comparable delivery date at the time the contracts were executed.

Project viability. The project viability risk posed by the offset credits is indeterminate.

Summary. The contracts meet PG&E’s criterion for portfolio fit. Although PG&E provided 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 merit CPUC approval.
Attachment 3

Attachment H (Public Version)
New Contracts Executed and Amended During the Quarter

The table below provides a summary of Request for Offer (“RFO”) and Solicitation contracts executed during this Quarter and filed for CPUC approval via this Procurement Transaction Quarterly Compliance Report (QCR) advice letter. A copy of the contract(s) is included. Workpapers providing the method for valuation results calculations are included in *Confidential Attachment L - Reasonable Number of Analyses Models, Description of Models, and How Models Operate.*

<table>
<thead>
<tr>
<th>Contract/ Counterparty Name</th>
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<th>Product</th>
<th>Term</th>
<th>Monthly Volume (MW/MMBtu)</th>
<th>Price</th>
<th>Notional Value ($)</th>
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The table below provides a summary of auction and/or e-solicitation contracts executed during the Quarter.

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<th>Contract/Counterparty Name</th>
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<th>Price</th>
<th>Notional Value ($)</th>
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<td>Q4 2014 Electric E-Solicitation.zip</td>
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</table>

The table below provides a summary of bilateral contracts and significant exchange-placed trades executed during the Quarter and filed for CPUC approval via this QCR advice letter. A copy of contracts subject to this QCR filing is included.

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<th>Product</th>
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<th>Price</th>
<th>Notional Value ($)</th>
<th>Confirm File Name</th>
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<td>Date</td>
<td>Transaction Type</td>
<td>Compliance Report</td>
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</table>
**Informational purposes only:** A summary of QF/CHP contracts executed and/or amended during the Quarter filed via separate application, advice letter or other approval mechanisms:

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<th>Contract/Counterparty Name</th>
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<th>Product</th>
<th>Term</th>
<th>Type of Transaction</th>
<th>Date Filed</th>
<th>Regulatory Reporting or Approval Process</th>
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<tr>
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<th>Type of Transaction</th>
<th>Date Filed</th>
<th>Regulatory Reporting or Approval Process</th>
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<td>Pristine Sun Fund 6, LLC (2105 Hart) (33R353RM)</td>
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<td>Contract</td>
<td>11/21/2014</td>
<td>AL 4539-E</td>
</tr>
<tr>
<td>SR Solis Oro Loma Teresina, LLC – Project B (33R366)</td>
<td>11/12/2014</td>
<td>RPS</td>
<td>20 years</td>
<td>Contract</td>
<td>11/21/2014</td>
<td>AL 4539-E</td>
</tr>
<tr>
<td>VPI Enterprises, Inc. (Altech III) (33R367)</td>
<td>11/12/2014</td>
<td>RPS</td>
<td>20 years</td>
<td>Contract</td>
<td>11/21/2014</td>
<td>AL 4539-E</td>
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<tr>
<td>SR Solis Rocket, LLC – Project B (33R368)</td>
<td>11/12/2014</td>
<td>RPS</td>
<td>20 years</td>
<td>Contract</td>
<td>11/21/2014</td>
<td>AL 4539-E</td>
</tr>
<tr>
<td>Name of Company</td>
<td>Date</td>
<td>Type of Agreement</td>
<td>Consent to Assignment</td>
<td>Description of Amendment to Existing Agreement</td>
<td>Note</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
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<td>-----------------------</td>
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</tr>
<tr>
<td>Merced Solar LLC (33R282AB)</td>
<td>11/13/2014</td>
<td>FiT/AB1969</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Hollister Solar LLC (33R281AB)</td>
<td>11/13/2014</td>
<td>FiT/AB1969</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Columbia Solar Energy, LLC (33R278)</td>
<td>11/24/2014</td>
<td>RPS</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Topaz Solar Farm, LLC (33R056)</td>
<td>12/10/2014</td>
<td>RPS</td>
<td>NA</td>
<td>Routine Amendment to Existing Agreement</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Water Wheel Ranch (33R342RM)</td>
<td>12/13/2014</td>
<td>ReMAT</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>AV Solar Ranch 1, LLC (33R073)</td>
<td>12/18/2014</td>
<td>RPS</td>
<td>NA</td>
<td>Routine Amendment to Existing Agreement</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Rival Power &amp; Energy LLC (33R345RM)</td>
<td>12/23/2014</td>
<td>ReMAT</td>
<td>NA</td>
<td>Routine Amendment to Existing Agreement</td>
<td>2014 ERRA Compliance Filing</td>
<td></td>
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<tr>
<td>Putah Creek Solar Farms LLC (33R339RM)</td>
<td>12/23/2014</td>
<td>ReMAT</td>
<td>NA</td>
<td>Routine Amendment to Existing Agreement</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Ripon Cogeneration LLC (33B125)</td>
<td>12/29/2014</td>
<td>Tolling</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Pristine Sun Fund 5, LLC (Rogers) (33R178AB)</td>
<td>12/30/2014</td>
<td>FiT/AB1969</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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<tr>
<td>Pristine Sun Fund 5, LLC (Stroing) (33R188AB)</td>
<td>12/30/2014</td>
<td>FiT/AB1969</td>
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<td>Consent to Assignment</td>
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<tr>
<td>Pristine Sun Fund 5, LLC (Smotherman) (33R197AB)</td>
<td>12/30/2014</td>
<td>FiT/AB1969</td>
<td>NA</td>
<td>Consent to Assignment</td>
<td>2014 ERRA Compliance Filing</td>
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</table>
**Informational purposes only:** A summary of the contracts terminated/expired during the Quarter:

<table>
<thead>
<tr>
<th>Contract/ Counterparty Name</th>
<th>Termination/ Expiration Date</th>
<th>Product</th>
<th>Volume (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contra Costa Generating Station LLC (33B095)</td>
<td>10/15/2014</td>
<td>Tolling</td>
<td>614.1</td>
</tr>
<tr>
<td>Foothill Farmington Solar Project, LLC (33R269)</td>
<td>10/22/2014</td>
<td>RPS</td>
<td>2</td>
</tr>
<tr>
<td>Tenaska Power Services Company (33R348)</td>
<td>10/23/2014</td>
<td>RPS</td>
<td>0</td>
</tr>
<tr>
<td>NLP Porter Ranch G18, LLC (33R349RM)</td>
<td>11/3/2014</td>
<td>FIT/AB 1969</td>
<td>3</td>
</tr>
<tr>
<td>Salmon Creek Hydroelectric Co. (15H002)</td>
<td>11/27/2014</td>
<td>QF</td>
<td>0.594</td>
</tr>
<tr>
<td>Geysers Power Company, LLC (33R037)</td>
<td>12/31/2014</td>
<td>RPS</td>
<td>175</td>
</tr>
<tr>
<td>Mill &amp; Sulphur Creek Power Plant, LP (19H006)</td>
<td>12/31/2014</td>
<td>QF</td>
<td>0.995</td>
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<tr>
<td>Northwind Energy (01W095)</td>
<td>12/31/2014</td>
<td>QF</td>
<td>27</td>
</tr>
<tr>
<td>J.V. Enterprise (01W002)</td>
<td>12/31/2014</td>
<td>QF</td>
<td>20</td>
</tr>
<tr>
<td>Tres Vaqueros Wind Farms, LLC (01W094)</td>
<td>12/31/2014</td>
<td>QF</td>
<td>28</td>
</tr>
</tbody>
</table>
Attachment 4

Confidentiality Declarations and Matrix
# Pacific Gas and Electric Company's (U 39 E)
## Quarterly Compliance Report Advice Letter 4574-E
### Procurement Transaction Quarterly Compliance Report of Quarter Four 2014
#### January 30, 2015

## Identification of Confidential Information

<table>
<thead>
<tr>
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<th>4) That the information is not already public (Y/N)</th>
<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Attachment A – Physical and Financial Electric Transactions</td>
<td>Y</td>
<td>Item XIII) Energy Division Monthly Data Request (AB 57)</td>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>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.</td>
</tr>
<tr>
<td>Attachment A – Physical and Financial Natural Gas Transactions</td>
<td>Y</td>
<td>Item I) B) 2) Utility recorded gas procurement and cost information</td>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Actual quantity and cost of procured physical spot gas are protected.</td>
</tr>
</tbody>
</table>
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<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment B – Counterparty Information, including non-investment grade counterparties table: List of Non-Investment Grade Counterparties</td>
<td>N</td>
<td>and hedging plans</td>
<td></td>
<td></td>
<td></td>
<td>Counterparty information constitutes confidential business information protected under G.O. 66-C.</td>
<td>Indefinite</td>
</tr>
<tr>
<td>Attachment C - Electric Transactions</td>
<td>Y</td>
<td>Item XIII) Energy Division Monthly Data Request (AB 57)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve the confidentiality</td>
<td>3 Years</td>
</tr>
</tbody>
</table>

PG&E’s Justification for Confidential Treatment:

- **Length of Time**
  - Transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)

Counterparty information constitutes confidential business information protected under G.O. 66-C.
**PACIFIC GAS AND ELECTRIC COMPANY’S (U 39 E) QUARTERLY COMPLIANCE REPORT ADVICE LETTER 4574-E**

**PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF QUARTER FOUR 2014**

**January 30, 2015**

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<th>4) That the information is not already public (Y/N)</th>
<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment D – Natural Gas Transactions</td>
<td>Y</td>
<td>Item I) B) 2) Utility recorded gas procurement and cost information</td>
<td>Y</td>
<td>Actual quantity and cost of procured physical term gas are protected. PG&amp;E’s hedging strategies may be deduced through an analysis of PG&amp;E’s summarized transactions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item I) A) 4) Long-term fuel (gas) buying and hedging plans</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attachment D – Natural Gas 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-4276, Finding 8)
**PACIFIC GAS AND ELECTRIC COMPANY’S (U 39 E)**
**QUARTERLY COMPLIANCE REPORT ADVICE LETTER 4574-E**
**PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF QUARTER FOUR 2014**
**January 30, 2015**

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<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment E – Other Transactions (Except Greenhouse Gas (“GHG”) Information, which is presented separately below)</td>
<td>Y</td>
<td>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</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>This information includes confidential contract information for contracts between PG&amp;E and non-affiliated third parties.</td>
<td>3 Years</td>
</tr>
<tr>
<td>Attachment E – Other Transactions- GHG Information</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
<td>N</td>
<td>Y</td>
<td>This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.</td>
<td>Indefinite</td>
</tr>
</tbody>
</table>

This information also includes confidential business information protected under G.O. 66-C.
## IDENTIFICATION OF CONFIDENTIAL INFORMATION

<table>
<thead>
<tr>
<th>Redaction Reference</th>
<th>Identification of Confidential Information</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
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</thead>
<tbody>
<tr>
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<td>4) That the information is not already public (Y/N)</td>
</tr>
<tr>
<td>Attachment F – PRG Material</td>
<td>Y</td>
<td>D.06-06-066 and Public Utilities Code Section 454.5(g) G.O. 66-C</td>
<td>Y</td>
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<tr>
<td>Attachment F – PRG Material- GHG Information</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
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<tr>
<td>Attachment G – Independent Evaluator Reports - GHG Offset Credit RFO</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
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<th>4) That the information is not already public (Y/N)</th>
<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
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<tbody>
<tr>
<td>Attachment H - Executed Contracts</td>
<td>Y</td>
<td>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 VI) E) and F) Utility Planning Area Matrix Net Open (Electric) Item I)B) 2) Utility recorded gas procurement and cost information</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Disclosure of information would provide market sensitive information regarding bid strategy and selection. Disclosure of information would provide market sensitive information regarding bid strategy and selection. Disclosure of information would provide market sensitive information regarding bid strategy and selection.</td>
<td>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.</td>
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<table>
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<tr>
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<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
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<tbody>
<tr>
<td>Attachment H – GHG Contracts Executed</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
<td>N</td>
<td>Y</td>
<td>The information constitutes confidential business information protected under G.O. 66-C.</td>
<td>Indefinite</td>
</tr>
<tr>
<td>Attachment J – System Conditions</td>
<td>Y</td>
<td>Item VI) E) and F) Utility Planning Area Net Open for Energy and Capacity (Electric) G.O. 66-C</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Residual net short/long is key input to PG&amp;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&amp;E’s trading strategies. The information constitutes confidential business information protected under G.O. 66-C.</td>
<td>3 Years</td>
</tr>
<tr>
<td>Attachment J - Gas Transaction, Natural Gas Documents</td>
<td>Y</td>
<td>Item I) A) 3) Gas Demand Forecasts and 4) Long-term fuel (gas) buying and hedging plans</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>This information includes detailed information on PG&amp;E’s implementation of its fuel buying and hedging plans and must remain confidential to avoid disclosing PG&amp;E’s market strategy.</td>
<td>Physical gas information is confidential for 3 Years;</td>
</tr>
<tr>
<td>Redaction Reference</td>
<td>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)</td>
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<td>PG&amp;E’s Justification for Confidential Treatment</td>
<td>Length of Time</td>
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<td>---------------------------------------------------------------------</td>
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<tr>
<td>Attachment K – Risk Management</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
<td>N</td>
<td>Y</td>
<td>TeVaR and supporting forecasts and analysis are confidential. In addition, the Risk Management Committee attachments address PG&amp;E’s energy procurement strategy, price, volumes, and counterparties. The information constitutes confidential business information protected under GO 66-C.</td>
<td>Indefinite</td>
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<tr>
<td>Attachment K – Risk Management-</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
<td>N</td>
<td>Y</td>
<td>This information includes confidential GHG information, the disclosure of</td>
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<td>GHG Information</td>
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<td></td>
<td>which is prohibited according to Title 17 of the California Code of Regulations.</td>
<td>Indefinite</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>This information also includes confidential business information protected under G.O. 66-C.</td>
<td></td>
</tr>
<tr>
<td>Attachment L - Reasonable Number of Analyses - Electric</td>
<td>Y</td>
<td>Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)</td>
<td></td>
<td></td>
<td></td>
<td>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&amp;E’s position in the market place.</td>
<td>3 Years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item XIII) Energy Division Monthly Data Request (AB 57)</td>
<td></td>
<td></td>
<td></td>
<td>Bid information - remain confidential until after final contracts submitted to CPUC for approval</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VIII ) A) Bid information and B) Specific quantitative</td>
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<tbody>
<tr>
<td>Attachment L – Reasonable Number of Analyses – Natural Gas</td>
<td>Y</td>
<td>analysis involved in scoring and evaluation of participating bids G.O. 66-C</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>This information includes detailed information on PG&amp;E’s hedging plan, and must remain confidential to avoid disclosing PG&amp;E’s market strategy.</td>
<td>Financial gas information is confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)</td>
</tr>
<tr>
<td>Attachment L – Reasonable Number of Analyses - GHG</td>
<td>N</td>
<td>G.O. 66-C</td>
<td>N/A</td>
<td>N</td>
<td>Y</td>
<td>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</td>
<td>Indefinite</td>
</tr>
</tbody>
</table>
## IDENTIFICATION OF CONFIDENTIAL INFORMATION

<table>
<thead>
<tr>
<th>Redaction Reference</th>
<th>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)</th>
<th>2) Which category or categories in the Matrix the data corresponds to:</th>
<th>3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data (Y/N)</th>
<th>4) That the information is not already public (Y/N)</th>
<th>5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)</th>
<th>PG&amp;E’s Justification for Confidential Treatment</th>
<th>Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment M – Transactions Subject to Strong Showing – Electric Transactions</td>
<td>Y</td>
<td>Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)</td>
<td></td>
<td></td>
<td></td>
<td>G.O. 66-C.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Disclosure of information would provide counterparty name, volume, and price and would provide market sensitive information regarding bid strategy and selection.</td>
<td>3 Years</td>
</tr>
<tr>
<td>Attachment M – Transactions Subject to Strong Showing - Physical and Financial Natural Gas Transactions</td>
<td>Y</td>
<td>Item I) B) 2) Utility recorded gas procurement and cost information</td>
<td></td>
<td></td>
<td></td>
<td>Actual quantity and cost of procured physical gas are protected. Each transaction is a factor in PG&amp;E’s hedging strategy. With the entire set of transactions PG&amp;E’s counterparties could reconstruct PG&amp;E’s hedging plan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Item I) A) 4) Long-term fuel (gas) buying</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Utility recorded physical gas procurement and cost information is confidential for one year. Financial gas information is confidential for three years.</td>
<td></td>
</tr>
</tbody>
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<td>and hedging plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)</td>
</tr>
</tbody>
</table>
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.


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 January 30, 2015, at San Francisco, California.

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


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

Executed on January 30, 2015, 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 4574-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.


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 January 30, 2015, at San Francisco, California.

____________________/s/_____________________
Jay Bukowski
Principal
Energy Compliance and Reporting
Energy Procurement
PACIFIC GAS AND ELECTRIC COMPANY
AT&T
Albion Power Company
Alcantar & Kahl LLP
Anderson & Poole
BART
Barkovich & Yap, Inc.
Bartle Wells Associates
Braun Blasing McLaughlin, P.C.

CENERGY POWER
California Cotton Ginners & Growers Assn
California Energy Commission
California Public Utilities Commission
California State Association of Counties
Calpine
Casner, Steve
Center for Biological Diversity
City of Palo Alto

City of San Jose
Clean Power
Coast Economic Consulting
Commercial Energy
Cool Earth Solar, Inc.
County of Tehama - Department of Public Works
Crossborder Energy
Davis Wright Tremaine LLP
Day Carter Murphy

Defense Energy Support Center
Dept of General Services

Division of Ratepayer Advocates
Douglass & Liddell
Downey & Brand
Ellison Schneider & Harris LLP
G. A. Krause & Assoc.
GenOn Energy Inc.
GenOn Energy, Inc.
Goodin, MacBride, Squier, Schlotz & Ritchie
Green Power Institute
Hanna & Morton
In House Energy
International Power Technology
Intestate Gas Services, Inc.
K&L Gates LLP
Kelly Group
Linde
Los Angeles County Integrated Waste Management Task Force
Los Angeles Dept of Water & Power
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McKenna Long & Aldridge LLP
McKenzie & Associates
Modesto Irrigation District
Morgan Stanley
NLine Energy, Inc.
NRG Solar
Nexant, Inc.

Occidental Energy Marketing, Inc.
OnGrid Solar
Pacific Gas and Electric Company
Praxair
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
SCE
SDG&E and SoCalGas
SPURR
Seattle City Light
Sempra Utilities
SoCalGas
Southern California Edison Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
Tiger Natural Gas, Inc.
TransCanada
Utility Cost Management
Utility Power Solutions
Utility Specialists
Verizon

Water and Energy Consulting
Wellhead Electric Company
Western Manufactured Housing Communities Association (WMA)
YEP Energy