

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 5906E
As of September 1, 2020

Subject: Spring 2020 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreement
Between Pacific

Division Assigned: Energy

Date Filed: 08-06-2020

Date to Calendar: 08-10-2020

Authorizing Documents: None

| | |
|------------------------|-------------------|
| Disposition: | Accepted |
| Effective Date: | 08-31-2020 |

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

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AL Certificate Contact Information:

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PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
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The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

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Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

August 6, 2020

Advice 5906-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject Spring 2020 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreement Between Pacific Gas and Electric Company and Multiple Buyers

I. Introduction**A. Identify the Purpose of the Advice Letter**

Pacific Gas and Electric Company ("PG&E") seeks California Public Utilities Commission ("Commission" or "CPUC") approval of two power purchase and sale agreements ("PPSAs" or "Transactions") that seek to sell Renewables Portfolio Standard ("RPS")-eligible products from PG&E's existing procured energy portfolio to two counterparties.

These Transactions are consistent with the sales strategy approved as part of PG&E's 2019 RPS Procurement Plan ("2019 RPS Plan"), and is consistent with PG&E's ongoing management of its RPS portfolio in light of recent and forecasted bundled electric load departures resulting from the growth of Community Choice Aggregators ("CCA") and behind-the-meter distributed generation.¹ This Advice Letter includes two Transactions resulting from PG&E's Spring 2020 Bundled RPS Energy Sale Solicitation ("Solicitation").

B. Identify the Subject of the Advice Letter, Including contract summary as follows:**General Deal Structure****Describe general characteristics of contract: Contract Summary**

PG&E will sell bundled energy and renewable energy credits ("RECs") under the PPSAs. PG&E either owns or purchases the bundled product under contracts that PG&E expects

¹ Final 2019 PG&E Renewable Energy Procurement Plan, filed in R.18-07-003 on January 29, 2020.

would qualify as Portfolio Content Category (“PCC”) 1 to PG&E.² The Transaction must receive final, nonappealable Commission approval before energy deliveries and the transfer of REC’s to Buyers may begin under the PPSAs.

1. Counterparty(s) / Buyer(s)

The counterparties associated with sales resulting from the Solicitation include:

- Silicon Valley Clean Energy Authority (“SVCEA”)
 - SVCEA is a Community Choice Aggregator (CCA) serving residential and business customers in Santa Clara County.
- BMW of North America, LLC (“BMWNA”)
 - BMWNA is a Delaware Limited Liability Company.

2. Business Relationship (if applicable, between seller / owner / buyer)

PG&E is not aware of any corporate affiliations between PG&E and the PPSA Buyers, and is not aware of any corporate affiliations between the non-PG&E owned Projects and the PPSA Buyers.

3. Contract Volume (MWh)

| Counterparty(s) | Contract Volume (MWh) |
|---|------------------------------|
| Silicon Valley Clean Energy Authority (“SVCEA”) | 475,000 |
| BMW of North America, LLC (“BMWNA”) | 19,436 ³ |

4. Facility Size (MW)

See Appendix H1 and H2 – Facility List for the Facility Size (MW) of PG&E’s Facility List. The BMWNA transaction is for the full output of ABEC Bidart-Old River and ABEC Bidart-Stockdale (unit-specific) that are from the 2012 vintage.

5. Term of existing contract with the owner / developer (date of contract execution and expiration)

See Appendix H1 and H2 – Facility List for the term of existing contract with the owner / developer of the Projects expected to deliver volumes under the PPSAs (date of contract execution and expiration).

² PCC 1 products are defined in California Public Utilities Code Section 399.16(b)(1).

³ The total volume executed with BMWNA is for the full generation of the ABEC Bidart-Old River and ABEC Bidart-Stockdale facilities and is estimated to be 6,479 MWh for 2020 and 12,957 MWh for 2021. Since this transaction is not for a fixed volume, the contract has no guaranteed minimum or maximum volume.

6. Project background, e.g., expiring QF contract, phased project previous power purchase agreement, contract amendment

All of the Projects that are expected to deliver volumes pursuant to the PPSAs are existing and operating facilities that are either utility owned generation or are under current RPS contracts to deliver output to PG&E.

7. Source of agreement, i.e., RPS solicitation year or bilateral negotiation

The PPSAs resulted from PG&E's Spring 2020 Bundled RPS Energy Sale Solicitation. The solicitation bids were evaluated and executed in accordance with the RPS Sales Framework ("Sales Framework") approved as Appendix F to PG&E's 2019 RPS Plan.

8. If an amendment, describe contract terms being amended and reason for amendment

Not Applicable.

General Project(s) Description

| | | |
|--------------------------------|--|--|
| Project Name | Multiple Projects (See Appendix H1 – Facility List) | ABEC-Bidart Old River and ABEC-Bidart Stockdale (See Appendix H2 -Facility List) |
| Buyer / Counterparty | SVCEA | BMWNA |
| Technology | solar PV, solar thermal, wind, small hydro, biomass, biomethane, and geothermal renewable technologies | biomethane |
| Capacity (MW) ⁴ | Multiple Projects (See Appendix H1 – Facility List) | Multiple Projects (See Appendix H2 – Facility List) |
| Expected Generation (GWh/Year) | Multiple Projects (See Appendix H1 – Facility List) | Multiple Projects (See Appendix H2 – Facility List) |
| Delivery Term (Years) | 2021 | 2020-2021 |
| Location (city and state) | Multiple Projects (See Appendix H1 – Facility List) | Multiple Projects (See Appendix H2 – Facility List) |

⁴ The capacity for the multiple projects (facilities) associated with the Transactions are listed in Appendix H1 and Appendix H2. However, the Transactions are for bundled RPS (i.e., energy and RECs) sales and do not include a capacity product.

C. RPS Statutory Goals and Requirements

- 1. Briefly describe the Project's consistency with and contribution towards the RPS program's statutory goals set forth in Public Utilities Code §399.11. These goals include displacing fossil fuel consumption within the state; adding new electrical generating facilities within WECC; reducing air pollution in the state; meeting the state's climate change goals by reducing emissions of greenhouse gases associated with electrical generation; promoting stable retail rates for electric service; a diversified and balanced energy generation portfolio; meeting the state's resource adequacy requirements; safe and reliable operation of the electrical grid; and implementing the state's transmission and land use planning activities.**

The Transactions contribute to the optimization of PG&E's portfolio of RPS-eligible resources, thereby promoting the stability and reasonableness of the impact on customer rates of that portfolio.

- 2. Describe how procurement pursuant to the contract will meet IOU's specific RPS compliance period needs. Include Renewable Net Short calculation as part of response. Also, describe, in detail, how these sales will not inhibit the ability for the IOU to meet its RPS targets in all future compliance periods.**

As illustrated in PG&E's RNS, PG&E's existing RPS portfolio is expected to provide sufficient RPS-eligible deliveries to meet PG&E's RPS compliance requirements through 2030, prior to consideration of the Transactions. The combination of these calculations demonstrates that the Transactions will not create any material risk of near-term RPS noncompliance for PG&E.

D. Confidentiality

Explain if confidential treatment of specific material is requested. Describe the information and reason(s) for confidential treatment consistent with the showing required by D.06-06-066, as modified by D.08-04-023.

In support of this Advice Letter, PG&E provides the confidential information listed below. This information includes the PPSAs and other information that more specifically describes the rights and obligations of the parties involved. This information is being submitted in the manner directed by D.08-04-023 and the August 22, 2006, Administrative Law Judge's Ruling Clarifying Interim Procedures for Complying with D.06-06-066 to demonstrate the confidentiality of the material and to invoke the protection of confidential utility information provided under either the terms of the Investor Owned Utility Matrix, Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023, or Public Utilities Code section 454.5(g). A separate Declaration Seeking Confidential Treatment is being submitted concurrently with this Advice Letter.

Table of Appendices

| Appendix | Description | Public or Confidential? |
|-----------------|--|--------------------------------|
| A | Consistency with Commission Decisions and Rules | Confidential |
| B1 | Solicitation Overview and Results | Confidential |
| B2 | Solicitation Overview and Results (Excel Spreadsheet) | Confidential |
| C1 | Final RPS Project-Specific Independent Evaluator Report | Confidential |
| C2 | Final RPS Project-Specific Independent Evaluator Report (Redacted) | Public |
| D1 | Contract Summary: Silicon Valley Clean Energy Authority (SVCEA) | Confidential |
| D2 | Contract Summary: BMW of North America, LLC (BMWNA) | Confidential |
| E1 | Comparison of Contract with Utility's Pro Forma Agreement: SVCEA | Confidential |
| E2 | Comparison of Contract with Utility's Pro Forma Agreement: BMWNA | Confidential |
| F1 | Sales Agreement: SVCEA | Confidential |
| F2 | Sales Agreement: BMWNA | Confidential |
| G1 | PG&E's Renewable Net Short Calculation | Confidential |
| G2 | PG&E's Renewable Net Short Calculation (Redacted) | Public |
| H1 | Facility List: SVCEA | Public |
| H2 | Facility List: BMWNA | Public |

II. Consistency With Commission Decisions

A. RPS Procurement Plan

- 1. Identify the Commission decision that approved the utility's RPS Procurement Plan. Did the utility adhere to Commission guidelines for filing and revisions?**

PG&E's 2019 RPS Plan was approved in Decision (D.) 19-12-042 on December 30, 2019, and the final, conforming version of the 2019 RPS Plan was filed in Rulemaking 18-17-003 on January 29, 2020. PG&E complied with all procedural requirements with regard to the submittal of its 2019 RPS Plan.

- 2. Describe the Procurement Plan's assessment of portfolio needs as well as how these sales are consistent with the Commission decision for sale of RECs.**

In PG&E's 2019 RPS Plan, PG&E demonstrated that it was well-positioned to meet its RPS compliance requirements through CP 5 (2025-2027) and would not have incremental RPS physical need until at least 2029. PG&E also demonstrated that its existing portfolio of executed RPS contracts, its owned RPS-eligible generation, and its expected balances of surplus RPS generation from prior compliance periods would be adequate to ensure compliance with near-term RPS requirements and through at least 2033. In PG&E's updated RNS position, presented in Appendix I, PG&E demonstrates that it doesn't expect to have an incremental RPS physical need until after 2030. These calculations demonstrate that the Transaction will not create any material risk of near-term RPS noncompliance for PG&E.

- 3. Discuss how the Transactions are consistent with the utility's Procurement Plan and meet utility procurement and portfolio needs (e.g., capacity, electrical energy, resource adequacy, or any other product resulting from the Transactions).**

The proposed PPSAs are for the sale of bundled energy and associated RECs generated in 2020 and 2021. As described above, PG&E's 2019 RPS Plan concluded that PG&E is well-positioned to meet its near-term RPS compliance requirements until at least 2033. In light of its long position with respect to RPS targets, PG&E developed the Sales Framework, filed as Appendix F in the approved 2019 RPS Plan, to assess whether to hold or sell surplus RPS volumes. Based on its then-current forecast of bundled retail sales and RPS volumes in its portfolio, PG&E explained in the 2019 RPS Plan that it expected to sell short-term, bundled RPS volumes in 2020.

As further described in Confidential Appendix A, the Transactions are consistent with the 2019 RPS Plan because the total quantity considered for sale and the prices of the Transactions align with what is described in the Sales Framework filed in the 2019 RPS Plan. As a result, the Transactions will benefit PG&E's RPS portfolio by reducing customer costs while maintaining compliance with RPS targets, as intended by the Sales Framework.

The Transactions are also consistent with the approval granted by the Commission in D.19-12-042, Ordering Paragraph 18, which states:

PG&E is authorized to conduct solicitations for short-term sales of 5 years or less, of sales of RPS volumes if the sales agreement for any such sale is executed during the period after the Commission's adoption R.18-07-003 of this decision and prior to adoption of a subsequent RPS Plan. Deliveries may commence at any time after the Commission's approval of the contract and continue until the expiration of the contract's term. PG&E must seek Commission approval of short-term and long-term sales resulting from a solicitation or any bilateral transaction that both utilizes the pro forma sales agreement submitted with its 2019 RPS Procurement Plan, showing any necessary modifications, and is executed after PG&E receives bids for a sales solicitation resulting from its 2019 RPS Procurement Plan consistent with Decision (D.) 14-11-042's rules for expedited approval of short-term contracts and D.09-06-050's rules regarding bilateral contracts.

The Transactions are consistent with Ordering Paragraph 18. First, the Transactions are short-term, meaning five years or less. Second, PG&E executed the Transaction during the timeframe covered by the 2019 RPS Plan and prior to the Commission issuing a decision on the 2020 RPS Procurement Plans. Third, the deliveries under the Transaction may commence after the Commission's approval of the PPSAs. Fourth, as required, PG&E is submitting this Tier 1 Advice Letter for Commission approval of the Transaction.

Consistent with the 2019 RPS Plan, the Transactions used PG&E's pro forma Sales Agreement and PG&E is providing comparisons of the executed Transaction against the approved pro forma short-term sales confirmation. The adherence to PG&E's pre-approved Sales Framework and the use of the approved pro forma short-term sales confirmation allows for the submittal of the Transaction through this Tier 1 advice letter, which is consistent with the 2019 RPS Plan and D.19-12-042.

4. Sales

a. Briefly describe IOU's approved sales framework and how the sales contract(s) are consistent with the framework

The Transactions are consistent with PG&E's Annual and Solicitation Limits and methodology, described in its pre-approved Sales Framework. PG&E selected qualifying bids based on the price offered as the sole quantitative criterion.

5. Portfolio Optimization Strategy

a. Describe how the proposed procurement (or sale) optimizes IOU's RPS portfolio (or entire energy portfolio). Specifically, a response should include:

- i. Identification of IOU's portfolio optimization strategy objectives that the proposed procurement (or sale) are consistent with.**

See Section III.A.3, above.

- ii. Identification of metrics within portfolio optimization methodology or model (e.g., PPA costs, energy value, capacity value, interest costs, carrying costs, transaction costs, etc.) that are increased/ decreased as a result of the proposed transaction.**

PG&E utilized its pre-approved Sales Framework for assessing whether to hold or sell surplus RPS volumes, as described in further detail in Section I.A. of Confidential Appendix A.

- iii. Identification of risks (e.g., non-compliance with RPS requirements, regulatory risk, over-procurement of non-bankable RPS-eligible products, safety, etc.) and constraints included in optimization strategy that may be decreased or increased due to proposed procurement (or sale).**

The Transactions are consistent with PG&E's objective of minimizing customer costs while achieving and maintaining RPS compliance. Through the timely sale of surplus RPS-eligible energy at competitive prices, the PPSAs reduce the total cost impact of the RPS program to customers. Given PG&E's current long RPS position, it is highly unlikely that the PPSAs will jeopardize PG&E's ability to meet RPS requirements.

- b. Description of how proposed procurement (or sale) is consistent with IOUs overall planned activities and range of Transactions planned to optimize portfolio.**

PG&E filed its Sales Framework as part of its approved 2019 RPS Plan in order to guide its overall sales activities and to optimize its portfolio by addressing PG&E's growing bank of RPS compliance products. This transaction was conducted within the guidelines outlined in the Sales Framework.

B. Bilateral contracting - if applicable

Not applicable.

C. Solicitation Methodology and Evaluation

- 1. Briefly describe IOU's LCBF Methodology (or other evaluation methodology) and how the Project compared relative to other offers available to the IOU at the time of evaluation.**

Not applicable, because the Transactions are sales rather than procurement. PG&E has used its approved Sales Framework to evaluate the offers rather than the procurement LCBF evaluation methodology.

D. Compliance With Standard Terms and Conditions ("STCs")

- 1. Do the proposed Transactions comply with D.08-04-009, D.08-08-028, and D.10-03-021, as modified by D.11-01-025?**

The non-modifiable STCs in the PPSAs conform exactly to the “non-modifiable” terms set forth in Attachment A of D.08-04-009, as modified by D.08-08-028 and D.13-11-024 and by Appendix C of D.10-03-021, as modified by D.11-01-025.

2. Using the tabular format, provide the specific page and section number where the RPS non-modifiable STCs are located in the contract.

| Counterparty | | SVCEA | | BMWNA | |
|---------------------|---------------------------------------|---------|-------------|---------|-------------|
| Contract Reference | | Section | Page Number | Section | Page Number |
| Non-Modifiable Term | STC 1: CPUC Approval | 2.15 | 6 | 2.14 | 5 - 6 |
| | STC 17: Applicable Law | 8.3(b) | 15 | 8.2(b) | 14 - 15 |
| | STC REC 1: Transfer of RECs | 6.1(b) | 12 | 6.1(b) | 12 |
| | STC REC 2: WREGIS Tracking of RECs | 6.1(c) | 12 | 6.1(c) | 12 |
| | STC REC 3: CPUC Approval ⁵ | N/A | N/A | N/A | N/A |

3. Provide a redline of the contract against the utility’s Commission-approved pro forma RPS contract as Confidential Appendix E to the filed advice letter. Highlight modifiable terms in one color and non-modifiable terms in another.

Redlines comparing each of the executed PPSAs to the form of Short-Term Sales Confirmation included as Attachment I.3 to PG&E’s 2019 RPS Plan are included in Confidential Appendix E. The non-modifiable terms have been highlighted in each redlined comparison.

E. Solicitation Process

1. Process Overview

PG&E used the pre-approved Sales Framework to establish which bids to execute in its Spring 2020 Bundled RPS Energy Sale Solicitation, governed by the 2019 RPS Plan.

2. Sales solicitation process and schedule

PG&E’s solicitation process and schedule is summarized below.

⁵ PG&E utilized the STC 1 definition for CPUC Approval in its executed sales agreements resulting from the Spring 2020 Bundled RPS Energy Sale Solicitation.

| Event | Date/Time |
|--|-------------------------|
| PG&E issues solicitation | April 10, 2020 |
| Participants' Webinar | April 16, 2020 at 10 AM |
| Deadline for Participants to submit bids through Power Advocate | May 5, 2020 at 1 PM |
| PG&E notifies qualified bidders | May 7, 2020 |
| Execution date | June 2020 |
| PG&E submits Agreements for CPUC approval via Tier 1 Advice Letter | August 6, 2020 |

3. Solicitation Design

An overview of the product attributes PG&E solicited is summarized below.

| | |
|----------------------|---|
| Product | <ul style="list-style-type: none"> Bundled Renewable Energy Standard (RPS)-eligible energy and associated Renewable Energy Credits (RECs) from resources in PG&E's portfolio |
| Pricing | <ul style="list-style-type: none"> Energy – settled at the day-ahead NP15, ZP26 and/or SP15 Index (Trading Hub Price) REC – fixed price |
| Location | <ul style="list-style-type: none"> NP15, SP15, and/or ZP26 Trading Hub at Seller's Discretion |
| Delivery Term | <ul style="list-style-type: none"> 2020 2021 |
| Agreement | <ul style="list-style-type: none"> Confirm under an EEI Master Agreement |

4. Table of Key Terms of REC sales confirmation

| | |
|---|--|
| Scheduling Obligations | Seller, or a qualified third party designated by Seller, shall act as Scheduling Coordinator for the Project. Buyer hereby authorizes Seller, or its third party Scheduling Coordinator designee, to deliver the Electric Energy to the CAISO at the Delivery Point. |
| Seller's Representations, Warranties, and Covenants | As of the Execution Date and throughout the Energy Delivery Period, Seller represents, warrants, and covenants that the Project meets the criteria in either (i) or (ii): (i) The Projects either has a first point of interconnection with the California Balancing Authority, or a first point of interconnection with distribution facilities used to serve end users within a California Balancing Authority Area; or (ii) The Project has an agreement to dynamically transfer electricity to a California Balancing Authority. |

| | |
|---|--|
| Seller's Representations, Warranties, and Covenants | <p>The Parties agree that the following sections of the EEI Agreement shall not be applicable to this Confirmation or Transactions hereunder until the effective date of the Seller's plan of reorganization under the Chapter 11 Cases: Sections 5.1(d), 5.1(e), 5.1(f), 10.2(v), 10.2(vi), and 10.10. Notwithstanding anything to the contrary contained in the Agreement with respect to Seller: Buyer acknowledges and agrees that (i) representations and warranties under Section 10.2(x) of the EEI Agreement are made subject to the provisions of the Bankruptcy Code and any order of the Bankruptcy Court; and (ii) until effective date of the Seller's plan of reorganization under the Chapter 11 Cases has occurred, the existence or continuation of Seller being Bankrupt is not an Event of Default with respect to Seller under this Agreement (including pursuant to Section 5.1(g) of the EEI Agreement) and does not entitle Buyer to terminate this Agreement solely because of such existence or continuation.</p> |
| Seller's Conveyance of Green Attributes | <p>The Green Attributes in the amount of the Total Quantity shall be deemed to be conveyed to and received by Buyer under this Confirmation as set forth herein. During the Green Attributes Delivery Period, Seller shall convey to Buyer the Green Attributes associated with the Delivered Energy within: twenty-five (25) Business Days following the occurrence of both (i) the deposit into Seller's WREGIS account of the WREGIS Certificates for the Green Attributes for the applicable Calculation Period and (ii) Buyer's payment of the Monthly Cash Settlement Amount in accordance with Article 5 herein. Seller shall transfer such WREGIS Certificates in an amount equivalent to the Total Quantity to Buyer's WREGIS account such that all right, title and interest in and to the WREGIS</p> |

| | |
|--|---|
| | Certificates shall transfer from Seller to Buyer. |
|--|---|

F. Valuation Process: Quantitative and Qualitative Analysis

For Sales contracts, provide a quantitative analysis that evaluates selling the proposed contracted amount vs. banking the REC's towards future RPS compliance requirements (or any reasonable other options).

See Section I.A.i. in Confidential Appendix A.

Explain the process used to determine price reasonableness, with maximum benefit to ratepayers.

See Section I.A.ii. in Confidential Appendix A.

Provide the notional value of each contract, as well as the total of all selected contracts. See Confidential Appendix B – Solicitation Overview and Results (Excel Spreadsheet).

Explain any quantitative and qualitative criteria used to rank bids.

Per PG&E's Solicitation Protocol, PG&E considered price as the sole quantitative criterion. PG&E did not disqualify any qualifying bids due to quantitative criteria considerations.

G. Discussion of Outcome of Solicitation

For Sales contracts, provide the overall bid solicitation results and the shortlisted bids

- A. Quantitative information to include total number of overall and shortlisted responses for solicitation, price per bid, contract term of bids, bid quantity, total forecasted revenues per bid, and expected PCC classification of bid.**

See Confidential Appendix B – Solicitation Overview and Results (Excel Spreadsheet).

H. Procurement Review Group (PRG) Participation

1. List PRG participants (by organization/company).

The PRG for PG&E includes the Commission's Energy Division, the Office of Ratepayer Advocates, the Union of Concerned Scientists, The Utility Reform Network, the Coalition of California Utility Employees, and Coast Economic Consulting.

2. Describe the utility's consultation with the PRG, including when information about the contract was provided to the PRG, whether the information was provided in meetings or other correspondence, and the steps of the procurement process where the PRG was consulted.

On April 2, 2020, PG&E provided an update via email to the PRG with an overview of the Solicitation rationale, objective, and timeline.

On May 7, 2020, PG&E provided an update via email to the PRG regarding the bids received and qualified bid list.

On May 8, 2020, PG&E provided an update via email to the PRG in response to questions received from PG&E's May 7, 2020 email.

On May 22, 2020, PG&E updated the PRG via email of PG&E's intent to execute list.

3. For short-term contracts, if the PRG was not able to be informed prior to filing, explain why the PRG could not be informed.

This is not applicable as the PRG was notified in advance of execution.

I. Independent Evaluator (IE)

The use of an IE is required by D.04-12-048, D.06-05-039, 07-12-052, and D.09-06-050.

1. Provide name of IE.

The IE is Lewis Hashimoto of Arroyo Seco Consulting.

2. Describe the oversight provided by the IE.

The IE provided active oversight of the Solicitation beginning prior to issuance and continuing through contract execution. The IE provided input in advance of the Solicitation's launch with the goal of maximizing the effectiveness of PG&E's outreach. During the Solicitation, the IE reviewed e-mails exchanged between PG&E and the bidders and participated on phone calls between PG&E and the bidders.

3. List when the IE made any findings to the Procurement Review Group regarding the applicable solicitation, the project/bid, and/or contract negotiations.

The IE did not provide any findings to the PRG related to the PPSAs. The IE concludes in the IE report that the Transaction merits Commission approval.

4. Insert the public version of the project-specific IE Report.

The public and confidential versions of the IE report are attached to this Advice Letter as Appendices C1 and C2.

III. Safety Considerations

A. What has the IOU done to ensure that the contract and the facility's (or facilities') operation are: consistent with Public Utilities Code Section 451; do not interfere with the IOU's safe operation of its utility operations and facilities; and will not adversely affect the public health and safety?

The Transactions cover the resale of energy and RECs purchased under existing PPAs. The Projects are existing resources currently performing under existing PPAs with PG&E and therefore raise no incremental safety matters related to the generation of the energy.

B. Will the contract lead to any changes in the structure or operations of the underlying facility (or facilities)? Any change in the safety practices at the facility (or facilities)? If so, with what federal, state and local agencies did the seller or facility owner confer or seek permits or permit amendments for these changes?

The Transactions that are the subject of this Advice Letter have no impact on the underlying PPAs and therefore raise no incremental safety matters related to the generation of the energy.

IV. Request for Commission Disposition

PG&E requests that the Energy Division issue a disposition making this advice letter effective no later than 30 days after submittal. Any such disposition that makes this advice letter effective shall be deemed to constitute the following:

1. Approval of the PPSAs in their entirety, including payments to be received by PG&E, subject to CPUC review of PG&E's administration of the PPSAs;
2. A finding that the PPSAs are consistent with the Sales Framework approved as part of PG&E's 2019 RPS Plan and is consistent with Ordering Paragraph 18 of Decision 19-12-042, and that the sale of the bundled renewable electricity and green attributes under each of the PPSAs are reasonable and in the public interest;
3. A finding that all costs of the PPSAs are fully recoverable in rates over the life of the PPSAs, subject to CPUC review of PG&E's administration of the PPSAs; and
4. A finding that the payments received by PG&E pursuant to the SVCEA PPSA shall be credited against costs recorded to the Portfolio Allocation Balancing Account ("PABA") on a pro-rata basis,
5. A finding that the payments received by PG&E pursuant to the BMWNA PPSA shall be credited against costs recorded to the PABA to the 2012 Vintage subaccount.

Protests

*****Due to the COVID-19 pandemic and the shelter at home orders, PG&E is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter to EDTariffUnit@cpuc.ca.gov and PGETariffs@pge.com*****

Anyone wishing to protest this Advice Letter may do so by letter sent via U.S. mail, facsimile or E-mail, no later than August 26, 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, Rule 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Rule 3.11).

Effective Date

Consistent with its approved 2019 RPS Plan, PG&E is submitting this advice letter with a Tier 1 designation to be effective upon submittal. PG&E will begin deliveries upon receiving final and non-appealable CPUC Approval.

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 list shown below, including the service list for R.15-02-020. Non-market participants who are members of PG&E's PRG and have signed appropriate Non-

Disclosure Certificates will also receive the Advice Letter and accompanying confidential attachments by overnight mail. Address changes to the General Order 96-B service list should be directed to PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Advice letter submittals can also be accessed electronically at <http://www.pge.com/tariffs>.

/S/

Erik Jacobson
Director, Regulatory Relations

cc: Service List for R.18-07-003
Cheryl Lee – Energy Division

Limited Access to Confidential Material

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protection of Section 583 and 454.5(g) of the Public Utilities Code. This material is protected from public disclosure because it consists of, among other items, the PPSAs themselves, price information, and analysis of the PPSAs, which is protected pursuant to D.06-06-066 and D.08-04-023. A separate Declaration Seeking Confidential Treatment regarding the confidential information is filed concurrently herewith.



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) #: 5906-E

Tier Designation: 1

Subject of AL: Spring 2020 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreement Between Pacific Gas and Electric Company and Multiple Buyers

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 #:

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 Declaration 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: Brendan Lucker, (415)973-7108, BSLF@pge.com

Resolution required? ☐ Yes ☒ No

Requested effective date: 8/6/20

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

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

PACIFIC GAS AND ELECTRIC COMPANY

**DECLARATION OF BRENDAN LUCKER
SEEKING CONFIDENTIAL TREATMENT
FOR CERTAIN DATA AND INFORMATION CONTAINED
IN ADVICE LETTER 5906-E**

I, Brendan Lucker, declare:

1. I am a Manager in Competitive Solicitations within the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include overseeing the negotiations for the purchase and sale of Renewables Portfolio Standard (RPS) energy as well as designing and administering solicitations for the purchase and sale of energy and energy-related products. 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 06-06-066, 08-04-023, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the attachments to Advice Letter 5906-E.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by Public Utilities Code section 454.5(g), D.06-06-066, D.08-04-023 and/or relevant Commission rules. 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 that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on August 6, 2020 at San Francisco, California.

/s/ Brendan Lucker

Brendan Lucker

Structured Energy Transactions Manager

Pacific Gas & Electric Company

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

| Redaction Reference | Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To | Justification for Confidential Treatment | Length of Time |
|--|--|---|--|
| Appendix A, Consistency with Commission Decisions and Rules and Project Development Status | <p>Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs</p> <p>Item VII (un-numbered category following VII(G)): Score sheets, analyses, evaluations of proposed RPS projects</p> <p>Item V(C): LSE Total Energy Forecast-- Bundled Customer (MWh)</p> <p>VI(B): Utility Bundled Net Open (Long or Short) Position for Energy (MWh)</p> <p>May 21, 2014 <i>Administrative Law Judge's Ruling on Renewable Net Short</i> issued in Rulemaking 11-05-005 ("May 21, 2014 ALJ Ruling")</p> <p>Item VIII(A): Bid Information</p> <p>Item VIII(B): Specific quantitative analysis involved</p> | <p>This appendix contains information regarding the confidential terms and conditions of the power purchase and sale agreements ("PPSAs") that seek to sell RPS-eligible products. Disclosure of this information would provide valuable market sensitive information to market participants regarding the contracts and could be damaging to PG&E's future negotiations with other counterparties for similar products. Therefore, this information should remain confidential.</p> <p>This appendix also contains details regarding PG&E's confidential RPS Sales Framework, its Alternative Renewable Net Short ("RNS") calculation, and the impact of the sales under the PPSAs on PG&E's RPS compliance position. This information is expressly deemed confidential by the May 21, 2014 ALJ Ruling. Additionally, this information could be used to determine PG&E's net open position for RPS-eligible products and its internal and proprietary forecast of its bundled customer total energy requirements, and also constitutes analysis and evaluation of proposed RPS projects, including sales or transactions intended to create or manage a compliance bank. In addition, if other market participants learned of market sensitive information concerning PG&E's sales strategy, they could change their bidding behavior and affect market pricing. This could detrimentally impact PG&E's customers.</p> <p>Finally, this appendix contains confidential bid information and specific bid evaluations from PG&E's solicitation. If released publicly, this information would provide valuable market sensitive information to market participants; therefore, this information should remain confidential.</p> | <p>For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)</p> <p>For Item VII (un-numbered category following VII(G)): Three years</p> <p>For Items V(C) and VI(B): Front three years of forecast data confidential</p> <p>May 21, 2014 ALJ Ruling: Indefinite</p> <p>For Items VIII(A) and VIII(B): Three years after winning bidders selected</p> <p>Public Utilities Code § 454.5(g): Three years</p> |

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

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| | <p>in scoring and evaluation of participating bids</p> <p>Public Utilities Code § 454.5(g)</p> | | |
| <p>Appendices B1 & B2, Solicitation Overview</p> | <p>Item VII (un-numbered category following VII(G)): Score sheets, analyses, evaluations of proposed RPS projects</p> <p>Item VIII(A): Bid Information</p> <p>Item VIII(B): Specific quantitative analysis involved in scoring and evaluation of participating bids</p> <p>Public Utilities Code section 454.5(g)</p> <p>May 21, 2014 ALJ Ruling</p> | <p>This appendix contains confidential bid information and bid evaluations from PG&E's solicitation and discusses confidential negotiations between PG&E and counterparties. If released publicly, this information would provide valuable market sensitive information to market participants, could be damaging to future PG&E contract negotiations and ultimately detrimental to PG&E's customers, and could create a disincentive to do business with PG&E and other regulated utilities. Therefore, this information should remain confidential.</p> <p>This appendix also contains information relating to PG&E's confidential RPS Sales Framework, which is deemed confidential by the May 21, 2014 ALJ Ruling. In addition, if other market participants learned of market sensitive information concerning PG&E's sales strategy, they could change their bidding behavior and affect market pricing. This could detrimentally impact PG&E's customers.</p> | <p>For Item VII (un-numbered category following VII(G)): Three years</p> <p>For Items VIII(A) and VIII(B): Three years after winning bidders selected</p> <p>Public Utilities Code § 454.5(g): Three years</p> <p>May 21, 2014 ALJ Ruling: Indefinite</p> |

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

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| Appendix C1, Independent Evaluator Report – grey shaded sections | <p>Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs</p> <p>Item VII (un-numbered category following VII(G)): Score sheets, analyses, evaluations of proposed RPS projects</p> <p>Item VIII(A): Bid Information</p> <p>Item VIII(B): Specific quantitative analysis involved in scoring and evaluation of participating bids</p> <p>Public Utilities Code section 454.5(g)</p> <p>May 21, 2014 ALJ Ruling</p> | <p>This appendix contains the IE report, which includes confidential bid information and bid evaluations from PG&E's solicitation. The confidential IE report also discusses, analyzes and/or evaluates the terms of the PPSAs and confidential negotiations between PG&E and counterparties. If released publicly, this information would provide valuable market sensitive information to market participants, could be damaging to future PG&E contract negotiations and ultimately detrimental to PG&E's customers, and could create a disincentive to do business with PG&E and other regulated utilities. Therefore, this information should remain confidential.</p> <p>This appendix also contains information relating to PG&E's confidential RPS Sales Framework, which is deemed confidential by the May 21, 2014 ALJ Ruling. In addition, if other market participants learned of market sensitive information concerning PG&E's sales strategy, they could change their bidding behavior and affect market pricing. This could detrimentally impact PG&E's customers.</p> | <p>For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)</p> <p>For Item VII (un-numbered category following VII(G)): Three years</p> <p>For Items VIII(A) and VIII(B): Three years after winning bidders selected</p> <p>Public Utilities Code § 454.5(g): Three years</p> <p>May 21, 2014 ALJ Ruling: Indefinite</p> |

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

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|---|--|---|---|
| <p>Appendices D1 & D2, Summary of Contracts</p> | <p>Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs</p> <p>Item VII (un-numbered category following VII(G)): Score sheets, analyses, evaluations of proposed RPS projects</p> <p>Item V(C): LSE Total Energy Forecast – Bundled Customer (MWh)</p> <p>VI(B): Utility Bundled Net Open (Long or Short) Position for Energy (MWh)</p> <p>Item VIII(B): Specific quantitative analysis involved in scoring and evaluation of participating bids</p> | <p>This appendix summarizes and analyzes the PPSAs, and contains bid evaluation information. If released publicly, this information would provide valuable market sensitive information to market participants and could be damaging to PG&E's future negotiations with other counterparties for similar products. Therefore, this information should remain confidential.</p> <p>This appendix also contains information that could be manipulated in conjunction with publicly-available information to determine PG&E's net open position for RPS-eligible products and its internal and proprietary forecast of its bundled customer total energy requirements.</p> | <p>For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)</p> <p>For Item VII (un-numbered category following VII(G)): Three years</p> <p>For Items V(C) and VI(B): Front three years of forecast data confidential</p> <p>For Item VIII(B): Three years after winning bidders selected</p> |

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

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|--|--|--|--|
| <p>Appendices E1 & E2 Comparison of PPSAs with PG&E's 2019 Pro Forma RPS Short-Term Sales Confirmation</p> | <p>Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs</p> | <p>These appendices contain each of the PPSAs for which PG&E seeks approval in this Advice Letter filing. Public disclosure of the terms of the PPSAs would provide valuable market sensitive information to market participants and could be damaging to PG&E's future negotiations with other counterparties for similar products. Therefore, this information should remain confidential.</p> | <p>For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)</p> |
| <p>Appendices F1 & F2 Power Purchase and Sale Agreement</p> | <p>Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs</p> | <p>These appendices contain each of the PPSAs for which PG&E seeks approval in this Advice Letter filing. Public disclosure of the terms of the PPSAs would provide valuable market sensitive information to market participants and could be damaging to PG&E's future negotiations with other counterparties for similar products. Therefore, this information should remain confidential.</p> | <p>For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)</p> |
| <p>Appendix G1, PG&E's Renewable Net Short Calculation – grey shaded sections</p> | <p>Item V(C): LSE Total Energy Forecast-- Bundled Customer (MWh)</p> <p>VI(B): Utility Bundled Net Open (Long or Short) Position for Energy (MWh)</p> <p>May 21, 2014 ALJ Ruling</p> <p>Item VII (un-numbered category following VII(G)): Score sheets, analyses, evaluations of proposed RPS projects</p> | <p>For Table 1:</p> <p>For rows A, C, E, Ga and Gb, this information shows PG&E's net position for RPS-eligible energy in the periods within the front three years of the forecast.</p> <p>The redacted information in Rows A, C, E, Ga, and Gb could also be manipulated in conjunction with publicly-available information to determine PG&E's internal and proprietary forecast of its bundled customer total energy requirements.</p> <p>The redacted information for rows Ia, Ib, J, J0, J1, J2, La and Lb relates to PG&E's optimized RNS, including: PG&E's assumptions for its overall portfolio optimization strategy; any plans to sell forecast RECs above the PQR; application of forecast RECs above the PQR towards a future RPS compliance requirement; and any plan to procure RECs above the PQR in future years. This information is expressly deemed confidential by the May 21, 2014 ALJ Ruling. Additionally, this information could be used to determine</p> | <p>For Items V(C) and VI(B): Front three years of forecast data confidential</p> <p>May 21, 2014 ALJ Ruling: Indefinite</p> <p>For Item VII (un-numbered category following VII(G)): Three years</p> |

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 5906-E
August 6, 2020

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| | | <p>PG&E's net open position for RPS-eligible products and constitutes analysis and evaluation of proposed RPS projects, including sales or transactions intended to create or manage a compliance bank.</p> <p>For Table 2:</p> <p>For rows A, C, E, Ga and Gb, this information shows PG&E's net position for RPS-eligible energy in the periods within the front three years of the forecast.</p> <p>The redacted information in Rows A, C, E, Ga, and Gb could also be manipulated in conjunction with publicly-available information to determine PG&E's internal and proprietary forecast of its bundled customer total energy requirements.</p> <p>The redacted information for rows Gd, Ge, Ha, Hb, H, Ia, Ib, J, J0, J1, J2, La and Lb relates to PG&E's optimized RNS, including: PG&E's assumptions for its overall portfolio optimization strategy; any plans to sell forecast RECs above the PQR; application of forecast RECs above the PQR towards a future RPS compliance requirement; and any plan to procure RECs above the PQR in future years. This information is expressly deemed confidential by the May 21, 2014 ALJ Ruling. Additionally, this information could be used to determine PG&E's net open position for RPS-eligible products and constitutes analysis and evaluation of proposed RPS projects, including sales or transactions intended to create or manage a compliance bank.</p> | |

PACIFIC GAS AND ELECTRIC COMPANY

Appendix C2

Final RPS Project-Specific Independent Evaluator Report (Redacted/Public)

PACIFIC GAS AND
ELECTRIC COMPANY:
SPRING 2020 BUNDLED
RPS ENERGY SALE
SOLICITATION

REPORT OF THE INDEPENDENT
EVALUATOR ON CONTRACTS FOR SALE OF
RENEWABLE ENERGY TO BMW OF NORTH
AMERICA, LLC AND SILICON VALLEY CLEAN
ENERGY AUTHORITY

AUGUST 6, 2020

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1. EXECUTIVE SUMMARY

This report provides a review of two agreements executed by Pacific Gas and Electric Company (“PG&E”), with BMW of North America, LLC (“BMW”) and with Silicon Valley Clean Energy Authority (“SVCE”), for renewable energy to be delivered from PG&E’s supply portfolio. BMW is a U.S. seller of motor vehicles; SVCE is a joint powers authority and Community Choice Aggregator (“CCA”) that serves customers in Santa Clara county, excluding Palo Alto, San Jose, and Santa Clara, with retail energy supply. The transactions originated from PG&E’s Spring 2020 Bundled Renewables Portfolio Standard (RPS) Energy Sale solicitation. An independent evaluator (IE), Arroyo Seco Consulting (“Arroyo”), conducted various activities to observe, test, and check PG&E’s processes as participants sought to negotiate contracts. This report discusses:

- The role of the Independent Evaluator,
- The adequacy of PG&E’s outreach to potential buyers and robustness of the solicitation,
- The degree to which the design of PG&E’s methodology provided for fair evaluation of bids,
- The fairness with which PG&E’s bid evaluation and selection process was administered,
- The fairness of contract-specific negotiations, and
- Merit of the executed contracts for approval by the California Public Utilities Commission (“CPUC”).

Arroyo’s opinion is that PG&E’s outreach to potential buyers was adequate, the solicitation was moderately robust, and PG&E’s methodology was designed fairly and administered fairly. Arroyo’s opinion is that contract negotiations were conducted in a manner that was, overall, fair to competing buyers and to ratepayers.

Arroyo believes that the prices and market values of the contracts are reasonable, although the market for Portfolio Content Category 1 (“PCC1”) energy is illiquid and not transparent so that fresh comparable pricing information with which to assess price reasonableness is scarce. The transaction is consistent with the sales framework that was approved by the CPUC as part of PG&E’s 2019 RPS procurement plan. The portfolio fit of the contracts ranks high. Based on these observations, Arroyo’s opinion is that both the executed BMW and SVCE contracts merit CPUC approval.

2. ROLE OF THE INDEPENDENT EVALUATOR

This chapter describes key roles of the IE and summarizes activities undertaken to fulfill those roles in PG&E's process of seeking bids for the sale of bundled renewable energy.

A. KEY INDEPENDENT EVALUATOR ROLES

The CPUC stated its intent for participation of an IE in competitive procurement solicitations to “separately evaluate and report on the IOU’s entire solicitation, evaluation and selection process”, in order to “serve as an independent check on the process and final selections.”¹ The Energy Division has provided IEs with a standard template for use in reporting about RPS transactions for which utilities seek approval through advice letters, specifying that such a report should cover topics including:

- Describe the IE’s role.
- How did the IOU conduct outreach to bidders, and was the solicitation robust?
- Was the IOU’s methodology designed such that proposals were fairly evaluated?
- Was the evaluation process fairly administered?
- Were contract-specific negotiations fair?
- Do the contracts merit Commission approval?

The structure of this report is organized around these major topics.

B. IE ACTIVITIES

To fulfill the role of evaluating the renewable energy contracts between PG&E and the two buyers, Arroyo performed various tasks:

- Reviewed the solicitation protocol and other materials;
- Discussed with the PG&E team its plan to pursue sales of bundled renewable energy;
- Observed (telephonically) negotiations between parties;
- Reviewed briefings about the solicitation that were presented to PG&E’s Procurement Review Group;
- Reviewed marked-up drafts of the confirmation agreements and, for BMW, the EEI master agreement, as parties discussed edits to PG&E’s initial draft form confirmation agreement; and
- Researched recent comparable transactions of PCC1 renewable energy for publicly available market pricing data to serve as benchmarks for price reasonableness.

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

3. PG&E'S OUTREACH EFFORTS AND THE ROBUSTNESS OF THE RESPONSE

On April 10, 2020, PG&E released a market notice for the solicitation. In the e-mailed notice, PG&E provided a link to its public webpage for the solicitation that provided a CPUC-approved version of an Edison Electric Institute (EEI) short-form confirmation agreement, a bid form composed as a spreadsheet, a solicitation protocol, and a non-disclosure agreement. The notice also included registration information for a participants' webinar. PG&E received [REDACTED] bid packages, timely submitted prior to the deadline.

A. ADEQUACY OF SOLICITATION OUTREACH

PG&E previously held solicitations for short-term sales of RPS-eligible energy in 2016², 2017, 2018, and early and late 2019, and had developed a customized contact list of potential renewable energy buyers for those efforts. For the current solicitation, PG&E used an updated version of the prior list that expunged obsolete contacts. This list does not represent a thoroughly comprehensive list of all parties that might ever have an interest and capability of buying bundled renewable energy, but it represents a solid list of leads and shows continued enhancement over prior lists. Figure 1 displays the composition of the focused contact outreach list used for the market notice for the issuance of the solicitation by type of entity; "other" includes IOUs, a solar developer, and a solo consultant.

Additionally, PGE e-mailed the market notice to its standing RFO contact list, which the utility uses for outreach for energy procurement solicitations for buying products. This much larger list (almost 2,700 contacts) is primarily composed of generation developers and businesses that service their needs, and therefore does not focus on the likeliest candidates to seek to buy RPS-eligible energy rather than to sell it. Figure 2 displays the composition of this RFO contact list. Among the sectors likeliest to participate in this specific solicitation, wholesale marketers, direct access energy services providers (ESPs), and utilities including CCAs were included. PG&E also followed up with an e-mail reminder sent on May 4 to both lists to remind potential participants of the impending deadline on the next day.

In the actual event, all the participants in the solicitation except three ([REDACTED]) were contacted through the [REDACTED] contact list. The other three were on the [REDACTED] RFO contact list.

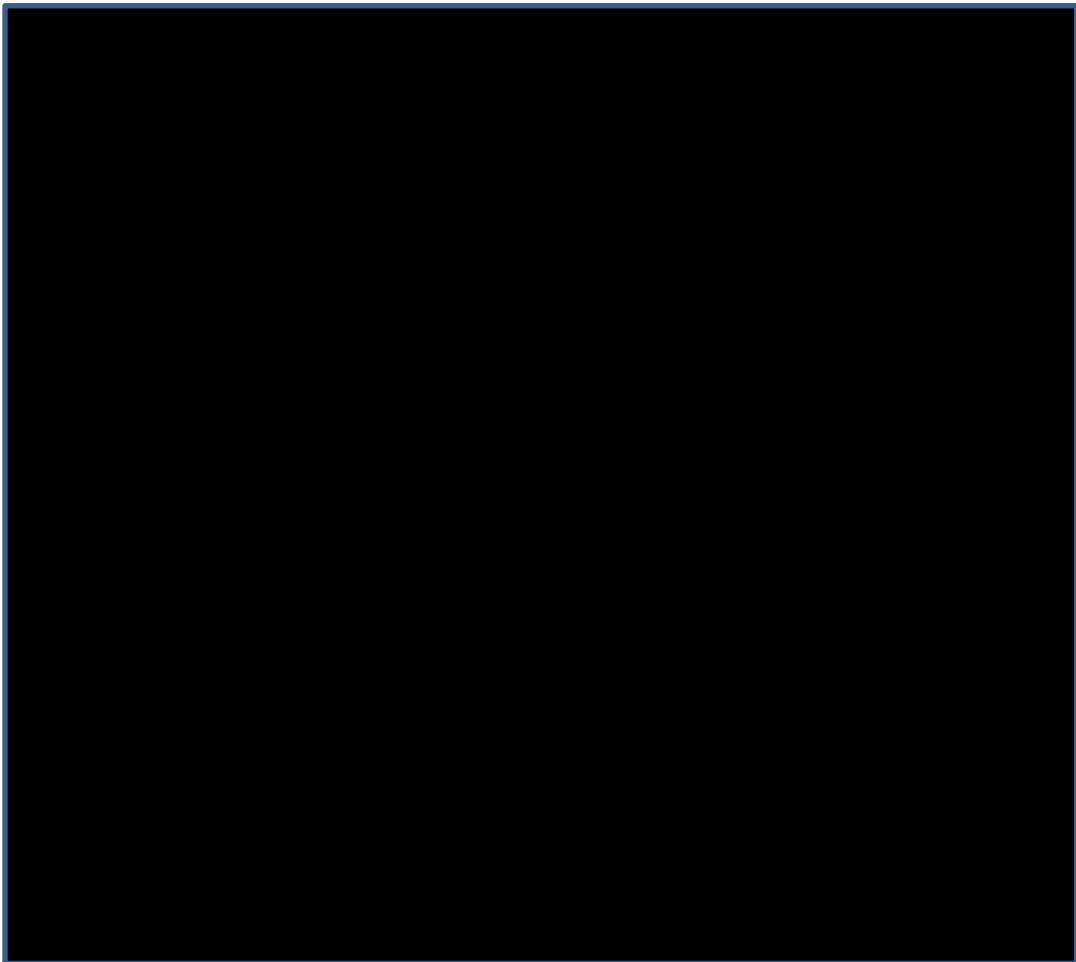
For this effort, focused on the small universe of RPS compliance entities and those who serve their wholesale power needs, the utility did not pursue broad outreach through

² The 2016 effort was an informal "e-solicitation" using e-mail to contact a list of potential participants rather than broad public outreach: it did not use a formal solicitation protocol.

Figure 1.



Figure 2.



public media such as the electricity trade press or media releases. Arroyo's opinion is that PG&E adequately distributed notices of this solicitation. For future sales solicitations, PG&E might benefit by adding to its outreach contact list some CCAs that are pursuing their start-up activities or growing their customer base, but may not yet have been positioned to respond directly to the current solicitation, or have not yet engaged with PG&E as a counterparty. Examples might include Solana Energy Alliance, Desert Community Energy, Western Community Energy, Redwood Coast Energy, King City Community Power, and others. It might also be best to restore [REDACTED] to the focused list as was the case in prior short-term RPS energy sales solicitations.

B. CLARITY AND CONCISION OF SOLICITATION MATERIALS

PG&E published on its website a written public protocol to document the requirements of the request for bids and to communicate the evaluation criteria that the utility would use to make its selection decision. The protocol was ten pages long, which is quite concise for California IOUs' solicitations, for which protocols typically run to dozens of pages. For example, San Diego Gas & Electric Company's protocol for its currently active 2020 Request for Proposal for the Sale of Renewable Energy Products is 19 pages in length. PG&E's market notice e-mail was also succinct; it relied on a link to the solicitation website for participants to obtain details.

Arroyo's opinion is that solicitation materials were generally clear to most potential bidders. Only three questions were posed by attendees of the participants' webinar. These queries had the nature of seeking more detail on mechanics about how to bid or what documents to submit or what standard contract terms were offered. In the actual event, most participants submitted conforming bids; upon notice from PG&E a bidder with a non-conforming package quickly corrected its omission. The issues raised about non-conformance are discussed further in Chapter 5.

One indicator of clarity is that of [REDACTED] that registered for the solicitation on the on-line platform, [REDACTED] submitted proposals, suggesting that solicitation materials were on point for most of the entities that actively responded to the outreach notices. The other registrants included [REDACTED]

These latter registrants are likely not positioned to participate as buyers of RECs. Arroyo's inference is that they either lacked clarity about what PG&E's intent for this energy sale solicitation was or sought to extract information about the solicitation for profit. It is not clear to Arroyo whether any deficiency in the solicitation materials could account for confusion on the part of these other registrants.

C. BIDDERS' CONFERENCE

PG&E convened a participants' webinar on April 16 to provide information to potential participants. The presentation covered an overview of the solicitation's product, delivery term, and schedule, a review of the confirmation agreement, a discussion of the evaluation criteria, and detail of the logistics of submitting bid packages. At the end of the webinar PG&E took questions from the audience and provided answers. Questions and answers were posted on the utility's public website along with the presentation package, an audio file, and a transcript in order that potential participants that did not attend the live webinar could benefit from the discussion.

Only three questions were posed in the public webinar, inquiring about credit terms for sales transactions, about confidentiality agreement requirements, and about how to access the solicitation through the on-line platform. Each question was addressed by the PG&E team with answers following the webinar presentation. The nature of the questions did not suggest that major impediments prevented potential participants from submitting bids.

D. ROBUSTNESS OF THE SOLICITATION

PG&E did not publicly state a quantitative target for this solicitation. In its 2019 renewable energy procurement plan filings it provided a confidential framework for sales of excess RPS volumes. [REDACTED]

[REDACTED]. These amounts were not explicitly stated as goals [REDACTED]

Bids were received from [REDACTED]. The total volume of the bids [REDACTED]. This was a moderately robust response. It was comparable in robustness to that of PG&E's December 2019 solicitation that sought sales for delivery in 2020, [REDACTED]

Most bids conformed to the requirements of the solicitation protocol. One bid form was submitted unsigned, but the participant quickly recognized the omission and provided a signed bid form the following day. Another participant had difficulty inserting its requested delivery volumes into its bid form uploaded to the on-line platform, and instead submitted them by e-mail. One CCA, [REDACTED] omitted the required confidentiality agreement and documentation of legal status from its bid package.

There may be several factors, mostly beyond PG&E's control, at work to limit the robustness of a market response to such a request for bids for renewable energy:

- Only a modest number of California load-serving entities (LSEs) appear to hold net short RPS compliance positions for the fourth compliance periods. The IOUs hold long positions, leaving some but not all publicly-owned utilities, CCAs (or their

ESPs), and direct access providers as likeliest potential buyers. Some CCAs have reported that they have fulfilled their compliance needs for 2020. There seems to be no appetite for California RPS-eligible energy among out-of-state utilities.

- Other compliance entities may lack interest in procuring renewable energy through short-term purchases of energy produced in existing facilities, as opposed to long-term contracts with proposed new projects that would bring additional renewable generation into the market, given their compliance and procurement strategies. Some CCAs have faced criticism from stakeholders for purchasing RECs originating from existing facilities as opposed to creating additional renewable energy supply. Since there is a compliance requirement for long-term contracts beginning in 2021 anyway, some potential buyers may prefer to seek deliveries from new facilities starting in 2020 and 2021 instead of making short-term purchases.
- Some CCAs and POUs have stated a preference for local generation; Valley Clean Energy, for example, conducted a competitive solicitation in May 2020 for new renewable energy projects to be sited only in Yolo County or six adjacent counties. A few CCAs have demonstrated their willingness to enter into PPAs to buy uncompetitively high-priced RPS-eligible energy from facilities sited within their service territories. This choice is consistent with the high priority placed by these entities on supporting local economic development. PG&E's list of facilities that will produce the volumes is largely made up of projects sited outside any existing CCAs' and POU's territories, which simply reflects the geography of solar, wind, and geothermal resources.
- Some CCAs seem to prefer to procure new RPS-eligible energy through their own RFOs rather than responding to PG&E's solicitations. It lets them design specific contract terms, which differ in details from what PG&E's form agreement provides. For example, Monterey Bay Community Power and Silicon Valley Community Energy are conducting a competitive solicitation with a June 2020 deadline to buy PCC1 renewable energy. A grouping of five southern California CCAs including Lancaster Choice Energy and Rancho Mirage Energy Authority ran an RFP for long-term PCC1 or PCC2 supply with a March 2020 deadline.

The response to the solicitation was moderately robust. Arroyo speculates that some CCAs and POUs still need to fulfill their procurement targets for the remainder of 2020. Some CCAs are still adding new cities to their service territories and may be planning to fulfill their increasing compliance obligations through the IOUs' current round of sales solicitations.

E. PARTICIPANTS' FEEDBACK ABOUT THE PROCESS

PG&E intends to seek feedback about the solicitation from both participants and from non-participants on its focused sale-specific contacts list. Systematic feedback had not yet been solicited nor received at the time this report was finalized.

PG&E circulated a survey to participants and non-participants following its December 2019 solicitation that closely resembled the current request for proposals; observations from the feedback to that prior survey included:

- Some non-participants stated that they did not submit bids because of the constraints on the delivery terms that PG&E offered; it is unclear what would have been preferable to these entities but perhaps the impending compliance requirement upon CCAs for long-term contracts is a factor.
- Among participants that responded to the survey, most found PG&E's instructions clear. At least one respondent suggested that using the pro forma contract as the bid form was awkward.
- Nearly all respondents agreed that PG&E clearly identified the evaluation criteria for the solicitation.
- Half the respondents who had submitted proposals did not consider the PowerAdvocate on-line platform for bid submission easy to use, and at least one asked for it to be dropped.
- Qualitative feedback from some respondents included:
 - A preference for PG&E to allow bid curves, e.g. tiered bids, which were prohibited in this solicitation³;
 - A desire for the PowerAdvocate platform to allow access to all PG&E REC sale solicitation if access is granted for one; and
 - A stated belief that PG&E "was simply fishing and didn't transact with anyone", which is inaccurate in that the December 2019 solicitation resulted in one executed sale transaction. PG&E made a public advice filing seeking approval of that sales contract in mid-March 2020 and circulated its survey in May 2020.

4. FAIRNESS OF PG&E'S EVALUATION METHODOLOGY

This section describes PG&E's methodology for evaluating bids and selecting proposals in this solicitation and assesses its fairness to ratepayers and participants.

A. PRINCIPLES TO EVALUATE PG&E'S BID EVALUATION METHODOLOGY

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

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

Some additional considerations appear relevant to PG&E's specific situation.

- The methodology should identify how non-valuation measures will be considered; all non-valuation criteria used in selecting offers should be transparent to participants.
- The logic of how non-valuation criteria or preferences are used to reject higher-value bids and select lower-value bids should be applied consistently and without bias.
- The valuation methodology should be reasonably consistent with industry practices.
- CCAs should not be systematically disadvantaged by using neutral-appearing criteria that discriminate against the entire class of CCAs.

B. PG&E'S METHODOLOGY

PG&E's public solicitation protocol stated just one quantitative evaluation criterion and a few qualitative criteria:

Quantitative criterion. In this solicitation, PG&E sought to maximize the price received from renewable energy sales; this is consistent with PG&E's approved 2019 RPS procurement plan. This criterion differs from some of PG&E's prior Bundled RPS Energy Sales solicitations, in which the sole quantitative criterion was to maximize revenue.

Financial strength. PG&E stated that it could consider the financial strength of bidders, focusing on their ability to fulfill obligations, and on whether entering new agreements may cause excess credit concentration in the utility's exposure to participants or banks. The solicitation protocol does not refer to credit rating or other explicit measures of creditworthiness, which hypothetically might be used to distinguish between CCAs (many of which do not yet have investment-grade credit ratings) vs. corporations with large wholesale trading and marketing functions (which generally do).

Agreement Modifications. PG&E stated its intent to evaluate the materiality and cost of any modifications that a participant proposes to alter PG&E's CPUC-approved pro forma contract. The protocol acknowledged that the utility would consider bidders' proposed edits to terms involving price, quantity, and credit terms.

Other criteria. In its protocol, PG&E left open its discretion to employ other qualitative criteria in evaluating bids. These included but were not limited to consideration of past adverse commercial experience doing business with any specific participant, counterparty diversity, bid completeness, and whether or not PG&E has already negotiated and executed an EEI master agreement with a participant. Having executed a master agreement would facilitate use of a short-form confirmation agreement, as opposed to the potentially more challenging or time-consuming negotiation of a new long-form confirmation agreement or a new master agreement.

PG&E did not explicitly propose to employ other evaluation criteria it has employed in prior solicitations, such as supply chain responsibility, supplier diversity, RPS goals, etc.


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

This section summarizes some of the attributes of PG&E's approach to evaluating bids to purchase bundled renewable energy from the utility's supply portfolio.

Consistency with RPS Procurement Plan. In PG&E's 2019 RPS procurement plan, accepted with modifications in CPUC Decision 19-12-042, the utility sought and received approval for a framework "for assessing whether to hold or sell excess RPS volumes". PG&E views the volumes to be sold in the contracts to be surplus to its compliance needs. The current solicitation was anticipated within the 2019 plan, that stated that PG&E intended to issue a minimum of two short-term sales solicitations in 2020 and would target issuing three. The CPUC found PG&E's proposed sales framework, after modifications that it required, to be reasonable and authorized the utility to conduct solicitations to sell excess RPS volumes for sales agreements of five years or less.

Market Valuation. PG&E did not calculate Portfolio-Adjusted Values for the bids for these renewable energy volumes. Directly using the PAV metric would have been consistent with its past practice in renewable energy procurement and with the 2019 RPS procurement plan's statement that the use of PAV ensures procurement providing the best fit for PG&E's portfolio at the least cost. PG&E has used either maximum revenue or lowest price as the metric for evaluation bids in its short-term bundled RPS energy sale solicitations.

The generation resources from which sales volumes will be sourced will be selected during the delivery periods by PG&E from lists of projects identified in an appendix to the contract. Specific generators that actually produce the delivered RPS-eligible energy will not be chosen far in advance of delivery. As the valuation method directly followed PG&E's framework detailed in its Appendix F of the 2019 RPS procurement plan, bid rankings were calculated in a manner consistent with the protocol and with CPUC Decision 12-02-007. PG&E did not include any costs or benefits that should not have been included. In practice, Arroyo does not expect a ranking of offers by price to differ from a ranking by PAV, the CPUC-approved least-cost/best-fit evaluation criterion, in a setting such a REC sale.



Other criteria. Because projects from which sales volumes will be delivered are already constructed and operating, transmission network upgrade costs are sunk costs and do not factor into selection decisions. Similarly, all the projects are viable by virtue of achieving commercial operation and delivering energy on an ongoing basis so that project viability is not a consideration. In a sense, the question of the viability of individual buyers to make payments to PG&E is taken into account in the creditworthiness evaluation criterion.

In this solicitation, PG&E made it clear to participants that it strongly preferred standard agreements rather than accommodating requested contract modifications, both in the written solicitation and in other party-to-party dialogues.

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

This section provides a narrative of how PG&E administered its evaluation and selection process to choose bids for contracting in its Spring 2020 Bundled RPS Energy Sale solicitation. Arroyo's opinion is that the bid evaluation process was fairly administered.

A. GUIDELINES TO DETERMINE FAIRNESS OF EVALUATION PROCESS

The Energy Division has suggested a set of principles to guide IEs in determining whether an IOU's administration of its evaluation and selection process was fair:

- Were all proposals treated the same regardless of the identity of the bidder?
- Were participants' questions answered fairly and consistently and the answers made available to all participants?
- Did the utility ask for "clarifications" that provided one participant an advantage over others?
- Was the economic evaluation of the proposals fair and consistent?
- Was there a reasonable justification for any fixed parameters that were a part of the IOU's LCBF methodology?
- Were the qualitative and quantitative factors used to evaluate bids fair to all bids?

Some other considerations appear relevant to reviewing PG&E's administration of its methodology.

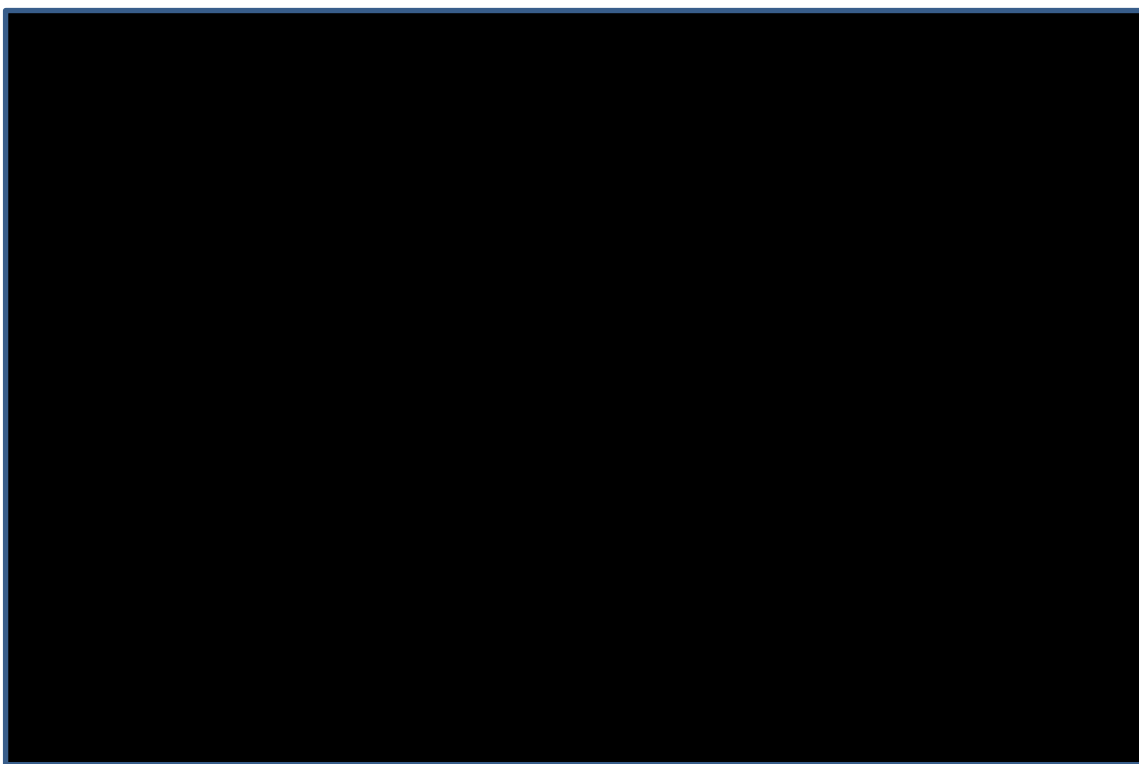
- Were any decisions to reject higher-value proposals because of preferences other than market valuation applied consistently across all proposals? Were selections of lower-value proposals in preference to higher-valued ones based on their superior attributes in non-valuation criteria made consistently, or were high-value proposals skipped over unfairly?
- If PG&E chose to contract for a different volume or pricing of sales than strictly based on the approved framework, was the decision made fairly in how it affected bidders, and based on factors stated in Appendix F of the 2019 RPS procurement plan that detailed the framework applicable to 2020 sales agreements?
- Were the judgments used to make a selection based on evaluation criteria and preferences that were publicly disseminated to participants prior to bid submittal?
- Did PG&E disadvantage any class of participants (such as CCAs) in its administration of the selection methodology?

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

PG&E used the sole quantitative criterion of price to rank and select bids. [REDACTED] passed a review for the qualitative criteria of financial strength and modifications. A few packages did not initially meet the requirements of the solicitation protocol. Upon prompting by e-mail, the participant that had submitted an unsigned bid form remedied its omission. PG&E did not prompt the CCA that had omitted a signed confidentiality agreement and documentation of legal status from its bid package to correct its omissions, and the CCA did not choose to correct them itself; [REDACTED].

Market Valuation. [REDACTED] bid forms were submitted timely before the deadline. Figures 3 and 4 display the bid supply curves for 2020 and 2021 deliveries that show how these initially bid prices compared to the [REDACTED]

Figure 3.



[REDACTED] PG&E contacted [REDACTED] on the evening of May 5 and notified them that it would not transact sales contracts with them based on their submitted bids. However, it offered each an opportunity to refresh its bid price by a deadline of the following day.

Figure 4.



bidders submitted revised bid prices by the deadline:

[REDACTED]

PG&E used the framework specified in confidential Appendix F of its 2019 RPS procurement plan to evaluate these proposals.

This evaluation, was in Arroyo's opinion, consistent with the sales framework laid out in the 2019 plan's Appendix F using PG&E's currently assumed input parameters.

Credit.

[REDACTED]

PG&E's pro forma confirmation agreement, that had been approved by the CPUC and was shared with potential participants, stated a collateral posting requirement of 15% times the volume of as-yet-undelivered RECs times the \$/MWh contract price of RECs.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Other. PG&E did not apply other evaluation criteria in making its short list selection.

[REDACTED]

C. RESULTS ANALYSIS

Arroyo agreed with PG&E's selection of qualified bids. Arroyo agrees that PG&E made reasonable and justifiable decisions to qualify bids and to exclude bids, consistent with the framework outlined in PG&E's CPUC-approved 2019 RPS procurement plan.

Non-conforming bid packages. Most participants submitted packages that conformed to the requirements of the solicitation. A participant that incorrectly submitted an unsigned bid form quickly resubmitted an executed one after prompting. A participant that was unable to enter requested delivery volumes into its bid form provided that information by e-mail; this was acceptable to PG&E. A third participant failed to submit both the required executed confidentiality agreement and demonstration of legal status; this entity's proposal would

have been rejected anyway for failing to satisfy evaluation criteria and PG&E did not insist that the bid package be brought into conformance with the requirements to the solicitation.

Summary. Observations regarding PG&E's administration of the evaluation methodology include:

- There were no instances in which Arroyo and PG&E disagreed about the utility's handling of the evaluation and selection process.
- PG&E evaluated bids without involving any third party or the Independent Evaluator to conduct any portion of its analysis.
- Arroyo did not observe PG&E treating participants that submitted conforming bids in disparate ways; for example, its evaluation of bids from CCAs did not differ from that of bids from energy service providers and other entities.
- The economic evaluation of bids was fair and consistent.
- Questions from participants were answered fairly and consistently.
- The judgments that served as the basis for selecting bids were based solely on evaluation criteria that were stated publicly in the solicitation protocol.
- The key parameter used in the quantitative evaluation was [REDACTED]
- Because PG&E used price as its sole quantitative evaluation criterion, it did not consider transmission costs or integration adders in selection. Without knowing in advance which specific resources in PG&E's supply portfolio will serve which contract, there is no basis for distinguishing between bids using transmission costs or integration adders; it would be inappropriate to involve transmission and integration costs in bid evaluation. The key attributes that distinguished bids were the participants' proposed pricing for green attributes and volume, not energy pricing.
- Arroyo believes that PG&E's conduct of the Spring 2020 sale solicitation was fully consistent with its approved 2019 RPS procurement plan.
- [REDACTED]
- Arroyo agrees that based on PG&E's 2019 framework for evaluating bids to sell renewable energy, the utility made reasonable and justifiable decisions to select bids for negotiation.

Arroyo's opinion is that PG&E's evaluation and selection of bids was fairly administered.

6. FAIRNESS OF CONTRACT-SPECIFIC NEGOTIATIONS

This chapter provides an independent review of the extent to which PG&E's negotiations with bidders were conducted fairly with respect to competitors. PG&E first notified participants that proposals had been selected or rejected as qualified bids in the evening after bids were submitted on May 5, 2020. The utility provided an opportunity for all participants whose proposals were not initially selected to update their bid prices; final notifications of selection or rejection were sent on May 7. PG&E began negotiations that week, concluding with execution of agreements with Silicon Valley Clean Energy Authority on June 8 and with BMW of North America LLC on July 6.

Arroyo telephonically observed negotiation sessions between commercial teams of PG&E and counterparties. Arroyo also reviewed marked-up draft contracts to identify specific proposals and counterproposals parties made during discussions. The starting point for negotiations was the pro forma EEI short-form confirmation agreement that was posted publicly with solicitation materials. In the case of BMW, the parties also negotiated and executed an EEI master agreement to govern this and future transactions.

Arroyo's opinion is that PG&E's negotiations were conducted in a manner that was, overall, fair to counterparties and to their competitors. The last chapter of this report describes how the contracts that resulted from negotiations also meet the requirements of the approved framework for surplus energy sales and are fair to ratepayers.

A. PRINCIPLES FOR EVALUATING THE FAIRNESS OF NEGOTIATIONS

Arroyo employed specific principles to evaluate the degree of fairness with which PG&E handled negotiations to sell renewable energy to BMW and SVCE.

- Were bidders treated fairly and consistently by PG&E during negotiations? Were all bidders given equitable opportunities to advance proposals towards final agreements? Were individual bidders given unique opportunities to move their proposals forward or concessions to improve their contracts' commercial value, opportunities not provided to others?
- Was the distribution of risk between seller and buyer in the agreements distributed equitably across contracts? Did PG&E's ratepayers take on a materially disproportionate share of risks in some contracts and not others? Were individual buyers given opportunities to shift their commercial risks towards ratepayers, opportunities that were not provided to others?
- Was non-public information provided by PG&E shared fairly with all buyers? Were individual buyers uniquely given information that advantaged them in securing contracts or realizing commercial value from those contracts?

- If any individual buyer was given preferential treatment by PG&E in the course of negotiations, is there evidence that other buyers were disadvantaged by that treatment? Were other proposals of comparable value to ratepayers assigned lower priority?

B. NEGOTIATIONS BETWEEN PG&E AND BMW NA

BMW of North America, LLC, is a New Jersey-based sales and marketing subsidiary of Bayerische Motoren Werke AG, the multinational Munich-based vehicle manufacturing company. Among its products are both plug-in hybrid and fully electric vehicles. BMW has operated a “smart charging program” within PG&E’s territory, intended to optimize vehicle charging over time for owners while also providing load shifting for utility grid demand. That program has been in part funded by the California Energy Commission (CEC).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The parties executed the EEI master and the confirmation agreement on July 6, 2020.

C. NEGOTIATIONS BETWEEN PG&E AND SILICON VALLEY CLEAN ENERGY AUTHORITY

Silicon Valley Clean Energy Authority is a joint powers authority and CCA organized by Santa Clara County that began serving retail customers in April 2017. Its service territory includes unincorporated Santa Clara County and most municipalities in the county excluding San Jose (which has its own CCA), Palo Alto, and Santa Clara (which have municipal utilities). PG&E and SVCE previously executed sale transactions resulting from the utility's spring 2018 and two 2019 solicitations. Because the parties had recently negotiated agreed-upon provisions for contracts, the issues discussed for this solicitation were minimal:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]; the contract was executed on June 8, 2020.

D. FAIRNESS OF NEGOTIATIONS

In Arroyo's opinion, negotiations between PG&E and participants were conducted fairly, overall. Each participant was given an equitable opportunity to advance its proposals towards execution. The distribution of risk between buyer and seller is the same in SVCE's contract as in prior agreements that PG&E has negotiated with other northern California CCAs. The distribution of risk in BMW's contract differs, but its allocation between buyer

and seller is unique to the structure of that agreement, acceptable to BMW, and is not advantageous to BMW when compared to other REC sales agreements that PG&E has entered. Arroyo did not observe PG&E providing any individual participant with any non-public information that materially advantaged a buyer against ratepayers or competitors.

Credit requirements.

[REDACTED]

[REDACTED]

Arroyo's opinion is that the treatment of the buyers [REDACTED] was based on [REDACTED], and on the [REDACTED], rather than on any unfairly favorable treatment of familiar counterparties or discrimination against any class of counterparty. [REDACTED]

[REDACTED]

Modifications.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

CCA Code of Conduct. The CPUC adopted a code of conduct for IOUs' interactions with CCAs in Decision 12-02-009. Most of the elements of the code govern IOU marketing and lobbying activities, but rule 20 (which restates ordering paragraph 5 from Resolution E-4250) applies to PG&E's conduct of its efforts to make renewable energy sales:

"Electrical corporations may not refuse to make economic sales of excess electricity to a community choice aggregation program, nor refuse in advance to deal with any community choice aggregation program in selling electricity because it is a community choice aggregation program."

In Arroyo's opinion, PG&E did not refuse to make economic sales of surplus RPS-eligible energy to any CCAs involved in this solicitation, nor did it refuse in advance to deal with any CCAs. It performed outreach to numerous CCAs in an effort to obtain their participation.

[REDACTED] Therefore, Arroyo's opinion is that PG&E complied with the requirements of the CCA code of conduct in how it handled its solicitation.

Summary. Arroyo's opinion is that PG&E's negotiations with participants were handled fairly with respect to competitors. Bids were accepted or rejected based on the CPUC-approved 2019 framework for short-term RPS energy sales and on evaluation criteria stated in the public protocol. No individual counterparty was materially disadvantaged by more favorable treatment of its competitors. Arroyo believes that PG&E's negotiations were consistent with the requirements of the CCA Code of Conduct. Further discussion of the fairness to PG&E's ratepayers of the outcome of these negotiations is provided in the next chapter.

7. MERIT FOR CPUC APPROVAL

This chapter provides an independent opinion on whether PG&E's contracts with BMW and SVCE merit approval by the CPUC. It also addresses other required topics identified in the Energy Division's template for Independent Evaluators for use in reporting.

A. FAIRNESS OF SOLICITATION

PG&E solicited bids in order to sell RPS-eligible energy for delivery in calendar 2020 and 2021. It provided public solicitation materials that clearly stated the evaluation criteria; in the actual administration of the evaluation and selection process it adhered to the use of those stated criteria and adhered to its protocol and to its CPUC-approved 2019 renewable energy procurement plan.

The utility did not specifically use its approved least-cost, best fit methodology of Portfolio-Adjusted Value as the metric for evaluation; however, Arroyo believes that use of the evaluation criterion of maximum price aligns with the approved LCBF methodology. The methodology used for evaluating and selecting bids was fully consistent with the framework laid out in confidential Appendix F of PG&E's 2019 procurement plan that was approved by the CPUC. PG&E's negotiations with participants were handled fairly with respect to competitors and to ratepayers, and PG&E adhered to the evaluation criteria stated in its protocol to select and reject proposals. Arroyo's opinion is that PG&E's handling of the solicitation complied fully with the CPUC's CCA Code of Conduct.

Arroyo believes that PG&E ran a fair solicitation that was consistent with its solicitation protocol and with the 2019 RPS procurement plan approved by CPUC Decision 19-02-007.

B. BIDS WITH BEST OVERALL VALUE TO RATEPAYERS

PG&E selected the best proposals among bid packages received, best in terms of maximizing contract pricing by using the approved sales framework. [REDACTED]

[REDACTED]

C. CONSISTENCY WITH PROTOCOL AND PROCUREMENT PLAN

PG&E's sale of bundled energy in these two contracts conforms to its 2019 RPS procurement plan, in which the utility states its intent to sell RPS volumes, and more specifically conforms to the detailed framework for excess sales provided within the plan.

The sale conforms to the needs of PG&E's portfolio and its RPS requirements, because it reduces PG&E's excess REC bank by selling now for ratepayer benefits instead of carrying RECs forward to future periods. The process of selecting bids was consistent with the solicitation protocol, and Arroyo's opinion is that the selection of bids was reasonable.

D. MERIT FOR CPUC APPROVAL

This section reports on the merits of the sales contracts with BMW and with SVCE.

Pricing and market value. PG&E will sell to BMW bundled RPS-eligible renewable energy at market index plus a REC price [REDACTED]; the contract with SVCE is priced at market index plus [REDACTED]. There are relatively few public benchmarks available to ascertain whether these are reasonable prices, given the illiquidity and opacity of the market for California RPS-eligible energy. Arroyo does not participate in REC markets and cannot directly monitor non-public commercial transactions other than a subset of PG&E's.

PG&E's most recent prior competitive solicitation in late 2019 to sell renewable energy elicited bids priced at [REDACTED]. The CPUC approved the prior transaction with SVCE in April 2020.

There are some pricing data for recent renewable energy sales to or from publicly-owned utilities and CCAs for deliveries in 2019 and 2020 that have been made public:

- At the beginning of 2016, Silicon Valley Power (the city of Santa Clara) offered a ten-year agreement to sell 36.3 GWh/year of PCC1 energy to Alameda Municipal Power for the 2018 – 2027 period at market index + \$15/MWh. The latter opted instead to execute a fixed price contract but the indicative pricing demonstrates the seller's view of an acceptable sale price.
- The city of Roseville executed a ten-year contract in early 2015 with Powerex to purchase 75 GWh/year of PCC1 energy. The pricing of deliveries escalates with each contract year. The contract pricing for deliveries to Roseville is market index + \$15.30/MWh in 2020.
- In summer 2016, the city of Pasadena approved a four-year contract with Powerex to buy both PCC1 and PCC2 energy in the 2017 – 2020 period. The sale includes a total of 17.5 GWh/year of PCC1 energy priced at market index + \$13.95/MWh.

Pasadena subsequently contracted with Powerex in April 2018 for further deliveries of PCC1 and PCC2 energy. The PCC1 deliveries will be made from 2020 to 2030, at 70 GWh/year, and are priced at market index + \$16.30/MWh.

- In January 2018 Redwood Coast Energy Authority executed a PPA with DG Fairhaven, LLC, the owner of a biomass-fueled generator on the Samoa peninsula in Humboldt County, for deliveries of 87.6 GWh of PCC1 energy from March 2018 through February 2019, with potential for extensions. The price for the base PCC1 energy deliveries is \$65/MWh, and the contract calls for payments of market index plus a REC price of \$14.50/MWh for surplus deliveries above the contract capacity of 10 MW in any settlement period (the generation unit has net rated capacity of 17.25 MW).

In March 2019, the RCEA board approved an amendment to the PPA that increased the pricing of deliveries of surplus energy from DG Fairhaven to market index + \$17/MWh from the 2018 contract's index + \$14.50/MWh. This increase had been requested by DG Fairhaven. The RCEA staff had negotiated the \$17/REC price with the seller "to accommodate market changes."

Arroyo notes that the base contract price for this PPA is far above market price for PCC1 energy, but the CCA counts among its objectives the development of local renewable resources and energy-related economic advancement. The pricing of surplus delivered energy, however, appears to be priced at the CCA's and seller's then-current view of fair market price for PCC1 energy deliveries at the time the contract or its amendment were negotiated. The change implies a view that market price increased between 2018 and 2019.

RCEA's board approved an extension of this PPA in September 2019, again with a price of index + \$17/MWh for surplus deliveries.

- In December 2017, the Southern California Public Power Authority, acting as agent on behalf of the cities of Anaheim, Burbank, and Vernon, entered a 25-year PPA with Desert Harvest II for deliveries of PCC1 energy at a price of market index + \$15.25/MWh. Deliveries will commence upon commercial operation, which was expected to be December 2020.
- In 2018, the city of Santa Clara and 3Degrees Group, Inc. amended an existing contract to accommodate purchases of RECs for delivery to customers of the municipal through 2021. The RECs are priced at \$15/MWh, to be matched with customer usage. However, this is not necessarily an apples-to-apples comparison with PG&E's bundled RPS energy sale, because 3Degrees is delivering Green-e Energy Certified RECS that may be sourced from solar projects anywhere in the WECC with a "preferred generation location of California."
- In September 2019, the staff of the City of Riverside reported to its city council that it was assuming a 2020 market price of \$20/REC for PCC1 RPS energy for the purposes of analyzing long-term PPAs as an alternative.

- Valley Clean Energy, the CCA for unincorporated Yolo County and the cities of Davis and Woodland, launched its retail offerings in 2018 and has outsourced its energy procurement to Sacramento Municipal Utility District. It has relied on SMUD's wholesale purchases of RPS-eligible energy on its behalf to achieve compliance. In January 2020, it reported that the short-term REC contracts in its portfolio averaged \$13.79/MWh for renewable premiums. This may not be directly comparable to the pricing of the SVCE contract, because VCE reports that its current RPS-eligible energy supply comes mostly from wind generation in the Pacific Northwest, which implies heavy reliance on PCC2 and/or PCC3 RECs, which are lower-priced than PCC1 RECs.
- In July 2019, the City of Santa Clara executed a five-year PPA for RPS energy deliveries starting in September 2019 from the Olcese Water District. The energy is generated by the Rio Bravo hydroelectric plant on the lower Kern River. Deliveries are priced at market index + \$17/MWh.

Other older transactions for PCC1 energy are also publicly visible, but these may be poorer benchmarks for the current transactions for 2020 and 2021 deliveries.

Contract deliveries from the agreement with SVCE [REDACTED]

[REDACTED]

[REDACTED]

Arroyo's inference from this mix of data is that the prices of PG&E's contracts with BMW and SVCE are likely fair and reasonable. There will always be some uncertainty about such judgments when dealing with a market that is illiquid and opaque, as the California market for PCC1 energy is.

Portfolio fit. The RECs intended for use in the sales contracts are expected to be surplus to PG&E's compliance needs. Arroyo believes that it is advantageous to ratepayers for PG&E to sell surplus RECs at or above market price rather than to hold them for RPS compliance needs later. PG&E's estimates indicate that its RPS net positions in the third and fourth compliance period are long, so the two sales contracts fit with the utility's portfolio strategy of reducing the surplus REC position in 2020 and 2021 through short-term sales and monetizing part of the surplus for near-term value for ratepayer benefit.

Summary. The sales transactions were consummated at prices that fall [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] and on [REDACTED].

The contracts are consistent with PG&E's 2018 RPS procurement plan and its framework for sales of surplus RPS-eligible energy, and fit well with PG&E's strategy for RPS portfolio management. Arroyo's opinion is that the methodology for evaluating and selecting a short list and the administration of that methodology were fair.

Arroyo believes that PG&E's negotiations with participants were handled fairly with respect to competitors and ratepayers. The allocation of costs and risks between ratepayers and buyers that resulted from negotiations was, for the SVCE agreement, consistent with PG&E's past practice and did not disadvantage any current participant. While the allocation of risks between seller and buyer differs for the BMW agreement, Arroyo believes that it is because of BMW's unique business needs and is fully acceptable to that counterparty. Arroyo's opinion is that PG&E's actions in negotiating and transacting or not transacting with CCAs were compliant with the CCA Code of Conduct.

On that basis, Arroyo's opinion is that the contracts with BMW of North America and with Silicon Valley Clean Energy Authority merit CPUC approval.

PACIFIC GAS AND ELECTRIC COMPANY

Appendix G2

PG&E's Renewable Net Short Calculation (Redacted/Public)



CALIFORNIA'S RENEWABLES PORTFOLIO STANDARD PROGRAM

RPS Procurement Plan: Renewable Net Short Quantitative Response

Renewable Net Short calculations are to be submitted by all retail sellers each year with their RPS Procurement Plans, as required by the Public Utilities Code 399.13 and Commission decisions, notably, Decision (D.) 11-12-020, D.11-12-052, D.12-06-038, D.14-12-023, and D.16-12-040. **Any questions concerning the contents or formulas within this spreadsheet should be directed to the Energy Division RPS team at rpscompliance@cpuc.ca.gov.**

Procedural Guidelines

- 1) Public Utilities Code 399.13(a)(1) requires Investor-Owned Utilities (IOUs), Small and Multi-Jurisdictional Utilities (SMJUs), Electric Service Providers (ESPs), and Community Choice Aggregators (CCAs) to submit an RPS Procurement Plan each year to the CPUC to demonstrate that a sufficient amount of renewable energy has been procured to meet the obligations of the California RPS Program requirements.
- 2) Quantitative Responses must be submitted as part of a retail seller's RPS Procurement Plan to the Commission as specified in the Assigned Commissioner Ruling directing filing of RPS Procurement Plans, and the May 21, 2014 Ruling, Administrative Law Judge's Ruling on Renewable Net Short, issued in R.11-05-005, (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M091/K331/91331194.PDF>)
 - a) **If a PDF version (vs. Excel file) is included in retail seller's RPS Plan, then all pages must be legible.** If a retail sellers seeks confidentiality of any portion of the data, the retail seller is responsible for maintaining confidentiality when
 - b) **Submit a confidential Excel version of this spreadsheet to the Energy Division via the CPUC Secure FTP site (<https://kwftp.cpuc.ca.gov>).** Please only submit this file in .xls or .xlsx format to the FTP site and contact rpscompliance@cpuc.ca.gov with any questions.

Renewable Net Short Calculations - 2020 RPS Procurement Plans

| | |
|-----------|--------------------------|
| LSE Name: | Pacific Gas and Electric |
| LSE Name: | June 29, 2020 |

Input required

No input required

Hard-coded

Table 1: Renewable Net Short Calculation as of May 2020

Net Short Calculation Using PG&E Bundled Retail Sales Forecast In Near Term (2020 - 2024) and LTPP Methodology (2025 - 2030)

| Variable | Calculation in Energy Division RNS Calculation Template | Revised Calculation Correcting Apparent Errors in Energy Division Template | Item | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Forecast | 2017-2020 | 2021 Forecast | 2022 Forecast | 2023 Forecast | 2024 Forecast | 2021-2024 | 2025 Forecast | 2026 Forecast | 2027 Forecast | 2025-2027 | 2028 Forecast | 2029 Forecast | 2030 Forecast | 2028-2030 |
|---|---|--|---|-------------|-------------|-------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|--------------|
| | | | Forecast Year | | | | 1 | CP 3 | 2 | 3 | 4 | 5 | CP 4 | 6 | 7 | 8 | CP 5 | 9 | 10 | 11 | CP 6 |
| Annual RPS Requirement | | | | | | | | | | | | | | | | | | | | | |
| A | | | Total Retail Sales (MWh) | 61,397,214 | 48,832,112 | 35,955,954 | | 181,343,376 | 30,389,000 | | | 29,659,214 | 121,395,966 | 26,750,122 | 26,765,331 | 26,757,390 | 80,272,843 | 26,756,800 | 26,608,827 | 26,476,985 | 79,842,612 |
| B | | | RPS Procurement Quantity Requirement (%) | 27.0% | 29.0% | 31.0% | 33.0% | 29.5% | 35.8% | 38.5% | 41.3% | 44.0% | 39.8% | 46.7% | 49.3% | 52.0% | 49.3% | 54.7% | 57.3% | 60.0% | 57.3% |
| C | A*B | | Gross RPS Procurement Quantity Requirement (MWh) | 16,577,248 | 14,161,313 | 11,146,346 | 11,602,172 | 53,487,077.5 | 10,864,068 | 11,870,624 | 12,587,422 | 13,050,054 | 48,372,167.7 | 12,484,282 | 13,203,338 | 13,913,843 | 39,601,462.4 | 14,627,943 | 15,254,840 | 15,886,191 | 45,768,974.3 |
| D | | | Voluntary Margin of Over-procurement (MWh) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| E | C+D | | Net RPS Procurement Need (MWh) | 16,577,248 | 14,161,313 | 11,146,346 | 11,602,172 | 53,487,078 | 10,864,068 | 11,870,624 | 12,587,422 | 13,050,054 | 48,372,168 | 12,484,282 | 13,203,338 | 13,913,843 | 39,601,462 | 14,627,943 | 15,254,840 | 15,886,191 | 45,768,974 |
| RPS-Eligible Procurement | | | | | | | | | | | | | | | | | | | | | |
| Fa | | | Risk-Adjusted RECs from Online Generation (MWh) | 22,337,030 | 20,387,945 | 20,512,273 | 20,721,714 | 83,958,962 | 20,468,621 | 18,039,681 | 17,079,437 | 16,798,523 | 72,386,262 | 16,588,942 | 16,055,818 | 15,588,874 | 48,233,634 | 15,537,839 | 14,960,783 | 14,883,733 | 45,382,354 |
| Faa | | | Forecast Failure Rate for Online Generation (%) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Fb | | | Risk-Adjusted RECs from RPS Facilities in Development (MWh) | - | - | - | 18,185 | 18,185 | 94,994 | 176,160 | 386,887 | 387,327 | 1,045,368 | 385,396 | 384,376 | 383,360 | 1,153,132 | 383,246 | 381,344 | 380,342 | 1,144,932 |
| Fbb | | | Forecast Failure Rate for RPS Facilities in Development (%) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Fc | | | Pre-Approved Generic RECs (MWh) | - | - | - | - | - | 2,197 | 48,415 | 245,164 | 441,494 | 737,270 | 544,539 | 681,899 | 802,412 | 2,028,850 | 896,667 | 931,861 | 930,871 | 2,759,399 |
| Fd | | | Executed REC Sales (MWh) | 2,069,230 | 1,451,000 | 9,865,054 | 7,997,290 | 21,382,574 | 638,571 | 310,905 | - | - | 949,476 | - | - | - | - | - | - | - | - |
| F | Fa+Fb+Fc-Fd | | Total RPS Eligible Procurement (MWh) | 20,267,800 | 18,936,945 | 10,647,219 | 12,742,609 | 62,594,573 | 19,927,241 | 17,953,352 | 17,711,488 | 17,627,343 | 73,219,425 | 17,518,877 | 17,122,094 | 16,774,646 | 51,415,616 | 16,817,752 | 16,273,988 | 16,194,946 | 49,286,685 |
| F0 | | | Category 0 RECs | 16,660,807 | 14,105,833 | 13,516,487 | 13,657,295 | 57,940,423 | 13,385,139 | 11,120,703 | 10,707,314 | 10,479,051 | 45,692,206 | 10,312,177 | 9,803,344 | 9,382,125 | 29,497,647 | 9,340,796 | 8,808,595 | 8,759,479 | 26,908,871 |
| F1 | | | Category 1 RECs | 3,606,993 | 4,831,112 | (2,869,268) | (914,686) | 4,654,150 | 6,542,103 | 6,832,650 | 7,004,174 | 7,148,292 | 27,527,219 | 7,206,699 | 7,318,749 | 7,392,521 | 21,917,969 | 7,476,956 | 7,465,392 | 7,435,466 | 22,377,814 |
| F2 | | | Category 2 RECs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| F3 | | | Category 3 RECs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross RPS Position (Physical Net Short) | | | | | | | | | | | | | | | | | | | | | |
| Ga | F-E | | Annual Gross RPS Position (MWh) | 3,690,552 | 4,775,632 | (499,127) | | 9,107,495 | 9,063,174 | | | 4,577,289 | 24,847,257 | 5,034,595 | 3,918,756 | 2,860,803 | 11,814,154 | 2,189,809 | 1,019,147 | 308,754 | 3,517,711 |
| Gb | F/A | | Annual Gross RPS Position (%) | 33.0% | 38.8% | 29.6% | 36.2% | 34.5% | 65.6% | 58.2% | 58.0% | 59.4% | 60.3% | 65.5% | 64.0% | 62.7% | 64.1% | 62.9% | 61.2% | 61.2% | 61.7% |

PG&E's RNS Table - Stochastic-Adjustment (2020-2030)

| Variable | Calculation in Energy Division RNS Calculation Template | Revised Calculation Correcting Apparent Errors in Energy Division Template | Item | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Forecast | 2017-2020 | 2021 Forecast | 2022 Forecast | 2023 Forecast | 2024 Forecast | 2021-2024 | 2025 Forecast | 2026 Forecast | 2027 Forecast | 2025-2027 | 2028 Forecast | 2029 Forecast | 2030 Forecast | 2028-2030 |
|---|---|--|--|-------------|-------------|-------------|---------------|-----------|---------------|---------------|---------------|---------------|-----------|---------------|---------------|---------------|------------|---------------|---------------|---------------|------------|
| Step 2 Result: Stochastically-Adjusted Net Short (Physical Net Short + Stochastic Risk-Adjustment) ⁹ | | | | | | | | | | | | | | | | | | | | | |
| Gc | | | Stochastically-Adjusted Annual Gross RPS Position (MWh) | 3,690,552 | 4,775,632 | (499,127) | | | | | | | | | | | | | | | |
| Gd | | (Gc + C) / A | Stochastically-Adjusted Annual Gross RPS Position (%) | 33.0% | 38.8% | 29.6% | | | | | | | | | | | | | | | |
| Application of Bank | | | | | | | | | | | | | | | | | | | | | |
| Ha | J-Hc (from previous CP) | | Existing Banked RECs above the PQR | 12,819,087 | 16,380,428 | 21,153,675 | | | | | | | | | | | | | | | |
| Hb | | | RECs above the PQR added to Bank | 3,561,341 | 4,773,247 | (499,127) | | | | | | | | | | | | | | | |
| Hc | | | Non-bankable RECs above the PQR | 129,212 | 2,385 | | | | | | | | | | | | | | | | |
| H | Ha+Hb | | Gross Balance of RECs above the PQR | 16,380,428 | 21,153,675 | 20,654,548 | | | | | | | | | | | | | | | |
| Ia | | | Planned Application of RECs above the PQR towards RPS Compliance | - | - | - | | | | | | | | | | | | | | | |
| Ib | | | Planned Sales of RECs above the PQR | - | - | - | | | | | | | | | | | | | | | |
| J | H-Ia-Ib | | Net Balance of RECs above the PQR | 16,380,428 | 21,153,675 | 20,654,548 | | | | | | | | | | | | | | | |
| J0 | | | Category 0 RECs | 430,225 | 430,225 | - | | | | | | | | | | | | | | | |
| J1 | | | Category 1 RECs | 15,950,203 | 20,723,450 | 20,654,548 | | | | | | | | | | | | | | | |
| J2 | | | Category 2 RECs | - | - | - | | | | | | | | | | | | | | | |
| Expiring Contracts | | | | | | | | | | | | | | | | | | | | | |
| K | | | RECs from Expiring RPS Contracts (MWh) | | | | | - | 139,174 | 2,615,652 | 3,423,692 | 3,678,924 | 9,857,442 | 3,730,970 | 4,236,800 | 4,480,274 | 12,448,044 | 4,512,466 | 5,006,737 | 5,031,052 | 14,550,255 |
| Net RPS Position (Optimized Net Short) | | | | | | | | | | | | | | | | | | | | | |
| La | Ga+Ia-Ib-Hc | Gc+Ia-Ib - IF (Hb<0, -Hb,0) | Annual Net RPS Position after Bank Optimization (MWh) | 3,561,341 | 4,773,247 | - | | | | | | | | | | | | | | | |
| Lb | (F+Ia-Ib-Hc)/A | (C + La)/A | Annual Net RPS Position after Bank Optimization (%) | 32.8% | 38.8% | 31.0% | | | | | | | | | | | | | | | |

Note: All values are to be input in MWhs



General Table Notes: Fields in grey are protected as Confidential under CPUC Confidentiality Rules.

(1) (Row A) Forecasts of retail sales through 2024 are reflective of PG&E's internal bundled retail sales forecast. Forecasts post-2024 use the 2019-2020 IRP Cycle forecast (successor to LTPP proceeding planning process).

(2) (Row D) As a portion of the Bank will be used as VMOP, Row D will remain zero. See Draft 2018 RPS Plan for a description of PG&E's VMOP.

(3) (Row Hc) Since PG&E elected to comply early in the 2017-2020 period with the banking rules established in D.17-06-026, PG&E has modeled the new banking rules for the current and future compliance periods.

(4) (Row Ib) The annual RPS sales volume forecast assumption is based the RPS sales framework proposed in PG&E's 2020 RPS Plan, and is included for RPS position planning purposes.

(5) (Row K) Row K now includes only expiring volumes from contracts as of May 2020.

(6) (Rows Gc and Gd) Stochastically-Adjusted Net Short (Physical Net Short + Stochastic Risk-Adjustment) PG&E added rows Gc and Gd to the RNS in order to show the stochastically-adjusted physical net short, which incorporates the risks and uncertainties addressed in the stochastic model. For more details on PG&E's stochastically modeled risks, see the 2017 RPS Plan.

(7) (Row La) Row La incorrectly calculates the Annual Net RPS Position after Bank Optimization when bank is being applied to fill a short position.

(8) (Row Lb) Row Lb incorrectly calculates the Annual Net RPS Position after Bank Optimization.

(9) (Rows La and Lb) Rows La and Lb incorrectly subtract the non-bankable volumes. Although these volumes can not be carried forward, per Decision 12-06-038, these volumes could be used towards meeting compliance in the current period. Therefore, the non-bankable volumes should be included in the Annual Net RPS Position after Bank Optimization.

(10) (Rows La, Lb, Gc, and Gd) RNS template changes / corrections approved by Energy Division.

PACIFIC GAS AND ELECTRIC COMPANY

Appendix H1

Facility List: SVCEA (Public)

| Name of Facility | Resource | Location | CEC RPS ID | Host Balancing Authority | Facility Size (MW) | Term (Yrs) | Execution Date (MM/DD/YYYY) | Expiration Date (MM/DD/YYYY) |
|---|---------------|----------------------------------|------------|--------------------------|--------------------|------------|-----------------------------|------------------------------|
| Kansas South | Solar PV | Lemoore, CA | 61264A | CAISO | 20 | 20 | 06/24/11 | 06/24/33 |
| Westlands Solar Farms | Solar PV | Huron, CA | 61755A | CAISO | 18 | 20 | 06/24/11 | 04/30/34 |
| Orion Solar | Solar PV | Unincorporated Kern County, CA | 61570A | CAISO | 12 | 20 | 06/24/11 | 06/25/34 |
| Kent South | Solar PV | Lemoore, CA | 61262A | CAISO | 20 | 20 | 08/30/12 | 02/18/35 |
| Algonquin SKIC 20 Solar | Solar PV | Taft, CA | 61558A | CAISO | 20 | 20 | 08/30/12 | 05/14/35 |
| CED Corcoran Solar 3, LLC | Solar PV | Corcoran, CA | 62783A | CAISO | 20 | 20 | 03/23/15 | 11/30/36 |
| Westside Solar, LLC | Solar PV | Unincorporated Fresno County, CA | 61185A | CAISO | 20 | 20 | 03/23/15 | 05/01/37 |
| Aspiration Solar G LLC | Solar PV | Tranquility, CA | 61486A | CAISO | 9 | 20 | 03/23/15 | 10/26/37 |
| Bayshore Solar A | Solar PV | Lancaster, CA | 63133A | CAISO | 20 | 20 | 12/18/15 | 01/22/38 |
| Bayshore Solar B | Solar PV | Lancaster, CA | 63134A | CAISO | 20 | 20 | 12/18/15 | 01/22/38 |
| Bayshore Solar C | Solar PV | Lancaster, CA | 63135A | CAISO | 20 | 20 | 12/17/15 | 01/22/38 |
| Java Solar Project | Solar PV | Lemoore, CA | 63137C | CAISO | 13.5 | 17.25 | 12/18/15 | 12/31/39 |
| RE Gaskell West 3 | Solar PV | Rosamond, CA | 63619C | CAISO | 20 | 15 | 09/22/17 | 01/14/38 |
| RE Gaskell West 4 | Solar PV | Rosamond, CA | 63617C | CAISO | 20 | 15 | 09/22/17 | 01/14/38 |
| RE Gaskell West 5 | Solar PV | Rosamond, CA | 63618C | CAISO | 20 | 15 | 09/22/17 | 01/14/38 |
| West Antelope | Solar PV | Lancaster, CA | 61850A | CAISO | 20 | 20 | 02/27/12 | 02/08/35 |
| Western Antelope Blue Sky Ranch A | Solar PV | Lancaster, CA | 61517A | CAISO | 20 | 20 | 02/27/12 | 02/16/35 |
| Wind Resource I | Wind | Tehachapi, CA | 61467A | CAISO | 8.71 | 10 | 02/27/12 | 12/31/22 |
| SPS White River West | Solar PV | Alpaugh, CA | 62045A | CAISO | 19.75 | 20 | 09/17/12 | 10/01/34 |
| Wind Resource II | Wind | Tehachapi, CA | 61468A | CAISO | 19.955 | 10 | 09/17/12 | 09/30/23 |
| Columbia Solar Energy, LLC | Solar PV | Pittsburg, CA | 62051A | CAISO | 19 | 20 | 09/17/12 | 12/13/35 |
| Alamo Solar, LLC | Solar PV | Oro Grande, CA | 61453A | CAISO | 20 | 20 | 09/17/12 | 06/29/35 |
| Corcoran Solar LLC | Solar PV | Corcoran, CA | 62285A | CAISO | 19.76 | 20 | 09/17/12 | 03/19/35 |
| Old River One LLC | Solar PV | Bakersfield, CA | 60853A | CAISO | 20 | 20 | 04/10/13 | 02/08/35 |
| Shafter Solar | Solar PV | Shafter, CA | 63225A | CAISO | 19.98 | 20 | 04/10/13 | 07/15/35 |
| Morelos Del Sol | Solar PV | Lost Hills, CA | 62272A | CAISO | 15 | 20 | 04/10/13 | 02/29/36 |
| Rising Tree Wind Farm II LLC | Wind | Mojave, CA | 62426A | CAISO | 19.8 | 20 | 10/25/13 | 08/06/35 |
| Kekawaka Creek Hydroelectric Facility | Small Hydro | Zenia, CA | 60186A | CAISO | 5.5 | 20 | 10/25/13 | 05/31/35 |
| Woodmere Solar Farm | Solar PV | Bakersfield, CA | 62429A | CAISO | 15 | 20 | 10/25/13 | 02/24/36 |
| Portal Ridge Solar C Project | Solar PV | Lancaster, CA | 61684A | CAISO | 11.4 | 20 | 10/21/14 | 04/20/37 |
| SR Solis Oro Loma Teresina, LLC - Project A | Solar PV | Unincorporated Fresno County, CA | 62841A | CAISO | 10 | 20 | 11/12/14 | 02/23/37 |
| SR Solis Oro Loma Teresina, LLC - Project B | Solar PV | Unincorporated Fresno County, CA | 62841A | CAISO | 10 | 20 | 11/12/14 | 02/23/37 |
| Sunray - 20 | Solar PV | Daggett, CA | 62694A | CAISO | 20 | 20 | 10/21/14 | 08/24/37 |
| SR Solis Rocket, LLC - Project A | Solar PV | Avenal, CA | 62840A | CAISO | 7.9 | 20 | 11/12/14 | 03/09/37 |
| SR Solis Rocket, LLC - Project B | Solar PV | Avenal, CA | 62840A | CAISO | 7.9 | 20 | 11/12/14 | 03/09/37 |
| San Joaquin 1A | Solar PV | San Joaquin, CA | 61837A | CAISO | 19.24 | 20 | 12/18/15 | 12/09/38 |
| Montezuma Wind Energy Center | Wind | Birds Landing, CA | 60543A | CAISO | 36.8 | 25 | 06/03/10 | 01/27/36 |
| CalRenew-1 | Solar PV | Mendota, CA | 60475A | CAISO | 5 | 20 | 06/17/14 | 04/29/30 |
| Shiloh II Wind Project | Wind | Rio Vista, CA | 60639A | CAISO | 150 | 20 | 01/09/18 | 01/31/29 |
| High Plains Ranch II | Solar PV | California Valley, CA | 60603A | CAISO | 210 | 26 | 07/23/08 | 10/30/38 |
| Topaz Solar Farm | Solar PV | Santa Margarita, CA | 61698A | CAISO | 550 | 25 | 07/01/08 | 10/26/39 |
| Hatchet Ridge | Wind | Burney, CA | 60741A | CAISO | 103.2 | 15 | 08/23/17 | 12/13/25 |
| CM10 (fka Semptra El Dorado Solar) | Solar PV | Boulder City, NV | 60713A | CAISO | 10 | 20 | 12/19/08 | 12/31/28 |
| Ivanpah Unit 1 | Solar Thermal | Nipton, CA | 62273A | CAISO | 114.46 | 25 | 04/28/09 | 01/20/39 |
| Ivanpah Unit 3 | Solar Thermal | Nipton, CA | 62275A | CAISO | 126.1 | 25 | 04/28/09 | 01/26/39 |
| AV Solar Ranch One | Solar PV | Lancaster, CA | 60790A | CAISO | 241.5 | 25 | 05/08/09 | 11/20/39 |
| SFWP (RPS) - Kelly Ridge | Small Hydro | Oroville, CA | 60266A | CAISO | 23 | 10 | 04/28/09 | 12/18/21 |
| SFWP (RPS) - Sly Creek | Small Hydro | Oroville, CA | 60267A | CAISO | 23 | 10 | 04/28/09 | 12/18/21 |
| Alpine Solar Project | Solar PV | Lancaster, CA | 60755A | CAISO | 66 | 20 | 04/21/10 | 01/17/33 |
| CM48 (fka Semptra Copper Mountain 1) | Solar PV | Boulder City, NV | 60786A | CAISO | 48 | 20 | 06/22/09 | 01/31/31 |
| Mt. Poso | Biomass | Bakersfield, CA | 60695A | CAISO | 44 | 15 | 03/08/10 | 02/20/27 |
| Agua Caliente Solar Project | Solar PV | Roll, AZ | 60894A | CAISO | 290 | 25 | 09/08/09 | 06/22/39 |
| High Plains Ranch III | Solar PV | California Valley, CA | 60603A | CAISO | 210 | 26 | 07/23/08 | 10/30/38 |
| Mojave Solar Project | Solar Thermal | Hinkley, CA | 60848A | CAISO | 250 | 25 | 07/15/11 | 12/03/39 |
| Genesis Solar Energy Project | Solar Thermal | Blythe, CA | 60605A | CAISO | 250 | 25 | 09/28/09 | 03/06/39 |
| Calpine Geysers - Unit 5 & 6 | Geothermal | Middletown, CA | 60002A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Units 7 & 8 | Geothermal | Middletown, CA | 60003A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 12 | Geothermal | Middletown, CA | 60004A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 13 | Geothermal | Middletown, CA | 60005A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 16 | Geothermal | Middletown, CA | 60006A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 17 | Geothermal | Middletown, CA | 60007A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 18 | Geothermal | Middletown, CA | 60008A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 20 | Geothermal | Middletown, CA | 60009A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Sonoma | Geothermal | Middletown, CA | 60010A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 11 | Geothermal | Middletown, CA | 60025A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Unit 14 | Geothermal | Middletown, CA | 60026A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Calistoga Power Plant | Geothermal | Middletown, CA | 60117A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| Calpine Geysers - Aidlín Power Plant | Geothermal | Middletown, CA | 60115A | CAISO | 250 | 12 | 09/30/09 | 12/31/21 |
| DTE Stockton | Biomass | Stockton, CA | 60964A | CAISO | 44.5 | 25 | 12/08/09 | 02/20/39 |
| Big Creek Waterworks | Small Hydro | Hyampom, CA | 60900A | CAISO | 4.8 | 20 | 05/04/10 | 06/22/30 |
| Norman Ross Burgess - Three Forks Water Power Project | Small Hydro | Zenia, CA | 60502A | CAISO | 1.625 | 20 | 09/22/10 | 10/31/31 |
| Alpaugh 50 | Solar PV | Alpaugh, CA | 60945A | CAISO | 50 | 25 | 01/26/10 | 03/07/38 |
| Alpaugh North | Solar PV | Alpaugh, CA | 60946A | CAISO | 20 | 25 | 01/26/10 | 03/07/38 |
| Atwell Island | Solar PV | Alpaugh, CA | 60947A | CAISO | 20 | 25 | 01/26/10 | 03/11/38 |
| Corcoran | Solar PV | Corcoran, CA | 60948A | CAISO | 20 | 25 | 01/26/10 | 08/14/38 |
| White River | Solar PV | Alpaugh, CA | 60949A | CAISO | 20 | 25 | 01/26/10 | 06/26/38 |
| Avenal Park (Eurus) | Solar PV | Avenal, CA | 60912A | CAISO | 6 | 20 | 12/24/09 | 08/04/31 |
| Sun City Project (Eurus) | Solar PV | Avenal, CA | 60913A | CAISO | 20 | 20 | 12/24/09 | 08/04/31 |
| Sand Drag (Eurus) | Solar PV | Avenal, CA | 60914A | CAISO | 19 | 20 | 12/24/09 | 08/04/31 |

| | | | | | | | | |
|---------------------------------|----------------|-------------------|--------|-------|------|-----|----------|----------|
| Desert Center Solar Farm | Solar PV | Desert Center, CA | 61068A | CAISO | 300 | 25 | 02/24/10 | 12/16/39 |
| El Dorado Irrigation District | Small Hydro | Pollock Pines, CA | 60601A | CAISO | 22 | 10 | 03/22/10 | 05/15/21 |
| Coram Brodie | Wind | Tehachapi, CA | 60973A | CAISO | 102 | 20 | 06/02/10 | 06/05/32 |
| Mesquite Solar 1 | Solar PV | Tonopah, AZ | 60875A | CAISO | 150 | 20 | 07/29/10 | 03/07/33 |
| Shiloh III Wind Project | Wind | Rio Vista, CA | 61069A | CAISO | 100 | 20 | 07/27/10 | 03/08/32 |
| North Star Solar 1 | Solar PV | Mendota, CA | 61198A | CAISO | 60 | 20 | 09/20/10 | 06/18/35 |
| Vasco Wind Energy Center | Wind | Livermore, CA | 61344A | CAISO | 78.2 | 25 | 12/17/10 | 03/12/37 |
| Montezuma II Wind Energy Center | Wind | Collinsville, CA | 61345A | CAISO | 78.2 | 25 | 12/17/10 | 03/13/37 |
| North Sky River Energy Center | Wind | Tehachapi, CA | 61385A | CAISO | 162 | 25 | 07/15/11 | 12/20/37 |
| Copper Mountain Solar 2 | Solar PV | Boulder City, NV | 60990A | CAISO | 150 | 25 | 07/26/11 | 05/12/40 |
| Shiloh IV | Wind | Rio Vista, CA | 61617A | CAISO | 100 | 25 | 07/28/11 | 01/27/38 |
| NID (RPS) - Bowman | Small Hydro | Nevada City, CA | 60171A | CAISO | 42.6 | 20 | 05/09/12 | 06/30/33 |
| NID (RPS) - Dutch Flat | Small Hydro | Nevada City, CA | 60264A | CAISO | 42.6 | 20 | 05/09/12 | 06/30/33 |
| NID (RPS) - Rollins | Small Hydro | Nevada City, CA | 60265A | CAISO | 42.6 | 20 | 05/09/12 | 06/30/33 |
| SPI Burney | Biomass | Burney, CA | 60087A | CAISO | 58 | 20 | 08/09/12 | 09/08/35 |
| SPI Lincoln | Biomass | Lincoln, CA | 60088A | CAISO | 58 | 20 | 08/09/12 | 09/08/35 |
| SPI Quincy | Biomass | Quincy, CA | 60089A | CAISO | 58 | 20 | 08/09/12 | 09/08/35 |
| SPI Sonora | Biomass | Sonora, CA | 60576A | CAISO | 58 | 20 | 08/09/12 | 09/08/35 |
| SPI Anderson II | Biomass | Anderson, CA | 61146A | CAISO | 58 | 20 | 08/09/12 | 09/08/35 |
| Kansas | Solar PV | Stratford, CA | 61263A | CAISO | 20 | 20 | 08/13/12 | 12/31/37 |
| Henrietta Solar | Solar PV | Lemoore, CA | 61841A | CAISO | 100 | 20 | 08/16/12 | 09/30/36 |
| Diablo Winds (2) | Wind | Livermore, CA | 60030A | CAISO | 18 | 15 | 12/16/13 | 06/30/31 |
| PGE Alta | Small Hydro | Placer, CA | 60033A | CAISO | 6.4 | N/A | N/A | N/A |
| PGE Centerville | Small Hydro | Butte, CA | 60034A | CAISO | 1 | N/A | N/A | N/A |
| PGE Chili Bar | Small Hydro | El Dorado, CA | 60035A | CAISO | 7 | N/A | N/A | N/A |
| PGE Coleman | Small Hydro | Shasta, CA | 60037A | CAISO | 13 | N/A | N/A | N/A |
| PGE Cow Creek | Small Hydro | Shasta, CA | 60038A | CAISO | 1.8 | N/A | N/A | N/A |
| PGE Crane Valley | Small Hydro | Madera, CA | 60039A | CAISO | 0.9 | N/A | N/A | N/A |
| PGE Deer Creek | Small Hydro | Nevada, CA | 60040A | CAISO | 5.7 | N/A | N/A | N/A |
| PGE De Sabla | Small Hydro | Butte, CA | 60041A | CAISO | 18.5 | N/A | N/A | N/A |
| PGE Dutch Flat 1 | Small Hydro | Placer, CA | 60042A | CAISO | 22 | N/A | N/A | N/A |
| PGE Halsey | Small Hydro | Placer, CA | 60043A | CAISO | 11 | N/A | N/A | N/A |
| PGE Hamilton Branch | Small Hydro | Lassen, CA | 60044A | CAISO | 4.8 | N/A | N/A | N/A |
| PGE Hat 1 | Small Hydro | Shasta, CA | 60045A | CAISO | 8.5 | N/A | N/A | N/A |
| PGE Hat 2 | Small Hydro | Shasta, CA | 60046A | CAISO | 8.5 | N/A | N/A | N/A |
| PGE Inskip | Small Hydro | Tehama, CA | 60047A | CAISO | 8 | N/A | N/A | N/A |
| PGE Kerckhoff 1 | Small Hydro | Fresno, CA | 62360A | CAISO | 25.4 | N/A | N/A | N/A |
| PGE Kern Canyon | Small Hydro | Kern, CA | 60048A | CAISO | 11.5 | N/A | N/A | N/A |
| PGE Kilarc | Small Hydro | Shasta, CA | 60049A | CAISO | 1.6 | N/A | N/A | N/A |
| PGE Lime Saddle | Small Hydro | Butte, CA | 60050A | CAISO | 2 | N/A | N/A | N/A |
| PGE Newcastle | Small Hydro | Placer, CA | 60053A | CAISO | 11.5 | N/A | N/A | N/A |
| PGE Oak Flat | Small Hydro | Plumas, CA | 60276A | CAISO | 1.3 | N/A | N/A | N/A |
| PGE Phoenix | Small Hydro | Tuolumne, CA | 60054A | CAISO | 2 | N/A | N/A | N/A |
| PGE Potter Valley | Small Hydro | Lake, CA | 60055A | CAISO | 9.2 | N/A | N/A | N/A |
| PGE Rock Creek RPS | Existing Large | Plumas, CA | 62269A | CAISO | 126* | N/A | N/A | N/A |
| PGE San Joaquin 1A | Small Hydro | Madera, CA | 60056A | CAISO | 0.4 | N/A | N/A | N/A |
| PGE San Joaquin 2 | Small Hydro | Madera, CA | 60057A | CAISO | 3.2 | N/A | N/A | N/A |
| PGE San Joaquin 3 | Small Hydro | Madera, CA | 60058A | CAISO | 4.2 | N/A | N/A | N/A |
| PGE South | Small Hydro | Tehama, CA | 60059A | CAISO | 7 | N/A | N/A | N/A |
| PGE Spaulding 1 | Small Hydro | Placer, CA | 60060A | CAISO | 7 | N/A | N/A | N/A |
| PGE Spaulding 2 | Small Hydro | Placer, CA | 60061A | CAISO | 4.4 | N/A | N/A | N/A |
| PGE Spaulding 3 | Small Hydro | Placer, CA | 60062A | CAISO | 5.8 | N/A | N/A | N/A |
| PGE Spring Gap | Small Hydro | Tuolumne, CA | 60063A | CAISO | 7 | N/A | N/A | N/A |
| PGE Toadtown | Small Hydro | Butte, CA | 60064A | CAISO | 6.4 | N/A | N/A | N/A |
| PGE Tule River | Small Hydro | Tulare, CA | 60065A | CAISO | 1.5 | N/A | N/A | N/A |
| PGE Volta 1 | Small Hydro | Tehama, CA | 60066A | CAISO | 9 | N/A | N/A | N/A |
| PGE Volta 2 | Small Hydro | Tehama, CA | 60067A | CAISO | 0.9 | N/A | N/A | N/A |
| PGE West Point | Small Hydro | Amador, CA | 60068A | CAISO | 14.5 | N/A | N/A | N/A |
| PGE Wise 1 | Small Hydro | Placer, CA | 60069A | CAISO | 14 | N/A | N/A | N/A |
| PGE Wise 2 | Small Hydro | Placer, CA | 60070A | CAISO | 3.2 | N/A | N/A | N/A |
| PGE A. G. Wishon | Small Hydro | Madera, CA | 60032A | CAISO | 20 | N/A | N/A | N/A |
| PGE Five Points | Solar PV | Five Points, CA | 61432A | CAISO | 15 | N/A | N/A | N/A |
| PGE Stroud | Solar PV | Helin, CA | 61434A | CAISO | 20 | N/A | N/A | N/A |
| PGE Westside | Solar PV | Five Points, CA | 61433A | CAISO | 15 | N/A | N/A | N/A |
| PGE Cantua | Solar PV | Cantua Creek, CA | 61823A | CAISO | 20 | N/A | N/A | N/A |
| PGE Giffen | Solar PV | Cantua Creek, CA | 61822A | CAISO | 10 | N/A | N/A | N/A |
| PGE Huron | Solar PV | Huron, CA | 61821A | CAISO | 20 | N/A | N/A | N/A |
| PGE Gates | Solar PV | Huron, CA | 62353A | CAISO | 20 | N/A | N/A | N/A |
| PGE Guernsey | Solar PV | Hanford, CA | 62354A | CAISO | 20 | N/A | N/A | N/A |
| PGE West Gates | Solar PV | Huron, CA | 62352A | CAISO | 10 | N/A | N/A | N/A |
| Vaca-Dixon Solar (PG&E) | Solar PV | Vacaville, CA | 60966A | CAISO | 2 | N/A | N/A | N/A |

*The portion that is RPS is 8.6% of the generation at Rock Creek Powerhouse.

PACIFIC GAS AND ELECTRIC COMPANY

Appendix H2

Facility List: BMWNA (Public)

| Name of Facility | Resource | Location | CEC RPS ID | Host Balancing Authority | Facility Size (MW) | Term (Yrs) | Execution Date (MM/DD/YYYY) | Expiration Date (MM/DD/YYYY) |
|---------------------------|------------|-----------------|------------|--------------------------|--------------------|------------|-----------------------------|------------------------------|
| ABEC Bidart-Old River LLC | Biomethane | Bakersfield, CA | 62369A | CAISO | 1.84 | 15 | 12/19/12 | 03/09/29 |
| ABEC Bidart-Stockdale LLC | Biomethane | Bakersfield, CA | 60886A | CAISO | 0.6 | 10 | 12/19/12 | 09/11/23 |

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