

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



October 18, 2022

**Advice Letter 6484-E/6484-E-A/6484-E-B**

Sidney Bob Dietz II  
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Pacific Gas and Electric Company  
77 Beale Street  
San Francisco, California 94177  
E-mail: PGETariffs@pge.com

**SUBJECT: Procurement Transaction Quarterly Compliance Submittal (Q4, 2021)**

Dear Mr. Dietz:

Advice Letter 6484-E/6484-E-A/6484-E-B is effective as of March 2, 2022.

Sincerely,

A handwritten signature in black ink that reads "Leuwam Tesfai".

Leuwam Tesfai  
Deputy Executive Director for Energy and Climate Policy  
Director, Energy Division



**Sidney Bob Dietz II**  
Director  
Regulatory Relations

Pacific Gas and Electric Company  
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San Francisco, CA 94177

Fax: 415-973-3582

January 31, 2022

**Advice 6484-E**

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Procurement Transaction Quarterly Compliance Submittal (Q4, 2021)**

**Purpose**

Pacific Gas and Electric Company (“PG&E”) hereby submits to the California Public Utilities Commission (“Commission” or “CPUC”) its compliance submittal for Q3 2021 in conformance with PG&E’s 2014 BPP approved in D.15-10-031. PG&E’s submittal of this Procurement Transaction Quarterly Compliance Report (“QCR”) for record period October 1, 2021 through December 31, 2021, (Q4, 2021) is in accordance with D.03-12-062, Ordering Paragraph 19, which requires that the Procurement Transaction Quarterly 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 Advice Letter 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. Attachments 2 and 3 include the public versions of Attachments G and H, respectively. The confidential version of the QCR includes the following supporting Confidential Attachments:

Attachment A: Q4 2021 Electric and Natural Gas Transactions  
Attachment B: Q4 2021 Counterparty Information  
Attachment C: Q4 2021 Electric Transactions Summary

Attachment D:	Q4 2021 Natural Gas Transactions Summary
Attachment E:	Q4 2021 Other Transactions
Attachment F:	Q4 2021 Key Briefing Packages
Attachment G:	Q4 2021 Independent Evaluator (IE) Reports
Attachment H:	Q4 2021 Contracts Executed/Contracts Amended
Attachment I:	Q4 2021 Summary of Retained Generation Investments Completed
Attachment J:	Q4 2021 System Load Requirements/Conditions
Attachment K:	Q4 2021 Risk Management Strategy Communication and Management Disclosure
Attachment L:	Q4 2021 Reasonable Number of Analyses Models, Description of Models, and How Models Operate
Attachment M:	Q4 2021 Transactions Subject to Strong Showing

Attachment 4 to this Advice Letter includes confidentiality declarations and a matrix.

The public version of this QCR is provided to the service lists for Rulemakings (“R.”) 16-02-007. The confidential version of the QCR is provided to PG&E’s Procurement Review Group.

This submittal 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 submittal may do so by letter sent electronically via E-mail, no later than February 21, 2022, which is 21 days<sup>1</sup> after the date of this submittal. Protests must be submitted to:

CPUC Energy Division  
ED Tariff Unit  
E-mail: EDTariffUnit@cpuc.ca.gov

The protest shall also be electronically sent to PG&E via E-mail at the address shown below on the same date it is electronically delivered to the Commission:

Sidney Bob Dietz II  
Director, Regulatory Relations  
c/o Megan Lawson  
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information

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<sup>1</sup> The 20-day protest period concludes on a weekend, therefore, PG&E is moving this date to the following business day.

or legal argument; name and e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

### **Effective Date**

In accordance with D.02-10-062, the requested effective date of this Tier 2 advice letter is March 2, 2022, which is 30 days after the date of submittal.

### **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.16-02-007. 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 submittals can also be accessed electronically at: <http://www.pge.com/tariffs>.

/S/

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Sidney Bob Dietz II  
Director, Regulatory Relations

cc: Service List R.16-02-007 (Public Version)  
PG&E's Procurement Review Group (Confidential Version)

### Public Attachments:

Attachment 1: Narrative  
Attachment 2: Attachment G (Public Version)  
Attachment 3: Attachment H (Public Version)  
Attachment 4: Confidentiality Declarations and Matrix



# ADVICE LETTER SUMMARY

## ENERGY UTILITY



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

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

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Kimberly Loo

Phone #: (415)973-4587

E-mail: PGETariffs@pge.com

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

EXPLANATION OF UTILITY TYPE

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

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6484-E

Tier Designation: 2

Subject of AL: Procurement Transaction Quarterly Compliance Submittal (Q4, 2021)

Keywords (choose from CPUC listing): Compliance, Procurement

AL Type:  Monthly  Quarterly  Annual  One-Time  Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.03-12-062 and D.02-10-062

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:

Confidential treatment requested?  Yes  No

If yes, specification of confidential information: See Confidentiality Declarations and Matrix  
 Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information: Jay Bukowski (415) 973-1727, John Ulloa (415) 973-0535

Resolution required?  Yes  No Marianne Aikawa (415)973-0375

Requested effective date: 3/2/22 No. of tariff sheets: 0

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<sup>1</sup>: N/A

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

<sup>1</sup>Discuss in AL if more space is needed.

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

California Public Utilities Commission  
Energy Division Tariff Unit Email:  
[EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Contact Name: Sidnev Bob Dietz II. c/o Megan Lawson  
Title: Director, Regulatory Relations  
Utility/Entity Name: Pacific Gas and Electric Company  
  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email: PGETariffs@pge.com

Contact Name:  
Title:  
Utility/Entity Name:  
  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

CPUC  
Energy Division Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102

Clear Form

Advice 6484-E  
January 31, 2022

# **Attachment 1**

Narrative

**PACIFIC GAS AND ELECTRIC COMPANY**  
**PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT**  
**FOR THE FOURTH QUARTER OF 2021**

**January 31, 2022**

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## **Summary of Public Attachments**

- 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 Pacific Gas and Electric Company (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 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 Decision (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 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, PG&E hereby provides its report demonstrating that its procurement-related transactions during the period October 1, 2021 through December 31, 2021 (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.15-10-031.

PG&E manages its transactions in compliance with its BPP. During the Quarter, PG&E had the following BPP activity updates:

- Advice Letter (AL) 6348-E: Update to Carbon Free Energy (Appendix P), submitted October 1, 2021 was approved on October 26, 2021;
- AL 6353-E: Update to Sales Framework (Appendix S), submitted October 6, 2021 was approved on December 10, 2021; and
- AL 6444-E: Update to Greenhouse Gas (GHG) Procurement Limits (Appendix C), submitted December 22, 2021.

## **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))**

- a. None for the Quarter.

### **2. Other Competitive Solicitations (Approval Through Separate Advice Filing or Regulatory Process)**

PG&E is seeking approval for BPP products through separate advice filings or other regulatory processes and are referenced here for informational purposes only:

- a. Bioenergy Market Adjusting Tariff (monthly auctions), ongoing;
- b. Renewable Market Adjusting Tariff, ongoing;
- c. Mid-Term Reliability Request for Offers (RFO)-Phase 1 (issued June 18, 2021);
- d. Summer 2021 Bundled Renewable Portfolio Standard (RPS) Energy Sale Solicitation (Issued July 30, 2021); and
- e. Winter 2021 Bundled RPS Energy Sale Solicitation (Issued December 14, 2021).

### 3. Other Procurement Activities (Approval Through the QCR)

PG&E also seeks approval of transactions executed from the following procurement activities, other than competitive solicitations, through the QCR.

#### a) *Electric Transactions*

- i. *California Independent System Operator (CAISO) Allocations;*
  - a. CAISO Monthly Congestion Revenue Rights (CRR) Allocation Processes; and
  - b. CAISO 2022 Annual CRR Tier 2 and Tier 3 Allocation Processes.
- ii. *CAISO Markets and Processes;*
  - a. Convergence Bidding
- iii. *Direct Bilateral Contracting for Short-Term Products;*
- iv. *Bilateral Negotiated Contracts;*
- v. *Electronic Solicitations issued by PG&E;*
- vi. *Market Request for Proposal (RFP) ;*
- vii. *Carbon Free Energy Sales; and*
- viii. *Transparent Exchange.*

#### b) *Gas Transactions*

- i. *Transparent Exchanges;*
- ii. *Direct Bilateral Contracting for Short-Term Products;*
- iii. *Voice Brokers;*
- iv. *Electronic Solicitations; and*
- v. *Cashouts.*

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 advice filings or regulatory processes and are referenced here for informational purposes only:

- a. Bilaterally negotiated contracts or amendments executed pursuant to other regulatory requirements.
  - i. *None for the Quarter.*
- b. Qualifying Facility (QF) contracts or amendments executed pursuant to other regulatory requirements.
  - i. *None for the Quarter.*

c. Summer Reliability

In response to the rotating blackouts that occurred during the August 2020 heat storm, the CPUC opened an Emergency Reliability rulemaking (Rulemaking (R.) 20-11-003) to make more resources available on an expedited basis to prevent a recurrence of blackouts. The Commission subsequently issued D.21-02-028 and D.21-03-056 to procure incremental capacity for potential extreme weather events in the summers of 2021 and 2022.

- i. *PG&E will be requesting cost recovery via the Cost Allocation Mechanism (CAM) for one Resource Adequacy (RA) transaction executed during the Quarter in compliance with D.21-03-056. These transactions are detailed in Confidential Attachment H (Info Only-Other tab). PG&E submitted this transaction for approval on January 19, 2022 via AL-6469-E.*

**C. Master Data Request (MDR) 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 Policy and Procurement; Martin Wyspianski, Senior Director, Electric and Gas Acquisition; Gillian Clegg, Senior Director, Energy Portfolio Procurement and Policy; Don Howerton, Director, Structured Energy Transactions; Scott Ranzal, Director, Portfolio Management; Chris McNeece, Director, Short-Term Electric Supply; and/or John Ulloa, Manager, 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 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***

PG&E is authorized to use any of the following BPP-approved electricity procurement transaction processes during the Quarter:

- Competitive Solicitations;
- CAISO Allocations;
- CAISO Markets and Process;
- Direct Bilateral Contracting for Short-Term Products;
- Bilateral Negotiated Contracts;
- Electronic Solicitations issued by PG&E;
- Market RFP;
- Carbon Free Energy Sales E-Solicitation, Transparent Exchanges, Voice and On-Line Brokers;
- Public Utility Regulatory Policies Act (PURPA) Standard Offer Contracts (SOC) (*for informational purposes only*); and
- Pro forma contracts executed under the CHP Feed-In Tariffs Program (*for informational purposes only*).

***b) Electric Procurement – Justification***

- i. For competitive solicitations held by PG&E, describe the process used to rank offers and select winning bid(s).*

None for the Quarter.

- 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 Allocations

CAISO Monthly CRR Allocation Process

PG&E procures CRRs to narrow the distribution of PG&E's energy procurement costs due to expected electric transmission congestion. PG&E obtains CRRs, subject to risk assessment, for 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 and Helms pumping load) 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 also authorized to acquire CRRs for such positively correlated paths.

In October 2021, November 2021, and December 2021, PG&E participated in the CAISO's monthly CRR allocation processes to procure CRRs for November 2021, December 2021, and January 2022, respectively.

PG&E's procurement during the Quarter was consistent with PG&E's updates to its BPP CRR (Appendix I) filed in AL 5473-E, effective May 30, 2019.

#### CAISO Annual CRR Allocation Process

PG&E participated in the 2022 Tier 1, 2, Tier 3, and Long-Term Tier Allocation Processes for the quarter. Awards from Tier 1 were posted on September 14, 2021, Long-Term Tier were posted on September 28, 2021, Tier 2 were posted on October 11, 2021, and Tier 3 were posted on October 22, 2021. Combined results from the Tier 1, Tier 2, Tier 3 and Long-Term Allocation Processes are included in this QCR.

PG&E's procurement during the Quarter was consistent with PG&E's updates to its BPP CRR (Appendix I) filed in AL 5473-E, effective May 30, 2019.

Relevant information for the Monthly CRRs is included in Confidential Attachments F, J and L.

- CAISO Markets and Processes

- Convergence Bidding

- PG&E suspended Convergence Bidding activities after trade day May 26, 2018. As of December 31, 2021, all Convergence Bidding activities remain suspended. Relevant information is included in Confidential Attachment E, F, and J.

- Direct Bilateral Contracting for Short-Term Products

- Transmission capacity is purchased to relocate power from one point to another, often necessary outside a Regional Transmission Operator such as the CAISO.

- Relevant information is included in Confidential Attachment A.

- Bilateral Negotiated Contracts

- RA – During the Quarter, PG&E executed transactions consisting of the following types: (1) System RA sale transactions; (2) System Flexible RA sale transactions.

- Relevant information is included in Confidential Attachment E, F, H and M.

- Electronic Solicitations issued by PG&E

RA – During the Quarter, PG&E executed the transactions consisting of the following types: (1) System RA purchase transactions; (2) Local RA purchase transactions; (3) System RA sale transactions; (4) System, Flexible RA sale transactions; and (5) Local RA sale transactions

There were two E-Solicitations for RA and Import Energy that PG&E held in the quarter. Both were monitored by an IE: (1) The 2022 Annual RA and Import Energy E-Solicitation Phase 2, and (2) PG&E RA and Import Energy E-Solicitation.

Relevant information is included in Confidential Attachments E, F, G, and H.

- Market RFP

RA – During the Quarter, PG&E participated in one Market RFP that resulted in PG&E executing RA transactions of the following types: (1) Local RA purchase; (2) Local, Flexible RA purchase transaction; and (3) System RA sale transaction.

Relevant information is included in Confidential Attachments E, F, and H.

- Carbon Free Energy Sales – During the Quarter, PG&E executed transactions associated with its offer of 2021 Carbon Free Energy Sales to eligible LSEs in accordance with its CPUC approved BPP, Appendix P.

Relevant information is included in Confidential Attachments E, F, and H.

- E-Solicitation, Transparent Exchange, or Voice and On-Line Brokers

Electric Financial Transactions – During the Quarter, PG&E executed electric financial transactions via E-Solicitation and Broker.

Relevant information is included in Confidential Attachments A and L.

RA – During the Quarter, PG&E executed RA transactions via Broker of the following types: (1) Local RA purchase; (2) Local, Flexible RA purchase; (3) System RA sale; (4) System, Flexible RA sale; (5) Local, RA sale.

Relevant information is included in Confidential Attachments E, F, and H

- PURPA SOC (for informational purposes only)

Under the new PURPA SOC Program, QF generators may enter into PG&E's pro forma SOC for QFs up to 20 megawatts (MW). 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 the “Informational Purposes Only” Section of Attachment H.

- CHP Feed-In Tariffs (for informational purposes only)

Under the Waste Heat and Carbon Emissions Act, codified as California Public Utilities Code (Pub. Util. Code) Section 2840 et seq. (Stats. 2007, Ch. 713), the Commission established a standard tariff for the sale of electricity from efficient CHP systems under 20 MW and directed the electrical corporations to purchase excess electricity from eligible CHP generators. A CHP generator that is certified by the California Energy Commission (CEC) is eligible under the CEC’s legal and technical guidelines to obtain a CHP feed-in tariff. In D.09-12-042, the Commission approved three pro forma contracts for use with CHP systems (known as “AB 1613 PPAs”) that are applicable to generators of different sizes: a standard contract for CHP generators up to 20 MW, a simplified PPA for CHP generators less than 5 MW, and a further simplified PPA for smaller CHP systems under 500 kilowatts.

Relevant information is included in the “Informational Purposes Only” section of Attachment H.

***c) Natural Gas Procurement – Description***

PG&E procured natural gas during the Quarter using various BPP-approved procurement processes and methods, including:

- Competitive Solicitations;
- Transparent Exchanges;
- Direct Bilateral Contracting for Short-Term Products;
- Voice and On-Line Brokers;
- Electronic Solicitations; and
- Cashouts.

***d) Natural Gas Procurement – Justification***

*i. For competitive solicitations (RFO), describe the process used to rank offers and select winning bid(s).*

None for 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 buys and sells physical natural gas on Intercontinental Exchange (ICE) and the ICE Natural Gas Exchange (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, and monthly transactions for deliveries each day of a calendar month. Relevant information of transactions executed via Transparent Exchanges during the QCR period is included in Confidential Attachment A.

Gas Financial Transactions – PG&E’s procurement during the Quarter is consistent with PG&E’s updates to its BPP Hedging Plan (Appendix E) filed in AL 6051-E.

Gas Financial Transactions are 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 over-the-counter products. These products include Henry Hub futures and options, locational options, and basis futures against the industry benchmark indices, including Gas Daily, Natural Gas Intelligence (NGI) and Inside Federal Energy Regulatory Commission (IFERC) Gas Market Report. Details demonstrating PG&E’s compliance with D.15-10-031 during the Quarter are included in Confidential Attachments J and L.

Relevant information is included in Confidential Attachment A.

- Direct Bilateral Contracting for Short-Term Products

Commodity Purchases/Sales – PG&E buys and sells physical gas directly with counterparties in the bilateral market. Spot gas (deliveries less than one month) is traded at fixed prices and daily index (Gas Daily). 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 monthly or bi-week index (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 (RTM) prices, and/or broker quotes, to inform and conduct these transactions.

Relevant information is included in Confidential Attachments A, J, and M.

PG&E executed one bilateral park transaction during the quarter to help balance its position. The details of this transaction are available in Attachment A.

- Voice and On-Line Brokers – Gas Financial Transactions

PG&E executes natural gas financial transactions (futures) through voice brokers that resulted in exchange-cleared trades. Brokers provide access to anonymous bids and offers from both over-the-counter 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 over-the-counter or cleared through NYMEX or ICE. The broker market trades the same financial products as the exchanges.

Relevant information of transactions executed via voice brokers is included in Confidential Attachment A.

- Voice and On-Line Brokers – Commodity Purchases/Sales

PG&E executes physical gas supply transactions through voice brokers that resulted in transactions. Brokers provide access to anonymous bids and offers from both over-the-counter 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 over-the-counter 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 and Telephone – PG&E conducts electronic solicitations for the purchase or sale of physical gas supply and financial products, with delivery terms ranging from a single day, to one month or longer, using instant messaging and telephone. 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 bid(s) or offer(s).

Relevant information is included in Confidential Attachment A.

- Cashouts: Commodity Purchases/Sales

Cashouts are used by gas pipelines, according to their tariff, to cure certain imbalances between supply and demand. When a pipeline applies a cashout, it results in a commodity transaction.

Relevant information is included in Confidential Attachment A.

**e) *GHG and Other Commodities***

- i. *For competitive solicitations, describe the process used to rank offers and select winning bid(s).*

None for the Quarter.

- ii. *For other transactional methods, provide the documentation supporting the selection of the chosen products.*

PG&E received its annual allocation of Electric Distribution Utility (EDU) Current Vintage allowances for the 2021 year from the California Air Resources Board (CARB) in September 2020. All of the EDU allowances were consigned into the 2021 CARB Auctions as required by the regulations and consistent with PG&E's BPP. CARB and Québec's ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques held a joint allowance auction on November 17, 2021, for Current 2019, 2020, and 2021 Vintage and Advance 2024 Vintage allowances.

PG&E is authorized to procure GHG products through CARB Auctions and other CPUC-approved procurement processes and methods. PG&E provided information regarding its bilateral market procurement strategy to the PRG.

PG&E's procurement during the Quarter was consistent with PG&E's Conformed BPP GHG Procurement Plan filed in AL 5579-E, effective July 1, 2019.

All relevant GHG transactional information and supporting justification is included in Confidential Attachments E 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. 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 was

based on the PG&E Electric Portfolio Quarterly Position Update, presented to the PRG on September 22, 2021. Documentation supporting the timing of transactions is included in Confidential Attachment J.

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

***a) PG&E Participation in the CAISO Markets***

PG&E participates in the CAISO Day-Ahead and RTMs. 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 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***

PG&E received 153 percent of average rainfall during the Quarter.

Helms Pumped Storage Facility (Helms) was used throughout the Quarter as system conditions and economics allowed. Planned outages lasting longer than 72 hours at Helms during the Quarter included: Helms Unit 1 (404 MW) and Helms Unit 2 (404 MW). Maintenance outages lasting longer than 72 hours at Helms during the Quarter included Helms Unit 3 (404 MW). Forced outages lasting longer than 24 hours at Helms during the Quarter included Helms Unit 3 (404 MW).

Planned outages lasting longer than 72 hours on conventional hydro facilities greater than 30 MW during the Quarter included: Bucks Creek Unit 2 (32 MW), Caribou 1 Unit 1, Unit 2, and Unit 3 (75 MW, total), Cresta Unit 1 (35 MW), Drum 2 Unit 5 (49.5 MW), Electra Unit 1 and Unit 2 (62 MW, total), Haas Unit 2 (72 MW), James B. Black Unit 1 and Unit 2 (172 MW, total), Kerckhoff 2 Unit 1 (155 MW), Pit 1 Unit 1 and Unit 2 (61 MW, total), Pit 3 Unit 1, Unit 2, and Unit 3 (70 MW, total), Pit 5 Unit 2 and Unit 4 (80 MW, total), Pit 6 Unit 1 and Unit 2 (80 MW, total), Pit 7 Unit 1 and Unit 2 (112 MW, total), Rock Creek Unit 2 (63 MW), and Salt Springs Unit 2 (33 MW).

Maintenance outages lasting longer than 72 hours on conventional hydro facilities greater than 30 MW during the Quarter included: Caribou 1 Unit 2 and Unit 3 (50 MW, total), Drum 1 Unit 3 and Unit 4 (27.6 MW, total), Haas Unit 1 and Unit 2 (144 MW, total), Tiger Creek Unit 1 and Unit 2 (58 MW, total), Rock Creek Unit 2 (63 MW), and Salt Springs Unit 1 (11 MW).

Forced outages lasting longer than 24 hours on conventional hydro facilities greater than 30 MW during the Quarter included: Bucks Creek Unit 1 (33 MW), Butt alley (41 MW), Cresta Unit 1 and Unit 2 (70 MW, total), Pit 1 Unit 2 (30.5 MW), Pit 3 Unit 1 and Unit 3 (46.7 MW, total), Pit 7 Unit 2 (56 MW), Poe Unit 1 and Unit 2 (120 MW, total), Rock Creek Unit 1 (63 MW), and Salt Springs Unit 2 (33 MW).

At PG&E's Humboldt Bay Generating Station there were no planned outages lasting longer than 72 hours during the Quarter. Maintenance outages lasting longer than 72 hours at Humboldt during the Quarter included: Unit 2, Unit 3, Unit 6, Unit 7, Unit 9, and Unit 10. There were no forced outages events at Humboldt Bay Generating Station lasting longer than 24 hours during the Quarter.

At PG&E's fossil combined cycle facilities there was one planned outage longer than 72 hours during the Quarter at Gateway Generating Station (580 MW). There were no maintenance outages longer than 72 hours for the Quarter. There was one forced outage at Colusa Generating Station (657 MW) lasting longer than 24 hours during the Quarter.

During fourth Quarter 2021, Diablo Canyon Power Plant (DCPP) Unit 1 operated at 99.52 percent capacity factor. There were no generation impacting events occurring during the quarter for Unit 1.

During fourth Quarter 2021, DCPP Unit 2 operated at 75.40 percent capacity factor. There were two generation impacting events occurring during the quarter for Unit 2. In October and November Unit 2 performed an unplanned curtailment due to a leak in a feedwater heater. Also, in November Unit 2 performed a planned curtailment to clean the main condenser.

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

As described in Sections 3.b. and 3.d. above, during the Quarter, PG&E executed transactions in accordance with its Hedging Plan. A list of relevant information regarding Consumer Risk Tolerance notifications and management disclosures is included in Confidential Attachments F and 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 PG&E seeks approval of through this QCR 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 Pub. Util. Code.**

To the extent that the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) has requested information for the Quarter as identified in its MDR, this information will be included in PG&E's MDR response and submitted to the Cal Advocates 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 D.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**

In the Quarter, to support the procurement ordered in the summer reliability decisions D.21-03-056 and D.21-12-015, PG&E pursued agreements in the Mid-Term Reliability RFO – Phase 1 requirement that could come online earlier and in excess of PG&E's specific yearly minimum obligations. To the extent that projects are intended to be operational by August 1, 2023, and are in excess of the PG&E yearly obligation set forth in the D.21-06-035, PG&E may count this accelerated and excess capacity towards PG&E's summer reliability targets on behalf of all customers in the PG&E distribution service territory prior to application to PG&E's Mid-Term Reliability Procurement targets benefitting bundled customers. When used to meet the summer reliability targets for summer 2023 the agreements and associated costs are eligible for cost recovery under the existing CAM. PG&E submitted these transactions for approval on January 21, 2022 with AL 6477-E. These transactions are detailed in Confidential Attachment H (Info Only-Non-QF tab).

PG&E executed one RA transaction. This transaction is eligible for CAM cost recovery because it conforms to the parameters under D.21-03-056. This transaction is detailed in Confidential Attachment H (Info Only-Other tab). PG&E submitted this transaction for approval on January 19, 2022 via AL-6469-E.

Advice 6484-E  
January 31, 2022

## **Attachment 2**

Attachment G (Public Version)

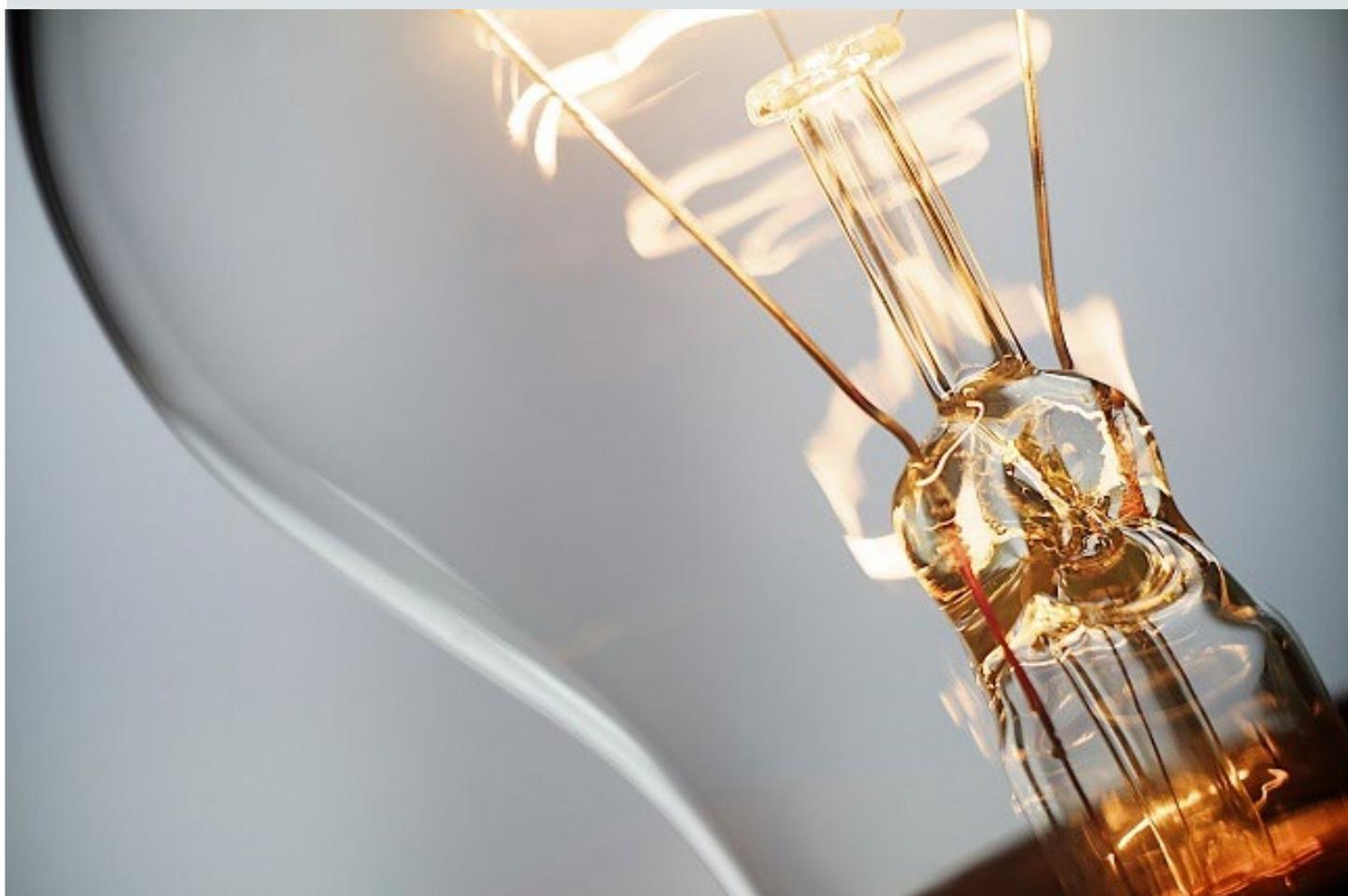


## **PACIFIC GAS & ELECTRIC**

Independent Evaluator Report for the 2022  
Annual Resource Adequacy and Import  
Energy Electronic Solicitation

January 2022

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# EXECUTIVE SUMMARY

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PA Consulting Group, Inc. (PA) served as the Independent Evaluator (IE) for the Pacific Gas & Electric (PG&E) 2022 Annual Resource Adequacy (RA) and Import Energy Electronic Solicitation (E-Solicitation) (2022 Annual RA Solicitation or the Solicitation). This report provides PA's evaluation of the process from the drafting of the E-Solicitation documents through to the recommendation of selected bids and negotiation of contracts.

## Overview of Solicitation

PG&E conducted the 2022 Annual RA Solicitation in two phases. Phase I was intended to address market needs after the release of the initial 2022 Year-Ahead RA allocations and Net Qualifying Capacity (NQC) lists; Phase II was intended to finalize procurement upon release of the final NQC list.

In developing PG&E's RA positions prior to the E-Solicitation, it was identified that for 2022, PG&E is [REDACTED] on a System basis [REDACTED]. Additionally, PG&E is short on RA for certain Local areas, primarily [REDACTED]

PG&E did not specify the amounts of RA capacity it wished to sell. Phase I activities concluded in September 2021, with PG&E executing transactions with [REDACTED]

Phase II of the E-Solicitation was launched on September 23, 2021 with offers and bids originally due September 30, 2021. However, because of the uncertainty related to exactly when the California Independent System Operator (CAISO) would release its final NQC list, the E-Solicitation specified that if the CAISO had not released the final NQC list by September 27, 2021, that PG&E retained the right to delay the deadline(s) on a day-by-day basis. The CAISO released the final NQC list on October 1, 2021, and ultimately bids and offers were due on October 5, 2021.

Phase II activities concluded in October 2021, with PG&E executing transactions with [REDACTED]



## PA's IE Report

PA's IE report generally follows the California Public Utilities Commission's (Commission or CPUC) Solicitation Shortlist Report Templates. The main sections include:

- Section 1: Summary of the 2022 Annual RA Solicitation
- Section 2: Summary of PA's role as IE for the E-Solicitation
- Section 3: PG&E's outreach efforts
- Section 4: PG&E's methodology design
- Section 5: Fairness of the application of PG&E's Bid Evaluation Criteria
- Section 6: Merit of E-Solicitation shortlists
- Section 7: Fairness of negotiations
- Section 8: PA support for contract approval

## Main IE activities during solicitation

PA's role in PG&E's E-Solicitation spanned approximately five months from August through December 2021. The following provides a summary of PA's main activities during this E-Solicitation:

- PA reviewed drafts of the E-Solicitation documents prior to PG&E issuing the E-Solicitation.
- PA received all communications between PG&E and bidders. PA directly received all the emails, including bid packages that were sent to and received from bidders as well as non-conforming offers participants made to PG&E.
- PA and PG&E conducted several IE calls during which PG&E advised PA of the status of the E-Solicitation and discussed the treatment of certain bids.
- PA reviewed all Phase I and Phase II bids.
- PA reviewed and confirmed PG&E's shortlisted bids by reconciling a sample of bids in Phase I and fully reconciling all bids in Phase II. PA completed this review and confirmation of PG&E's shortlisted bids prior to the shortlist notifications for both Phase I and Phase II.
- PA reviewed PG&E's contract negotiations via redlined documents with selected bidders to ensure that the negotiation process was fair and all bidders were treated consistently.
- PA reviewed and continues to monitor the EEI negotiation process with a shortlisted counterparty.

## High level summary of findings

Overall, PA confirms that PG&E conducted a fair and equitable E-Solicitation.

Some specific findings are noted below:

- PG&E in no way prevented PA from observing its process and analyzing its methods and did not interfere with PA's conducting the Independent Evaluation.
- PA finds that PG&E's outreach for the E-Solicitation was adequate, the E-Solicitation materials were clear and concise, and that PG&E further clarified its position in several follow-up bidder questions throughout the E-Solicitation.
- During both Phases of the E-Solicitation, [REDACTED]
- Based on our review of PG&E's analysis, our participation in calls and meetings and other IE activities, PA finds that PG&E conducted the 2022 Annual RA Solicitation evaluation analysis fairly and selected appropriate offers.

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# 1 SUMMARY OF THE 2022 ANNUAL RESOURCE ADEQUACY SOLICITATION

In this E-Solicitation, PG&E sought offers for sale (i.e., **PG&E buys**), bids to purchase (i.e., **PG&E sells**), and offers for sale / bids to purchase (i.e., **simultaneous PG&E buys/PG&E sells**) of eligible Local and System RA with January through December 2022 delivery periods. PG&E also sought bids to purchase (i.e., **PG&E sells**) for Import Allocation Rights (IAR) monthly products for the January through December 2022 delivery periods. PG&E sought offers for sale (i.e., **PG&E buys**) of WSPP Schedule C Import Energy for the January through December 2022 delivery periods. PG&E did not specify the amounts of RA capacity it wished to purchase but did specify minimum volumes of 1 MW for all products except Import Energy, which had a minimum volume of 5 MW specified.

The Market Notice further noted that PG&E’s preference is to transact Import Energy indexed to CAISO LMP but would also consider offers for ICE Indexed or Fixed Prices transactions. Table 1 below summarizes the products sought in the E-Solicitation.

**Table 1. E-Solicitation Products**

Product	PG&E Seeking to:	Minimum Volume	Delivery Period	Pricing
System RA	Buy, Sell, Simultaneous Buy/Sell	1 MW	Jan-Dec 2022	Fixed Price \$/kW-month
Local RA	Buy, Sell, Simultaneous Buy/Sell	1 MW	Jan-Dec 2022	Fixed Price \$/kW-month
Import Allocation Rights	Sell	1 MW	Jan-Dec 2022	Fixed Price \$/kW-month
Import Energy	Buy	5 MW	Jan-Dec 2022	CAISO LMP Index, ICE Index, or Fixed Price \$/MWh

PG&E planned to conduct the E-Solicitation in two Phases. The E-Solicitation protocol for Phase I launched on August 13, 2021 and was intended to seek bids after the CAISO released its Draft 2022 NQC values list. The Market Notice for Phase I required bids and offers to be submitted by August 20, 2021. The E-Solicitation protocol for Phase II launched on September 23, 2021 prior to the CAISO issuing its final NQC list. The Market Notice for Phase II originally required bids and offers to be submitted by September 30, 2021. However, due to a delay in CAISO posting its final NQC list, bids and offers were ultimately not due until October 5, 2021 for Phase II.

PG&E’s Solicitations have evolved into using a predesigned bid input form developed internally at PG&E using MS Excel spreadsheets and containing “macros”, a type of coding language used in the spreadsheets. The purpose of the form has been to ensure that all bids conformed to a specific format containing information related to the bidding entity, what type of RA, IAR, or Import Energy the entity was seeking to purchase or sell, the month and

quantity of the bid, and the price. The bid form has been designed to not allow bidders to change most of the format, thus ensuring consistency and standardization of bids, allowing for PG&E staff to incorporate all bids into its optimization model quickly and accurately.

In a limited number of cases, bidders' email security systems blocked the receipt of the bid form due to the bid forms' use of the macro coding language. In anticipation for this potential issue, PG&E provided the bid form to bidders in a second email, with the market notice email specifying that a second email would contain the form. In doing so, PG&E ensured that bidders received the market notice information and could inquire for the bid form if the original email containing the bid form was blocked by the bidder's security system. In reviewing the email communications surrounding this issue, it is PA's belief that no bidders were blocked from submitting a bid due to email security system issues as PG&E was able and willing to accept bids via written email in exceptional circumstances.

In addition to the email security challenges, it also became apparent that the design of the bid forms restricted certain bidders from accurately defining their bids. This was due to the forms having been designed to limit the number of mutually exclusive bids in any given month. Additionally, some bidders appeared to have confusion as to how to properly utilize the mutually exclusive groupings to their bids. In these cases, PG&E followed up with bidders to ensure that their intention of use of the mutually exclusive groupings was accurately reflected within their bid submittal. The purpose of this limitation was to ensure that PG&E's optimization model could incorporate all bids without causing infeasibly long run times to arrive at the optimal solution providing the most value for PG&E and its customers. As discussed below, bidders have become increasingly reliant upon mutually exclusive bids due to the evolution of PG&E's Local RA requirements.

## 1.1 PG&E's Local RA Requirements

Resource Adequacy is the primary mechanism to ensure reliability of supply for Load Serving Entities (LSEs) operating under CPUC jurisdiction, including PG&E. RA in California consists of three distinct components: System RA, Local RA, and Flexible RA. LSEs were previously required to procure Local RA on a three-year forward basis. Beginning with compliance year 2023 the responsibility to procure Local RA will belong to newly formed Central Procurement Entities (CPE) operating independently from CPUC jurisdictional LSEs. Due to this policy change, 2022 is the last compliance year in which LSEs are currently anticipated to have a Local RA requirement. System and Flexible are procured on a one-year forward basis; a requirement that remains with individual LSEs, rather than CPEs. LSEs must either self-build or contract for required RA capacity. The CPUC approved a number of key changes to RA procurement that will be discussed in greater detail below, following a discussion of the overall RA markets.

Unlike the centrally cleared capacity auction processes in other markets, RA in California is transacted on a bilateral basis. For a resource to qualify for RA, its contract needs to specify that it will comply with the CAISO's rules for an RA resource which include a must-offer obligation, which requires it to submit self-schedules or bids into the CAISO market and make itself available for dispatch. There is a mechanism to ensure availability called the Resource Adequacy Availability Incentive Mechanism (RAAIM) that charges resources \$3.79/kW-mo for availability shortfalls below 94.5% of its must-offer obligation during certain assessment hours.<sup>1</sup>

### **System Resource Adequacy**

System RA requirements are designed to ensure LSEs meet expected peak loads (plus a 15% reserve margin) in the entire CAISO balancing area. In their annual filings (due October of each year), LSEs must demonstrate that they have procured 90% of their System RA

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<sup>1</sup> Hours vary by RA type. For generic RA capacity, it is weekdays Hour Ending 17-21, while for Category 1 Flexible RA, hours are daily Hour Ending 6-22.

requirements for the five summer months of that upcoming compliance year (May through September); in their monthly filings, LSEs must show 100% procurement for the upcoming month.

LSEs contract for RA capacity outside of the market-wide solicitations. Solicitations are reviewed by an independent evaluator who reports to the CPUC. Long-term RA contracts for new-build resources are common. However, while LSEs can contract with existing resources for five years or longer, doing so requires that the utility apply to the CPUC for approval, and such contracts have historically been rare; this is because LSEs and the CPUC are wary of locking in capacity given uncertainty around future capacity needs in California's evolving market and policy environment.<sup>2</sup>

### **Local Resource Adequacy**

Local RA requires LSEs to procure a minimum amount of capacity for transmission-constrained load pockets known as Local Constraint Areas (LCAs), which are determined by CAISO. As additional capacity cannot be reliably transmitted from regions where capacity builds may be more economic into these constrained zones, Local RA contracts are generally of higher value than those for System RA.

As it applies to PG&E, the company had two aggregation areas to address Local RA: PG&E Other and Bay Area. However, in February 2019 the CPUC issued a decision<sup>3</sup> that ordered the disaggregation of the six LCAs comprising PG&E Other for Local RA compliance purposes. The CPUC concluded that disaggregation "is a necessary first step towards addressing inefficient procurement that may lead to backstop procurement."

Additional issues raised by the Track 2 Decision, including centralized procurement for RA and the re-aggregation of PG&E Other, are discussed in greater detail below.

### **Flexible Resource Adequacy**

The RA program's final component, Flexible RA, attempts to ensure that LSEs can meet the largest continuous three-hour load ramp need in every month. Utilities must verify their flexible capacity procurement on a monthly and annual basis.

### **Centralized Procurement**

The February 2019 Track 2 Decision arose from a proceeding in Docket R. 17-09-020 which began in January 2018. In this rulemaking, the CPUC sought to evaluate various RA improvements, including the merits of centralized procurement. Under a Centralized Procurement Mechanism (CPM), a Central Procurement Entity (CPE) (e.g., CAISO, large utilities, or a special purpose entity) would procure capacity on behalf of smaller LSEs. In June 2018, the CPUC found that centralized procurement is most appropriate for multi-year Local RA, but that it has drawbacks for System or Flexible RA. In the Track 2 decision, the CPUC formally adopted a set of changes to the RA program, including the multi-year requirements for Local RA procurement, but postponed adoption of a CPM.

Additional stakeholder engagement following the Track 2 Decision led to a June 2020 decision in which the CPUC approved a hybrid model that still allows LSEs to self-supply but designates PG&E and Southern California Edison (SCE) as central buyers for their respective service territories as it applies to Local RA only. Under this hybrid model, LSEs can continue to procure their own resources, and if an LSE-procured resource also meets a Local RA need, the LSE has three options: 1) sell the capacity to the central buyer; 2) utilize the resource for its own System and Flexible RA needs; or 3) voluntarily show the resource to meet its own System and Flexible RA needs, and reduce the amount of Local RA that the central buyer will need to procure for the amount of time the LSE has agreed to show the resource.

Under the third option, the LSE does not receive a 1:1 credit for shown local resources; rather this local procurement reduces total central procurement costs to be shared by all

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<sup>2</sup> Source: CPUC 2013; Review of Current Issues with Long Term Resource Adequacy.

<sup>3</sup> Track 2 Decision, D. 19-02-022

LSEs. The LSE will retain the ability to use this local resource for its own System and Flexible needs. The central buyer will then determine what remains to be procured to avoid any local deficiencies. The changes are to take effect beginning with the 2023 compliance year.

A key advantage to the CPE is that the central buyer can more efficiently procure Local RA by selecting the lowest cost and most effective resources. Procurement by individual LSEs could lead to situations in which the most effective resource for overall grid reliability is not procured. For example, LSEs could base local resource decisions on their lowest cost, or local benefits such as providing jobs. This could lead to inefficient procurement and deficiencies at the local level that result in more costly backstop procurement. The centralized structure allows the central buyer to select the most effective local resources for overall grid reliability and also adapt to load uncertainty and migration by equitably allocating Local RA costs directly to end-users.

**Additional Track 2 Considerations**

In addition to addressing multi-year Local RA procurement and the hybrid model for Local RA procurement in PG&E and SCE service territories, Track 2 sought to make changes to the existing penalty structure for RA deficiency.

One issue relating to penalties imposed for RA deficiencies was that penalty prices were at times set below RA capacity prices, resulting in perverse incentives for LSEs whereby they would simply not procure RA capacity and instead pay the penalty, particularly during summer months when RA prices are at their highest. In order to address this, the CPUC adopted a shaped penalty system that moves October from a winter to a summer month and provides for a penalty of \$8.88/kW-mo during the summer (May-October) and \$4.44/kW-mo in non-summer months.

Track 2 also addressed the PG&E Other LCA, calling for it to be disaggregated into its original six components. At the time, the Commission reasoned that disaggregating was a first step towards addressing inefficient procurement of Local RA. Ongoing Track 2 proceedings evaluated whether the six LCAs comprising PG&E Other should be reaggregated or remain disaggregated. In the June 2020 decision, the Commission stopped short of reaggregating PG&E Other, but it does allow LSEs to demonstrate compliance with Local RA requirements by showing that procurement of Local RA capacity within the LCAs comprising PG&E Other meets the LSE’s collective requirement for the disaggregated PG&E Other LCAs. Thus, aggregated Local RA procurement is essentially still in effect for PG&E Other.

## 1.2 Conforming and Non-conforming Offers

In prior solicitations, PG&E accepted only those offers which strictly conformed to its bid forms, allowing for evaluation, and shortlisting of multiple bids within the necessary timeframes. Though this process has worked well for PG&E in prior solicitations, PG&E has recognized the merits of considering non-conforming offers in recent solicitations.

[REDACTED]

[REDACTED]

[Redacted]

[Redacted]

### 1.3 Solicitation Bid Evaluations, Shortlisting, and Negotiations

[Redacted]

[Redacted]

[Redacted]

## 2 INDEPENDENT EVALUATOR ACTIVITIES DURING THE SOLICITATION

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This section provides a description of PA's activities as the Independent Evaluator throughout the E-Solicitation, bid selection process, and contract negotiations.

### 2.1 IE's key roles and responsibilities

The role of the IE is to provide advice to the utility on the design, administration, and evaluation aspects of the E-Solicitation. The CPUC has clarified that the role of the IE is not to conduct or administer the E-Solicitation, but to "separately evaluate and report on the IOU's entire solicitation, evaluation, and selection process."

Additionally, the IE is to ensure that PG&E treats all bidders fairly and equitably and that no particular counterparty is favored. The IE also ensures that the bid selection process is transparent and is aligned with the procurement requirements. PG&E can also call on the IE's advice as to various evaluation issues that may arise during the E-Solicitation process. During the course of this E-Solicitation, PG&E did consult with the IE regarding certain aspects of the evaluation process.

### 2.2 PA's activities as IE

This section describes the activities PA performed associated with each stage in the E-Solicitation process in the role of IE for the 2022 Annual RA Solicitation. PA was involved from PG&E's development of the E-Solicitation materials in August through the selection of the bids and the negotiation and execution of contracts through October. PA evaluated whether the procedures followed by PG&E were aligned with the process it established in its Solicitation protocol and provided fair and equitable treatment of all bids. PA was in regular contact with PG&E staff throughout the process, addressing PG&E's questions, identifying, and resolving potential issues, and providing recommendations throughout the process.

#### 2.2.1 Solicitation materials

PA reviewed the E-Solicitation protocols prior to the Market Notice issuance and was in contact with PG&E regarding the development of the E-solicitation protocol, evaluation methodology, draft Confirmation Agreement, and other E-Solicitation materials. PG&E provided the draft Confirmation Agreement.

The E-Solicitation email providing Market Notice contained draft Confirmation Agreements (Confirms) for bidders to consider and notified bidders that PG&E would not entertain material revisions to the draft Confirms. An additional email was sent to bidders containing the E-Solicitation bid form.

#### 2.2.2 Bid submittal process

PG&E's bid intake process for the E-Solicitation was conducted entirely via email, including Phase I and II E-Solicitation Market Notices, draft RA Confirms, and Bid Forms. Several bidders submitted both bid forms as well as non-conforming offers via email.

#### 2.2.3 Communication with bidders

PG&E communicated with bidders via email and conference calls. The conference calls were infrequent and often scheduled on short notice.

PA attempted to attend all conference calls with bidders but was unable to attend every single one. PA then closely followed subsequent email communications with the given bidder in light of the call to ensure that PG&E did not provide preferential treatment of any kind to any bidder.

#### **2.2.4 Initial bid review and conformance check**

After receiving bids, PG&E conducted a conformance check on each bid to determine its compliance with all bid requirements. Bidders copied PA on initial email contact with PG&E and PA was able to effectively monitor communication between bidders and PG&E.

Given the complexity of the E-Solicitation, with PG&E buying and selling both Local and System RA, the bid forms necessarily included limitations on the number of options – particularly mutually exclusive options – that a bidder could include in their submittal. Multiple bidders contacted PG&E for clarification on how to use the bid form properly to achieve their desired configuration with mutually exclusive options. In some instances, PG&E contacted bidders to clarify the intent of the mutually exclusive grouping options that bidders had submitted in their bid form. PA did not consider the number of questions regarding the bidding process to be excessive, but rather indicative of the evolving nature of RA procurement for all entities as well as the multiple solicitations occurring in California at the same time as LSEs sought to satisfy all of their RA requirements for the upcoming compliance deadlines.

In both phases of the E-Solicitation, PG&E and PA found some bids to be non-conforming.

#### **2.2.5 Evaluation process**

PG&E developed an optimization model incorporating PG&E's initial supply positions for System and Local RA; the optimization model and evaluation process are described in detail in Section 4 of this report. PG&E has used this model in prior solicitations and has previously described the model and its methods for ranking, accepting, and rejecting bids based on a combination of bid price and requested volumes, and PA is familiar with the model and comfortable that it equitably determines the optimal combination of shortlisting awards.

While PA did not execute the optimization models, PA assembled a summary of all bids and their shortlisting status and conducted random spot checks of several bids from Phase I and conducted a full reconciliation of all bids from Phase II and their ultimate acceptance or rejection and found no issues with PG&E's ultimate bid shortlisting.

#### **2.2.6 Shortlist determination**

The initial proposed Phase I shortlist was provided to PG&E's Procurement Review Group (PRG) and PG&E provided PA with copies of the proposed shortlist. PG&E answered a number of clarifying questions PA had prior to notifying bidders of their shortlisting status. The Phase II shortlist was also provided to PA prior to shortlist notifications. Ultimately, PG&E reviewed with and discussed all shortlists with PA prior to notifying any bidders and incorporated PA's recommendations regarding decisions PG&E faced.

#### **2.2.7 Contract negotiations**

To streamline the process and reduce time between shortlisting notifications and Confirm executions, PG&E included the draft Confirmation documents (Confirms) in the E-Solicitation protocols and requested that prospective bidders provide comments and redline edits to the draft Confirms with their bid submittals. PG&E has used this process in recent solicitations, and the majority of bidders to this E-Solicitation have been participating in the majority of these E-Solicitations and typically have few, if any revision requests.

However, this E-Solicitation has seen new participants submitting bids. These participants do not have an existing EEI Master Agreement and were less familiar with PG&E's E-Solicitation process from start to finish, including how to fill out the bid form using the mutually exclusive grouping options. For these bidders, the majority of the negotiations related to the counterparty were for executing an EEI Master Agreement with PG&E as well as the specific terms of the transactions' Confirms.

Overall, bids required multiple email exchanges to come to an agreement on confirm language. [REDACTED]

[REDACTED] In total, between Phase I and Phase II, there were hundreds of emails between PG&E and counterparties. PA monitored all email communications during negotiations.

## 3 ADEQUACY OF PG&E'S OUTREACH

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This section addresses the adequacy of PG&E's outreach for the E-Solicitation as well as the E-Solicitation materials.

### 3.1 Notifications and announcements

PG&E's outreach included notifications to PG&E's E-Solicitation RA list containing almost 500 email addresses. PA observed heightened interest in PG&E's E-Solicitation relative to prior solicitations and believes that between this general market awareness of RA procurement activities and PG&E's efforts to publicize its E-Solicitation, PG&E extended adequate outreach for the Solicitation.

### 3.2 Solicitation materials

PG&E created E-Solicitation Market Notices and associated materials for each Phase of the E-Solicitation. The E-Solicitation materials were provided to PG&E's Solicitation email distribution list in the E-Solicitation outreach, including the Market Notice, draft Confirm, and the bid submittal form developed by PG&E. The Market Notice included information on the types of products PG&E was seeking and over what term, as well as a proposed E-Solicitation evaluation schedule.

In PA's opinion, PG&E provided appropriate E-Solicitation materials and provided prompt response to any questions received by potential bidders.

## 4 PG&E'S BID EVALUATION DESIGN

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This section describes PG&E's bid evaluation methodology for the E-Solicitation.

### 4.1 Principles used to evaluate methodology

PA used the following principles to guide its evaluation:

- The procurement targets and objectives should be clearly defined in PG&E's E-Solicitation materials;
- The evaluation should only be based on those criteria requested in the response form;
- The methodology should identify how quantitative measures will be considered and be consistent with an overall metric;
- The approach should not be biased for or against specific counterparties; and
- The methodology does not have to be the one that the IE would independently have selected but it needs to be "reasonable".

### 4.2 Amount and type of RA products

In this E-Solicitation, PG&E sought offers for sale (i.e., **PG&E buys**), bids to purchase (i.e., **PG&E sells**), and offers for sale / bids to purchase (i.e., **simultaneous PG&E buys/PG&E sells**) of eligible Local and System RA with January through December 2022 delivery periods. PG&E also sought bids to purchase (i.e., **PG&E sells**) for IAR monthly products for the January through December 2022 delivery periods. PG&E sought offers for sale (i.e., **PG&E buys**) of WSPP Schedule C Import Energy for the January through December 2022 delivery periods. PG&E did not specify the amounts of RA capacity it wished to purchase but did specify minimum volumes of 1 MW for all products except Import Energy, which had a minimum volume of 5 MW specified.

The Market Notice further noted that PG&E's preference is to transact Import Energy indexed to CAISO LMP but would also consider offers for ICE Indexed or Fixed Prices transactions.

### 4.3 Description of PG&E's bid evaluation methodology

PG&E's valuation and selection approach was intended to evaluate the different product types as consistently as possible. The initial step included a conformance check of each offer. The conforming offers then went through an optimization analysis designed to maximize ratepayer value while maintaining compliance with RA requirements. The methodology considered both quantitative as well as qualitative factors as described below.

#### 4.3.1 Conformance check

The initial analysis included an assessment of conformance. All offers needed to conform to the minimum participation criteria and eligibility. The E-Solicitation was less complex than other procurement processes in which the utility is seeking to acquire resources, and as such had more limited conformance requirements.

The conformance requirements were generally limited to the following required documents:

- A redline mark-up of the RA Confirmation or a statement that the bidder accepts PG&E's form RA Confirmation without change; and

- An RA Bid Form Template, indicating the types, delivery term, and volumes the bidder wished to purchase.

As noted above, PG&E determined that non-conforming bids would be accepted and reviewed after conforming offers were evaluated for shortlisting. These included complex, mutually exclusive RA bids which could not be accommodated in PG&E's bid forms as well as more atypical bids involving project or resource specific bids and other types of bids. PA is not aware of any bids which were rejected for non-compliance nor of any late bids which were rejected due to being submitted past the submittal deadlines.

#### **4.3.2 Quantitative bid evaluation**

PG&E primarily relied on a quantitative evaluation of each bidder's proposed volumes of RA to be purchased or sold and the bidder's proposed price for each product.

[REDACTED]

[REDACTED]

[REDACTED]

#### ***Development of supply curves***

[REDACTED]

[REDACTED]

#### ***Bid optimization***

[REDACTED]

[REDACTED]

[REDACTED]

## 4.4 Evaluation of PG&E's methodology

PA generally believes that PG&E's methodology was reasonable, within the context of the principles set forth in Section 4.1.

# 5 FAIRNESS OF PG&E BID EVALUATION

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This section addresses the application or administration of the methodology described in Section 4.

## 5.1 Principles IE used to evaluate evaluation methodology

As in the previous section, PA used the following principles to guide its evaluation, and in this case phrased as questions:

- Were bidder questions answered fairly and consistently and the answers made available to all?
- Did the utility ask for "clarifications" that provided the bidder an advantage over others?
- Were all bids given equal credibility in the economic evaluation?

## 5.2 Administration of bid evaluation process

A description of PA's activities in its role as IE is provided in Section 2. Based on PA's participation and observations we believe that:

- Bidder questions were answered fairly and consistently
  - PA monitored all communications between bidders and PG&E including questions, and believes the questions posed were reasonably and fairly answered
- PG&E's clarification questions were minimal and reasonable, and did not advantage any bidder;
- PG&E applied conformance requirements fairly to all bids and consistent with bid documents;
- All conforming bids were given equal credibility in the quantitative evaluation;
- Bids were ranked and evaluated as consistently as possible; and
- PG&E's evaluation of bids and selection of shortlisted bids conformed to the E-Solicitation documents.

## 5.3 IE's review of PG&E's conformance checks

After the Phase I and II bids were submitted and the E-Solicitation closed, PG&E began an initial conformance check. PA also received a complete copy of all the bids as they were submitted. There were several bidders whose bid forms had unclear proposals with regard to the application of the mutually exclusive grouping options; for these bids PG&E contacted the bidder and clarified the bid. PA was included on all such communications. Given the E-Solicitation was relatively straightforward with few requirements, PA did not anticipate and is not aware of any bids which PG&E rejected for non-conformance.

## 5.4 Review of PG&E's application of the bid evaluation methodology

### 5.4.1 Review of evaluation of offers

PA reviewed PG&E's quantitative evaluation through a spot checking of individual bids and their acceptance for shortlisting or rejection by PG&E. This process and spot checking occurred for Phase I bids. For Phase II bids, PA manually reconciled every individual bid's acceptance for shortlisting or rejection by PG&E.

Through this process, PA was able to review and confirm PG&E's interpretation of the original bid data as well as the application of the optimization modeling. [REDACTED]



## 5.5 IE's review of PG&E's selected shortlists

PA held discussions with PG&E regarding each of its proposed shortlists in Phase I and Phase II.



PA believes the final Phase I and II shortlists were selected appropriately.

## 5.6 Fairness of PG&E's evaluation

Based on PA's review of PG&E's analysis, participation in calls and meetings and other IE activities, PA believes that PG&E conducted the 2022 Annual RA Solicitation evaluation analysis fairly.

## 5.7 Recommendations

PA believes that PG&E conducted the 2022 Annual RA Solicitation evaluation in a fair and consistent manner and that the E-Solicitation process went reasonably smoothly.

While PA found the timeline for this E-Solicitation to be relatively short, we found that the majority of the time spent on the negotiations for the transactions was spent on negotiating language in the Confirm agreements related to the transactions. In most of these cases, the counterparties had transacted with PG&E previously and as such the Confirm negotiation period appeared reasonable.

Specific to the bid evaluation process and timeline, PA recommends that wherever possible, in future solicitations PG&E allow for additional time to conduct the quantitative evaluations. PA understands that the timeframes for both the Phase I and Phase II evaluations were driven by the timing of the preliminary and final RA allocations released by the CPUC and the final NQC determinations by the CAISO relative to the compliance filing requirement.



Lastly, although many bidders participating in the 2022 Annual RA Solicitation had participated in previous PG&E solicitations, there were new participants to the E-Solicitation. As such, for future large or annual solicitations, PA recommends that PG&E host a pre-bid conference to discuss how to appropriately complete the bid form. In the 2022 Annual RA Solicitation, PG&E answered bidders' questions effectively. However, a pre-bid conference could help dispel any confusion to new bidders, or bidders with employees new to PG&E's solicitations.

PA believes PG&E conducted the 2022 E-Solicitation relatively smoothly and effectively.

## 6 MERIT OF SOLICITATION SHORTLIST

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Through the bid evaluation and selection process, PA believes that PG&E selected the best offers submitted for the 2022 Annual RA Solicitation.

### 6.1 Did PG&E conduct the Solicitation consistent with Commission decisions and PG&E's defined bid evaluation methodology?

It is PA's opinion that PG&E conducted a fair solicitation consistent with Commission decisions and PG&E's defined bid evaluation methodology.

### 6.2 Do selected shortlisted bids provide the best overall value to ratepayers?

PA believes PG&E fairly selected its shortlists of bids for the Solicitation and that the bids provide the best overall value to ratepayers.

### 6.3 Did the shortlist conform to PG&E's RA sales strategy?

The shortlists prepared by PG&E did conform to the RA sales strategy.

### 6.4 Reasonableness of the shortlist

In PA's opinion, PG&E's shortlists were reasonable.

## 7 FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

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PA closely monitored the contract negotiations and PG&E provided PA copies of contract drafts, included PA on e-mails, and instructed counterparties to include PA on all communications.

### 7.1 Principles PA used to evaluate fairness of negotiations

PA applied the following three principles to evaluate the fairness of negotiations:

- PG&E should not show bias toward any bidder by allowing contract conditions not offered to other bidders unless those conditions are balanced by comparable concessions by the bidder;
- PG&E should not negotiate harder or less hard with a bidder than with any other bidder; and
- PG&E should not attempt to impose contract conditions in the negotiation that significantly change the balance of the bargain, relative to what the bidder could have reasonably expected based on the E-Solicitation protocol materials.

### 7.2 Describe fairness of negotiations

PA received copies of red-lined draft contract documents to review and was copied on all emails between PG&E and bidders. PA believes that PG&E treated bidders consistently and fairly relative to each other (the first two principles above).

### 7.3 What terms and conditions underwent significant changes during the course of negotiations?

PG&E provided bidders a draft RA Confirm agreement with the initial E-Solicitation materials. Providing draft contracts prior to bid submittal is beneficial for both the bidders and PG&E. Draft contract documents provide bidders more clarity on the product, risk sharing, technical and other factors so that they are able to design and price their offers appropriately. It also can improve PG&E's ability to evaluate the bids when the requirements and parameters are clearly identified as part of the bidding process.

Generally, most counterparties who ultimately executed transactions via the E-Solicitation are familiar with PG&E's Confirms and the negotiations were straightforward and quickly concluded. To the extent that certain bidders had multiple emails and in some cases telephone conference calls with PG&E, these cases tended to be instances where the counterparty and PG&E were exploring specific nuances.

### 7.4 Was similar information and options made available to other participants?

PA believes that similar information and options were made available to each participant.

# 8 MERIT OF CONTRACT APPROVAL

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PG&E negotiated and signed a total of [REDACTED] contracts through this E-Solicitation, including PG&E [REDACTED] in Phase I and Phase II of the E-Solicitation. These contracts will involve [REDACTED]. Additionally, from Phase II of the E-Solicitation, PG&E currently has [REDACTED]

Through the bid evaluation and selection process, PA believes that PG&E selected appropriate offers. Based on the analysis and assumptions described throughout this report, PA recommends approval of these transactions.

Advice 6484-E  
January 31, 2022

## **Attachment 3**

Attachment H (Public Version)

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**New Contracts Executed During the Quarter**

The table below provides a summary of Request for Offer (RFO) and Competitive 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.

<b>Contract/ Counterparty Name</b>	<b>Executed/S igned Date</b>	<b>Product</b>	<b>Local Area</b>	<b>Term</b>	<b>Volume (MW)</b>	<b>Price (kW-mo)</b>	<b>Notional Value (\$)</b>	<b>Confirm File Name</b>
None for the Quarter								

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**New Contracts Executed During the Quarter**

The table below provides a summary of e-solicitation and/or Market RFP contracts executed through competitive processes during the Quarter and filed for CPUC approval via this QCR advice letter. A copy of the contracts subject to this QCR filing is included.

<b>Contract/ Counterparty Name</b>	<b>Executed/ Signed Date</b>	<b>Product</b>	<b>Local Area</b>	<b>Term</b>	<b>Volume (MW) or (MT)</b>	<b>Price (kW-mo) or (MW- day)</b>	<b>Notional Value (\$)</b>	<b>Confirm File Name</b>
Orange County Power Authority (33B271U01)	10/11/2021	System, Flexible RA (Sale)	N/A		118			Q4 2021 E- Solicitation
					68.65			
					202			
					192			
Sonoma Clean Power Authority (33B226U02)	10/14/2021	Local RA (Purchase)			4.56			Q4 2021 E- Solicitation
					4.56			
					4.56			
Sonoma Clean Power Authority (33B226U03)	10/14/2021	Local RA (Sale)			4.56			Q4 2021 E- Solicitation
					4.56			
					4.56			
Sonoma Clean Power Authority (33B226U04)	10/14/2021	System RA (Purchase)	N/A		72			Q4 2021 E- Solicitation
Southern California Edison Company (33B217T25)	10/14/2021	Local RA (Purchase)			372			Q4 2021 Market RFP
					49.33			
		Local, Flexible RA (Purchase)			61			
Commercial Energy of Montana Inc. (33B202U02)	10/25/2021	Local RA (Sale)	N/A		1			Q4 2021 E- Solicitation
		System RA (Sale)			20			
East Bay Community Energy Authority (33B238U04)	10/26/2021	Local RA (Sale)			16			Q4 2021 E- Solicitation
Marin Clean Energy (33B235U08)	10/26/2021	Local RA (Purchase)			40			Q4 2021 E- Solicitation
					15			
					40			

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW- day)	Notional Value (\$)	Confirm File Name
Silicon Valley Clean Energy Authority (33B230U03)	10/26/2021	System RA (Sale)	N/A		32			Q4 2021 E-Solicitation
Pioneer Community Energy (33B245U03)	10/26/2021	Local RA (Purchase)			10			Q4 2021 E-Solicitation
Peninsula Clean Energy Authority (33B232U05)	10/26/2021	System RA (Sale)	N/A		92			Q4 2021 E-Solicitation
			N/A		70			
Central Coast Community Energy (33B236U06)	10/27/2021	System RA (Sale)	N/A		185			Q4 2021 E-Solicitation
					50			
Orange County Power Authority (33B271U02)	10/27/2021	System RA (Sale)	N/A		153			Q4 2021 E-Solicitation
		System, Flexible RA (Sale)	N/A		14			
					53			
CCSF, acting by and thru its PUC, CleanPowerSF (33B243U03)	10/27/2021	Local RA (Sale)			4			Q4 2021 E-Solicitation
		System RA (Sale)	N/A		4			
			N/A		122			
		System, Flexible RA (Sale)	N/A		39		8	
CCSF, acting by and thru its PUC, CleanPowerSF (33B243U04)	10/27/2021	System RA (Purchase)	N/A		30			Q4 2021 E-Solicitation
CCSF, acting by and thru its PUC, CleanPowerSF (33B243U05)	10/27/2021	Local RA (Sale)			9			Q4 2021 E-Solicitation
					7			
Sonoma Clean Power Authority (33B226U05)	10/27/2021	Local RA (Purchase)			2.67			Q4 2021 E-Solicitation
					2.67			
		System RA (Purchase)	N/A		10		2.87	
Sonoma Clean Power Authority (33B226U06)	10/27/2021	System RA (Sale)	N/A		32			Q4 2021 E-Solicitation
					42			
Sonoma Clean Power		Local RA			2.67			Q4 2021 E

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW- day)	Notional Value (\$)	Confirm File Name
Authority (33B226U07)	10/27/2021	Local RA (Sale)			2.67			Q4 2021 E- Solicitation
					2.87			
					69.64			
Southern California Edison Company (33B217U05)	10/27/2021	Local RA (Purchase)			20.67			Q4 2021 Market RFP
					37.16			
					43.01			
					107.15			
					44.43			
Southern California Edison Company (33B217U06)	10/27/2021	System RA (Purchase)	N/A		360			Q4 2021 Market RFP
					10			
Southern California Edison Company (33B217U07)	10/28/2021	Local RA (Purchase)			155			Q4 2021 Market RFP
					117			
					171.87			
					136.74			
					27.98			
Southern California Edison Company (33B217U08)	10/28/2021	System RA (Sale)	N/A		10			Q4 2021 Market RFP
					272			
					308.61			
					27.98			

**Confidential Attachment H  
Pacific Gas and Electric Company  
Procurement Transaction Quarterly Compliance Report  
Q4 2021**

**New Contracts Executed During the Quarter**

The table below provides a summary of bilateral contracts (including GHG offset transactions facilitated by brokers), and significant exchange-placed trades, (including RA transactions facilitated by brokers) executed during the Quarter and filed for CPUC approval via this QCR advice letter. A copy of the contracts subject to this QCR filing is included.

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW-day)	Notional Value (\$)	Confirm File Name
San Diego Gas and Electric (33B256T03)	10/1/2021	System RA (Sale)	N/A		99.7			Q4 2021 Bilateral
					99.7			
					99.7			
Calpine Energy Services, L.P. (33B029U07)	10/22/2021	Local, Flexible RA (Purchase)			50		Q4 2021 Broker	
Calpine Energy Services, L.P. (33B029U08)	10/22/2021	Local RA (Purchase)			15			Q4 2021 Broker
					15			
					15			
					15			
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15								

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW-day)	Notional Value (\$)	Confirm File Name							
		Local, Flexible RA (Purchase)			15										
					15										
					15										
					15										
					15										
					15										
					15										
Clean Power Alliance of Southern California (33B240U01)	10/26/2021	System RA (Sale)	N/A		30			Q4 2021 Broker							
					30										
					30										
					30										
					30										
					30										
					30										
					30										
					30										
					30										
					30										
Calpine Energy Services, L.P. (33B029U12)	10/27/2021	Local RA (Purchase)			15			Q4 2021 Broker							
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					15										
					15										
					15										
					14										
					14										
					13										
					15										
					15										
					15										
					15										
										Local, Flexible RA (Purchase)			1		
		1													

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW-day)	Notional Value (\$)	Confirm File Name							
		(Purchase)			2										
Calpine Energy Services, L.P. (33B029U13)	10/27/2021	System, Flexible RA (Sale)	N/A		15			Q4 2021 Broker							
					15										
					15										
					15										
					15										
					15										
					15										
					15										
					15										
					15										
Calpine Energy Services, L.P. (33B029U09)	10/28/2021	Local RA (Purchase)			90			Q4 2021 Broker							
Calpine Energy Services, L.P. (33B029U10)	10/29/2021	Local RA (Purchase)			65			Q4 2021 Broker							
					65										
					65										
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					65										
					65										
		Local, Flexible RA (Purchase)			105				105	105	105	105	105	105	105
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Calpine Energy Services, L.P. (33B029U11)	10/29/2021	System RA (Sale)	N/A	65				Q4 2021 Broker							
			N/A												
			N/A												
			N/A												
			N/A												
			N/A												
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			N/A												
			N/A												
			N/A												
			N/A												
			N/A												
			N/A												
N/A	105	N/A	105												

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW-day)	Notional Value (\$)	Confirm File Name
		System, Flexible RA (Sale)	N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
			N/A		105			
San Diego Gas and Electric (33B256T04)	11/4/2021	System, Flexible RA (Sale)	N/A		97			Q4 2021 Bilateral
Marin Clean Energy (33B235U09)	11/16/2021	Local RA (Purchase)			3.68			Q4 2021 Broker
					3.71			
					3.63			
					3.69			
					3.7			
					3.56			
					3.51			
					3.56			
					3.58			
					3.68			
Marin Clean Energy (33B235U10)	11/16/2021	Local RA (Sale)			3.68			Q4 2021 Broker
		System RA (Sale)	N/A		3.68			
			N/A		3.71			
			N/A		3.63			
			N/A		3.69			
			N/A		3.7			
			N/A		3.56			
			N/A		3.51			
			N/A		3.56			
			N/A		3.58			
N/A			3.6					
					1			
					1			

Contract/ Counterparty Name	Executed/ Signed Date	Product	Local Area	Term	Volume (MW) or (MT)	Price (kW-mo) or (MW-day)	Notional Value (\$)	Confirm File Name
3 Phase Renewables (33B113U02)	11/30/2021	Local, Flexible RA (Purchase)			1			Q4 2021 Broker
					1			
					1			
					1			
					1			
					1			
					1			
					1			
					1			
3 Phase Renewables (33B113U03)	11/30/2021	System RA (Sale)	N/A		1			Q4 2021 Broker
			N/A					
			N/A					
			N/A					
			N/A					
			N/A					
			N/A					
			N/A					
			N/A					
			N/A					

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**New Contracts Executed During the Quarter**

The table below provides a summary of Carbon Free Energy Contracts executed during the Quarter and filed for CPUC approval via this QCR advice letter. A copy of the contracts subject to this QCR filing is included. Carbon Free Energy is energy produced by large hydroelectric resources and nuclear resources and sold to eligible Load Serving Entities (LSEs).<sup>1</sup>

Contract/ Counterparty Name	Executed/ Signed Date	Product	Resource Pool	Term	Monthly Allocation Ratio <sup>2</sup>	Net Price <sup>3</sup>	Notional Value	Confirm File Name
East Bay Community Energy Authority (33B238CA04)	12/20/2021	Carbon Free Energy (Sale)	[REDACTED]	Jan-22	[REDACTED]	\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
CCSF, acting by and thru its PUC, CleanPowerSF (33B243CA03)	12/20/2021	Carbon Free Energy (Sale)	[REDACTED]	Jan-22	[REDACTED]	\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
The Regents of the University of California (33B261CA03)	12/20/2021	Carbon Free Energy (Sale)	[REDACTED]	Jan-22	[REDACTED]	\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Central Coast			[REDACTED]	Jan-22	[REDACTED]			Q4 2021
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				

Contract/ Counterparty Name	Executed/ Signed Date	Product	Resource Pool	Term	Monthly Allocation Ratio <sup>2</sup>	Net Price <sup>3</sup>	Notional Value	Confirm File Name								
Central Coast Community Energy (33B236CA04)	12/20/2021	Carbon Free Energy (Sale)		Jun-22		\$0	\$0	Q4 2021 Carbon Free Energy								
				Jul-22												
				Aug-22												
				Sep-22												
				Oct-22												
				Nov-22												
				Dec-22												
				3 Phases Renewables, Inc. (33B113CA01)					12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
												Feb-22				
												Mar-22				
												Apr-22				
												May-22				
Jun-22																
Jul-22																
Aug-22																
Sep-22																
Oct-22																
Nov-22																
Dec-22																
Calpine Energy Solutions, LLC (33B211CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy								
				Feb-22												
				Mar-22												
				Apr-22												
				May-22												
				Jun-22												
				Jul-22												
				Aug-22												
				Sep-22												
				Oct-22												
				Nov-22												
				Dec-22												
Peninsula Clean Energy Authority (33B232CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy								
				Feb-22												
				Mar-22												
				Apr-22												
				May-22												
				Jun-22												
				Jul-22												
				Aug-22												
				Sep-22												
				Oct-22												
				Nov-22												
				Dec-22												
Sonoma Clean Power Authority (33B226CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy								
				Feb-22												
				Mar-22												
				Apr-22												
				May-22												
				Jun-22												
				Jul-22												
				Aug-22												
				Sep-22												
				Oct-22												
				Nov-22												
				Dec-22												

Contract/ Counterparty Name	Executed/ Signed Date	Product	Resource Pool	Term	Monthly Allocation Ratio <sup>2</sup>	Net Price <sup>3</sup>	Notional Value	Confirm File Name
Commercial Energy of Montana Inc. (33B202CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Marin Clean Energy (33B235CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Shell Energy North America (US), L.P. (33B022CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Pioneer Community Energy (33B245CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Direct Energy Business LLC (33B255CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				

Contract/ Counterparty Name	Executed/ Signed Date	Product	Resource Pool	Term	Monthly Allocation Ratio <sup>2</sup>	Net Price <sup>3</sup>	Notional Value	Confirm File Name
				Aug-22				Energy
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Silicon Valley Clean Energy Authority (33B230CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Valley Clean Energy Alliance (33B254CA03)	12/20/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
San Jose Clean Energy (33B247CA03)	12/22/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				
Redwood Coast Energy Authority (33B259CA03)	12/22/2021	Carbon Free Energy (Sale)		Jan-22		\$0	\$0	Q4 2021 Carbon Free Energy
				Feb-22				
				Mar-22				
				Apr-22				
				May-22				
				Jun-22				
				Jul-22				
				Aug-22				
				Sep-22				
				Oct-22				
				Nov-22				
				Dec-22				

Contract/ Counterparty Name	Executed/ Signed Date	Product	Resource Pool	Term	Monthly Allocation Ratio <sup>2</sup>	Net Price <sup>3</sup>	Notional Value	Confirm File Name
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<sup>1</sup> PG&E BPP AL 5705-E created Appendix P, Carbon Free Energy. BPP Appendix P was updated with AL 5930-E, AL 6086-E, and AL 6348-E.

<sup>2</sup> Monthly percentage of the Buyer's PCIA Load Share.

<sup>3</sup> Price nets to zero because eligible LSEs pay for these MWhs through PCIA and PG&E is retaining all CAISO revenues.

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**New Contracts Executed/Contracts Amended During the Quarter**

Informational purposes only: A summary of a contract executed during the Quarter to be approved via an Advice Letter Filing. For further details, please see PG&E's Q4 2021 QCR Public Narrative.

<b>Contract/ Counterparty Name</b>	<b>Executed/ Signed Date</b>	<b>Product</b>	<b>Term</b>	<b>Type of Transaction</b>	<b>Date Filed</b>	<b>Regulatory Reporting or Approval Process</b>
Cascade Energy Storage, LLC (33B270U01)	10/7/2021	RA	N/A	Contract	1/19/2022	AL 6469-E

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**New Contracts Executed/Contracts Amended During the Quarter**

**Informational purposes only:** In accordance with PG&E's CPUC approved BPP, below is a summary of QF contracts executed and/or amended during the Quarter filed via separate application, advice letter or other approval mechanisms:

<b>Contract/ Counterparty Name</b>	<b>Executed/ Signed Date</b>	<b>Product</b>	<b>Term</b>	<b>Type of Transaction</b>	<b>Date Filed</b>	<b>Regulatory Reporting or Approval Process</b>
Western Power and Steam, Inc. (25C138QPE)	12/28/2021	QF SOC PURPA 2020	1 year	Contract	N/A	2021 ERRA Compliance Filing

**Confidential Attachment H  
Pacific Gas and Electric Company  
Procurement Transaction Quarterly Compliance Report  
Q4 2021**

**New Contracts Executed/Contracts Amended During the Quarter**

**Informational purposes only:** In accordance with PG&E’s CPUC approved BPP, below is a summary of contracts executed and/or amended during the Quarter (non-QF) filed via separate application, advice letter or other approval mechanisms:

<b>Contract/ Counterparty Name</b>	<b>Executed/ Signed Date</b>	<b>Product</b>	<b>Term</b>	<b>Contract</b>	<b>Date Filed</b>	<b>Regulatory Reporting or Approval Process</b>
Clean Energy Alliance (33R517)	10/1/2021	RPS Energy REC Sales	1 month	Contract	10/19/2021	AL 6371-E
Orange County Power Authority (33R518)	10/7/2021	RPS Energy REC Sales	9 months	Contract	10/19/2021	AL 6371-E
Orange County Power Authority (33R519)	10/7/2021	RPS Energy REC Sales	9 months	Contract	10/19/2021	AL 6371-E
Tracy Desalination Project (33R500BIO)	10/21/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
Abel Road Bioenergy (33R479BIO)	10/26/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
Daggett Solar Power 3 LLC (40S023)	10/28/2021	Energy Storage	N/A	Consent to Assignment - Financing	N/A	2021 ERRAs Compliance Filing
Hat Creek Bioenergy, LLC (33R437BIO)	11/2/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
Blue Mountain Electric Company (33R436BIO)	11/3/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
Alameda Grant Line Solar 1 (33R520RM)	11/5/2021	ReMAT	15 years	Contract	N/A	2021 ERRAs Compliance Filing
RuAnn Dairy Digester (33R470BIO)	11/8/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
RE Gaskell West 4 (33R420)	11/9/2021	RPS	N/A	Consent to Assignment - General Consent	N/A	2021 ERRAs Compliance Filing
RE Gaskell West 5 (33R421)	11/9/2021	RPS	N/A	Consent to Assignment - General Consent	N/A	2021 ERRAs Compliance Filing
WCW Generator 1 (33R487BIO)	11/15/2021	BioMAT	N/A	Non-Routine Amendment to Existing Agreement	N/A	Advice Letter pending
Hat Creek Hereford Ranch Power (33R521RM)	12/6/2021	ReMAT	20 years	Contract	N/A	2021 ERRAs Compliance Filing
Moss Landing Energy Storage 3 (40S032)	12/20/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Poblano Energy Storage (40S033)	12/20/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Corby Energy Storage, LLC (40S036)	12/21/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E

<b>Contract/ Counterparty Name</b>	<b>Executed/ Signed Date</b>	<b>Product</b>	<b>Term</b>	<b>Contract</b>	<b>Date Filed</b>	<b>Regulatory Reporting or Approval Process</b>
Kola Energy Storage, LLC (40S035)	12/21/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Caballero CA Storage, LLC (40S034)	12/22/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Nighthawk Energy Storage, LLC (40S037)	12/22/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Jaton LLC (33R522)	12/23/2021	DAC-GT	20 years	Contract	N/A	Advice Letter pending
RPCA Solar 7, LLC (33R523)	12/23/2021	DAC-GT	20 years	Contract	N/A	Advice Letter pending
Beaumont ESS 1, LLC (40S038)	12/28/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Canyon Country ESS I, LLC (40S039)	12/28/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Sanborn ESS III, LLC (40S040)	12/28/2021	Energy Storage	15 years	Contract	1/21/2022	AL-6477-E
Kings CSG 3 LLC (33R524)	12/29/2021	CS-GT	20 years	Contract	N/A	Advice Letter pending

**Confidential Attachment H**  
**Pacific Gas and Electric Company**  
**Procurement Transaction Quarterly Compliance Report**  
**Q4 2021**

**Expired and Terminated Contracts During the Quarter**

**Informational purposes only:** In accordance with PG&E's CPUC approved BPP, below is a summary

<b>Contract/ Counterparty Name</b>	<b>Termination or Expiration <sup>1</sup></b>	<b>Date</b>	<b>Product</b>	<b>Volume (MW)</b>
SFWPA - Sly Creek / Kelly Ridge / Woodleaf / Forbestown (33R074 / 33B103)	Expiration	12/18/2021	RPS / Conventional	117
Geysers Power Company, LLC (33R093)	Expiration	12/31/2021	RPS	250
Calpine Peakers Replacement & Extension (33B097)	Expiration	12/31/2021	Tolling	325.5

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<sup>1</sup> A terminated contract is ended before its original expiration date. An expiration date is the nature end of the contract.

Advice 6484-E  
January 31, 2022

## **Attachment 4**

### Confidentiality Declarations and Matrix

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

**PACIFIC GAS AND ELECTRIC COMPANY  
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 6484-E**

**DECLARATION OF JOHN ULLOA  
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND INFORMATION  
CONTAINED IN CONFIDENTIAL ATTACHMENTS A, B, D, J AND L**

I, John Ulloa, declare:

1. I am presently employed by Pacific Gas and Electric Company (“PG&E”) and have been an employee since 1998. My current title is Manager, Electric Gas Supply in the Electric and Gas Acquisition Department, which is part of the Energy Policy and Procurement organization. I am responsible for physical and financial trading of gas in support of 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. This declaration is based on my personal knowledge of PG&E’s practices and my understanding of the Commission’s decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with Decisions (“D.”) 06-06-066, 14-10-033 and relevant Commission rules, I make this declaration seeking confidential treatment of PG&E’s January 31, 2022 Advice Letter 6484-E, Confidential Attachments A, B, D, J, and L.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by D.06-06-

066, 14-10-033 and Public Utilities Code Section 454.5(g). The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text 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 31, 2022, at San Francisco, California.

*/s/*

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John Ulloa

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

**PACIFIC GAS AND ELECTRIC COMPANY  
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 6484-E**

**DECLARATION OF JAY BUKOWSKI  
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND  
INFORMATION CONTAINED IN PG&E'S  
CONFIDENTIAL ATTACHMENTS F 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 Manager within PG&E's Energy Policy and 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. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.
2. Based on my knowledge and experience, and in accordance with Decisions ("D.") 06-06-066, 14-10-033 and relevant Commission rules, I make this declaration seeking confidential treatment of PG&E's January 31, 2022 Advice Letter 6484-E, Confidential Attachments F and K.
3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by D.06-06-

066, 14-10-033, and/or Public Utilities Code Section 454.5(g). The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text 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 31, 2022, at San Francisco, California.

/s/

\_\_\_\_\_  
Jay Bukowski

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

**PACIFIC GAS AND ELECTRIC COMPANY  
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 6484-E**

**DECLARATION OF MARIANNE AIKAWA  
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND  
INFORMATION CONTAINED IN  
CONFIDENTIAL ATTACHMENTS A, B, C, E, G, H, J, L, AND M**

I, Marianne Aikawa, declare:

1. I am presently employed by Pacific Gas and Electric Company (“PG&E”) and have been an employee at PG&E since 1989. My current title is Interim Director within PG&E’s Energy Policy and 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. This declaration is based on my personal knowledge of PG&E’s practices and my understanding of the Commission’s decisions protecting the confidentiality of market-sensitive information.
2. Based on my knowledge and experience, and in accordance with Decisions (“D.”) 06-06-066, 14-10-033 and relevant Commission rules, I make this declaration seeking confidential treatment of PG&E’s January 31, 2022 Advice Letter 6484-E, Confidential Attachments A, B, C, E, G, H, J, L and M.
3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by D.06-06-066, 14-10-033 and/or Public Utilities Code Section 454.5(g). The matrix also specifies why

confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text 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 31, 2022, at San Francisco, California.

\_\_\_\_\_  
/s/  
Marianne Aikawa

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)  
 QUARTERLY COMPLIANCE REPORT ADVICE LETTER 6484-E  
 PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF Q4 2021  
 JANUARY 31, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

Redaction Reference	D.14-10-033, GHG Confidential Information Matrix (As corrected by D. 15-01-024)	Justification for Confidential Treatment	Length of Time Date To Be Kept Confidential
<b>Document: Quarterly Compliance Report</b>			
Confidential Attachment E, Q4 2021 GHG Materials folder:  File name: 06_PGE PRG PRES GHG Position Upd_121421.pdf, "Market Data Review, GHG Dispatch Curve", page 4	GHG Compliance Instrument Expected Prices	Pursuant to D.14-10-033, "ARB Confidential" information (such as GHG auction price forecasts and WAC records) are confidential and may not be disclosed to market participants or their reviewing representatives.	Indefinite
Confidential Attachment F, Confid Attachment F Qtr04 2021 zip file:  File name: PGE PRG PRES GHG Position Update_121421.pdf, "Market Data Review, GHG Dispatch Curve", page 4  Confidential Attachment F, Confid Attachment F, PRG Meeting Materials and Summaries, December 14, 2021 folder:  File name: PGE PRG PRES GHG Position Update_121421.pdf, "Market Data Review, GHG Dispatch Curve", page 4	GHG Compliance Instrument Expected Prices	Pursuant to D.14-10-033, "ARB Confidential" information (such as GHG auction price forecasts and WAC records) are confidential and may not be disclosed to market participants or their reviewing representatives.	Indefinite

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)  
 QUARTERLY COMPLIANCE REPORT ADVICE LETTER 6484-E  
 PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF Q4 2021  
 JANUARY 31, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order that Data Corresponds To	Justification for Confidential Treatment	Length of Time Date To Be Kept Confidential
<b>Document: Quarterly Compliance Report</b>			
Attachment A – Physical and Financial Electric Transactions	Item XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)	This information reveals actual electric quantities and cost, as well as procurement cost categorized by transaction type, which is provided to Energy Division and is confidential for three years.	3 Years
	Item XIII) Energy Division Monthly Data Request (AB 57)	This information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	3 years
Attachment A – Physical and Financial Natural Gas Transactions	Item I) A) 4) Long-term fuel (gas) buying and hedging plans	Each financial transaction is a factor in PG&E's long term buying and hedging strategies. With the entire set of transactions PG&E's counterparties could reconstruct PG&E's gas buying and hedging plans.	Financial transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
	Item I) B) 2) Utility recorded gas procurement and cost information	Actual quantity and cost of procured physical gas are protected.	Utility recorded physical gas procurement and cost information is confidential for one year.
	Item XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve the confidentiality of ERRA documentation	Monthly procurement costs (ERRA Filings) are confidential for 3 years.

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 JANUARY 31, 2022**

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<b>Document: Quarterly Compliance Report</b>			
Attachment B – in its entirety: Counterparty Information, including non-investment grade counterparties table: List of Non-Investment Grade Counterparties (Electric and Natural Gas Transactions, Carbon Free Transactions)	Public Utilities Code Section 454.5(g)	The information contains confidential counterparty information. Release of this commercially market sensitive information could impact market prices because it would release financing terms to other market participants and impact future negotiations. This could cause harm to PG&E's customers and put PG&E at an unfair business disadvantage by the disclosure of counterparty information. This information could be used by other market participants to gain a commercial advantage.	3 Years

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Attachment C – in its entirety: Electric Transactions	XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)	This information reveals actual electric quantities and cost, as well as procurement cost categorized by transaction type, which is provided to Energy Division and is confidential for three years.	3 Years
	Item XIII) Energy Division Monthly Data Request (AB 57)	This information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	3 Years
Attachment D – in its entirety: Natural Gas Transactions	Item I) A) 4) Long-term fuel (gas) buying and hedging plans	Each financial transaction is a factor in PG&E's long term buying and hedging strategies. With the entire set of transactions PG&E's counterparties could reconstruct PG&E's gas buying and hedging plans.	Financial transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
	Item I) B) 2) Utility recorded gas procurement and cost information	Actual quantity and cost of procured physical gas are protected.	Utility recorded physical gas procurement and cost information is confidential for one year.
	XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve the confidentiality of ERRA documentation	Monthly procurement costs (ERRA Filings) are confidential for 3 years.

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Attachment E – in its entirety: Other Transactions (Electric Information) (Except Greenhouse Gas (“GHG”) Information, which is presented separately below)	Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)  Item 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	Disclosure of information in these executed contracts could provide market participants regarding PG&E’s net open position.  Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E’s customers.	3 years, except for the delivered product price of RA and RPS sales transactions, which are only confidential for two quarters following the month of delivery. Other non-public terms are confidential for three years from date contract states deliveries to begin; or until one year following expiration, whichever comes first.
Attachment E – in its entirety: Other Transactions- (GHG Information)	D.14-10-033  Public Utilities Code Section 454.5(g)	This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.  Information concerning GHG compliance instrument procurement strategy and/or activities. The release of this commercially sensitive information could cause harm to PG&E’s customers and put PG&E at an unfair business disadvantage by the disclosure of a GHG procurement strategy. This information could be used by other market participants to gain a commercial advantage. In addition, this information may reveal whether or not PG&E participated in California Air Resources Board (“CARB”) auctions and PG&E’s net open position for GHG compliance.	Indefinite

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Attachment F –in its entirety: PRG Material	D.06-06-066 and Public Utilities Code Section 454.5(g)	<p>Presentations to the PRG include a variety of confidential commercially market sensitive information, including information about e-solicitation, bilateral contracts, pricing information, strategy discussions, recently issued RFO's, etc.</p> <p>Release of this commercially market sensitive information could impact market prices, cause harm to PG&amp;E's customers, and put PG&amp;E at an unfair business disadvantage by the disclosing this information. This information could be used by other market participants to gain a commercial advantage.</p> <p>For each PRG material confidential matrix and declaration has been appended. Please see the specific matrices within Attachment F.</p>	Length of Time for Specific Items identified in D.06-06-066 Matrix or Indefinite (for GHG information)
Attachment F –in its entirety: PRG Material-GHG Information	D.14-10-033	<p>Presentations to the PRG include confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.</p> <p>For each PRG material confidential matrix and declaration has been appended. Please see the specific matrices within Attachment F.</p>	Indefinite

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Attachment G - Independent Evaluator (IE) Reports	Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)	Disclosure of information in these executed contracts could provide market participants regarding PG&E's net open position.	3 Years
	Item 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	Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E's customers.	3 Years
Attachment H - Executed Contracts	Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)  Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties;  Item VIII ) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids	Disclosure of information in these executed contracts could provide market participants regarding PG&E's net open position.  Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E's customers.	3 years, except for the delivered product price of RA and RPS sales transactions, which are only confidential for two quarters following the month of delivery. Other non-public terms are confidential for three years from date contract states deliveries to begin; or until one year following expiration, whichever comes first.

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Attachment J – System Conditions	Item VI) E) and F) Utility Planning Area Net Open for Energy and Capacity (Electric)	Residual net short/long is key input to PG&E’s confidential forecast of net open position. The residual net short/long is information provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	3 Years
	Item XIII) Energy Division Monthly Data Request (AB 57)	This information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	3 Years
	Public Utilities Code Section 454.5(g)	In addition, this attachment contains market sensitive information and addresses PG&E’s energy procurement trading strategies.	Indefinite
Attachment J - Natural Gas Transaction Documents	Item I) A) 3) Gas Demand Forecasts and 4) Long-term fuel (gas) buying and hedging plans	This information includes detailed information on PG&E’s implementation of its fuel buying and hedging plans and must remain confidential to avoid disclosing PG&E’s market strategy.	Physical gas information is confidential for 3 years; Financial gas information is confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)

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Attachment K – Risk Management	Item XII – Monthly Portfolio Risk Assessment of Appendix 1 of D.06-06-066 for three years.	Value at Risk (VaR) or electric and gas for electric generation is deemed confidential the matrix. Public disclosure of TeVaR results would be detrimental for PG&E and its electric customers. Such disclosure would release confidential, sensitive market intelligence that would place PG&E at an unfair disadvantage in the energy and financial markets.	3 years
	Public Utilities Code 454.5(g)	Risk and Strategy papers are proprietary company information that if made public could cause harm to PG&E's customers and put PG&E at an unfair business disadvantage.	Indefinite
Attachment L – In its entirety: Reasonable Number of Analyses	Item I) A) 4) Long-term fuel (gas) buying and hedging plans,	This information includes detailed information on PG&E's hedging plan, and must remain confidential to avoid disclosing PG&E's market strategy.	Financial gas information is confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)
	Public Utilities Code 454.5(g)	Information concerning a description of PG&E's long term buying and hedging strategies, which constitutes market sensitive information that could cause harm to PG&E's customers and put PG&E at an unfair business disadvantage if publicly disclosed.	Indefinite

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Attachment L - Reasonable Number of Analyses – Electric	Item VI) E) and F) Utility Planning Area Net Open for Energy and Capacity (Electric)	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve details which would reveal PG&E's position in the marketplace.	3 Years
	VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties;	Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E's customers.	3 years, except for the delivered product price of RA and RPS sales transactions, which are only confidential for two quarters following the month of delivery. Other non-public terms are confidential for three years from date contract states deliveries to begin; or until one year following expiration, whichever comes first.
	VIII ) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids		
	Item XIII) Energy Division Monthly Data Request (AB 57)	This information is provided to Energy Division on a confidential basis per AB 57 and must be protected here to preserve confidentiality of the AB 57 report.	3 Years
	Item XI) Monthly Procurement Costs (Energy Resource Recover Accounts [ERRA] Filings)	These analyses are the basis of the monthly variable cost of energy and utility operation, which must be protected to preserve the confidentiality of ERRA documentation.	Monthly procurement costs (ERRA Filings) are confidential for 3 years
	D-14-10-033	This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.	Indefinite

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Attachment M – Executed Contracts	Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties;	Disclosure of bid term, price and notional value information would provide market sensitive information regarding PG&E bid strategy and selection. This is commercially market sensitive information because it could be used by other market participants to gain a commercial advantage and could impact market prices and cause harm to PG&E's customers.	3 Years

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

AT&T  
Albion Power Company

Alta Power Group, LLC  
Anderson & Poole

Atlas ReFuel  
BART

Barkovich & Yap, Inc.  
California Cotton Ginners & Growers Assn  
California Energy Commission

California Hub for Energy Efficiency  
Financing

California Alternative Energy and  
Advanced Transportation Financing  
Authority  
California Public Utilities Commission  
Calpine

Cameron-Daniel, P.C.  
Casner, Steve  
Center for Biological Diversity

Chevron Pipeline and Power  
City of Palo Alto

City of San Jose  
Clean Power Research  
Coast Economic Consulting  
Commercial Energy  
Crossborder Energy  
Crown Road Energy, LLC  
Davis Wright Tremaine LLP  
Day Carter Murphy

Dept of General Services  
Don Pickett & Associates, Inc.  
Douglass & Liddell

East Bay Community Energy Ellison  
Schneider & Harris LLP Energy  
Management Service  
Engineers and Scientists of California

GenOn Energy, Inc.  
Goodin, MacBride, Squeri, Schlotz &  
Ritchie

Green Power Institute  
Hanna & Morton  
ICF  
International Power Technology

Intertie

Intestate Gas Services, Inc.  
Kelly Group  
Ken Bohn Consulting  
Keyes & Fox LLP  
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated  
Waste Management Task Force  
MRW & Associates  
Manatt Phelps Phillips  
Marin Energy Authority  
McKenzie & Associates

Modesto Irrigation District  
NLine Energy, Inc.  
NRG Solar

OnGrid Solar  
Pacific Gas and Electric Company  
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority  
Regulatory & Cogeneration Service, Inc.  
SCD Energy Solutions  
San Diego Gas & Electric Company

SPURR  
San Francisco Water Power and Sewer  
Sempra Utilities

Sierra Telephone Company, Inc.  
Southern California Edison Company  
Southern California Gas Company  
Spark Energy  
Sun Light & Power  
Sunshine Design  
Tecogen, Inc.  
TerraVerde Renewable Partners  
Tiger Natural Gas, Inc.

TransCanada  
Utility Cost Management  
Utility Power Solutions  
Water and Energy Consulting Wellhead  
Electric Company  
Western Manufactured Housing  
Communities Association (WMA)  
Yep Energy