

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE



August 13, 2020

Advice Letter 5748-E, 5748-E-A, 5748-E-B

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

SUBJECT: Procurement Transaction Quarterly Compliance Submittal (Q4, 2019)

Dear Mr. Jacobson:

Advice 5748-E, 5748-E-A, 5748-E-B is effective as of February 29, 2020.

Sincerely,

A handwritten signature in black ink that reads "Edward Randolph".

Edward Randolph
Deputy Executive Director for Energy and Climate Policy/
Director, Energy Division

January 30, 2020

Advice 5748-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, 2019)

Purpose

Pacific Gas and Electric Company ("PG&E") hereby submits to the California Public Utilities Commission ("Commission" or "CPUC") its compliance submittal for Q4 2019 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, 2019 through December 31, 2019, (Q4, 2019) 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, 3, and 4 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 2019 Electric and Natural Gas Transactions
Attachment B: Q4 2019 Counterparty Information
Attachment C: Q4 2019 Electric Transactions Summary

Attachment D: Q4 2019 Natural Gas Transactions Summary
Attachment E: Q4 2019 Other Transactions
Attachment F: Q4 2019 Key Briefing Packages
Attachment G: Q4 2019 Independent Evaluator (IE) Reports
Attachment H: Q4 2019 Contracts Executed/Contracts Amended
Attachment I: Q4 2019 Summary of Retained Generation Investments Completed
Attachment J: System Load Requirements/Conditions
Attachment K: Risk Management Strategy Communication and Management Disclosure
Attachment L: Reasonable Number of Analyses Models, Description of Models, and How Models Operate
Attachment M: Q4 2019 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 filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than February 19, 2020, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

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

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

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

In accordance with D.02-10-062, the requested effective date of this Tier 2 advice letter is February 29, 2020, 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 filings can also be accessed electronically at: <http://www.pge.com/tariffs>.

/S/

Erik Jacobson
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-1 (Public Version)

Attachment 3: Attachment G-2 (Public Version)

Attachment 4: Attachment H (Public Version)

Attachment 5: 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 U39E)

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) #: 5748-E

Tier Designation: 2

Subject of AL: Procurement Transaction Quarterly Compliance Submittal (Q4, 2019)

Keywords (choose from CPUC listing): Compliance

AL Type: ☐ Monthly ☐ Quarterly ☐ Annual ☒ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.15-10-031 and D.03-12-062

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

Summarize differences between the AL and the prior withdrawn or rejected AL:

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: 2/29/20

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 proposed¹: N/A

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

¹Discuss in AL if more space is needed.

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

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Erik Jacobson, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Clear Form

Advice 5748-E
January 30, 2020

Attachment 1

Narrative

PACIFIC GAS AND ELECTRIC COMPANY
PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT
FOR THE FOURTH QUARTER OF 2019

January 30, 2020

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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 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 for 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 D.07-01-039.
- Confidential Attachment J: *System Load Requirements/Conditions*, provides a summary of all information related to addressing PG&E's residual net open position.
- Confidential Attachment K: *Risk Management Strategy Communication and Management Disclosure*, provides a summary of all procurement-related risk strategies and issues communicated to PG&E's senior management.
- Confidential Attachment L: *Reasonable Number of Analyses Models, Description of Models, and How Models Operate*, provides a summary of any models related to the relevant transactions identified in this filing.
- Confidential Attachment M: *Transactions Subject to Strong Showing*, provides a summary and supporting documentation for strong showing transactions.

A. Introduction

As required by Ordering Paragraph (OP) 8 of Decision (D.) 02-10-062, and clarified in D.03-06-076, D.03-12-062, D.04-07-028, D.04-12-048 and D.07-12-052, Pacific Gas and Electric Company (PG&E) hereby provides its report demonstrating that its procurement-related transactions during the period October 1, 2019 through December 31, 2019 (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 filed the following Advice Letters for approval which will update its BPP:

- Advice Letter 5704-E (Electric Portfolio Hedging Plan), submitted December 2, 2019
- Advice Letter 5705-E (Appendix S – Sales Framework and Appendix P – Carbon Free Energy), submitted December 2, 2019
- Advice Letter 5725-E (Appendix C –Procurement Limits & Ratable Rates), submitted December 20, 2019

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)

- a. None for the Quarter.

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

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

- a. Bioenergy Market Adjusting Tariff (bi-monthly auctions for Category 1 and 2, monthly auctions for Category 3), ongoing
- b. Renewable Market Adjusting Tariff (ReMAT) (bi-monthly auctions)¹

¹ The ReMAT Program was suspended on December 15, 2017 by the Executive Director of the CPUC.

- c. Tree Mortality Non-Bypassable Charge (TMNBC) Resource Adequacy (RA) Sale (issued July 19, 2019)
- d. Vantage Firming and Shaping Request for Offers (RFO) (issued August 16, 2018)
- e. 2019 Distribution Investment Deferral Framework RFO (issued February 21, 2019)
- f. Winter Regional Renewable Choice RFO (aka Enhanced Community Renewables (issued November 13, 2018)²
- g. 2018 Oakland Clean Energy Initiative (issued April 13, 2018)
- h. 2019 System Reliability RFO, Distributed Generation Enabled Microgrid Services (issued December 11, 2019)

3. Other Procurement Activities (Approval Through the Quarterly Compliance Report)

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

a) Electric Transactions

- i. *California Independent System Operator (CAISO) Allocations and Auctions*
 - a. CAISO Monthly Congestion Revenue Rights (CRR) Allocation Processes
 - b. CAISO's 2020 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. *Transparent Exchange*

b) Gas Transactions

- i. *Transparent Exchanges*
- ii. *Direct Bilateral Contracting for Short-Term Products*
- iii. *Voice Brokers*

² The 2018 Winter Regional Renewable Choice RFO was on hold pending Resolution on Advice Letter 3920-G/5206-E. The Resolution was approved on September 26, 2019 and the RFO has resumed.

iv. *Electronic Solicitations*

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. For the quarter, there are no bilaterally negotiated contracts or amendments executed pursuant to other regulatory requirements.
- b. QF contracts or amendments executed pursuant to other regulatory requirements.
 - i. Frito Lay Cogen: Pursuant to Qualifying Facility/Combined Heat and Power (QF/CHP) Settlement,³ PG&E executed a Public Utility Regulatory Policies Act (PURPA) Power Purchase Agreement (PPA) with Frito Lay Cogen on October 30, 2019. Relevant information is included in the Informational Only section of Attachment H. Advice Letter Filing is pending.
 - ii. Olsen Power Partners: Pursuant to Qualifying Facility/Combined Heat and Power (QF/CHP) Settlement,³ PG&E executed a Public Utility Regulatory Policies Act (PURPA) Power Purchase Agreement (PPA) with Olson Power Partners on December 17, 2019. Relevant information is included in the Informational Only section of Attachment H. Advice Letter Filing is pending.

³ See Decision Adopting Proposed Settlement, D.10-12-035.

iii. EIF Haypress, LLC: Pursuant to Qualifying Facility/Combined Heat and Power (QF/CHP) Settlement,³ PG&E executed an extension to its Public Utility Regulatory Policies Act (PURPA) Power Purchase Agreement (PPA) with Olson Power Partners on December 20, 2019. Relevant information is included in the Informational Only section of Attachment H. Supplemental Advice Letter 5592-E-A was filed on January 17, 2020.

5. Other Procurement Activities, Approval Through the 2019 Energy Resource Recovery Account (ERRA) Compliance Proceeding

During the Quarter, PG&E participated in a Market RFP issued by another market participant that resulted in sale transactions.

- PG&E executed these sales transactions in an effort to meet its local RA compliance obligations for the 2020 Annual Compliance Filing submitted October 31, 2019. PG&E's BPP Appendix S provides that PG&E will only engage RA sales transactions pursuant to its own solicitations. These transactions are detailed in Confidential Attachment H (information only). PG&E will submit these transactions with its 2019 ERRA Compliance Proceeding for review.

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; Gillian Clegg, Senior Director, Electric and Gas Acquisition;

Martin Wyspianski, Senior Director, Energy Portfolio Procurement and Policy; Marino Monardi, Director, **Structured Energy Transactions**; Scott Ranzal, Director, Portfolio Management; Anna Foglesong, Director, Energy Transactions and Legislative Policy; 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 used BPP-approved electricity procurement transaction processes during the Quarter, including:

- Competitive Solicitations
- CAISO Allocations and Auctions
- CAISO Markets and Process
- Direct Bilateral Contracting for Short-Term Products
- Bilateral Negotiated Contracts
- Electronic Solicitations
- Market Request for Proposal (RFP)
- Transparent Exchanges, Voice and On-Line Brokers

- QF/CHP Amendments Executed under the CHP Settlement (*for informational purposes only*)
- 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 and Auctions

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.

PG&E estimated that a portion of its generation, imports and load in the months of November 2019, December 2019, and January 2020, remained exposed to congestion risk, and, therefore, participated in the CAISO's monthly CRR allocation process to obtain CRRs to mitigate this risk. In October 2019, November 2019, and December 2019, PG&E participated in the CAISO's monthly CRR allocation processes to procure CRRs for November 2019, December 2019, and January 2020, respectively.

CAISO 2020 Annual CRR Allocation Process

PG&E participated in the 2020 Tiers 2 and 3 Allocation Processes. Awards from Tier 2 were posted on October 11, 2019, and for Tier 3 on October 24, 2019. 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 Congestion Revenue Rights (Appendix I) filed in Advice Letter 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, 2019, 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

- Resource Adequacy (RA) – During the Quarter, PG&E executed a transaction to purchase Local RA. Relevant information is included in Confidential Attachment E, F, H and M.

- Electronic Solicitations issued by PG&E

- Import Energy – During the Quarter, PG&E executed a firm energy transaction at a selected import delivery location. Relevant information is included in Confidential Attachment A.

- Resource Adequacy (RA) – During the Quarter, PG&E executed the following transaction types: (1) System RA purchase transactions; (2) System RA sale transactions; (3) Local RA purchase transactions; (4) Local RA sale transactions; and (5) Import Allocation Rights sale transactions.

- Transactions listed above that were part of the Multi-Year RA Sale Solicitation (Phase 1 and Phase 2) were monitored by an Independent Evaluator (IE). This solicitation spanned Q3 and Q4 QCRs. The final IE Report was filed as a Supplemental to the Q3 2019 QCR filing and is also included in this Q4 2019 filing.

- In addition, PG&E is including the IE report for the Q4 RA and Import Energy E-Solicitation. Relevant information is included in Confidential Attachments E, F, G, H and L.

- Electric Financial Transactions – PG&E did not execute any electric financial transactions during the Quarter via E-Solicitation or Transparent Exchange (including voice and on-line brokers). Relevant information is included in Confidential Attachments A and L.
- Market Request for Proposal (RFP) – During the Quarter, PG&E participated in SCE’s Market RFP and executed Local RA purchase transactions. Relevant information is included in Confidential Attachments E, F, and H.
- Transparent Exchange, Voice and On-Line Brokers
 Electric Financial Transactions – PG&E did not execute any electric financial transactions during the Quarter via Transparent Exchange (including voice and on-line brokers). Relevant information is included in Confidential Attachments A and L.
- QF/CHP Legacy Contracts (for informational purposes only)
 Under the QF/CHP Program, QF generators may enter into one of two pro forma PPAs (i.e., PURPA PPA for QFs up to 20 megawatts (MW), and As-Available PPA for CHP up to 20 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., greenhouse gas (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
- Cashouts

d) Natural Gas Procurement – Justification

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

PG&E did not execute any contracts during this Quarter through competitive solicitations for approval through this QCR.

- 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 (ICE/NGX) physical clearing service. ICE is an electronic system that matches buyers and sellers of natural gas products. Once buyer and seller are matched, ICE trades become bilateral trades. ICE/NGX trades are cleared by NGX, rather than bilaterally. Physical transactions in the Quarter include next-day and same-day transactions, for delivery periods of one to five days, 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 (in Compliance with D.15-10-031) – PG&E's procurement during the Quarter is consistent with PG&E's updates to its BPP Hedging Plan (Appendix E) filed in Advice Letter 5507-E and 5704-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, and basis futures against the industry benchmark indices, including Canadian Gas Price Reporter (CGPR), Gas Daily, Natural Gas Intelligence (NGI) and Inside FERC (IFERC) Gas Market Report. Details demonstrating PG&E's compliance with D.15-10-031 during the QCR period are included in Confidential Attachments J and L. Relevant information

executed during the QCR period 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 or CGPR). Prompt month supply (deliveries each day of the following month) and term gas (greater than one month forward or one month in duration) is traded at fixed price, daily index (Gas Daily or CGPR), or monthly or bi-week index (CGPR, NGI, or IFERC) prices. For any bilateral physical supply trades with a term of one month, PG&E concluded these transactions bilaterally, but also used electronic solicitation methods, such as instant messaging, e-mail, voice solicitation (telephone), Real-Time Market (RTM) prices, and/or broker quotes, to inform and conduct these transactions. Relevant information executed during the QCR period is included in Confidential Attachments A and M.

- 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 during the QCR period 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 of transactions executed via voice brokers during the QCR period is included in Confidential Attachment A.

- Electronic Solicitations

Conducted via Instant Messaging and Telephone – PG&E conducts electronic solicitations for the purchase of physical gas supply, with delivery terms 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 offer(s). Relevant information of transactions executed via

electronic solicitation during the QCR period 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.

e) GHG and Other Commodities

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

- PG&E did not execute any contracts during this Quarter through competitive solicitations for approval through this QCR.

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 2020 year from the California Air Resources Board (CARB) in October 2019. All of the EDU allowances will be consigned into the 2020 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 19, 2019, for Current 2013, 2014, 2015, 2016, 2017, 2018, and 2019 Vintage and Advance 2022 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 Advice Letter 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 17, 2019. 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 During Q4 2019

PG&E received 72 percent of normal rainfall during the Quarter.

Helms Pumped Storage Facility (Helms) was used throughout the Quarter as system conditions and economics allowed. There were three planned outages at Helms Unit 1, Unit 2 and Unit 3 for annual maintenance during the Quarter lasting longer than 72 hours. There were no maintenance outage events at Helms lasting longer than 72 hours during the Quarter. There was one forced outage event at Helms Unit 1 longer 24 hours due to a fire protection system malfunction releasing CO₂ into an enclosed operational space.

Planned outages lasting longer than 72 hours on conventional hydro facilities greater than 30 MW during the Quarter included: Caribou 2 Units 4 and 5 (120 MW total), Drum 2 Unit 5 (49.5 MW), Electra Units 1, 2 and 3 (98 MW total), Haas Units 2 (72 MW), Kerckhoff 2 Unit 1 (155 MW), Pit 1 Units 1 and 2 (61 MW total), Pit 5 Units 1, 2, 3 and 4 (160 MW total), Pit 6 Units 1 and 2 (80 MW total), Pit 7 Unit 2 (56 MW), Poe Units 1 and 2 (120 MW total), Salt Springs Unit 2 (33 MW) and Stanislaus Unit 1 (91 MW). In addition, there were seven maintenance outages lasting longer than 72 hours which included: Balch 2 Unit 3 (52.5 MW), Caibou 1 Units 1, 2, and 3 (75 MW total), Salt Springs Unit 1 (11 MW), and Tiger Creek Units 1 and 2 (58 MW total).

Forced outages lasting longer than 24 hours at conventional hydro facilities greater than 30 MW during the Quarter were incurred at the following facilities: Butt Valley (41 MW), Drum 1 Unit 2 (13.2 MW), Drum 2 Unit 5 (49.5 MW), Kerckhoff 2 Unit 1 (155 MW), Pit 6 Unit 1 (40 MW), Pit 7 Units 1 and 2 (112 MW), Salt Springs Units 1 and 2 (44 MW total), Tiger Creek Units 1 and 2 (58 MW total).

At PG&E's fossil combined cycle facilities there were no planned outages longer than 72 hours for the Quarter. There were no maintenance outages during the Quarter. There were no forced outages greater than 24 hours.

During Fourth Quarter 2019, Diablo Canyon Power Plant Unit 1 operated at 98.8 percent capacity factor. Unit 1 operated at full power during October and November. During December, Unit 1 curtailed to 55% power for removal of marine growth and debris from inside the main condenser waterboxes, operating below full power for 63 hours. Removal of marine growth from inside the plant's ocean cooling water systems is a normal occurrence for Diablo Canyon. Also in December, per direction from the Grid Control Center, Unit 1 curtailed to 89% power to support the correction of a grid system protection problem, operating below full power for 6 hours.

During Fourth Quarter 2019, as planned, Diablo Canyon Power Plant Unit 2 operated at 12.3 percent capacity factor due to performing its scheduled 2R21 refueling outage, having started on September 22nd, being off-line during all of October and November, and returning to operation on December 18th, finishing in 87.3 days. Unit 2 returned to full power on December 22nd.

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 (CAM)

For the Quarter, PG&E executed one PURPA CHP PPA that qualifies as a CAM resource under the QF/CHP Settlement. The PURPA CHP PPA with Frito Lay Cogen is

eligible to have its net capacity costs recovered through CAM because it is a CHP resource executing a Settlement PPA.

Attachment 2

Attachment G-1 (Public Version)



PACIFIC GAS & ELECTRIC

Independent Evaluator Report for the 2019 Multi-Year Resource Adequacy Solicitation

November 2019



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EXECUTIVE SUMMARY

PA Consulting Group, Inc. (PA) served as the Independent Evaluator (IE) for the Pacific Gas & Electric (PG&E) 2019 Multi-Year Resource Adequacy (RA) Solicitation (2019 Multi-Year RA Solicitation or the Solicitation). This report provides PA's evaluation of the process from the drafting of the Solicitation documents through to the recommendation of selected bids and negotiation of contracts.

Overview of Solicitation

PG&E issued its 2019 Multi-Year RA Solicitation on July 26, 2019. Through this solicitation, PG&E offered to sell and requested bids for the following types of Resource Adequacy: Local, System, and Flexible RA and Import Allocation Rights (IAR). Additionally, PG&E's Solicitation stated that PG&E would be willing to execute a limited number of combined purchase and sales transactions, provided the combined transactions would not result in a short position for PG&E. PG&E sought bids for the above RA types for Delivery Periods of January 2020 through December 2022. For all the RA types listed above, PG&E solicited interest and offers to purchase or execute combined purchase and sales transactions for RA in monthly transactions.

The Solicitation evolved as it proceeded into a complex solicitation including the originally planned Phase I and Phase II of the Solicitation, as well including "Tranche 2" activities related to Phase I of the Solicitation.

PG&E did not specify the amounts of RA capacity it wished to sell. Ultimately, PG&E contracted for over [REDACTED] MW-mo of RA capacity and over [REDACTED] MW of Import Allocation Rights sales for the 2020-2022 period, with a single month maximum of [REDACTED] MW in January 2020.

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 2019 Multi-Year Resource Adequacy (RA) Solicitation
- Section 2: Summary of PA's role as IE for the 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 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 Solicitation spanned approximately three months from July to October 2019. The following provides a summary of PA's main activities during this solicitation:

- PA participated in teleconference meetings with PG&E held prior to the issuance of the 2019 Multi-Year RA Solicitation to review all aspects of the protocol and methodologies for the bid conformance, evaluation and selection process.
- PA reviewed drafts of the Solicitation documents prior to PG&E issuing the Solicitation.
- PA participated in PG&E's Phase I solicitation webinar held on July 30, 2019 and participated in PG&E's Phase II solicitation webinar held on September 19, 2019.
- PA received all communications between PG&E and bidders through PG&E's Solicitation website and email system. PA directly received all the emails, including bids that were sent to and received from bidders through the Power Advocate procurement platform. PA also participated in calls that PG&E had with individual bidders.
- PA discussed PG&E's proposed Petition for Modification (PFM) with PG&E prior to the Petition's filing, and PA participated in PG&E's PFM Questions and Answers conference call session offered to all Phase I shortlisted bidders, held on September 12, 2019.
- PA reviewed all Phase I and Phase II bids.
- PA reviewed PG&E's shortlisted bids prior to the initial shortlist notifications and prior to the final shortlisted 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 participated in PG&E's Procurement Review Group (PRG) meetings on August 20, August 23, and September 17 of 2019.

High level summary of findings

Overall, PA confirms that PG&E conducted a fair and equitable 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 Solicitation was adequate, the solicitation materials were clear and concise, and that PG&E further clarified its position in several follow-up bidder questions.
- PA found the compressed timeline of the combined Phase I and Phase II solicitations proved challenging, and that PA recommends that the Independent Evaluator provide additional more comprehensive bid evaluations in future Solicitations.

- 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 2019 Multi-Year RA Solicitation evaluation analysis fairly and selected appropriate offers.

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1 SUMMARY OF THE 2019 MULTI-YEAR RESOURCE ADEQUACY SOLICITATION

Through this solicitation, PG&E offered to sell and requested bids for the following types of Resource Adequacy (RA): Local, System, and Flexible RA and Import Allocation Rights (IAR). Additionally, PG&E's Solicitation stated that PG&E would be willing to execute a limited number of combined purchase and sales transactions, provided the combined transactions would not result in a short position for PG&E.

The Solicitation evolved as it proceeded into a complex solicitation including the originally planned Phase I and Phase II of the Solicitation, as well including "Tranche 2" activities related to Phase I of the Solicitation.

The two Phases of the Solicitation were originally contemplated. The Solicitation protocol for Phase I, launched on July 26, 2019, stated that Phase I was intended to seek bids after the Initial 2020 Year-Ahead RA Allocations from the CPUC had been received by Load Serving Entities (LSE). Ultimately, Phase I bids were due August 6, 2019.

Further, the Phase I protocol indicated that Phase II would be issued after PG&E received its Final 2020 Year-Ahead Allocations from the CPUC. Ultimately, the Phase II Solicitation was launched prior to LSEs receiving their Final Allocations; however, the bid submittal deadline for Phase II occurred after the Allocations were received.

Prior to Phase I bids being due, it became apparent that in addition to being generally long on RA on a System basis, PG&E was in fact short on RA for certain months and for certain Local areas, specifically the Kern, North Coast/North Bay, Sierra, and Stockton areas. At this point, PG&E decided to create a "Tranche 2" of the Phase I solicitation and issued a Market Notice requesting parties with potential availability of RA in those Local Areas and who wished to sell RA to contact PG&E. PG&E issued the Tranche 2 Market Notice on Friday, August 16. The Market Notice did not specify a deadline for "bids" in response to the Notice, but rather indicated that discussions related to potential PG&E Local RA purchases would occur concurrently with the existing Phase I discussions.

At the time of the Tranche 2 Market Notice, PG&E transaction teams were busy conducting negotiations with Phase I shortlisted counterparties, which resulted in significant email exchanges and negotiation conference calls. In addition to the Tranche 2 Market Notice, PG&E transaction teams also verbally asked counterparties during these negotiation calls if they had any available Local RA in those areas which they may be interested in selling to PG&E.

Further, finding that it was likely to remain short for certain months in certain Local Areas for RA, PG&E issued a Petition for Modification (PFM) on Monday, September 11, related to its Local RA requirements. The PFM requested that the CPUC Decision 19-02-022 be modified to allow PG&E to comply with its Local RA requirements using its existing length in Other Local areas as it did before the Decision. At this time, PG&E notified all shortlisted counterparties of its PFM filing and provided them with a courtesy notification and link to the PFM filing. Further, the PG&E team held a conference call forum open to all shortlisted bidders to answer questions about the PFM; after the forum call, PG&E distributed a Questions and Answers (Q and A) document to all shortlisted bidders and to the PRG. The

forum and subsequent Q and A document provided clear and consistent messaging regarding the PFM from PG&E to the bidders. At the time of this report, the CPUC has not yet ruled on the PFM.

Phase II of the Solicitation was launched September 18, with Phase II bids due October 3, 2019 – the Phase II bid submittal deadline was deliberately set to occur after LSEs received Final Allocations for 2020 Year-Ahead Allocations from the CPUC and after the Final Net Qualifying Capacity (NQC) List for 2020 was released by the CAISO. Phase II concluded with final transactions being executed in late October.

1.1 Solicitation Bid Evaluations, Shortlisting, and Negotiations

PG&E received bids from [REDACTED]¹ counterparties in the Phase I Solicitation. After bid compliance checks and evaluations, PG&E sent shortlist notifications to [REDACTED] bidders on August 30, 2019. Phase I and Tranche 2 activities have concluded, with PG&E executing transactions with [REDACTED] counterparties for a total of [REDACTED] MW of Generic RA and [REDACTED] MW of Import Allocations Rights sales by PG&E, and [REDACTED] MW of Generic RA purchases by PG&E.

Phase II of the solicitation was launched on September 18, 2019. PG&E received bids from [REDACTED] counterparties in the Phase II Solicitation. After bid compliance checks and evaluations, PG&E sent shortlist notifications to [REDACTED] shortlisted bidders. Phase II executed transactions totaled [REDACTED] MW of Generic RA and [REDACTED] MW of Import Allocations Rights sales by PG&E, and [REDACTED] MW of Generic RA purchases by PG&E.

¹ There were [REDACTED] bidders. However, the [REDACTED] bids were identical and identified as mutually exclusive. The Solicitation did not allow mutually exclusive bids across different counterparties. After clarifying with the bidders, the [REDACTED] and was not evaluated, ultimately leaving [REDACTED] counterparties' bids to be evaluated.

2 INDEPENDENT EVALUATOR ACTIVITIES DURING THE SOLICITATION

This section provides a description of PA's activities as the Independent Evaluator throughout the 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 Solicitation. The CPUC has clarified that the role of the IE is not to conduct or administer the 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 Solicitation process. During the course of this 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 Solicitation process in the role of IE for the 2019 Multi-Year RA Solicitation. PA was involved from PG&E's development of the solicitation materials in mid-July through the selection of the bids and the negotiation and execution of contracts in late 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 planning meetings

PA reviewed the Phase I Solicitation protocol prior to its issuance and held discussions with PG&E regarding the development of the solicitation protocol, evaluation methodology, draft Confirmation Agreement, and other solicitation materials. PG&E provided the draft Confirmation Agreement including highlights of changes from prior versions.

Similarly, PG&E held planning discussions with PA and provided PA with the draft Phase II Solicitation protocol for review prior to launching Phase II.

2.2.2 Solicitation materials

PG&E shared early copies of the draft materials with PA in July 2019 prior to the Solicitation protocol issuance. PG&E developed the solicitation materials to reflect the specifics of the 2019 Multi-Year RA Solicitation, including discussion of the planned Phase II Solicitation. While this Solicitation was complex as it contemplated two Phases as well as potential combined purchase and sales transactions, PG&E kept the Solicitation materials as clear and concise as possible while describing the two Phases.

While evaluating Phase I bids, it became apparent that even after consideration of the aggregate bid volumes, PG&E was in fact short on RA for certain months and for certain

Local areas, specifically the Kern, North Coast/North Bay, Sierra, and Stockton areas. PG&E held a discussion with PA regarding PG&E's decision to create a "Tranche 2" of the Phase I solicitation, and issued a Market Notice on requesting parties with potential availability of RA in those Local Areas and who wished to sell RA to contact PG&E.

PG&E provided PA with draft Phase II Solicitation materials, which were similar to Phase I materials and described the process and timing for Phase II bid submittals.

2.2.3 Bid submittal process

PG&E maintained a Solicitation website² which contained all relevant documents, including Phase I and II Solicitation protocols, draft RA Confirmations, and Bid Forms.

PG&E used the Power Advocate procurement website for the Solicitation. All Phase I and Phase II Bids for this Solicitation were required be submitted electronically through Power Advocate. During the Phase I launch, PG&E strongly encouraged participants to register with Power Advocate at least one week before bids were due. PG&E posted detailed instructions on the Solicitation website for submitting bids and using the Power Advocate platform.

In the Tranche 2 Market Notice, PG&E requested bidders with interest in selling Local RA in the four Local Areas of need for PG&E – Kern, North Coast/North Bay, Sierra, and Stockton – to contact PG&E to discuss potential transactions.

2.2.4 Communication with bidders

Prior to bids being submitted, PG&E communicated with bidders primarily via email and via the pre-bid webinars.

PG&E conducted a Phase I pre-bid webinar on July 30, 2019 and presented the solicitation materials to the webinar attendees and answered questions during the webinar. PG&E conducted a Phase II pre-bid webinar on September 19, 2019, presenting Solicitation materials and answering questions. The PG&E team held a conference call forum open to all Phase I shortlisted bidders to answer questions about the PFM; after the forum, PG&E distributed a Questions and Answers (Q and A) document to all shortlisted bidders.

PA participated in the webinars and conference call, reviewed bidder questions submitted during the webinars, and listened to the audio recordings of both webinars' Question and Answers sections.

2.2.5 Initial bid review and conformance check

After receiving Phase I bids, PG&E conducted a conformance check on each bid to determine its compliance with all bid requirements. Several bidders had failed to include every form required in the bid instructions. PG&E contacted the bidders at once, copying PA on all emails, informing bidders of their missing forms and providing a one-day window for bidders to provide any missing information. Neither PG&E nor PA considered these bids to be non-conforming as much as incomplete; PA considered PG&E's efforts to include as many bids as possible in the Phase I evaluation reasonable.

Several Phase II bidders had questions regarding the use of the Bid Form template to submit their bids, and emailed PG&E prior to the bid submittal deadline for clarification. The majority of the bidders copied PA on initial email contacts with PG&E; for those that didn't, PG&E copied PA on the initial replies in answering questions about the forms.

² www.pge.com/rfo/ra-solicitation

Given the complexity of the Solicitation, with PG&E buying and selling both Local and System RA as well as Import Allocation Rights, PA did not consider the number of questions regarding the bidding process to be excessive. PG&E and PA did not find any of the bids to be fully non-conforming and PG&E did not reject any bids for non-conformance.

2.2.6 Evaluation process

PG&E held discussions with PA prior to both Phases' bid submittal deadlines to review the evaluation methodology. PG&E developed an optimization model incorporating PG&E's initial supply positions for System and Local RA and IAR; the optimization model and evaluation process are described in detail in Section 4 of this report. PG&E described the model and its methods for ranking, accepting, and rejecting bids based on a combination of bid price and requested volumes. PG&E awarded equally priced bids on a pro rata basis subject to PG&E's supply availability for the given product and given delivery timeframe. While PA did not execute the optimization models, PA conducted random "spot checks" of several bids from both Phase I and Phase II and their ultimate acceptance or rejection and found no issues with PG&E's ultimate bid shortlisting.

2.2.7 Shortlist determination

The initial proposed Phase I shortlist was provided to the Procurement Review Group (PRG) on Friday, August 16. PG&E provided PA with copies of the proposed shortlist and the PRG presentation materials. PG&E reviewed and discussed revisions to the shortlist with PA over the course of the following week and provided the final shortlist prior to notifying bidders of their shortlisting status.

The Phase II shortlisting process had challenges as described in Section 5 of this report. However, the issues PA identified were related to the bid evaluation process, including the short evaluation timeframe, rather than being issues related to the evaluation outcomes or any concerns regarding fairness toward bidders.

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.

2.2.8 Contract negotiations

To streamline the process and reduce time between shortlisting notifications and Confirm executions, PG&E included the draft Confirms documents in the Solicitation protocols and requested that prospective bidders provide comments and redline edits to the draft Confirms with their bid submittals. Following receipt of bids, PG&E began discussing bidders' comments to the draft Confirms via emails and conference calls. In each call, PG&E notified bidders that they hadn't yet finalized the shortlist but wished to expedite negotiations by discussing Confirm language before shortlisting. Though a small number of counterparties expressed their wishes to not discuss the Confirm until they had been shortlisted, PA agreed with PG&E's approach and found that it helped to expedite negotiations.

PG&E began negotiations in earnest with the selected bidders immediately following the Phase I and Phase II shortlisting notifications. With a total of [REDACTED] counterparties shortlisted across Phase I and Phase II, in addition to several counterparties responding to the Tranche 2 Market Notice, there were hundreds of emails and approximately 50 conference calls between PG&E and counterparties. PA monitored all email communications during negotiations and participated in the majority of negotiation meetings via phone. More details of any negotiation observations and issues are discussed further in Section 7.

2.2.9 PG&E's Procurement Review Group meetings

During the Solicitation, there were three PRG meetings at which PG&E presented information related to the Solicitation: On August 20, August 23, and September 17. Additionally, the PG&E team provided regular updates to the PRG via emails containing summaries of the bids and summaries of the shortlists.

PA participated in the three PRG meetings concerning the Solicitation and answered questions and provide additional feedback during the meetings as requested by the PRG. PA also monitored all emails between PG&E and the PRG.

3 ADEQUACY OF PG&E'S OUTREACH

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

3.1 Notifications and announcements

PG&E's outreach included notifications to PG&E's wholesale RFO distribution list and PG&E's e-solicitation RA list. Because the Solicitation primarily involved PG&E selling RA products, there was a relatively small number of counterparties who could be expected to participate in the Solicitation, as either load serving entities (LSE) or their representatives.

However, early in Phase I of the Solicitation it became apparent that PG&E was going to hold short positions in certain Local RA areas. At this time, PG&E widened its outreach to include as many potential RA sellers as possible, including non-LSEs. PG&E released a Market Notice on August 16, advertising its desire to purchase Local RA. Further, PG&E also placed a notice on the California Independent System Operator (CAISO) electronic Bulletin Board, seeking Local RA availability. Also, as PG&E was having negotiation calls with counterparties regarding the draft Confirms (calls which PA was monitoring), PG&E directly asked all counterparties if they were aware of the Market Notice and if they had any Local RA volumes for sale.

At the time of the Solicitation, there was an elevated interest in RA procurement across the California energy markets, due to the pending RA compliance requirements for 2020-2022. PA believes that between this general market awareness of RA procurement activities and PG&E's efforts to publicize its Solicitation and desire to purchase Local RA volumes, PG&E extended adequate outreach for the Solicitation.

3.2 Solicitation materials

PG&E created Solicitation protocols and associated materials for each Phase of the Solicitation. The solicitation materials were posted to PG&E's 2019 Multi-Year RA Solicitation website that allowed the bidders to easily access the Solicitation protocols, draft RA Confirmation and Confidentiality agreements, Bid Form Templates, and responses to Frequently Asked Questions (FAQ), as well as view the overall Solicitation schedule for each Phase.

PG&E also conducted a pre-bid webinar for each Phase of the Solicitation, during which PG&E presented the solicitation materials to the webinar attendees, answered questions during the webinar, and provided audio recordings of the webinar on the Solicitation website. The presentations covered during the webinars were also posted on the Solicitation website.

In addition to the Solicitation protocols and bid documents, PG&E also provided a posting to the CAISO electronic Bulletin Board seeking indicative offers for Local Areas where PG&E was short.

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

4 PG&E'S BID EVALUATION DESIGN

This section describes PG&E's bid evaluation methodology for fair offer evaluation.

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 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 the Solicitation, PG&E offered to sell and requested bids for the following types of Resource Adequacy (RA): Local, System, and Flexible RA and Import Allocation Rights (IAR). Additionally, PG&E's Solicitation stated that PG&E would be willing to execute a limited number of combined purchase and sales transactions, provided the combined transactions would not result in a short position for PG&E. Finally, as PG&E's thinking and RA positions evolved during Phase I, PG&E began advertising its need to purchase Local RA volumes in four Local Areas. PG&E did not specify the volumes it had available to sell or volumes it needed to purchase.

The delivery terms for all the RA products covered by the Solicitation were January 2020 through December 2020 (in monthly transactions, no annual, seasonal, or quarterly strips were considered by PG&E) for System RA and Import Allocation Rights, and January 2020 through December 2022 for Local RA and combined purchases and sales 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 on as equal a footing 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 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;
- RA Bid Form Template, indicating the types, delivery term, and volumes the bidder wished to purchase;
- An acknowledgement of the Solicitation Confidentiality Agreement; and
- Documentation of the bidding entity's legal status from the California Secretary of State.

Bids were required to be submitted electronically to PG&E's Solicitation site on the Power Advocate platform by the given deadline for each Phase of the Solicitation. PA is not aware of any late bids which were submitted past the submittal deadlines.

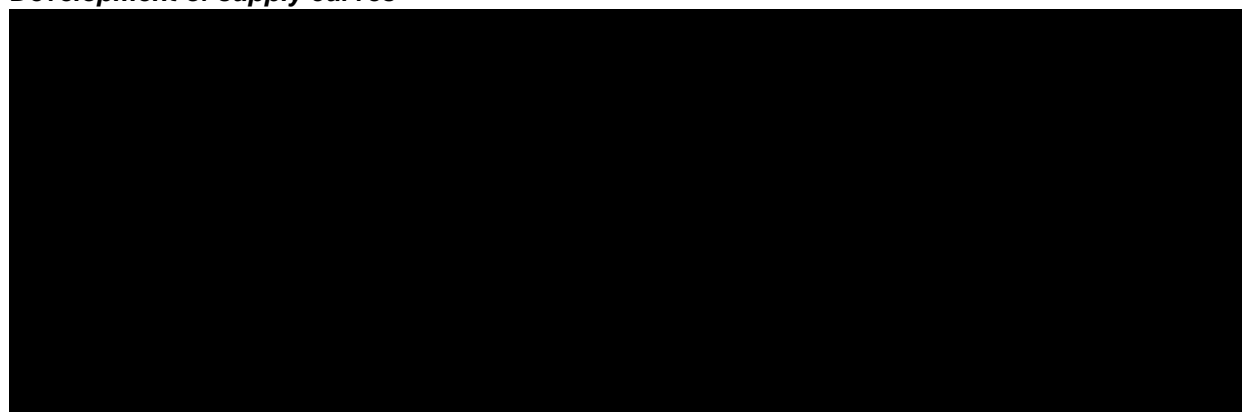
4.3.2 Quantitative bid evaluation

PG&E primarily relied on a quantitative evaluation of each bidder's proposed volumes of RA desired and the bidders proposed price for each product.

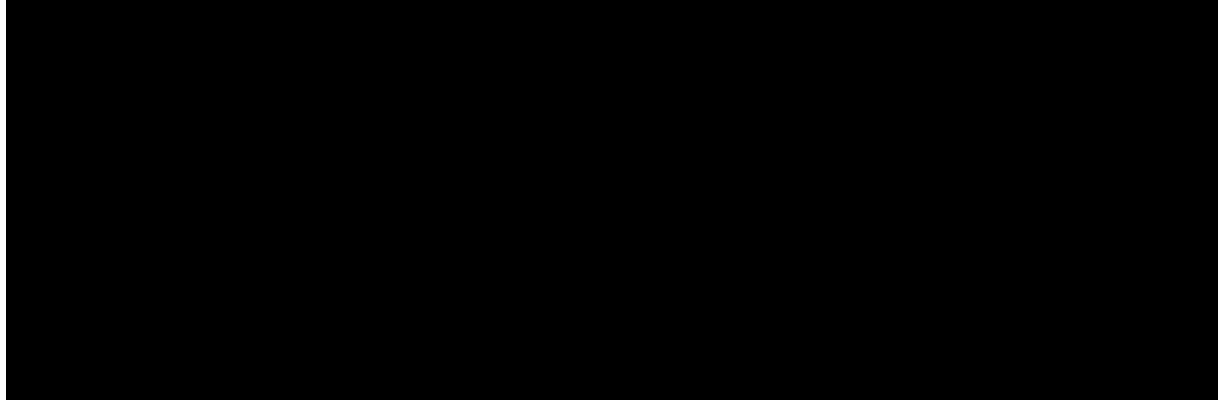
PG&E noted that due to regulatory changes related to disaggregating PG&E's "Other Local" Local Area and related to the revised three year forward requirements, there was increased complexity with the evaluation of bids received relative to prior RA solicitations:

	2018 Multi-Year RA Sale Solicitation	2019 Multi-Year RA Solicitation
Local Area	<ul style="list-style-type: none"> • Bay Area • Other 	<ul style="list-style-type: none"> • Bay Area • Fresno • Humboldt • Kern • North Coast/North Bay • Sierra • Stockton
Transaction Type	<ul style="list-style-type: none"> • Sales 	<ul style="list-style-type: none"> • Purchases • Sales • Combined Purchase and Sales
Product	<ul style="list-style-type: none"> • System • Local • Flexible 	<ul style="list-style-type: none"> • System • Local • Flexible • Import Allocation Rights

Development of supply curves



Bid optimization



4.4 Evaluation of PG&E's methodology

This section addresses the application of PG&E methodology and the review of PG&E's results is provided in Section 5.

Overall PA believes that PG&E's methodology is reasonable. This judgment is within the context of the principles set forth in Section 4.1. While PA believes the methodology is reasonable, PG&E's application of the methodology did result in relatively minor challenges as described in Section 5.

5 FAIRNESS OF PG&E BID EVALUATION

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 posted FAQs on the Solicitation's website;
- 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 Solicitation documents.

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

After the Phase I and II bids were submitted and the Solicitation(s) closed, PG&E began an initial conformance check. PA also received a complete copy of all the bids as they were submitted and prepared an independent assessment to determine if the bids conformed the requirements. Given the Solicitation was relatively straightforward with few requirements, PA did not anticipate and in fact did not identify any non-conforming bids. PA 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 supply curves and general assumptions

PA reviewed the supply curves that PG&E developed to evaluate the bids and found them reasonable.

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 over several iterations of potential shortlists for both Phase I and Phase II bids.

PA held evaluation protocol discussions with PG&E for both Phase I and Phase II evaluations, and PA further conducted individual bid checks, following the bid through the optimization logic to confirm the bid was ultimately either selected or rejected appropriately.

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

The Phase I shortlisting process was previewed to the PRG on August 20, 2019. PA participated in that PRG meeting via telephone and answered questions from PRG members. The final shortlist was provided on August 21; PA agreed with the accepted bids on the final shortlist.

[illegible]

[REDACTED]

After revisions to the initial Phase II shortlist to account for the issues described above, PA believes the final Phase II shortlist was 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 2019 Multi-Year RA solicitation evaluation analysis fairly.

5.7 Recommendations

PA believes that PG&E conducted the 2019 Multi-Year RA Solicitation evaluation in a fair and consistent manner and that the Solicitation process went reasonably smoothly.

While PA found the timeline for this 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. PA noted that the majority of the time spent negotiating the Confirm agreement language was related to the insertion of clauses to PG&E's standard Confirms which addressed credit and pre-payment terms resulting from PG&E's bankruptcy.

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 October 31st compliance filing requirement.

While PA understands that the timing of the allocations and NQC list are driven by entities outside of PG&E's control, PA also notes that the challenges related to the Phase II shortlist were internal to PG&E, and involved the bids being inadvertently omitted from the bid

evaluation model. PA commends PG&E for immediately advising the IE upon discovery of the omissions, and for notifying affected counterparties immediately that a shortlisted volumes revision would be made soon.

However, PA recognizes that the situation could have caused compliance issues for PG&E if PG&E hadn't revised the shortlist. To this end, PA has advised PG&E that in future solicitations, PA will recommend that PA conduct more detailed evaluations of all bids, enabling PA to also potentially identify any shortlisting issues and alert PG&E prior to counterparties being notified of their awards.

6 MERIT OF SOLICITATION SHORTLIST

Through the bid evaluation and selection process, PA believes that PG&E selected the best offers submitted for the 2019 Multi-Year 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.

Primarily due to increasing CCA load-shifting, PG&E has seen an increasing surplus of RA in PG&E's Bundled Portfolio. PG&E's Bundled Procurement Plan provides for PG&E's goal of providing affordable electric service for its bundled customers. PG&E's RA sales strategy in this Solicitation was to seek to offset its procurement costs by partially monetizing its RA length. PG&E succeeded in this effort.

6.4 Reasonableness of the shortlist

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

7 FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

PA closely monitored the contract negotiations and PG&E gave PA the opportunity to join negotiation teleconferences, 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 favoritism 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 Solicitation protocol materials.

7.2 Describe fairness of negotiations

PA participated in most of the negotiation meetings and received copies of red-lined draft contract documents to review. The negotiations largely consisted of discussions related to the counterparties' desire to avoid collateral requirements by using pre-payments for each RA product period.

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 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.

7.3.1 Credit Requirements

Several bidders requested alternative credit and pre-payment requirements related to PG&E's current bankruptcy status.

PA found that PG&E addressed these questions consistently across counterparty negotiations. While PG&E attempted to ensure that Confirm agreements remained standard across counterparties, in some cases PG&E did agree to modify language to satisfy counterparty concerns. PA reviewed all modifications – without conducting any legal review and without providing any legal opinion – and believes the modifications were: 1) appropriate to satisfy counterparty concerns; and 2) did not unfairly advantage one bidder over another.

7.4 Was similar information/options made available to other participants?

Overall PA believes that similar information/options were made available to each participant, including the opportunity to discuss Confirm language related to counterparty protections related to PG&E's current bankruptcy status.

8 MERIT OF CONTRACT APPROVAL

PG&E negotiated and signed a total of thirty-six contracts through this Solicitation, including PG&E purchases and sales in Phase I and Phase II of the Solicitation. These contracts will involve RA sales of over [REDACTED] MW of RA sales including RA Import Allocation Rights and over [REDACTED] MW of RA purchases, with RA sales in every month from January 2020 through December 2022.

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.



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Attachment 3

Attachment G-2 (Public Version)



PACIFIC GAS & ELECTRIC

Independent Evaluator Report 2019 Q4 Resource Adequacy and Import Energy E-Solicitation

January 2020



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Version no: 1.0

INDEPENDENT EVALUATOR REPORT

PA Consulting Group, Inc. (PA) served as the Independent Evaluator (IE) for the Pacific Gas and Electric Company (PG&E) 2019 Q4 Resource Adequacy and Import Energy E-Solicitation (2019 Q4 RA/Import Energy E-Solicitation or the E-Solicitation). This report provides a summary of PA's evaluation of the process from the drafting of the E-Solicitation documents through to the recommendation of selected bids and negotiations of contracts submitted to the California Public Utilities Commission (CPUC or Commission).

Overview of solicitation

PG&E issued its 2019 Q4 RA/Import Energy E-Solicitation on July 18, 2019.

Through this E-Solicitation PG&E offered to **purchase** monthly RA products and WSPP Schedule C Import Energy for October – November 2019 and sought offers for combined purchase and sales monthly transactions, provided the combined transactions would not result in an RA short position for PG&E, for October – December 2019. Table 1 below from the E-Solicitation Market Notice describes the products sought in the E-Solicitation. PG&E did not specify the amounts of RA capacity it wished to purchase. Ultimately, PG&E received [REDACTED] RA bids/offers to the E-Solicitation and contracted for [REDACTED] MW of RA sales and [REDACTED] MW of RA purchases; PG&E [REDACTED] for Import Energy in this Solicitation.

Table 1: Summary of RA Products			
Product	PG&E Seeking to	Pricing	Delivery Period
Monthly System RA	Buy	Flat price (\$/kW-month)	October 2019 November 2019
Monthly Import Energy	Buy	Indexed to CAISO LMP or ICE	October 2019 November 2019
Monthly Local RA – Greater Bay Area	Swap (PG&E sells local and receives system/local) Sell (December only)	Flat price (\$/kW-month)	October 2019 November 2019 December 2019
Monthly Local RA – Other PG&E Area	Swap (PG&E sells local and receives system/local) Sell (December only)	Flat price (\$/kW-month)	October 2019 November 2019 December 2019
Monthly Import Capacity Counting Right	Sell	Flat price (\$/kW-month)	October 2019 November 2019 December 2019

PA's IE Report

PA's IE reports typically follow the CPUC's Solicitation Shortlist Report Templates. However, due to only receiving just three bids in this E-Solicitation and executing only two related transactions, PG&E and PA agreed that an abbreviated IE report is appropriate, with summary descriptions of the E-Solicitation, its outcomes, and the IE activities and conclusions.

Main IE activities during solicitation

PA's role in PG&E's 2019 Q4 RA/Import Energy E-Solicitation spanned approximately ten weeks from mid-July to October 2019. PA performed the role of IE and was involved from PG&E's development of the Market Notice materials through the submittal of the bids and ultimately the negotiation of the RA confirms. PA ensured that the procedures followed by PG&E were aligned with the process it established in its E-Solicitation 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. The following provides a summary of PA's main activities during this solicitation:

- PA participated in a teleconference meeting with PG&E held prior to the issuance of the E-Solicitation to discuss the Solicitation bid conformance, evaluation and selection process.
- PA received all communications between PG&E and bidders. PA directly received all of the emails, including bids that were sent to and received from bidders.
- PA reviewed the bids received and discussed with the PG&E team the team's intent to shortlist the bids.
- PA monitored negotiation calls and emails with all bidders.
- PA reviewed the draft and executed confirmation documents related to the selected bids.

Adequacy of PG&E's Outreach

PG&E's outreach included Market Notices to PG&E's wholesale RFO distribution list and PG&E's RA E-Solicitation distribution list. PG&E has conducted multiple RA and related solicitations in the last two years. In some Solicitations, PG&E has included additional outreach beyond the Market Notices, including telephone calls to potential bidders to ensure they were aware of the Solicitation. While PG&E did not conduct such additional outreach for this Solicitation, PA believes market participants are increasingly aware of PG&E's solicitations and that PG&E extended adequate outreach for the 2019 E-Solicitation.

PG&E's Bid Evaluation Methodology

PG&E primarily relied on a quantitative evaluation of each bidder's proposed volumes of RA desired and the bidders' proposed price for each product. Had competing bidders made offers for RA in the same month that exceeded PG&E's available RA or need for RA in that month, PG&E would have selected the higher priced bidder.

However, that situation did not occur in this E-Solicitation. PA found PG&E's bid evaluation methodology appropriate for this E-Solicitation.

PG&E's Shortlisting and Negotiations of Confirms

The Market Notice for this E-Solicitation had specified that PG&E would only contract with participants under an EEI Master Agreement. PG&E provided participants its Standard EEI RA Confirm and Import Allocation Confirm. During the confirm negotiations, PG&E provided draft Confirms to each participant specific to their awarded price and volume.

As noted, PG&E received [REDACTED] RA bids/offers for this E-Solicitation and no [REDACTED] [REDACTED] PG&E found the bid/offered prices reasonable and shortlisted [REDACTED] [REDACTED] participants; PG&E ultimately contracted with [REDACTED]

[REDACTED]

[REDACTED]

One bidder had been negotiating an EEI Master Agreement with PG&E prior to the launch of the 2019 Q4 RA/Import Energy E-Solicitation, and during the tenor of this Solicitation, those negotiations were completed. Ultimately, the bidder executed a transaction with PG&E to purchase [REDACTED] MW of Local RA.

The other participant transacted with PG&E to sell PG&E [REDACTED] RA to PG&E.

Summary of PA's Findings

Overall, PA confirms that PG&E conducted a fair and equitable 2019 Q4 RA/Import Energy 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 this E-Solicitation was adequate and that the Market Notice materials were clear and concise related to the E-Solicitation.
- PA finds that PG&E appropriately treated [REDACTED]
[REDACTED]
[REDACTED]
[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 2019 Q4 RA/Import Energy E-Solicitation fairly.



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Attachment 4

Attachment H (Public Version)

Confidential Attachment H

**Pacific Gas and Electric Company
Procurement Transaction Quarterly Compliance Report
Q4 2019**

New Contracts Executed and Amended 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.

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$)	Confirm File Name
None for 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 contracts subject to this QCR filing is included.

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Exelon Generation Company, LLC (33B251T01)	10/1/2019	Local RA (Sale)					Q4 2019 E- Solicitation
				3 MW 3 MW 3 MW 3 MW 3 MW			

¹ Rounded to the nearest whole dollar.

Confidential Attachment H

**Pacific Gas and Electric Company
Procurement Transaction Quarterly Compliance Report
Q4 2019**

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Exelon Generation Company, LLC (33B251T01), continued				3 MW 3 MW 3 MW 3 MW 3 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW			
		Local, Flexible RA (Sale)					
				11.48 MW 13.51 MW 12.3 MW 11.41 MW 14 MW 14 MW 14 MW 14 MW 7 MW 7 MW 7 MW 7 MW 7 MW 7 MW 7 MW 7 MW 7 MW			
Shell Energy North America (US), L.P. (33B022T01)	10/1/2019	Local RA (Purchase)					Q4 2019 E- Solicitation
				29 MW 51 MW 51 MW 8 MW 27 MW			

Confidential Attachment H

**Pacific Gas and Electric Company
Procurement Transaction Quarterly Compliance Report
Q4 2019**

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Shell Energy North America (US), L.P. (33B022T01), continued		Local, Flexible RA (Purchase)					
				51 MW 51 MW 51 MW 51 MW 43 MW 24 MW			
Shell Energy North America (US), L.P. (33B022S02)	10/1/2019	Import Allocation Rights (Sale)		32 MW 32 MW 32 MW 73 MW 73 MW 73 MW			Q4 2019 E-Solicitation
Exelon Generation Company, LLC (33B251R01)	10/11/2019	Local RA (Sale)					Q4 2019 E-Solicitation
				9 MW			
Commercial Energy of Montana Inc. (33B202R04)	10/15/2019	System RA (Sale)		2 MW			Q4 2019 E-Solicitation
Shell Energy North America (US), L.P. (33B022T02)	10/15/2019	Local RA (Purchase)					Q4 2019 E-Solicitation
				18 MW 18 MW 18 MW 18 MW 18 MW 3 MW			
Shell Energy North America (US), L.P. (33B022S03)	10/15/2019	Import Allocation Rights (Sale)		27 MW 27 MW 27 MW			Q4 2019 E-Solicitation
Exelon Generation Company, LLC (33B251T02)	10/18/2019	Local RA (Sale)					Q4 2019 E-Solicitation

Confidential Attachment H

**Pacific Gas and Electric Company
Procurement Transaction Quarterly Compliance Report
Q4 2019**

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$)¹	Confirm File Name
Exelon Generation Company, LLC (33B251T02), continued				9 MW 8.47 MW			
Exelon Generation Company, LLC (33B251T03)	10/18/2019	Local RA (Purchase)					Q4 2019 E-Solicitation
				9 MW 8.47 MW			
Monterey Bay Community Power Authority (33B236T01)	10/18/2019	Local RA (Sale)					Q4 2019 E-Solicitation
				39 MW 39 MW 39 MW			
Sonoma Clean Power Authority (33B226S02)	10/18/2019	Local RA (Sale)					Q4 2019 E-Solicitation
				7.38 MW 6.99 MW			
CCSF, acting by and thru its PUC, CleanPowerSF (33B243S02)	10/18/2019	Local, RA (Sale)					Q4 2019 E-Solicitation
				51 MW 51 MW 52 MW 53 MW 52 MW 45 MW 4 MW 53 MW 53 MW 4 MW			
		Local, Flexible RA (Sale)					

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**Pacific Gas and Electric Company
Procurement Transaction Quarterly Compliance Report
Q4 2019**

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
CCSF, acting by and thru its PUC, CleanPowerSF (33B243S02), continued				3 MW 50 MW			
CCSF, acting by and thru its PUC, Power Enterprise (33B250S02)	10/18/2019	Local, Flexible RA (Sale)					Q4 2019 E- Solicitation
				3 MW			
		Local RA (Sale)					
				49 MW 39 MW			
Direct Energy Business Marketing, LLC (33B241S01)	10/21/2019	Local, Flexible RA (Sale)					Q4 2019 E- Solicitation
				4.63 MW 14 MW 1 MW 16 MW			
Silicon Valley Clean Energy Authority (33B230S02)	10/21/2021	Local RA (Sale)					Q4 2019 E- Solicitation
				8 MW 12 MW 10 MW 2 MW 12 MW 12 MW 54.97 MW 55.37 MW 55.37 MW 61.4 MW 53.17 MW 56.79 MW 25.4 MW 25.4 MW 6.96 MW 1 MW 15.83 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
3 Phases Renewables, Inc. (33B113S02)	10/21/2019	Local, Flexible RA (Sale)					Q4 2019 E- Solicitation
				6 MW 4 MW 6 MW 2 MW 6 MW 6 MW 6 MW 6 MW 6 MW 6 MW 6 MW 6 MW 6 MW 6 MW 1 MW 6 MW			
3 Phases Renewables, Inc. (33B113S03)	10/21/2019	System RA (Purchase)		10 MW 8 MW 6 MW 6 MW 6 MW 6 MW 6 MW			Q4 2019 E- Solicitation
Peninsula Clean Energy Authority (33B232S02)	10/21/2019	Local, Flexible RA (Sale)					Q4 2019 E- Solicitation
				10.5 MW 5.5 MW 36 MW			
		Local RA (Sale)					
				3.25 MW 30.5 MW 5.5 MW 10.5 MW 8.94 MW 26.5 MW 2.5 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
City of San Jose (San Jose Clean Energy) (33B247S02)	10/23/2019	Local, RA (Sale)					Q4 2019 E- Solicitation
				0.3 MW 6 MW 0.72 MW 26.6 MW 26.6 MW 26.6 MW 26.6 MW 26.6 MW 26.6 MW 26.6 MW 26.6 MW 6 MW 9.51 MW 26.6 MW			
Clean Power Alliance of Southern California (33B240S01)	10/23/2019	Import Allocation Rights (Sale)		100 MW			Q4 2019 E- Solicitation
East Bay Community Energy Authority (33B238S03)	10/23/2019	Local, Flexible RA (Sale)					Q4 2019 E- Solicitation
				7 MW 7 MW 55 MW 4 MW 4 MW 4 MW 7 MW 49 MW 7 MW 86 MW 4 MW 4 MW 4 MW 4 MW 4 MW 7 MW 43 MW 4 MW 5.79 MW 32 MW 4 MW 5.79 MW 32 MW 8 MW 21.79 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
East Bay Community Energy Authority (33B238S03), continued				32 MW 8 MW 5 MW 76 MW 4 MW 32 MW 4 MW 12.34 MW 32 MW 4 MW 8.74 MW 32 MW 4 MW 13.29 MW 32 MW 4 MW 13.29 MW 32 MW			
		System, Flexible RA (Sale)		124 MW 69 MW			
Tenaska Power Services Co. (33B117S01)	10/30/2019	Local RA (Purchase)					Q4 2019 E- Solicitation
				76 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 5 MW 7 MW 7 MW 7 MW 7 MW 32 MW 32 MW 32 MW 32 MW 32 MW 32 MW 32 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Southern California Edison Company (33B217T01)	10/30/2019	Local RA (Purchase)					Q4 2019 Market RFP
				0.8 MW 2.4 MW 0.4 MW 0.67 MW 0.6 MW 1.8 MW 0.3 MW 0.5 MW 3.6 MW 10.8 MW 1.8 MW 3 MW 3 MW 9 MW 1.5 MW 2.5 MW 3.2 MW 9.6 MW 1.6 MW 2.67 MW 6.2 MW 18.6 MW 0.04 MW 5.16 MW 7.8 MW 16.8 MW 2.4 MW 5.4 MW 16.2 MW 0.4 MW 2.8 MW 8.4 MW 1.4 MW 2.33 MW 0.4 MW 1.2 MW 0.2 MW 0.33 MW 0.4 MW 1.2 MW 0.2 MW 0.33 MW 3.2 MW 9.6 MW 1.6 MW 2.67 MW 6.2 MW 18.6 MW 3.1 MW 5.16 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Southern California Edison Company (33B217T01), continued				7.8 MW 23.4 MW 3.9 MW 6.5 MW 5.4 MW 16.2 MW 2.7 MW 4.5 MW 2.8 MW 8.4 MW 1.4 MW 2.33 MW 0.4 MW 1.2 MW 0.2 MW 0.33 MW 0.4 MW 1.2 MW 0.2 MW 0.33 MW			
Southern California Edison Company (33B217T02)	10/30/2019	Local RA (Purchase)					Q4 2019 Market RFP
				19.8 MW 14.72 MW 41.33 MW 34.41 MW 32.38 MW 60 MW 60 MW 54.5 MW 32.04 MW 14.15 MW 14.15 MW 11 MW 19.8 MW 14.72 MW 41.33 MW 34.41 MW 32.38 MW 63.09 MW 73.39 MW 54.5 MW 32.04 MW 14.15 MW 14.15 MW 11 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Southern California Edison Company (33B217U01)	10/30/2019	Local, Flexible RA (Purchase)					Q4 2019 Market RFP
Southern California Edison Company (33B217U01)				3.84 MW 3.73 MW 3.52 MW			
Southern California Edison Company (33B217S01)	10/30/2019	Local, Flexible RA (Purchase)					Q4 2019 Market RFP
				61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 61 MW 31 MW 40.2 MW 45.28 MW 18.67 MW 25.59 MW 27.62 MW 5.5 MW 27.96 MW 45.85 MW 45.85 MW 49 MW 61 MW 52 MW 17.2 MW 61 MW 52 MW 22.28 MW 61 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$) ¹	Confirm File Name
Southern California Edison Company (33B217S01), continued				34.67 MW 13 MW 61 MW 41.59 MW 2.59 MW 10.41 MW 61 MW 43.62 MW 4.62 MW 8.38 MW 61 MW 12.91 MW 13 MW 61 MW 2.61 MW 13 MW 61 MW 21.5 MW 13 MW 61 MW 43.96 MW 4.96 MW 8.04 MW 61 MW 52 MW 22.85 MW 61 MW 52 MW 25.85 MW 61 MW 52 MW 27 MW 2 MW			
Peninsula Clean Energy Authority (33B232S03)	11/22/2019	Local RA (Purchase)					Q4 2019 E- Solicitation
Peninsula Clean Energy Authority (33B232S03), continued				1 MW 2 MW			
Peninsula Clean Energy Authority (33B232S04)	11/22/2019	Local RA (Sale)					Q4 2019 E- Solicitation
				13 MW 4 MW 14.47 MW 3.4 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$)¹	Confirm File Name
East Bay Community Energy Authority (33B238S04)	11/25/2019	Import Allocation Rights (Sale)		139.36 MW 0.98 MW			Q4 2019 E- Solicitation
Commercial Energy of Montana Inc. (33B202S02)	11/25/2019	System RA (Sale)		11 MW			Q4 2019 E- Solicitation
EDF Trading North America, LLC (33B200S01)	11/25/2019	Local RA (Sale)					Q4 2019 E- Solicitation
				4 MW 4 MW 4 MW			
Shell Energy North America (US), L.P. (33B022S04)	11/25/2019	Import Allocation Rights (Sale)		74 MW			Q4 2019 E- Solicitation
Marin Clean Energy (33B235S03)	11/26/2019	Local RA (Purchase)					Q4 2019 E- Solicitation
				4 MW 9 MW 4 MW			
Marin Clean Energy (33B235S04)	11/26/2019	System RA (Sale)		9 MW			Q4 2019 E- Solicitation
Clean Power Alliance of Southern California (33B240S02)	12/10/2019	System RA (Sale)		48.82 MW 170.2 MW			Q4 2019 E- Solicitation
Clean Power Alliance of Southern California (33B240S03)	12/10/2019	Import Allocation Rights (Sale)		109.39 MW			Q4 2019 E- Solicitation

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The table below provides a summary of bilateral contracts (including GHG offsets 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 contracts subject to this QCR filing is included.

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$)	Confirm File Name
Marin Clean Energy (33B235S05)	10/17/2019	Local RA (Purchase)					Q4 2019 Broker
				5 MW 6 MW			
Marin Clean Energy (33B235S06)	10/17/2019	Local RA (Purchase)					Q4 2019 Broker
				7 MW 11 MW 17 MW 17 MW 13 MW			
Marin Clean Energy (33B235S07)	10/17/2019	Local RA (Sale)					
				8 MW			Q4 2019 Broker
		System RA (Sale)		3 MW			
Marin Clean Energy (33B235S08)	10/17/2019	Local RA (Sale)					Q4 2019 Broker
				4 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW 2 MW			
		System RA (Sale)		17 MW 17 MW 13 MW			

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Volume	Price	Notional Value (\$)	Confirm File Name
Silicon Valley Clean Energy Authority (33B230S03)	12/11/2019	Local RA (Purchase)					Q4 2019 Bilateral
				4 MW			

Informational purposes only: A summary of the RA Sale contracts executed during the Quarter to be approved in the 2019 ERRR Compliance Filing. For further details, please see PG&E's Q4 2019 QCR Public Narrative.

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Type of Transaction	Date Filed	Regulatory Reporting or Approval Process
Southern California Edison Company (33B217S02)	10/30/2019	Local, Flexible RA (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing
Southern California Edison Company (33B217S03)	10/30/2019	Local RA (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing
Southern California Edison Company (33B217S04)	10/30/2019	Import Allocation Rights (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing
Southern California Edison Company (33B217S05)	10/30/2019	Import Allocation Rights (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing
Southern California Edison Company (33B217T03)	10/30/2019	Local RA (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing
Southern California Edison Company (33B217T04)	10/30/2019	Local RA (Sale)	Various	Contract	N/A	2019 ERRR Compliance Filing

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**Pacific Gas and Electric Company
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Informational purposes only: A summary of QF contracts executed and/or amended during the Quarter filed via separate application, advice letter or other approval mechanisms:

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Type of Transaction	Date Filed	Regulatory Reporting or Approval Process
Frito Lay Cogen (25C063QPA2)	10/30/2019	PURPA	7 years	Contract	N/A	Advice Letter Filing Pending
Olsen Power Partners (13H024QPA)	12/17/2019	PURPA	7 years	Contract	N/A	Advice Letter Filing Pending
EIF Haypress, LLC (15H005QPA)	12/20/2019	PURPA	8 months	Extension Agreement	1/17/20	Supplemental Advice Letter Filing 5592-E-A

Informational purposes only: A summary of the contracts executed and/or amended during the Quarter (non-QF) filed via separate application, advice letter or other approval mechanisms:

Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Type of Transaction	Date Filed	Regulatory Reporting or Approval Process
Exelon Generation Company, LLC (33B251)	10/1/2019	EEL Master	N/A	Contract	N/A	2019 ERRA Compliance Filing
Dynegy Marketing and Trade, LLC (40S013)	10/7/2019	Energy Storage	N/A	Amendment to Existing Agreement	10/15/2019	Advice Letter Filing 5658-E
Java Solar (33R393)	10/7/2019	RPS	N/A	Amendment to Existing Agreement	10/15/2019	Advice Letter Filing 5658-E
Shell Energy North America (US), L.P. (33B022S02)	10/11/2019	RA	N/A	Routine Amendment to Existing Agreement	N/A	2019 ERRA Compliance Filing
East Bay Community Energy Authority (33B238R06)	10/30/2019	RA	N/A	Routine Amendment to Existing Agreement	N/A	2019 ERRA Compliance Filing

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Contract/ Counterparty Name	Executed/ Signed Date	Product	Term	Type of Transaction	Date Filed	Regulatory Reporting or Approval Process
Calpine Russell City Energy Center (33B075)	11/22/2019	Tolling	N/A	Routine Amendment to Existing Agreement	N/A	2019 ERRA Compliance Filing
EDF Trading North America, LLC (33B200S01)	12/19/2019	RA	N/A	Routine Amendment to Existing Agreement	N/A	2019 ERRA Compliance Filing
Sutters Mill Hydroelectric Plant (33R417RM)	12/30/2019	ReMAT	N/A	Consent to Assignment - General Consent	N/A	2019 ERRA Compliance Filing

Informational purposes only: A summary of the contracts terminated/expired during the

Quarter:

Contract/ Counterparty Name	Termination or Expiration ²	Date	Product	Volume (MW)
South Sutter Water (33R240AB)	Termination	10/14/2019	AB1969/FIT	.395
El Dorado Hydro (Montgomery Creek) (13H001QPA)	Expiration	10/31/2019	PURPA	2.8
Olsen Power Partners (13H024)	Expiration	11/9/2019	QF	5
Greenleaf Unit #2 (12C021)	Expiration	12/9/2019	QF	49.5
Avangrid Renewables, LLC (33R472)	Expiration	12/31/2019	RPS Energy REC Sales	0
EDF Trading North America, LLC (33R458)	Expiration	12/31/2019	RPS Energy REC Sales	0
The Energy Authority, Inc. (33R452)	Expiration	12/31/2019	RPS Energy REC Sales	0
City of San Jose (San Jose Clean Energy) (33R450)	Expiration	12/31/2019	RPS Energy REC Sales	0

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Contract/ Counterparty Name	Termination or Expiration ²	Date	Product	Volume (MW)
East Bay Community Energy Authority (33R446)	Expiration	12/31/2019	RPS Energy REC Sales	0
Clean Power Alliance of Southern California (33R445)	Expiration	12/31/2019	RPS Energy REC Sales	0
Peninsula Clean Energy Authority (33R432)	Expiration	12/31/2019	RPS Energy REC Sales	0
East Bay Community Energy Authority (33R431)	Expiration	12/31/2019	RPS Energy REC Sales	0
Snow Mountain Hydro (Lost Creek 1) (33R101AB)	Expiration	12/31/2019	AB1969/FIT	1.1
Snow Mountain Hydro (Lost Creek 2) (33R102AB)	Expiration	12/31/2019	AB1969/FIT	0.5

² A terminated contract is ended before its original expiration date. An expiration date is the natural end of the contract.

Attachment 5

Confidentiality Declarations and Matrix

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
QUARTERLY COMPLIANCE REPORT ADVICE LETTER 5748-E
PROCUREMENT TRANSACTION QUARTERLY COMPLIANCE REPORT OF Q4 2019
JANUARY 30, 2020**

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
Document: Quarterly Compliance Report			
Attachment E: Q4 2019 GHG Materials folder File name: 05_PRG_Q4-2019 GHG Position Update-final.ppt, "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
Attachment F: Confid Attchment F Qtr04 2019 zip folder File name: 12-13-19 PGE PRG Meeting December 17 2019.pdf, email attachment PGE PRG PRES GHG Position Update 121719.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

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
Document: Quarterly Compliance Report			
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.

Attachment B – in its entirety: Counterparty Information, including non- investment grade counterparties table: List of Non-Investment Grade Counterparties (Electric and Natural Gas 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 advantage by the disclosure of counterparty information. This information could be used by other market participants to gain a commercial advantage.	3 Years
Attachment C – in its entirety: Electric Transactions	XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings) Item XIII) Energy Division Monthly Data Request (AB 57)	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. 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 3 Years

Attachment D – in its entirety: Natural Gas Transactions	<p>Item I) A) 4) Long-term fuel (gas) buying and hedging plans</p> <p>Item I) B) 2) Utility recorded gas procurement and cost information</p> <p>XI) Monthly Procurement Costs (Energy Resource Recovery Account [ERRA] Filings)</p>	<p>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.</p> <p>Actual quantity and cost of procured physical gas are protected.</p> <p>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</p>	<p>Financial transactions are confidential for three years past expiration of the last trade executed under the hedging plan. (Resolution E-4276, Finding 8)</p> <p>Utility recorded physical gas procurement and cost information is confidential for one year.</p> <p>Monthly procurement costs (ERRA Filings) are confidential for 3 years.</p>
Attachment E – in its entirety: Other Transactions (Electric Information) (Except Greenhouse Gas (“GHG”) Information, which is presented separately below)	<p>Item VI) E) and F) Utility Planning Area Matrix Net Open (Electric)</p> <p>Item VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties;</p> <p>Items VIII) A) Bid Information and VIII) B) Specific quantitative analysis involved in scoring and evaluation of participating bids</p>	<p>Disclosure of information in these executed contracts could provide market participants regarding PG&E’s net open position.</p> <p>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.</p>	<p>3 Years</p> <p>3 Years</p>

Attachment E – in its entirety: Other Transactions- (GHG Information)	D.14-10-033 Public Utilities Code Section 454.5(g)	<p>This information includes confidential GHG information, the disclosure of which is prohibited according to Title 17 of the California Code of Regulations.</p> <p>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 advantage 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.</p>	Indefinite
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&E’s customers, and put PG&E at an unfair business advantage 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
Attachment G - Independent Evaluator (IE) Report	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	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

	analysis involved in scoring and evaluation of participating bids		
Attachment H - Executed Contracts	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;	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
	Item VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids		
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 - Gas Transaction, Natural Gas 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)

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 publicly 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 advantage if publicly disclosed.	Indefinite
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 market place.	3 Years
	VII) B) Bilateral Contract Terms and Conditions – contracts and power purchase agreements between utilities and non-affiliated third parties; VIII) A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids	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 L - Reasonable Number of Analyses – Electric (continued)	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

	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	years Indefinite
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

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

**PACIFIC GAS AND ELECTRIC COMPANY
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 5748-E**

**DECLARATION OF JAY BUKOWSKI
SEEKING CONFIDENTIAL TREATMENT OF CERTAIN DATA AND
INFORMATION CONTAINED IN PG&E'S
CONFIDENTIAL ATTACHMENTS F AND K**

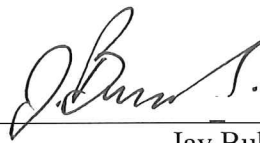
I, Jay Bukowski, declare:

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 30, 2020 Advice Letter 5748-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 30, 2020, at San Francisco, California.

A handwritten signature in black ink, appearing to read "J. Bukowski", is written over a horizontal line.

Jay Bukowski

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

**PACIFIC GAS AND ELECTRIC COMPANY
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 5748-E**

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

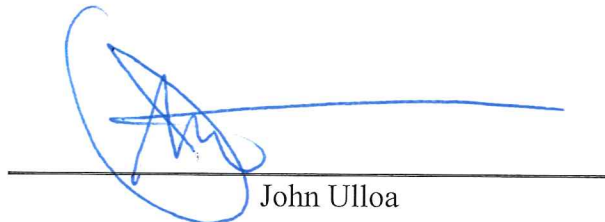
I, John Ulloa, declare:

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 30, 2020 Advice Letter 5748-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 30, 2020, at San Francisco, California.



John Ulloa

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

**PACIFIC GAS AND ELECTRIC COMPANY
QUARTERLY COMPLIANCE REPORT FILING ADVICE LETTER 5748-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 Senior Manager 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 30, 2020 Advice Letter 5748-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 30, 2020, at San Francisco, California.


Marianne Aikawa

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

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Praxair
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	
	Energy Management Service	Redwood Coast Energy Authority
Alta Power Group, LLC	Engineers and Scientists of California	Regulatory & Cogeneration Service, Inc.
Anderson & Poole	Evaluation + Strategy for Social	SCD Energy Solutions
	Innovation	
Atlas ReFuel	GenOn Energy, Inc.	SCE
BART	Goodin, MacBride, Squeri, Schlotz &	SDG&E and SoCalGas
	Ritchie	
Barkovich & Yap, Inc.	Green Charge Networks	SPURR
P.C. CalCom Solar	Green Power Institute	San Francisco Water Power and Sewer
California Cotton Ginners & Growers Assn	Hanna & Morton	Seattle City Light
California Energy Commission	ICF	Sempra Utilities
California Public Utilities Commission	IGS Energy	Southern California Edison Company
California State Association of Counties	International Power Technology	Southern California Gas Company
Calpine	Intestate Gas Services, Inc.	Spark Energy
	Kelly Group	Sun Light & Power
Cameron-Daniel, P.C.	Ken Bohn Consulting	Sunshine Design
Casner, Steve	Keyes & Fox LLP	Tecogen, Inc.
Cenergy Power	Leviton Manufacturing Co., Inc. Linde	TerraVerde Renewable Partners
Center for Biological Diversity	Los Angeles County Integrated	Tiger Natural Gas, Inc.
	Waste Management Task Force	
Chevron Pipeline and Power	Los Angeles Dept of Water & Power	TransCanada
City of Palo Alto	MRW & Associates	Troutman Sanders LLP
	Manatt Phelps Phillips	Utility Cost Management
City of San Jose	Marin Energy Authority	Utility Power Solutions
Clean Power Research	McKenzie & Associates	Utility Specialists
Coast Economic Consulting		
Commercial Energy	Modesto Irrigation District	Verizon
County of Tehama - Department of Public	Morgan Stanley	Water and Energy Consulting Wellhead
Works	NLine Energy, Inc.	Electric Company
Crossborder Energy	NRG Solar	Western Manufactured Housing
Crown Road Energy, LLC		Communities Association (WMA)
Davis Wright Tremaine LLP	Office of Ratepayer Advocates	Yep Energy
Day Carter Murphy	OnGrid Solar	
	Pacific Gas and Electric Company	
Dept of General Services	Peninsula Clean Energy	
Don Pickett & Associates, Inc.		
Douglass & Liddell		